



## **Cisco ASR 5000 Series Statistics and Counters Reference**

**Version 8.x and 9.0**

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### **Americas Headquarters**

Cisco Systems, Inc.  
170 West Tasman Drive  
San Jose, CA 95134-1706  
USA  
<http://www.cisco.com>  
Tel: 408 526-4000  
800 553-NETS (6387)  
Fax: 408 527-0883

Text Part Number: OL-22990-02

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# About this Guide

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This document pertains to features and functionality that run on and/or that are related to the Cisco® ASR 5000 Chassis, formerly the Starent Networks ST40.

## Conventions Used

The following tables describe the conventions used throughout this documentation.

Icon	Notice Type	Description
	Information Note	Provides information about important features or instructions.
	Caution	Alerts you of potential damage to a program, device, or system.
	Warning	Alerts you of potential personal injury or fatality. May also alert you of potential electrical hazards.
	Electro-Static Discharge (ESD)	Alerts you to take proper grounding precautions before handling a product.

Typeface Conventions	Description
Text represented as a <i>screen display</i>	This typeface represents displays that appear on your terminal screen, for example: Login:
Text represented as <b>commands</b>	This typeface represents commands that you enter, for example: <b>show ip access-list</b> This document always gives the full form of a command in lowercase letters. Commands are not case sensitive.
Text represented as a <b>command variable</b>	This typeface represents a variable that is part of a command, for example: <b>show card slot_number</b> slot_number is a variable representing the desired chassis slot number.
Text represented as menu or sub-menu names	This typeface represents menus and sub-menus that you access within a software application, for example: Click the <b>File</b> menu, then click <b>New</b>

Command Syntax Conventions	Description
{ <b>keyword</b> or <i>variable</i> }	Required keywords and variables are surrounded by grouped brackets. Required keywords and variables are those components that are required to be entered as part of the command syntax.

Command Syntax Conventions	Description
[ <b>keyword</b> or <i>variable</i> ]	Optional keywords or variables, or those that a user may or may not choose to use, are surrounded by square brackets.
	<p>With some commands there may be a group of variables from which the user chooses one. These are called alternative variables and are documented by separating each variable with a vertical bar (also known as a pipe filter).</p> <p>Pipe filters can be used in conjunction with required or optional keywords or variables. For example:</p> <pre>{ <b>nonce</b>   <b>timestamp</b> }</pre> <p>OR</p> <pre>[ <b>count</b> <i>number_of_packets</i>   <b>size</b> <i>number_of_bytes</i> ]</pre>

## Contacting Customer Support

Use the information in this section to contact customer support.

**For New Customers:** Refer to the support area of <http://www.cisco.com> for up-to-date product documentation or to submit a service request. A valid username and password is required to this site. Please contact your local sales or service representative for additional information.

**For Existing Customers with support contracts through Starent Networks:** Refer to the support area of <https://support.starentnetworks.com/> for up-to-date product documentation or to submit a service request. A valid username and password is required to this site. Please contact your local sales or service representative for additional information.



**Important:** For warranty and repair information, please be sure to include the Return Material Authorization (RMA) tracking number on the outside of the package.

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# Chapter 1

## Bulk Statistics Overview

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The Bulk Statistics Configuration Mode is used to manage the system statistics options for collection and delivery as well as for the format of data delivered to remote nodes.

Refer to the Common Syntax Options section in this chapter for information about formatting bulk statistics output.

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 **Important:** Unless otherwise indicated, all statistics are Counters. Stats with Int32 data type, the roll-over to zero limit is 4294967295. Stats with Int64 data type, the roll-over to zero limit is 18,446,744,073,709,551,615.

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## Common Syntax Options

The following defines common syntax block options. These options appear in similar commands and are detailed here for easy reference.

### Schema Format String Syntax

The schema format string is used to define the structure of generated bulk statistics data. The string may contain static text, dynamic content, and bulk statistic variables, or any combination.

Static text includes any ASCII characters which are of a fixed value. Static text may also include control characters by using escaped character sequences.

Escaped character short cuts are supported such as ‘\n’ for new line and ‘\t’ for tab.

Variables within the format string must be enclosed in double ampersands, e.g., “%var%”. The actual variables supported are command-dependent and are described with each command.

# Common Statistics

This schema provides the following types of statistics:

- **Counter:** A counter records incremental data cumulatively and rolls over when the counter limit is reached. The limit depends upon the counter data type.
- **Gauge:** A gauge statistic indicates a single value representative of a single instance. This type is often used to track particular events in time.

 **Important:** The format string syntax is described by Schema Format String Syntax in the Bulk Statistics Overview chapter.

 **Important:** Unless otherwise indicated, all statistics are counters. For statistics with the Int32 data type, the roll-over to zero limit is 4,294,967,295. For statistics with the Int64 data type, the roll-over to zero limit is 18,446,744,073,709,551,615. All counter statistics are cumulative and reset only by one of the following methods: roll-over (as described above), after a system restart, or after a clear command is performed. All statistics are considered standards-based unless otherwise noted.

The statistics listed below are common to all schema.

**Table 1. Common Statistics**

Statistic	Description	Data Type
date	The UTC date that the collection file was created in YYYYMMDD format where YYYY represents the year, MM represents the month and DD represents the day.	String
date3	The UTC date that the collection file was created in YYMMDD format where YY represents the year, MM represents the month and DD represents the day.	String
host	The system hostname that created the file	String
uptime	The uptime (in seconds) of the system that created the file.	Int32
ipaddr	The default management (local context) IP address in dotted decimal format. An empty string is inserted if no address is available.	String
time	The UTC time that the collection file was created in HHMMSS format where HH represents the hours, MM represents the minutes, and SS represents the seconds.	String
time2	The UTC time that the collection file was created in HH:MM:SS format where HH represents the hours, MM represents the minutes, and SS represents the seconds.	String
time3	The UTC time that the collection file was created in HH:MM format where HH represents the hours, MM represents the minutes.	String
epochtime	The number of seconds since Jan 1, 1970, 00:00:00 GMT.	Int32

Statistic	Description	Data Type
schemas	Provides all the schemas.	String
schema-delta	Provides schemas if they have changed since last output.	String
localdate	The date (adjusted for the local timezone) that the collection file was created in YYYYMMDD format where YYYY represents the year, MM represents the month and DD represents the day.	String
localdate3	The date that the collection file was created in YYYYMMDD format where YYYY represents the year, MM represents the month and DD represents the day. The date displays in local time, not UTC.	String
localtime	The time (adjusted for the local timezone) that the collection file was created in HHMMSS format where HH represents the hours, MM represents the minutes, and SS represents the seconds.	String
localtime2	The time (adjusted for the local timezone) that the collection file was created in HH:MM:SS format where HH represents the hours, MM represents the minutes, and SS represents the seconds.	String
localtime3	The time that the collection file was created in HH:MM:SS format where HH represents the hours, MM represents the minutes, and SS represents the seconds. The time displays in local time, not UTC.	String
localtz	The name of the local time zone.	String
localzoffset	The local offset from GMT in the form "-0400"	String

# Chapter 2

## APN Schema Statistics

The APN schema provides the following types of statistics:

- **Counter:** A counter records incremental data cumulatively and rolls over when the counter limit is reached. The limit depends upon the counter data type.
- **Gauge:** A gauge statistic indicates a single value representative of a single instance. This type is often used to track particular events in time.

 **Important:** The format string syntax is described by Schema Format String Syntax in the Bulk Statistics Overview chapter.

 **Important:** Unless otherwise indicated, all statistics are counters. For statistics with the Int32 data type, the roll-over to zero limit is 4,294,967,295. For statistics with the Int64 data type, the roll-over to zero limit is 18,446,744,073,709,551,615. All statistics are cumulative and reset only by one of the following methods: roll-over (as described above), after a system restart, or after a clear command is performed. All statistics are considered standards-based unless otherwise noted.

The following variables are supported:

**Table 2. APN Schema Statistics**

Statistic	Description	Data Type
vpnname	The name of the context configured on the system that is currently facilitating the APN configuration.	String
vpnid	The identification number of the context configured on the system that is currently facilitating the APN configuration. This is an internal reference number.	Counter / Int32
apn	The name of the APN for which statistics are displayed.	String
uplnk-bytes	The number of bytes sent from the APN towards Internet/PDN on the Gi interface.	Counter / Int64
dnlnk-bytes	The number of bytes sent from the APN towards MS on the GTP interface.	Counter / Int64
uplnk-pkts	The number of IP packets sent from the APN towards Internet/PDN on the Gi interface.	Counter / Int32
dnlnk-pkts	The number of IP packets sent from the APN towards MS on the GTP interface.	Counter / Int32

Statistic	Description	Data Type
uplnk-bytes-drop	The number of bytes sent from the APN towards Internet/PDN on the Gi interface dropped.	Counter / Int64
dnlnk-bytes-drop	The number of bytes sent from the APN towards MS on the GTP interface dropped.	Counter / Int64
uplnk-drop	The number of IP packets sent from the APN towards Internet/PDN on the Gi interface dropped.	Counter / Int32
dnlnk-drop	The number of IP packets sent from the APN towards MS on the GTP interface dropped.	Counter / Int32
bad-hdr	The total number of IP packets received and dropped due to bad header.	Counter / Int32
tfl-excd	The number of IP packets dropped because they were received with a TTL value of 0.	Counter / Int32
frag-sent	The number of times IP packets were fragmented before sending on the GTP tunnel.	Counter / Int32
frag-fail	The number of packets which failed in fragmentation.	Counter / Int32
inacl-drop	The number of IP packets received that were dropped due to ACL filtering.	Counter / Int32
outacl-drop	The number of outbound IP packets that were dropped due to ACL filtering.	Counter / Int32
inexcd-mbr-pkt-drop	Data Statistics – IP input excd MBR packets dropped	Counter / Int32
outexcd-mbr-pkt-drop	Data Statistics – IP output excd MBR packets dropped	Counter / Int32
inexcd-gbr-pkt-drop	Data Statistics – IP input excd GBR packets dropped	Counter / Int32
outexcd-gbr-pkt-drop	Data Statistics – IP output excd GBR packets dropped	Counter / Int32
inexcd-ambr-pkt-drop	Data Statistics – IP in excd APN packets AMBR dropped	Counter / Int32
outexcd-ambr-pkt-drop	Data Statistics – IP out excd APN packets AMBR dropped	Counter / Int32
inmisc-pkt-drop	Data Statistics – IP input misc packets dropped	Counter / Int32
outmisc-pkt-drop	Data Statistics – IP output misc packets dropped	Counter / Int32
inexcd-mbr-byte-drop	Data Statistics – IP input excd MBR bytes dropped	Counter / Int64
outexcd-mbr-byte-drop	Data Statistics – IP output excd MBR bytes dropped	Counter / Int64

Statistic	Description	Data Type
inexcd-gbr-byte-drop	Data Statistics – IP input excd GBR bytes dropped	Counter / Int64
outexcd-gbr-byte-drop	Data Statistics – IP output excd GBR bytes dropped	Counter / Int64
inexcd-ambr-byte-drop	Data Statistics – IP in excd APN AMBR bytes dropped	Counter / Int64
outexcd-ambr-byte-drop	Data Statistics – IP out excd APN AMBR bytes dropped	Counter / Int64
inmisc-byte-drop	Data Statistics – IP input misc bytes dropped	Counter / Int64
outmisc-byte-drop	Data Statistics – IP output misc bytes dropped	Counter / Int64
bad-src-addr	The number of IP packets received for which a source violation was detected resulting in the packets being dropped.	Counter / Int32
addr-stat	The total number of PDP contexts facilitated by the APN that used static IP addresses.	Counter / Int32
addr-lpool	The total number of PDP contexts facilitated by the APN that were allocated IP addresses from pools configured locally.	Counter / Int32
addr-rad	The total number of PDP contexts facilitated by the APN that were allocated IP addresses from a RADIUS server.	Counter / Int32
addr-dhcp	The total number of PDP contexts facilitated by the APN that were allocated IP addresses from DHCP.	Counter / Int32
addr-dhcp-rlly	The total number of PDP contexts facilitated by the APN that were allocated IP addresses by DHCP Relay.	Counter / Int32
addr-no-alloc	The total number of PDP contexts facilitated by the APN that were not allocated IP addresses.	Counter / Int32
sess-curr	The number of PDP contests currently facilitated by the APN.	Counter / Int32
sess-curr-all	The total number of PDP contexts currently being facilitated by the entire system.	Counter / Int32
sess-tot	The total number of PDP contexts facilitated by the APN.	Counter / Int32
sess-tot-all	The total number of PDP contexts that have been facilitated by the entire system.	Counter / Int32
att-pdp-ctxt	The total CPC req per APN	Counter / Int32
att-deact-pdp-ggsn	The total DPC Req Tx per APN	Counter / Int32
succ-deact-pdp-ggsn	The total DPC Req Tx Accepted	Counter / Int32

## Common Statistics

Statistic	Description	Data Type
att-deact-pdp-ms	The total DPC Req Rx per APN	Counter / Int32
succ-deact-pdp-ms	The total Deactivate PDP Context Req successful from MS.	Counter / Int32
dyn-ipv4-attempt	The total number of IPv4 PDP contexts requesting dynamically assigned IP addresses that were attempted.	Counter / Int32
dyn-ipv6-attempt	The total number of IPv6 PDP contexts requesting dynamically assigned IP addresses that were attempted.	Counter / Int32
dyn-ipv4-success	The total number of IPv4 PDP contexts requesting dynamically assigned IP addresses that were successfully setup.	Counter / Int32
dyn-ipv6-success	The total number of IPv6 PDP contexts requesting dynamically assigned IP addresses that were successfully setup.	Counter / Int32
data-fromuseravg-bps	The average data rate in bits per seconds (bps) from the user.	Counter / Int64
data-touseravg-bps	The average data rate in bps towards the user.	Counter / Int64
data-fromusersust-bps	The sustained data rate in bps from the user.	Counter / Int64
data-tousersust-bps	The sustained data rate in bps towards the user.	Counter / Int64
data-fromuseravg-pps	The average data rate in packets per seconds (pps) from the user.	Counter / Int64
data-touseravg-pps	The average data rate in pps towards the user.	Counter / Int64
data-fromusersust-pps	The sustained data rate in pps from the user.	Counter / Int64
data-tousersust-pps	The sustained data rate in pps towards the user.	Counter / Int64
qosconv-pkts-uplnk	The number of packets with Conversational QoS sent from the APN towards Internet/PDN on the Gi interface.	Counter / Int32
qosconv-pkts-dnlnk	The number of packets with Conversational QoS sent from the APN towards MS on the GTP interface.	Counter / Int32
qosstrm-pkts-uplnk	The number of packets with Streaming QoS sent from the APN towards Internet/PDN on the Gi interface.	Counter / Int32
qosstrm-pkts-dnlnk	The number of packets with Streaming QoS sent from the APN towards MS on the GTP interface.	Counter / Int32
qosint1-pkts-uplnk	The number of packets with Interactive QoS for priority 1 sent from the APN towards Internet/PDN on the Gi interface.	Counter / Int32
qosint1-pkts-dnlnk	The number of packets with Interactive QoS for priority 1 sent from the APN towards MS on the GTP interface.	Counter / Int32

Statistic	Description	Data Type
qsint2-pkts-uplnk	The number of packets with Interactive QoS for priority 2 sent from the APN towards Internet/PDN on the Gi interface.	Counter / Int32
qsint2-pkts-dnlnk	The number of packets with Interactive QoS for priority 2 sent from the APN towards MS on the GTP interface.	Counter / Int32
qsint3-pkts-uplnk	The number of packets with Interactive QoS for priority 3 sent from the APN towards Internet/PDN on the Gi interface.	Counter / Int32
qsint3-pkts-dnlnk	The number of packets with Interactive QoS for priority 3 sent from the APN towards MS on the GTP interface.	Counter / Int32
qsint-pkts-uplnk	Total number of packets with Interactive QoS for all priorities (priority 1, 2, and 3) sent from the APN towards Internet/PDN on the Gi interface.	Counter / Int32
qsint-pkts-dnlnk	Total number of packets with Interactive QoS for all priorities (priority 1, 2, and 3) sent from the APN towards MS on the GTP interface.	Counter / Int32
qosback-pkts-uplnk	The number of packets with Background QoS sent from the APN towards Internet/PDN on the Gi interface.	Counter / Int32
qosback-pkts-dnlnk	The number of packets with Background QoS sent from the APN towards MS on the GTP interface.	Counter / Int32
auth-req-sent	The total authentication requests sent from the APN towards AAA on Ga interface.	Counter / Int32
auth-acc-rcvd	The total authentication accept messages received by the APN on Ga Interface from AAA.	Counter / Int32
auth-timeout	The total authentication requests that timed out.	Counter / Int32
acc-req-sent	The total accounting requests sent from the APN towards AAA on Ga interface.	Counter / Int32
acc-rsp-rcvd	The total accounting response messages received by the APN on Ga Interface from AAA.	Counter / Int32
acc-req-timeout	The total accounting requests that timed out.	Counter / Int32
act-defbear	The total number of active default bearers.	Counter / Int32
act-dedbear	The total number of active dedicated bearers.	Counter / Int32
setup-defbear	The total number of default bearers setup.	Counter / Int32
setup-dedbear	The total number of dedicated bearers setup.	Counter / Int32
rel-defbear	The total number of released default bearers.	Counter / Int32
rel-dedbear	The total number of released dedicated bearers.	Counter / Int32

Statistic	Description	Data Type
rel-fail-defbear	The total number of default bearers with release failures.	Counter / Int32
rel-fail-dedbear	The total number of dedicated bearers with release failures.	Counter / Int32
rej-defbear	The total number of rejected default bearers.	Counter / Int32
rej-dedbear	The total number of rejected dedicated bearers.	Counter / Int32
mod-uebear	The total number of UE-initiated modified bearers.	Counter / Int32
mod-nwbear	The total number of network-initiated modified bearers.	Counter / Int32
ue-init-modfail	The total number of failed UE-initiated modified bearers.	Counter / Int32
nw-init-modfail	The total number of failed network-initiated modified bearers.	Counter / Int32
pdn-ipv4-actsess	The total number of active IPv4 sessions.	Counter / Int32
pdn-ipv4-setupsess	The total number of IPv4 session setup.	Counter / Int32
pdn-ipv4-relsess	The total number of released IPv4 sessions.	Counter / Int32
pdn-ipv6-actsess	The total number of active IPv6 sessions.	Counter / Int32
pdn-ipv6-setupsess	The total number of IPv6 session setup.	Counter / Int32
pdn-ipv6-relsess	The total number of released IPv6 sessions.	Counter / Int32
pdn-ipv4v6-actsess	The total number of active IPv4-in-IPv6 sessions.	Counter / Int32
pdn-ipv4v6-setupsess	The total number of IPv4-in-IPv6 session setup.	Counter / Int32
pdn-ipv4v6-relsess	The total number of released IPv4-in-IPv6 sessions.	Counter / Int32
addr-ipv6-stateless-autocnf	The total number of allocated IPv6 addresses from stateless auto-configuration.	Counter / Int32
qci1-actbear	The total number of QCI1 active bearers.	Counter / Int32
qci1-setupbear	The total number of QCI1 bearers setup.	Counter / Int32

Statistic	Description	Data Type
qci1-relbear	The total number of QCI1 released bearers.	Counter / Int32
qci1-uplinkpkt-fwd	The total number of QCI1 uplink packets forwarded.	Counter / Int32
qci1-dwlinkpkt-fwd	The total number of QCI1 downlink packets forwarded.	Counter / Int32
qci1-uplinkbyte-fwd	The total number of QCI1 uplink bytes forwarded.	Counter / Int64
qci1-dwlinkbyte-fwd	The total number of QCI1 downlink bytes forwarded.	Counter / Int64
qci1-uplinkpkt-drop	The total number of QCI1 uplink packets dropped.	Counter / Int32
qci1-dwlinkpkt-drop	The total number of QCI1 downlink packets dropped.	Counter / Int32
qci1-uplinkbyte-drop	The total number of QCI1 uplink bytes dropped.	Counter / Int64
qci1-dwlinkbyte-drop	The total number of QCI1 downlink bytes dropped.	Counter / Int64
qci2-actbear	The total number of QCI2 active bearers.	Counter / Int32
qci2-setupbear	The total number of QCI2 bearers setup.	Counter / Int32
qci2-relbear	The total number of QCI2 released bearers.	Counter / Int32
qci2-uplinkpkt-fwd	The total number of QCI2 uplink packets forwarded.	Counter / Int32
qci2-dwlinkpkt-fwd	The total number of QCI2 downlink packets forwarded.	Counter / Int32
qci2-uplinkbyte-fwd	The total number of QCI2 uplink bytes forwarded.	Counter / Int64
qci2-dwlinkbyte-fwd	The total number of QCI2 downlink bytes forwarded.	Counter / Int64
qci2-uplinkpkt-drop	The total number of QCI2 uplink packets dropped.	Counter / Int32
qci2-dwlinkpkt-drop	The total number of QCI2 downlink packets dropped.	Counter / Int32
qci2-uplinkbyte-drop	The total number of QCI2 uplink bytes dropped.	Counter / Int64
qci2-dwlinkbyte-drop	The total number of QCI2 downlink bytes dropped.	Counter / Int64

## ■ Common Statistics

Statistic	Description	Data Type
qci3-actbear	The total number of QCI3 active bearers.	Counter / Int32
qci3-setupbear	The total number of QCI3 bearers setup.	Counter / Int32
qci3-relbear	The total number of QCI3 released bearers.	Counter / Int32
qci3-uplinkpkt-fwd	The total number of QCI3 uplink packets forwarded.	Counter / Int32
qci3-dwlinkpkt-fwd	The total number of QCI3 downlink packets forwarded.	Counter / Int32
qci3-uplinkbyte-fwd	The total number of QCI3 uplink bytes forwarded.	Counter / Int64
qci3-dwlinkbyte-fwd	The total number of QCI3 downlink bytes forwarded.	Counter / Int64
qci3-uplinkpkt-drop	The total number of QCI3 uplink packets dropped.	Counter / Int32
qci3-dwlinkpkt-drop	The total number of QCI3 downlink packets dropped.	Counter / Int32
qci3-uplinkbyte-drop	The total number of QCI3 uplink bytes dropped.	Counter / Int64
qci3-dwlinkbyte-drop	The total number of QCI3 downlink bytes dropped.	Counter / Int64
qci4-actbear	The total number of QCI4 active bearers.	Counter / Int32
qci4-setupbear	The total number of QCI4 bearers setup.	Counter / Int32
qci4-relbear	The total number of QCI4 released bearers.	Counter / Int32
qci4-uplinkpkt-fwd	The total number of QCI4 uplink packets forwarded.	Counter / Int32
qci4-dwlinkpkt-fwd	The total number of QCI4 downlink packets forwarded.	Counter / Int32
qci4-uplinkbyte-fwd	The total number of QCI4 uplink bytes forwarded.	Counter / Int64
qci4-dwlinkbyte-fwd	The total number of QCI4 downlink bytes forwarded.	Counter / Int64
qci4-uplinkpkt-drop	The total number of QCI4 uplink packets dropped.	Counter / Int32
qci4-dwlinkpkt-drop	The total number of QCI4 downlink packets dropped.	Counter / Int32

Statistic	Description	Data Type
qci4-uplinkbyte-drop	The total number of QCI4 uplink bytes dropped.	Counter / Int64
qci4-dwlinkbyte-drop	The total number of QCI4 downlink bytes dropped.	Counter / Int64
qci5-actbear	The total number of QCI5 active bearers.	Counter / Int32
qci5-setupbear	The total number of QCI5 bearers setup.	Counter / Int32
qci5-relbear	The total number of QCI5 released bearers.	Counter / Int32
qci5-uplinkpkt-fwd	The total number of QCI5 uplink packets forwarded.	Counter / Int32
qci5-dwlinkpkt-fwd	The total number of QCI5 downlink packets forwarded.	Counter / Int32
qci5-uplinkbyte-fwd	The total number of QCI5 uplink bytes forwarded.	Counter / Int64
qci5-dwlinkbyte-fwd	The total number of QCI5 downlink bytes forwarded.	Counter / Int64
qci5-uplinkpkt-drop	The total number of QCI5 uplink packets dropped.	Counter / Int32
qci5-dwlinkpkt-drop	The total number of QCI5 downlink packets dropped.	Counter / Int32
qci5-uplinkbyte-drop	The total number of QCI5 uplink bytes dropped.	Counter / Int64
qci5-dwlinkbyte-drop	The total number of QCI5 downlink bytes dropped.	Counter / Int64
qci6-actbear	The total number of QCI6 active bearers.	Counter / Int32
qci6-setupbear	The total number of QCI6 bearers setup.	Counter / Int32
qci6-relbear	The total number of QCI6 released bearers.	Counter / Int32
qci6-uplinkpkt-fwd	The total number of QCI6 uplink packets forwarded.	Counter / Int32
qci6-dwlinkpkt-fwd	The total number of QCI6 downlink packets forwarded.	Counter / Int32
qci6-uplinkbyte-fwd	The total number of QCI6 uplink bytes forwarded.	Counter / Int64
qci6-dwlinkbyte-fwd	The total number of QCI6 downlink bytes forwarded.	Counter / Int64

## Common Statistics

Statistic	Description	Data Type
qci6-uplinkpkt-drop	The total number of QCI6 uplink packets dropped.	Counter / Int32
qci6-dwlinkpkt-drop	The total number of QCI6 downlink packets dropped.	Counter / Int32
qci6-uplinkbyte-drop	The total number of QCI6 uplink bytes dropped.	Counter / Int64
qci6-dwlinkbyte-drop	The total number of QCI6 downlink bytes dropped.	Counter / Int64
qci7-actbear	The total number of QCI7 active bearers.	Counter / Int32
qci7-setupbear	The total number of QCI7 bearers setup.	Counter / Int32
qci7-relbear	The total number of QCI7 released bearers.	Counter / Int32
qci7-uplinkpkt-fwd	The total number of QCI7 uplink packets forwarded.	Counter / Int32
qci7-dwlinkpkt-fwd	The total number of QCI7 downlink packets forwarded.	Counter / Int32
qci7-uplinkbyte-fwd	The total number of QCI7 uplink bytes forwarded.	Counter / Int64
qci7-dwlinkbyte-fwd	The total number of QCI7 downlink bytes forwarded.	Counter / Int64
qci7-uplinkpkt-drop	The total number of QCI7 uplink packets dropped.	Counter / Int32
qci7-dwlinkpkt-drop	The total number of QCI7 downlink packets dropped.	Counter / Int32
qci7-uplinkbyte-drop	The total number of QCI7 uplink bytes dropped.	Counter / Int64
qci7-dwlinkbyte-drop	The total number of QCI7 downlink bytes dropped.	Counter / Int64
qci8-actbear	The total number of QCI8 active bearers.	Counter / Int32
qci8-setupbear	The total number of QCI8 bearers setup.	Counter / Int32
qci8-relbear	The total number of QCI8 released bearers.	Counter / Int32
qci8-uplinkpkt-fwd	The total number of QCI8 uplink packets forwarded.	Counter / Int32
qci8-dwlinkpkt-fwd	The total number of QCI8 downlink packets forwarded.	Counter / Int32

Statistic	Description	Data Type
qci8-uplinkbyte-fwd	The total number of QCI8 uplink bytes forwarded.	Counter / Int64
qci8-dwlinkbyte-fwd	The total number of QCI8 downlink bytes forwarded.	Counter / Int64
qci8-uplinkpkt-drop	The total number of QCI8 uplink packets dropped.	Counter / Int32
qci8-dwlinkpkt-drop	The total number of QCI8 downlink packets dropped.	Counter / Int32
qci8-uplinkbyte-drop	The total number of QCI8 uplink bytes dropped.	Counter / Int64
qci8-dwlinkbyte-drop	The total number of QCI8 downlink bytes dropped.	Counter / Int64
qci9-actbear	The total number of QCI9 active bearers.	Counter / Int32
qci9-setupbear	The total number of QCI9 bearers setup.	Counter / Int32
qci9-relbear	The total number of QCI9 released bearers.	Counter / Int32
qci9-uplinkpkt-fwd	The total number of QCI9 uplink packets forwarded.	Counter / Int32
qci9-dwlinkpkt-fwd	The total number of QCI9 downlink packets forwarded.	Counter / Int32
qci9-uplinkbyte-fwd	The total number of QCI9 uplink bytes forwarded.	Counter / Int64
qci9-dwlinkbyte-fwd	The total number of QCI9 downlink bytes forwarded.	Counter / Int64
qci9-uplinkpkt-drop	The total number of QCI9 uplink packets dropped.	Counter / Int32
qci9-dwlinkpkt-drop	The total number of QCI9 downlink packets dropped.	Counter / Int32
qci9-uplinkbyte-drop	The total number of QCI9 uplink bytes dropped.	Counter / Int64
qci9-dwlinkbyte-drop	The total number of QCI9 downlink bytes dropped.	Counter / Int64
nonstdqci-nongbr-actbear	The total number of non-standard QCI, non-GBR active bearers.	Counter / Int32
nonstdqci-nongbr-setupbear	The total number of non-standard QCI, non-GBR bearers setup.	Counter / Int32
nonstdqci-nongbr-relbear	The total number of non-standard QCI, non-GBR released bearers.	Counter / Int32

## Common Statistics

Statistic	Description	Data Type
nonstdqci-nongbr-uplinkpkt-fwd	The total number of non-standard QCI, non-GBR uplink packets forwarded.	Counter / Int32
nonstdqci-nongbr-dwlinkpkt-fwd	The total number of non-standard QCI, non-GBR downlink packets forwarded.	Counter / Int32
nonstdqci-nongbr-uplinkbyte-fwd	The total number of non-standard QCI, non-GBR uplink bytes forwarded.	Counter / Int64
nonstdqci-nongbr-dwlinkbyte-fwd	The total number of non-standard QCI, non-GBR downlink bytes forwarded.	Counter / Int64
nonstdqci-nongbr-uplinkpkt-drop	The total number of non-standard QCI, non-GBR uplink packets dropped.	Counter / Int32
nonstdqci-nongbr-dwlinkpkt-drop	The total number of non-standard QCI, non-GBR downlink packets dropped.	Counter / Int32
nonstdqci-nongbr-uplinkbyte-drop	The total number of non-standard QCI, non-GBR uplink bytes dropped.	Counter / Int64
nonstdqci-nongbr-dwlinkbyte-drop	The total number of non-standard QCI, non-GBR downlink bytes dropped.	Counter / Int64
nonstdqci-gbr-actbear	The total number of non-standard QCI, GBR active bearers.	Counter / Int32
nonstdqci-gbr-setupbear	The total number of non-standard QCI, GBR bearers setup.	Counter / Int32
nonstdqci-gbr-relbear	The total number of non-standard QCI, GBR released bearers.	Counter / Int32
nonstdqci-gbr-uplinkpkt-fwd	The total number of non-standard QCI, GBR uplink packets forwarded.	Counter / Int32
nonstdqci-gbr-dwlinkpkt-fwd	The total number of non-standard QCI, GBR downlink packets forwarded.	Counter / Int32
nonstdqci-gbr-uplinkbyte-fwd	The total number of non-standard QCI, GBR uplink bytes forwarded.	Counter / Int64
nonstdqci-gbr-dwlinkbyte-fwd	The total number of non-standard QCI, GBR downlink bytes forwarded.	Counter / Int64
nonstdqci-gbr-uplinkpkt-drop	The total number of non-standard QCI, GBR uplink packets dropped.	Counter / Int32
nonstdqci-gbr-dwlinkpkt-drop	The total number of non-standard QCI, GBR downlink packets dropped.	Counter / Int32
nonstdqci-gbr-uplinkbyte-drop	The total number of non-standard QCI, GBR uplink bytes dropped.	Counter / Int64
nonstdqci-gbr-dwlinkbyte-drop	The total number of non-standard QCI, GBR downlink bytes dropped.	Counter / Int64

Statistic	Description	Data Type
 <b>Important:</b> See Bulk Statistics Overview for statistics that are common to all schema.		



# Chapter 3

## ASNGW Schema Statistics

The ASNGW schema provides the following types of statistics:

- **Counter:** A counter records incremental data cumulatively and rolls over when the counter limit is reached. The limit depends upon the counter data type.
- **Gauge:** A gauge statistic indicates a single value representative of a single instance. This type is often used to track particular events in time.

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 **Important:** The format string syntax is described by Schema Format String Syntax in the Bulk Statistics Overview chapter.

 **Important:** Unless otherwise indicated, all statistics are counters. For statistics with the Int32 data type, the roll-over to zero limit is 4,294,967,295. For statistics with the Int64 data type, the roll-over to zero limit is 18,446,744,073,709,551,615. All counter statistics are cumulative and reset only by one of the following methods: roll-over (as described above), after a system restart, or after a clear command is performed. All statistics are considered standards-based unless otherwise noted.

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The following variables are supported:

**Table 3. ASN-GW Schema Statistics**

Statistic	Description	Data Type
vpnname	The name of the context configured on the system that is currently facilitating the ASN GW service.	String
vpnid	The identification number of the context configured on the system that is currently facilitating the ASN GW service. This is an internal reference number.	Int32
servname	The name of the ASN GW service for which the statistics are displayed.	String
servid	The identification number of the ASN GW service for which the statistics are displayed.	Int32
peeripaddr	IP address of the peer ASN GW.	String
r6mspreattreq-totsent	The total number of MS pre-attachment request messages sent on the R6 interface.	Int32
r6mspreattreq-retranssent	The total number of MS pre-attachment request messages re-transmitted on the R6 interface.	Int32

Statistic	Description	Data Type
r6mspreattreq-totendfail	The total number of failures occurred during transaction ID generation and R6 MS Pre-attachment request message not sent for specific interface. This counter is used to count the error while sending the R6 packets.	Int32
r6mspreattreq-totrec	The total number of MS pre-attachment request messages received on the R6 interface.	Int32
r6mspreattreq-totacc	The total number of MS pre-attachment request messages accepted on the R6 interface.	Int32
r6mspreattreq-totrelay	The total number of MS pre-attachment request messages received from the base station and relayed on the R6 interface. Triggers: Changes every time a MS pre-attachment request message is relayed by the R6 interface. Availability: across all ASNGW services.	Int32
r6mspreattreq-totdenied	The total number of MS pre-attachment request messages denied on the R6 interface.	Int32
r6mspreattreq-totdiscard	The total number of MS pre-attachment request messages discarded on the R6 interface.	Int32
r6mspreattreq-badform	The total number of badly formed MS pre-attachment request messages on the R6 interface.	Int32
r6mspreattreq-decodeerr	The total number of MS pre-attachment request messages on the R6 interface with decode error.	Int32
r6mspreattreq-unspecerr	The total number of MS pre-attachment request messages on the R6 interface with unspecified error.	Int32
r6mspreattreq-missmandtlv	The total number of MS pre-attachment request messages on the R6 interface with missing mandatory TLVs.	Int32
r6mspreattreq-tlvvalinval	The total number of MS pre-attachment request messages on the R6 interface with invalid TLV value.	Int32
r6mspreattreq-unknowntrlv	The total number of MS pre-attachment request messages on the R6 interface with unknown TLVs.	Int32
r6mspreattreq-duptlvfound	The total number of MS pre-attachment request messages on the R6 interface with duplicate TLVs.	Int32
r6mspreattreq-nosessfound	The total number of MS pre-attachment request messages on the R6 interface without any session information.	Int32
r6mspreattreq-adminprohib	The total number of MS pre-attachment request messages discarded or denied due to admin prohibit. Triggers: Changes every time a MS pre-attachment request message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r6mspreattreq-noresourcedrop	The total number of MS pre-attachment request messages discarded or denied due to resource unavailability. Triggers: Changes every time a MS pre-attachment request message is discarded or denied due to resource unavailability. Availability: across all the ASNGW service	Int32
r6mspreattreq-transiderr	The total number of MS pre-attachment request messages on the R6 interface with transaction ID errors.	Int32
r6mspreattreq-totsent	The total number of MS pre-attachment response messages sent on the R6 interface.	Int32

Statistic	Description	Data Type
r6mspreattrsp-retranssent	The total number of MS pre-attachment response messages re-transmitted on the R6 interface.	Int32
r6mspreattrsp-totsendfail	The total number of failures occurred during transaction ID generation and R6 MS Pre-attachment response message not sent for specific interface. This counter is used to count the error while sending the R6 packets.	Int32
r6mspreattrsp-totrec	The total number of MS pre-attachment response messages received on the R6 interface.	Int32
r6mspreattrsp-totacc	The total number of MS pre-attachment response messages accepted on the R6 interface.	Int32
r6mspreattrsp-totrelay	The total number of MS pre-attachment response messages denied on the R6 interface.	Int32
r6mspreattrsp-totdenied	The total number of MS pre-attachment response messages discarded on the R6 interface.	Int32
r6mspreattrsp-totdiscard	The total number of badly formed MS pre-attachment response messages on the R6 interface.	Int32
r6mspreattrsp-badform	The total number of MS pre-attachment response messages on the R6 interface with decode error.	Int32
r6mspreattrsp-decodeerr	The total number of MS pre-attachment response messages on the R6 interface with unspecified error.	Int32
r6mspreattrsp-unspecerr	The total number of MS pre-attachment response messages on the R6 interface with missing mandatory TLVs.	Int32
r6mspreattrsp-missmandtlv	The total number of MS pre-attachment response messages on the R6 interface with invalid TLV value.	Int32
r6mspreattrsp-tlvvalinval	The total number of MS pre-attachment response messages denied on the R6 interface.	Int32
r6mspreattrsp-unknowntrlv	The total number of MS pre-attachment response messages on the R6 interface with unknown TLVs.	Int32
r6mspreattrsp-duptlvfound	The total number of MS pre-attachment response messages on the R6 interface with duplicate TLVs.	Int32
r6mspreattrsp-nosessfound	The total number of MS pre-attachment response messages on the R6 interface without any session information.	Int32
r6mspreattrsp-adminprohib	The total number of MS pre-attachment response messages discarded or denied due to admin prohibit. Triggers: Changes every time a MS pre-attachment response message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r6mspreattrsp-noresourcedrop	The total number of MS pre-attachment response messages discarded or denied due to resource unavailability. Triggers: Changes every time a MS pre-attachment response message is discarded or denied due to resource unavailability. Availability: across all the ASNGW service	Int32
r6mspreattrsp-transiderr	The total number of MS pre-attachment response messages on the R6 interface with transaction ID errors.	Int32
r6mspreattack-totsent	The total number of MS pre-attachment acknowledgement messages sent on the R6 interface.	Int32

Statistic	Description	Data Type
r6mspreattack-retranssent	The total number of MS pre-attachment acknowledgement messages re-transmitted on the R6 interface.	Int32
r6mspreattack-totsendfail	The total number of failures occurred during transaction ID generation and R6 MS Pre-attachment acknowledgement message not sent for specific interface. This counter is used to count the error while sending the R6 packets.	Int32
r6mspreattack-totrec	The total number of MS pre-attachment acknowledgement messages received on the R6 interface.	Int32
r6mspreattack-totacc	The total number of MS pre-attachment acknowledgement messages accepted on the R6 interface.	Int32
r6mspreattack-totrelay	The total number of MS pre-attachment acknowledgement messages received from the base station and relayed on the R6 interface. Triggers: Changes every time a MS pre-attachment acknowledgement message is relayed by the R6 interface. Availability: across all ASNGW services.	Int32
r6mspreattack-totdenied	The total number of MS pre-attachment acknowledgement messages denied on the R6 interface.	Int32
r6mspreattack-totdiscard	The total number of MS pre-attachment acknowledgement messages discarded on the R6 interface.	Int32
r6mspreattack-badform	The total number of badly formed MS pre-attachment acknowledgement messages on the R6 interface.	Int32
r6mspreattack-decodeerr	The total number of MS pre-attachment acknowledgement messages on the R6 interface with decode error.	Int32
r6mspreattack-unspecerr	The total number of MS pre-attachment acknowledgement messages on the R6 interface with unspecified error.	Int32
r6mspreattack-mismandtlv	The total number of MS pre-attachment acknowledgement messages on the R6 interface with missing mandatory TLVs.	Int32
r6mspreattack-tlvvalinval	The total number of MS pre-attachment acknowledgement messages on the R6 interface with invalid TLV value.	Int32
r6mspreattack-unknowntrlv	The total number of MS pre-attachment acknowledgement messages on the R6 interface with unknown TLVs.	Int32
r6mspreattack-duptlvfound	The total number of MS pre-attachment acknowledgement messages on the R6 interface with duplicate TLVs.	Int32
r6mspreattack-nosessfound	The total number of MS pre-attachment acknowledgement messages on the R6 interface without any session information.	Int32
r6mspreattack-adminprohib	The total number of MS pre-attachment acknowledgement messages discarded or denied due to admin prohibit. Triggers: Changes every time a MS pre-attachment acknowledgement message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32

Statistic	Description	Data Type
r6mspreattach-noresourcedrop	The total number of MS pre-attachment acknowledgement messages discarded or denied due to resource unavailability. Triggers: Changes every time a MS pre-attachment acknowledgement message is discarded or denied due to resource unavailability. Availability: across all the ASNGW service	Int32
r6mspreattach-transiderr	The total number of MS pre-attachment acknowledgement messages on the R6 interface with transaction ID errors.	Int32
r6nwexitmsstachareq-totsent	The total number of network exit MS state change request messages sent on the R6 the interface.	Int32
r6nwexitmsstachareq-retranssent	The total number of network exit MS state change request messages re-transmitted on the R6 interface.	Int32
r6nwexitmsstachareq-totsendfail	The total number of failures occurred during transaction ID generation and R6 network exit MS state change request message not sent for specific interface. This counter is used to count the error while sending the R6 packets.	Int32
r6nwexitmsstachareq-totrec	The total number of network exit MS state change request messages received on the R6 interface.	Int32
r6nwexitmsstachareq-totacc	The total number of network exit MS state change request messages accepted on the R6 interface.	Int32
r6nwexitmsstachareq-totrelay	The total number of network exit MS state change request messages received from the base station and relayed on the R6 interface. Triggers: Changes every time a network exit MS state change request message is relayed by the R6 interface. Availability: across all ASNGW services.	Int32
r6nwexitmsstachareq-totdenied	The total number of network exit MS state change request messages denied on the R6 interface.	Int32
r6nwexitmsstachareq-totdiscard	The total number of network exit MS state change request messages discarded on the R6 interface.	Int32
r6nwexitmsstachareq-badform	The total number of badly formed network exit MS state change request messages on the R6 interface.	Int32
r6nwexitmsstachareq-decodeerr	The total number of network exit MS state change request messages on the R6 interface with decode error.	Int32
r6nwexitmsstachareq-unspecerr	The total number of network exit MS state change request messages on the R6 interface with unspecified error.	Int32
r6nwexitmsstachareq-missmandtlv	The total number of network exit MS state change request messages on the R6 interface with missing mandatory TLVs.	Int32
r6nwexitmsstachareq-tlvvalinval	The total number of network exit MS state change request messages on the R6 interface with invalid TLV value.	Int32
r6nwexitmsstachareq-unknowntlv	The total number of network exit MS state change request messages on the R6 interface with unknown TLVs.	Int32
r6nwexitmsstachareq-duptlvfound	The total number of network exit MS state change request messages on the R6 interface with duplicate TLVs.	Int32

Statistic	Description	Data Type
r6nwexitmsstachareq-nosessfound	The total number of network exit MS state change request messages on the R6 interface without any session information.	Int32
r6nwexitmsstachareq-adminprohib	The total number of network exit MS state change request messages on the R6 interface with transaction ID errors.	Int32
r6nwexitmsstachareq-noresourcedrop	The total number of network exit MS state change request messages discarded or denied due to admin prohibit. Triggers: Changes every time a network exit MS state change request message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r6nwexitmsstachareq-transiderr	The total number of network exit MS state change request messages discarded or denied due to transaction ID errors.	Int32
r6nwexitmsstacharsp-totsent	The total number of network exit MS state change response messages sent on the R6 interface.	Int32
r6nwexitmsstacharsp-retranssent	The total number of network exit MS state change response messages re-transmitted on the R6 interface.	Int32
r6nwexitmsstacharsp-totsendfail	The total number of failures occurred during transaction ID generation and R6 network exit MS state change response message not sent for specific interface. This counter is used to count the error while sending the R6 packets.	Int32
r6nwexitmsstacharsp-totrec	The total number of network exit MS state change response messages received on the R6 interface.	Int32
r6nwexitmsstacharsp-totacc	The total number of network exit MS state change response messages accepted on the R6 interface.	Int32
r6nwexitmsstacharsp-totrelay	The total number of network exit MS state change response messages received from the base station and relayed on the R6 interface. Triggers: Changes every time a network exit MS state change response message is relayed by the R6 interface. Availability: across all ASNGW services.	Int32
r6nwexitmsstacharsp-totdenied	The total number of network exit MS state change response messages denied on the R6 interface.	Int32
r6nwexitmsstacharsp-totdiscard	The total number of network exit MS state change response messages discarded on the R6 interface.	Int32
r6nwexitmsstacharsp-badform	The total number of badly formed network exit MS state change response messages on the R6 interface.	Int32
r6nwexitmsstacharsp-decodeerr	The total number of network exit MS state change response messages on the R6 interface with decode error.	Int32
r6nwexitmsstacharsp-unspecerr	The total number of network exit MS state change response messages on the R6 interface with unspecified error.	Int32
r6nwexitmsstacharsp-missmandtlv	The total number of network exit MS state change response messages on the R6 interface with missing mandatory TLVs.	Int32
r6nwexitmsstacharsp-tlvvalinval	The total number of network exit MS state change response messages on the R6 interface with invalid TLV value.	Int32

Statistic	Description	Data Type
r6nwexitmsstacharsp-unknownnltv	The total number of network exit MS state change response messages on the R6 interface with unknown TLVs.	Int32
r6nwexitmsstacharsp-duptlvfound	The total number of network exit MS state change response messages on the R6 interface with duplicate TLVs.	Int32
r6nwexitmsstacharsp-nosessfound	The total number of network exit MS state change response messages on the R6 interface without any session information.	Int32
r6nwexitmsstacharsp-adminprohib	The total number of network exit MS state change response messages discarded or denied due to admin prohibit. Triggers: Changes every time a network exit MS state change response message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r6nwexitmsstacharsp-noresourcedrop	The total number of network exit MS state change response messages discarded or denied due to resource unavailability. Triggers: Changes every time a network exit MS state change response message is discarded or denied due to resource unavailability. Availability: across all the ASNGW service.	Int32
r6nwexitmsstacharsp-transiderr	The total number of network exit MS state change response messages on the R6 interface with transaction ID errors.	Int32
r6contextreq-totsent	The total number of context request messages sent on the R6 interface.	Int32
r6contextreq-retranssent	The total number of context request messages re-transmitted on the R6 interface.	Int32
r6contextreq-totsefail	The total number of failures occurred during transaction ID generation and R6 Context Request message not sent for specific interface. This counter is used to count the error while sending the R6 packets.	Int32
r6contextreq-totrec	The total number of context request messages received on the R6 interface.	Int32
r6contextreq-totacc	The total number of context request messages accepted on the R6 interface.	Int32
r6contextreq-totrelay	The total number of context request messages received from the base station and relayed on the R6 interface. Triggers: Changes every time a context request message is relayed by the R6 interface. Availability: across all ASNGW services.	Int32
r6contextreq-totdenied	The total number of context request messages denied on the R6 interface.	Int32
r6contextreq-totdiscard	The total number of context request messages discarded on the R6 interface.	Int32
r6contextreq-badform	The total number of badly formed context request messages on the R6 interface.	Int32
r6contextreq-decodeerr	The total number of context request messages on the R6 interface with decode error.	Int32
r6contextreq-unspeerr	The total number of context request messages on the R6 interface with unspecified error.	Int32
r6contextreq-missmandtlv	The total number of context request messages on the R6 interface with missing mandatory TLVs.	Int32
r6contextreq-tlvvalinval	The total number of context request messages on the R6 interface with invalid TLV value.	Int32
r6contextreq-unknownnltv	The total number of context request messages on the R6 interface with unknown TLVs.	Int32
r6contextreq-duptlvfound	The total number of context request messages on the R6 interface with duplicate TLVs.	Int32

Statistic	Description	Data Type
r6contextreq-nosessfound	The total number of context request messages on the R6 interface without any session information.	Int32
r6contextreq-adminprohib	The total number of context request messages discarded or denied due to admin prohibit. Triggers: Changes every time a context request message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r6contextreq-noresourcedrop	The total number of context request messages discarded or denied due to resource unavailability. Triggers: Changes every time a context request message is discarded or denied due to resource unavailability. Availability: across all the ASNGW service.	Int32
r6contextreq-transiderr	The total number of context request messages on the R6 interface with transaction ID errors.	Int32
r6contextrepo-totsent	The total number of context report messages sent on the R6 interface.	Int32
r6contextrepo-retranssent	The total number of context report messages re-transmitted on the R6 interface.	Int32
r6contextrepo-totsendfail	The total number of failures occurred during transaction ID generation and R6 Context Report message not sent for specific interface. This counter is used to count the error while sending the R6 packets.	Int32
r6contextrepo-totrec	The total number of context report messages received on the R6 interface.	Int32
r6contextrepo-totacc	The total number of context report messages =accepted on the R6 interface.	Int32
r6contextrepo-totrelay	The total number of context report messages received from the base station and relayed on the R6 interface. Triggers: Changes every time a context report message is relayed by the R6 interface. Availability: across all ASNGW services.	Int32
r6contextrepo-totdenied	The total number of context report messages denied on the R6 interface.	Int32
r6contextrepo-totdiscard	The total number of context report messages discarded on the R6 interface.	Int32
r6contextrepo-badform	The total number of badly formed context report messages on the R6 interface.	Int32
r6contextrepo-decodeerr	The total number of context report messages on the R6 interface with decode error.	Int32
r6contextrepo-unspecerr	The total number of context report messages on the R6 interface with unspecified error.	Int32
r6contextrepo-missmandtlv	The total number of context report messages on the R6 interface with missing mandatory TLVs.	Int32
r6contextrepo-tlvvalinval	The total number of context report messages on the R6 interface with invalid TLV value.	Int32
r6contextrepo-unknowntrlv	The total number of context report messages on the R6 interface with unknown TLVs.	Int32
r6contextrepo-duptlvfound	The total number of context report messages on the R6 interface with duplicate TLVs.	Int32
r6contextrepo-nosessfound	The total number of context report messages on the R6 interface without any session information.	Int32

Statistic	Description	Data Type
r6contextrepo-adminprohib	The total number of context report messages discarded or denied due to admin prohibit. Triggers: Changes every time a context report message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r6contextrepo-noresourcedrop	The total number of context report messages discarded or denied due to resource unavailability. Triggers: Changes every time a context report message is discarded or denied due to resource unavailability. Availability: across all the ASNGW service	Int32
r6contextrepo-transiderr	The total number of context report messages on the R6 interface with transaction ID errors.	Int32
r6contextack-totsent	The total number of context acknowledgement messages sent on the R6 interface.	Int32
r6contextack-retranssent	The total number of context acknowledgement messages re-transmitted on the R6 interface.	Int32
r6contextack-totsefail	The total number of failures occurred during transaction ID generation and R6 Context acknowledgement message not sent for specific interface. This counter is used to count the error while sending the R6 packets.	Int32
r6contextack-totrec	The total number of context acknowledgement messages received on the R6 interface.	Int32
r6contextack-totacc	The total number of context acknowledgement messages accepted on the R6 interface.	Int32
r6contextack-totrelay	The total number of context acknowledgement messages received from the base station and relayed on the R6 interface. Triggers: Changes every time a context acknowledgement message is relayed by the R6 interface. Availability: across all ASNGW services.	Int32
r6contextack-totdenied	The total number of context acknowledgement messages denied on the R6 interface.	Int32
r6contextack-totdiscard	The total number of context acknowledgement messages discarded on the R6 interface.	Int32
r6contextack-badform	The total number of badly formed context acknowledgement messages on the R6 interface.	Int32
r6contextack-decodeerr	The total number of context acknowledgement messages on the R6 interface with decode error.	Int32
r6contextack-unspecerr	The total number of context acknowledgement messages on the R6 interface with unspecified error.	Int32
r6contextack-mismandtlv	The total number of context acknowledgement messages on the R6 interface with missing mandatory TLVs.	Int32
r6contextack-tlvvalinval	The total number of context acknowledgement messages on the R6 interface with invalid TLV value.	Int32
r6contextack-unknowntlv	The total number of context acknowledgement messages on the R6 interface with unknown TLVs.	Int32
r6contextack-duptlvfound	The total number of context acknowledgement messages on the R6 interface with duplicate TLVs.	Int32

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Statistic	Description	Data Type
r6contextack-nosessfound	The total number of context acknowledgement messages on the R6 interface without any session information.	Int32
r6contextack-adminprohib	The total number of context acknowledgement messages discarded or denied due to admin prohibit. Triggers: Changes every time a context acknowledgement message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r6contextack-noresourcedrop	The total number of context acknowledgement messages discarded or denied due to resource unavailability. Triggers: Changes every time a context acknowledgement message is discarded or denied due to resource unavailability. Availability: across all the ASNGW service	Int32
r6contextack-transiderr	The total number of context acknowledgement messages on the R6 interface with transaction ID errors.	Int32
r6authaptra-totsent	The total number of authentication EAP transfer messages sent on the R6 interface.	Int32
r6authaptra-retranssent	The total number of authentication EAP transfer messages re-transmitted on the R6 interface.	Int32
r6authaptra-totsendfail	The total number of failures occurred during transaction ID generation and R6 EAP transfer message not sent for specific interface. This counter is used to count the error while sending the R6 packets.	Int32
r6authaptra-totrec	The total number of authentication EAP transfer messages received on the R6 interface.	Int32
r6authaptra-totacc	The total number of authentication EAP transfer messages accepted on the R6 interface.	Int32
r6authaptra-totrelay	The total number of authentication EAP transfer messages received from the base station and relayed on the R6 interface. Triggers: Changes every time an authentication EAP transfer message is relayed by the R6 interface. Availability: across all ASNGW services.	Int32
r6authaptra-totdenied	The total number of authentication EAP transfer messages denied on the R6 interface.	Int32
r6authaptra-totdiscard	The total number of authentication EAP transfer messages discarded on the R6 interface.	Int32
r6authaptra-badform	The total number of badly formed authentication EAP transfer messages on the R6 interface.	Int32
r6authaptra-decodeerr	The total number of authentication EAP transfer messages on the R6 interface with decode error.	Int32
r6authaptra-unspecerr	The total number of authentication EAP transfer messages on the R6 interface with unspecified error.	Int32
r6authaptra-missmandtlv	The total number of authentication EAP transfer messages on the R6 interface with missing mandatory TLVs.	Int32
r6authaptra-tlvvalinval	The total number of authentication EAP transfer messages on the R6 interface with invalid TLV value.	Int32
r6authaptra-unknowntrlv	The total number of authentication EAP transfer messages on the R6 interface with unknown TLVs.	Int32

Statistic	Description	Data Type
r6autheaptra-duptlvfound	The total number of authentication EAP transfer messages on the R6 interface with duplicate TLVs.	Int32
r6autheaptra-nosessfound	The total number of authentication EAP transfer messages on the R6 interface without any session information.	Int32
r6autheaptra-adminprohib	The total number of authentication EAP transfer messages discarded or denied due to admin prohibit. Triggers: Changes every time an authentication EAP transfer message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r6autheaptra-noresourcedrop	The total number of authentication EAP transfer messages discarded or denied due to resource unavailability. Triggers: Changes every time an authentication EAP transfer message is discarded or denied due to resource unavailability. Availability: across all the ASNGW service	Int32
r6autheaptra-transiderr	The total number of authentication EAP transfer messages on the R6 interface with transaction ID errors.	Int32
r6autheapsta-totrec	The total number of authentication EAP start messages sent on the R6 interface.	Int32
r6autheapsta-totacc	The total number of authentication EAP start messages accepted on the R6 interface.	Int32
r6autheapsta-totrelay	The total number of authentication EAP start messages received from the base station and relayed on the R6 interface. Triggers: Changes every time an authentication EAP start message is relayed by the R6 interface. Availability: across all ASNGW services.	Int32
r6autheapsta-totdenied	The total number of authentication EAP start messages denied on the R6 interface.	Int32
r6autheapsta-totdiscard	The total number of authentication EAP start messages discarded on the R6 interface.	Int32
r6autheapsta-badform	The total number of badly formed authentication EAP start messages on the R6 interface.	Int32
r6autheapsta-decodeerr	The total number of authentication EAP start messages on the R6 interface with decode error.	Int32
r6autheapsta-unspecerr	The total number of authentication EAP start messages on the R6 interface with unspecified error.	Int32
r6autheapsta-missmandtlv	The total number of authentication EAP start messages on the R6 interface with missing mandatory TLVs.	Int32
r6autheapsta-tlvvalinval	The total number of authentication EAP start messages on the R6 interface with invalid TLV value.	Int32
r6autheapsta-unknowntlv	The total number of authentication EAP start messages on the R6 interface with unknown TLVs.	Int32
r6autheapsta-duptlvfound	The total number of authentication EAP start messages on the R6 interface with duplicate TLVs.	Int32
r6autheapsta-nosessfound	The total number of authentication EAP start messages on the R6 interface without any session information.	Int32

Statistic	Description	Data Type
r6authapsta-adminprohib	The total number of authentication EAP start messages discarded or denied due to admin prohibit. Triggers: Changes every time an authentication EAP start message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r6authapsta-noresourcedrop	The total number of authentication EAP start messages discarded or denied due to resource unavailability. Triggers: Changes every time an authentication EAP start message is discarded or denied due to resource unavailability. Availability: across all the ASNGW service	Int32
r6authapsta-transiderr	The total number of authentication EAP start messages on the R6 interface with transaction ID errors.	Int32
r6msattreq-totsent	The total number of MS attachment request messages sent on the R6 interface.	Int32
r6msattreq-retranssent	The total number of MS attachment request messages re-transmitted on the R6 interface.	Int32
r6msattreq-totsefail	The total number of failures occurred during transaction ID generation and R6 MS Attachment Request message not sent for specific interface. This counter is used to count the error while sending the R6 packets.	Int32
r6msattreq-totrec	The total number of MS attachment request messages received on the R6 interface.	Int32
r6msattreq-totacc	The total number of MS attachment request messages accepted on the R6 interface.	Int32
r6msattreq-totrelay	The total number of MS attachment request messages received from the base station and relayed on the R6 interface. Triggers: Changes every time an MS attachment request message is relayed by the R6 interface. Availability: across all ASNGW services.	Int32
r6msattreq-totdenied	The total number of MS attachment request messages denied on the R6 interface.	Int32
r6msattreq-totdiscard	The total number of MS attachment request messages discarded on the R6 interface.	Int32
r6msattreq-badform	The total number of badly formed MS attachment request messages on the R6 interface.	Int32
r6msattreq-decodeerr	The total number of MS attachment request messages on the R6 interface with decode error.	Int32
r6msattreq-unspecerr	The total number of MS attachment request messages on the R6 interface with unspecified error.	Int32
r6msattreq-missmandtlv	The total number of MS attachment request messages on the R6 interface with missing mandatory TLVs.	Int32
r6msattreq-tlvvalinval	The total number of MS attachment request messages on the R6 interface with invalid TLV value.	Int32
r6msattreq-unknowntlv	The total number of MS attachment request messages on the R6 interface with unknown TLVs.	Int32
r6msattreq-duptlvfound	The total number of MS attachment request messages on the R6 interface with duplicate TLVs.	Int32

Statistic	Description	Data Type
r6msattreq-nosessfound	The total number of MS attachment request messages on the R6 interface without any session information.	Int32
r6msattreq-adminprohib	The total number of MS attachment request messages discarded or denied due to admin prohibit. Triggers: Changes every time an MS attachment request message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r6msattreq-noresourcedrop	The total number of MS attachment request messages discarded or denied due to resource unavailability. Triggers: Changes every time an MS attachment request message is discarded or denied due to resource unavailability. Availability: across all the ASNGW service	Int32
r6msattreq-transiderr	The total number of MS attachment request messages on the R6 interface with transaction ID errors.	Int32
r6msattrsp-totsent	The total number of MS attachment response messages sent on the R6 interface.	Int32
r6msattrsp-retranssent	The total number of MS attachment response messages re-transmitted on the R6 interface.	Int32
r6msattrsp-totsendfail	The total number of failures occurred during transaction ID generation and R6 MS Attachment Response message not sent for specific interface. This counter is used to count the error while sending the R6 packets.	Int32
r6msattrsp-totrec	The total number of MS attachment response messages received on the R6 interface.	Int32
r6msattrsp-totacc	The total number of MS attachment response messages accepted on the R6 interface.	Int32
r6msattrsp-totrelay	The total number of MS attachment response messages received from the base station and relayed on the R6 interface. Triggers: Changes every time an MS attachment response message is relayed by the R6 interface. Availability: across all ASNGW services.	Int32
r6msattrsp-totdenied	The total number of MS attachment response messages denied on the R6 interface.	Int32
r6msattrsp-totdiscard	The total number of MS attachment response messages discarded on the R6 interface.	Int32
r6msattrsp-badform	The total number of badly formed MS attachment response messages on the R6 interface.	Int32
r6msattrsp-decodeerr	The total number of MS attachment response messages on the R6 interface with decode error.	Int32
r6msattrsp-unspecerr	The total number of MS attachment response messages on the R6 interface with unspecified error.	Int32
r6msattrsp-missmandtlv	The total number of MS attachment response messages on the R6 interface with missing mandatory TLVs.	Int32
r6msattrsp-tlvvalinval	The total number of MS attachment response messages on the R6 interface with invalid TLV value.	Int32
r6msattrsp-unknowntrlv	The total number of MS attachment response messages on the R6 interface with unknown TLVs.	Int32

Statistic	Description	Data Type
r6msattrsp-duptlvfound	The total number of MS attachment response messages on the R6 interface with duplicate TLVs.	Int32
r6msattrsp-nosessfound	The total number of MS attachment response messages on the R6 interface without any session information.	Int32
r6msattrsp-adminprohib	The total number of MS attachment response messages discarded or denied due to admin prohibit. Triggers: Changes every time an MS attachment response message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r6msattrsp-noresourcedrop	The total number of MS attachment response messages discarded or denied due to resource unavailability. Triggers: Changes every time an MS attachment response message is discarded or denied due to resource unavailability. Availability: across all the ASNGW service	Int32
r6msattrsp-transiderr	The total number of MS attachment response messages on the R6 interface with transaction ID errors.	Int32
r6msattack-totsent	The total number of MS attachment acknowledgement messages sent on the R6 interface.	Int32
r6msattack-retranssent	The total number of MS attachment acknowledgement messages re-transmitted on the R6 interface.	Int32
r6msattack-totendfail	The total number of failures occurred during transaction ID generation and R6 MS attachment acknowledgement message not sent for specific interface. This counter is used to count the error while sending the R6 packets.	Int32
r6msattack-totrec	The total number of MS attachment acknowledgement messages received on the R6 interface.	Int32
r6msattack-totacc	The total number of MS attachment acknowledgement messages accepted on the R6 interface.	Int32
r6msattack-totrelay	The total number of MS attachment acknowledgement messages received from the base station and relayed on the R6 interface. Triggers: Changes every time an MS attachment acknowledgement message is relayed by the R6 interface. Availability: across all ASNGW services.	Int32
r6msattack-totdenied	The total number of MS attachment acknowledgement messages denied on the R6 interface.	Int32
r6msattack-totdiscard	The total number of MS attachment acknowledgement messages discarded on the R6 interface.	Int32
r6msattack-badform	The total number of badly formed MS attachment acknowledgement messages on the R6 interface.	Int32
r6msattack-decodeerr	The total number of MS attachment acknowledgement messages on the R6 interface with decode error.	Int32
r6msattack-unspecerr	The total number of MS attachment acknowledgement messages on the R6 interface with unspecified error.	Int32

Statistic	Description	Data Type
r6msattach-mismandtlv	The total number of MS attachment acknowledgement messages on the R6 interface with missing mandatory TLVs.	Int32
r6msattach-tlvvalinval	The total number of MS attachment acknowledgement messages on the R6 interface with invalid TLV value.	Int32
r6msattach-unknowntrlv	The total number of MS attachment acknowledgement messages on the R6 interface with unknown TLVs.	Int32
r6msattach-duptlvfound	The total number of MS attachment acknowledgement messages on the R6 interface with duplicate TLVs.	Int32
r6msattach-nosessfound	The total number of MS attachment acknowledgement messages on the R6 interface without any session information.	Int32
r6msattach-adminprohib	The total number of MS attachment acknowledgement messages discarded or denied due to admin prohibit. Triggers: Changes every time an MS attachment acknowledgement message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r6msattach-noresourcedrop	The total number of MS attachment acknowledgement messages discarded or denied due to resource unavailability. Triggers: Changes every time an MS attachment acknowledgement message is discarded or denied due to resource unavailability. Availability: across all the ASNGW service	Int32
r6msattach-transiderr	The total number of MS attachment acknowledgement messages on the R6 interface with transaction ID errors.	Int32
r6datapathpreregreq-totsent	The total number of data path pre-registration request messages sent on the R6 interface.	Int32
r6datapathpreregreq-retranssent	The total number of data path pre-registration request messages re-transmitted on the R6 interface.	Int32
r6datapathpreregreq-totsendfail	The total number of failures occurred during transaction ID generation and R6 data path pre-registration request message not sent for specific interface. This counter is used to count the error while sending the R6 packets.	Int32
r6datapathpreregreq-totrec	The total number of data path pre-registration request messages received on the R6 interface.	Int32
r6datapathpreregreq-totacc	The total number of data path pre-registration request messages accepted on the R6 interface.	Int32
r6datapathpreregreq-totrelay	The total number of data path pre-registration request messages received from the base station and relayed on the R6 interface. Triggers: Changes every time a data path pre-registration request message is relayed by the R6 interface. Availability: across all ASNGW services.	Int32
r6datapathpreregreq-totdenied	The total number of data path pre-registration request messages denied on the R6 interface.	Int32
r6datapathpreregreq-totdiscard	The total number of data path pre-registration request messages discarded on the R6 interface.	Int32

## Common Statistics

Statistic	Description	Data Type
r6datapathpreregreq-badform	The total number of badly formed data path pre-registration request messages on the R6 interface.	Int32
r6datapathpreregreq-decodeerr	The total number of data path pre-registration request messages on the R6 interface with decode error.	Int32
r6datapathpreregreq-unspecerr	The total number of data path pre-registration request messages on the R6 interface with unspecified error.	Int32
r6datapathpreregreq-missmandtlv	The total number of data path pre-registration request messages on the R6 interface with missing mandatory TLVs.	Int32
r6datapathpreregreq-tlvvalinval	The total number of data path pre-registration request messages on the R6 interface with invalid TLV value.	Int32
r6datapathpreregreq-unknownTLV	The total number of data path pre-registration request messages on the R6 interface with unknown TLVs.	Int32
r6datapathpreregreq-dupTLVfound	The total number of data path pre-registration request messages on the R6 interface with duplicate TLVs.	Int32
r6datapathpreregreq-nosessfound	The total number of data path pre-registration request messages on the R6 interface without any session information.	Int32
r6datapathpreregreq-adminprohib	The total number of data path pre-registration request messages discarded or denied due to admin prohibit. Triggers: Changes every time a data path pre-registration request message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r6datapathpreregreq-noresourcedrop	The total number of data path pre-registration request messages discarded or denied due to resource unavailability. Triggers: Changes every time a data path pre-registration request message is discarded or denied due to resource unavailability. Availability: across all the ASNGW service	Int32
r6datapathpreregreq-transiderr	The total number of data path pre-registration request messages on the R6 interface with transaction ID errors.	Int32
r6datapathpreregresp-totsent	The total number of data path pre-registration response messages sent on the R6 interface.	Int32
r6datapathpreregresp-retranssent	The total number of data path pre-registration response messages re-transmitted on the R6 interface.	Int32
r6datapathpreregresp-totendfail	The total number of failures occurred during transaction ID generation and R6 data path pre-registration response message not sent for specific interface. This counter is used to count the error while sending the R6 packets.	Int32
r6datapathpreregresp-totrec	The total number of data path pre-registration response messages received on the R6 interface.	Int32
r6datapathpreregresp-totacc	The total number of data path pre-registration response messages accepted on the R6 interface.	Int32

Statistic	Description	Data Type
r6datapathpreregsp-totrelay	The total number of data path pre-registration response messages received from the base station and relayed on the R6 interface. Triggers: Changes every time a data path pre-registration response message is relayed by the R6 interface. Availability: across all ASNGW services.	Int32
r6datapathpreregsp-totdenied	The total number of data path pre-registration response messages denied on the R6 interface.	Int32
r6datapathpreregsp-totdiscard	The total number of data path pre-registration response messages discarded on the R6 interface.	Int32
r6datapathpreregsp-badform	The total number of badly formed data path pre-registration response messages on the R6 interface.	Int32
r6datapathpreregsp-decodeerr	The total number of data path pre-registration response messages on the R6 interface with decode error.	Int32
r6datapathpreregsp-unspecerr	The total number of data path pre-registration response messages on the R6 interface with unspecified error.	Int32
r6datapathpreregsp-missmandtlv	The total number of data path pre-registration response messages on the R6 interface with missing mandatory TLVs.	Int32
r6datapathpreregsp-tlvvalinval	The total number of data path pre-registration response messages on the R6 interface with invalid TLV value.	Int32
r6datapathpreregsp-unknowntrlv	The total number of data path pre-registration response messages on the R6 interface with unknown TLVs.	Int32
r6datapathpreregsp-duptlvfound	The total number of data path pre-registration response messages on the R6 interface with duplicate TLVs.	Int32
r6datapathpreregsp-nosessfound	The total number of data path pre-registration response messages on the R6 interface without any session information.	Int32
r6datapathpreregsp-adminprohib	The total number of data path pre-registration response messages discarded or denied due to admin prohibit. Triggers: Changes every time a data path pre-registration response message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r6datapathpreregsp-noresourcedrop	The total number of data path pre-registration response messages discarded or denied due to resource unavailability. Triggers: Changes every time a data path pre-registration response message is discarded or denied due to resource unavailability. Availability: across all the ASNGW service	Int32
r6datapathpreregsp-transiderr	The total number of data path pre-registration response messages on the R6 interface with transaction ID errors.	Int32
r6datapathpreregack-totsent	The total number of data path pre-registration acknowledgement messages sent on the R6 interface.	Int32
r6datapathpreregack-retranssent	The total number of data path pre-registration acknowledgement messages re-transmitted on the R6 interface.	Int32

Statistic	Description	Data Type
r6datapathpreregack-totendfail	The total number of failures occurred during transaction ID generation and R6 data path pre-registration acknowledgement message not sent for specific interface. This counter is used to count the error while sending the R6 packets.	Int32
r6datapathpreregack-totrec	The total number of data path pre-registration acknowledgement messages received on the R6 interface.	Int32
r6datapathpreregack-totacc	The total number of data path pre-registration acknowledgement messages accepted on the R6 interface.	Int32
r6datapathpreregack-totrelay	The total number of data path pre-registration acknowledgement messages received from the base station and relayed on the R6 interface. Triggers: Changes every time a data path pre-registration acknowledgement message is relayed by the R6 interface. Availability: across all ASNGW services.	Int32
r6datapathpreregack-totdenied	The total number of data path pre-registration acknowledgement messages denied on the R6 interface.	Int32
r6datapathpreregack-totdiscard	The total number of data path pre-registration acknowledgement messages discarded on the R6 interface.	Int32
r6datapathpreregack-badform	The total number of badly formed data path pre-registration acknowledgement messages on the R6 interface.	Int32
r6datapathpreregack-decodeerr	The total number of data path pre-registration acknowledgement messages on the R6 interface with decode error.	Int32
r6datapathpreregack-unspecerr	The total number of data path pre-registration acknowledgement messages on the R6 interface with unspecified error.	Int32
r6datapathpreregack-mismandtlv	The total number of data path pre-registration acknowledgement messages on the R6 interface with missing mandatory TLVs.	Int32
r6datapathpreregack-tlvvalinval	The total number of data path pre-registration acknowledgement messages on the R6 interface with invalid TLV value.	Int32
r6datapathpreregack-unknownctlv	The total number of data path pre-registration acknowledgement messages on the R6 interface with unknown TLVs.	Int32
r6datapathpreregack-duptlvfound	The total number of data path pre-registration acknowledgement messages on the R6 interface with duplicate TLVs.	Int32
r6datapathpreregack-nosessfound	The total number of data path pre-registration acknowledgement messages on the R6 interface without any session information.	Int32
r6datapathpreregack-adminprohib	The total number of data path pre-registration acknowledgement messages discarded or denied due to admin prohibit. Triggers: Changes every time a data path pre-registration acknowledgement message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r6datapathpreregack-noresourcedrop	The total number of data path pre-registration acknowledgement messages discarded or denied due to resource unavailability. Triggers: Changes every time a data path pre-registration acknowledgement message is discarded or denied due to resource unavailability. Availability: across all the ASNGW service	Int32

Statistic	Description	Data Type
r6datapathpreregack-transiderr	The total number of data path pre-registration acknowledgement messages on the R6 interface with transaction ID errors.	Int32
r6datapathregreq-totsent	The total number of data path registration request messages sent on the R6 interface.	Int32
r6datapathregreq-retranssent	The total number of data path registration request messages re-transmitted on the R6 interface.	Int32
r6datapathregreq-totsendfail	The total number of failures occurred during transaction ID generation and R6 data path registration request message not sent for specific interface. This counter is used to count the error while sending the R6 packets.	Int32
r6datapathregreq-totrec	The total number of data path registration request messages received on the R6 interface.	Int32
r6datapathregreq-totacc	The total number of data path registration request messages accepted on the R6 interface.	Int32
r6datapathregreq-totrelay	The total number of data path registration request messages received from the base station and relayed on the R6 interface. Triggers: Changes every time a data path registration request message is relayed by the R6 interface. Availability: across all ASNGW services.	Int32
r6datapathregreq-totdenied	The total number of data path registration request messages denied on the R6 interface.	Int32
r6datapathregreq-totdiscard	The total number of data path registration request messages discarded on the R6 interface.	Int32
r6datapathregreq-badform	The total number of badly formed data path registration request messages on the R6 interface.	Int32
r6datapathregreq-decodeerr	The total number of data path registration request messages on the R6 interface with decode error.	Int32
r6datapathregreq-unspecerr	The total number of data path registration request messages on the R6 interface with unspecified error.	Int32
r6datapathregreq-missmandtlv	The total number of data path registration request messages on the R6 interface with missing mandatory TLVs.	Int32
r6datapathregreq-tlvvalinval	The total number of data path registration request messages on the R6 interface with invalid TLV value.	Int32
r6datapathregreq-unknowntlv	The total number of data path registration request messages on the R6 interface with unknown TLVs.	Int32
r6datapathregreq-duptlvfound	The total number of data path registration request messages on the R6 interface with duplicate TLVs.	Int32
r6datapathregreq-nosessfound	The total number of data path registration request messages on the R6 interface without any session information.	Int32
r6datapathregreq-adminprohib	The total number of data path registration request messages discarded or denied due to admin prohibit. Triggers: Changes every time a data path registration request message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32

Statistic	Description	Data Type
r6datapathreq- noresourcedrop	The total number of data path registration request messages discarded or denied due to resource unavailability. Triggers: Changes every time a data path registration request message is discarded or denied due to resource unavailability. Availability: across all the ASNGW service	Int32
r6datapathreq- transiderr	The total number of data path registration request messages on the R6 interface with transaction ID errors.	Int32
r6datapathregrsp- totsent	The total number of data path registration response messages sent on the R6 interface.	Int32
r6datapathregrsp- retranssent	The total number of data path registration response messages re-transmitted on the R6 interface.	Int32
r6datapathregrsp- totsendfail	The total number of failures occurred during transaction ID generation and R6 data path registration response message not sent for specific interface. This counter is used to count the error while sending the R6 packets.	Int32
r6datapathregrsp- totrec	The total number of data path registration response messages received on the R6 interface.	Int32
r6datapathregrsp- totacc	The total number of data path registration response messages accepted on the R6 interface.	Int32
r6datapathregrsp- totrelay	The total number of data path registration response messages received from the base station and relayed on the R6 interface. Triggers: Changes every time a data path registration response message is relayed by the R6 interface. Availability: across all ASNGW services.	Int32
r6datapathregrsp- totdenied	The total number of data path registration response messages denied on the R6 interface.	Int32
r6datapathregrsp- totdiscard	The total number of data path registration response messages discarded on the R6 interface.	Int32
r6datapathregrsp- badform	The total number of badly formed data path registration response messages on the R6 interface.	Int32
r6datapathregrsp- decodeerr	The total number of data path registration response messages on the R6 interface with decode error.	Int32
r6datapathregrsp- unspecerr	The total number of data path registration response messages on the R6 interface with unspecified error.	Int32
r6datapathregrsp- missmandtlv	The total number of data path registration response messages on the R6 interface with missing mandatory TLVs.	Int32
r6datapathregrsp- tlvvalinval	The total number of data path registration response messages on the R6 interface with invalid TLV value.	Int32
r6datapathregrsp- unknowntlv	The total number of data path registration response messages on the R6 interface with unknown TLVs.	Int32
r6datapathregrsp- dupltlvfound	The total number of data path registration response messages on the R6 interface with duplicate TLVs.	Int32
r6datapathregrsp- nosessfound	The total number of data path registration response messages on the R6 interface without any session information.	Int32

Statistic	Description	Data Type
r6datapathregrsp-adminprohib	The total number of data path registration response messages discarded or denied due to admin prohibit. Triggers: Changes every time a data path registration response message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r6datapathregrsp-noresourcedrop	The total number of data path registration response messages discarded or denied due to resource unavailability. Triggers: Changes every time a data path registration response message is discarded or denied due to resource unavailability. Availability: across all the ASNGW service	Int32
r6datapathregrsp-transiderr	The total number of data path registration response messages on the R6 interface with transaction ID errors.	Int32
r6datapathregack-totsent	The total number of data path registration acknowledgement messages sent on the R6 interface.	Int32
r6datapathregack-retranssent	The total number of data path registration acknowledgement messages re-transmitted on the R6 interface.	Int32
r6datapathregack-totsendfail	The total number of failures occurred during transaction ID generation and R6 data path registration acknowledgement message not sent for specific interface. This counter is used to count the error while sending the R6 packets.	Int32
r6datapathregack-totrec	The total number of data path registration acknowledgement messages received on the R6 interface.	Int32
r6datapathregack-totacc	The total number of data path registration acknowledgement messages accepted on the R6 interface.	Int32
r6datapathregack-totrelay	The total number of data path registration acknowledgement messages received from the base station and relayed on the R6 interface. Triggers: Changes every time a data path registration acknowledgement message is relayed by the R6 interface. Availability: across all ASNGW services.	Int32
r6datapathregack-totdenied	The total number of data path registration acknowledgement messages denied on the R6 interface.	Int32
r6datapathregack-totdiscard	The total number of data path registration acknowledgement messages discarded on the R6 interface.	Int32
r6datapathregack-badform	The total number of badly formed data path registration acknowledgement messages on the R6 interface.	Int32
r6datapathregack-decodeerr	The total number of data path registration acknowledgement messages on the R6 interface with decode error.	Int32
r6datapathregack-unspecerr	The total number of data path registration acknowledgement messages on the R6 interface with unspecified error.	Int32
r6datapathregack-missmandtlv	The total number of data path registration acknowledgement messages on the R6 interface with missing mandatory TLVs.	Int32
r6datapathregack-tlvvalinval	The total number of data path registration acknowledgement messages on the R6 interface with invalid TLV value.	Int32

Statistic	Description	Data Type
r6datapathregack-unknowntlv	The total number of data path registration acknowledgement messages on the R6 interface with unknown TLVs.	Int32
r6datapathregack-dupltlvfound	The total number of data path registration acknowledgement messages on the R6 interface with duplicate TLVs.	Int32
r6datapathregack-nosessfound	The total number of data path registration acknowledgement messages on the R6 interface without any session information.	Int32
r6datapathregack-adminprohib	The total number of data path registration acknowledgement messages discarded or denied due to admin prohibit. Triggers: Changes every time a data path registration acknowledgement message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r6datapathregack-noresourcedrop	The total number of data path registration acknowledgement messages discarded or denied due to resource unavailability. Triggers: Changes every time a data path registration acknowledgement message is discarded or denied due to resource unavailability. Availability: across all the ASNGW service	Int32
r6datapathregack-transiderr	The total number of data path registration acknowledgement messages on the R6 interface with transaction ID errors.	Int32
r6datapathdereqreq-totsent	The total number of data path de-registration request messages sent on the R6 interface.	Int32
r6datapathdereqreq-retranssent	The total number of data path de-registration request messages re-transmitted on the R6 interface.	Int32
r6datapathdereqreq-totsendfail	The total number of failures occurred during transaction ID generation and R6 data path de-registration request message not sent for specific interface. This counter is used to count the error while sending the R6 packets.	Int32
r6datapathdereqreq-totrec	The total number of data path de-registration request messages received on the R6 interface.	Int32
r6datapathdereqreq-totacc	The total number of data path de-registration request messages accepted on the R6 interface.	Int32
r6datapathdereqreq-totrelay	The total number of data path de-registration request messages received from the base station and relayed on the R6 interface. Triggers: Changes every time a data path de-registration request message is relayed by the R6 interface. Availability: across all ASNGW services.	Int32
r6datapathdereqreq-totdenied	The total number of data path de-registration request messages denied on the R6 interface.	Int32
r6datapathdereqreq-totdiscard	The total number of data path de-registration request messages discarded on the R6 interface.	Int32
r6datapathdereqreq-badform	The total number of badly formed data path de-registration request messages on the R6 interface.	Int32
r6datapathdereqreq-decodeerr	The total number of data path de-registration request messages on the R6 interface with decode error.	Int32

Statistic	Description	Data Type
r6datapathderegreq- unspecerr	The total number of data path de-registration request messages on the R6 interface with unspecified error.	Int32
r6datapathderegreq- missmandtlv	The total number of data path de-registration request messages on the R6 interface with missing mandatory TLVs.	Int32
r6datapathderegreq- tlvvalinval	The total number of data path de-registration request messages on the R6 interface with invalid TLV value.	Int32
r6datapathderegreq- unknowntlv	The total number of data path de-registration request messages on the R6 interface with unknown TLVs.	Int32
r6datapathderegreq- dupltlvfound	The total number of data path de-registration request messages on the R6 interface with duplicate TLVs.	Int32
r6datapathderegreq- nosessfound	The total number of data path de-registration request messages on the R6 interface without any session information.	Int32
r6datapathderegreq- adminprohib	The total number of data path de-registration request messages discarded or denied due to admin prohibit. Triggers: Changes every time a data path de-registration request message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r6datapathderegreq- noresource	The total number of data path de-registration request messages discarded or denied due to resource unavailability. Triggers: Changes every time a data path de-registration request message is discarded or denied due to resource unavailability. Availability: across all the ASNGW services.services.	Int32
r6datapathderegreq- transiderr	The total number of data path de-registration request messages on the R6 interface with transaction ID errors.	Int32
r6datapathderegrsp- totssent	The total number of data path de-registration response messages sent on the R6 interface.	Int32
r6datapathderegrsp- retranssent	The total number of data path de-registration response messages re-transmitted on the R6 interface.	Int32
r6datapathderegrsp- totssendfail	The total number of failures occurred during transaction ID generation and R6 data path de-registration response message not sent for specific interface. This counter is used to count the error while sending the R6 packets.	Int32
r6datapathderegrsp- totrec	The total number of data path de-registration response messages received on the R6 interface.	Int32
r6datapathderegrsp- totacc	The total number of data path de-registration response messages accepted on the R6 interface.	Int32
r6datapathderegrsp- totrelay	The total number of data path de-registration response messages received from the base station and relayed on the R6 interface. Triggers: Changes every time a data path de-registration response message is relayed by the R6 interface. Availability: across all ASNGW services.services.	Int32
r6datapathderegrsp- totdenied	The total number of data path de-registration response messages denied on the R6 interface.	Int32

Statistic	Description	Data Type
r6datapathderegsp-totdiscard	The total number of data path de-registration response messages discarded on the R6 interface.	Int32
r6datapathderegsp-badform	The total number of badly formed data path de-registration response messages on the R6 interface.	Int32
r6datapathderegsp-decodeerr	The total number of data path de-registration response messages on the R6 interface with decode error.	Int32
r6datapathderegsp-unspecerr	The total number of data path de-registration response messages on the R6 interface with unspecified error.	Int32
r6datapathderegsp-missmandtlv	The total number of data path de-registration response messages on the R6 interface with missing mandatory TLVs.	Int32
r6datapathderegsp-tlvvalinval	The total number of data path de-registration response messages on the R6 interface with invalid TLV value.	Int32
r6datapathderegsp-unknowntrlv	The total number of data path de-registration response messages on the R6 interface with unknown TLVs.	Int32
r6datapathderegsp-duptrlvfound	The total number of data path de-registration response messages on the R6 interface with duplicate TLVs.	Int32
r6datapathderegsp-nosessfound	The total number of data path de-registration response messages on the R6 interface without any session information.	Int32
r6datapathderegsp-adminprohib	The total number of data path de-registration response messages discarded or denied due to admin prohibit. Triggers: Changes every time a data path de-registration response message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r6datapathderegsp-noresourcedrop	The total number of data path de-registration response messages discarded or denied due to resource unavailability. Triggers: Changes every time a data path de-registration response message is discarded or denied due to resource unavailability. Availability: across all the ASNGW service	Int32
r6datapathderegsp-transiderr	The total number of data path de-registration response messages on the R6 interface with transaction ID errors.	Int32
r6keychadir-totsent	The total number of key change direct messages sent on the R6 interface.	Int32
r6keychadir-retranssent	The total number of failures occurred during transaction ID generation and R6 Key change directive message not sent for specific interface. This counter is used to count the error while sending the R6 packets.	Int32
r6keychadir-totsendfail	The total number of key change direct messages re-transmitted on the R6 interface.	Int32
r6keychadir-totrec	The total number of key change direct messages received on the R6 interface.	Int32
r6keychadir-totacc	The total number of key change direct messages accepted on the R6 interface.	Int32

Statistic	Description	Data Type
r6keychadir-totrelay	The total number of key change directive messages received from the base station and relayed on the R6 interface. Triggers: Changes every time a key change directive message is relayed by the R6 interface. Availability: across all ASNGW services.	Int32
r6keychadir-totdenied	The total number of key change direct messages denied on the R6 interface.	Int32
r6keychadir-totdiscard	The total number of key change direct messages discarded on the R6 interface.	Int32
r6keychadir-badform	The total number of badly formed key change direct messages on the R6 interface.	Int32
r6keychadir-decodeerr	The total number of key change direct messages on the R6 interface with decode error.	Int32
r6keychadir-unspecerr	The total number of key change direct messages on the R6 interface with unspecified error.	Int32
r6keychadir-missmandtlv	The total number of key change direct messages on the R6 interface with missing mandatory TLVs.	Int32
r6keychadir-tlvvalinval	The total number of key change direct messages on the R6 interface with invalid TLV value.	Int32
r6keychadir-unknowntrlv	The total number of key change direct messages on the R6 interface with unknown TLVs.	Int32
r6keychadir-duptlvfound	The total number of key change direct messages on the R6 interface with duplicate TLVs.	Int32
r6keychadir-nosessfound	The total number of key change direct messages on the R6 interface without any session information.	Int32
r6keychadir-adminprohib	The total number of key change directive messages discarded or denied due to admin prohibit. Triggers: Changes every time a key change directive message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r6keychadir-noresourcedrop	The total number of key change directive messages discarded or denied due to resource unavailability. Triggers: Changes every time a key change directive message is discarded or denied due to resource unavailability. Availability: across all the ASNGW service	Int32
r6keychadir-transiderr	The total number of key change direct messages on the R6 interface with transaction ID errors.	Int32
r6keychaack-totsent	The total number of key change acknowledgement messages sent on the R6 interface.	Int32
r6keychaack-retranssent	The total number of failures occurred during transaction ID generation and R6 Key change acknowledgement message not sent for specific interface. This counter is used to count the error while sending the R6 packets.	Int32
r6keychaack-totsendfail	The total number of key change acknowledgement messages re-transmitted on the R6 interface.	Int32
r6keychaack-totrec	The total number of key change acknowledgement messages received on the R6 interface.	Int32
r6keychaack-totacc	The total number of key change acknowledgement messages accepted on the R6 interface.	Int32

Statistic	Description	Data Type
r6keychaack-totrelay	The total number of key change acknowledgement messages received from the base station and relayed on the R6 interface. Triggers: Changes every time a key change acknowledgement message is relayed by the R6 interface. Availability: across all ASNGW services.	Int32
r6keychaack-totdenied	The total number of key change acknowledgement messages denied on the R6 interface.	Int32
r6keychaack-totdiscard	The total number of key change acknowledgement messages discarded on the R6 interface.	Int32
r6keychaack-badform	The total number of badly formed key change acknowledgement messages on the R6 interface.	Int32
r6keychaack-decodeerr	The total number of key change acknowledgement messages on the R6 interface with decode error.	Int32
r6keychaack-unspecerr	The total number of key change acknowledgement messages on the R6 interface with unspecified error.	Int32
r6keychaack-missmandtlv	The total number of key change acknowledgement messages on the R6 interface with missing mandatory TLVs.	Int32
r6keychaack-tlvvalinval	The total number of key change acknowledgement messages on the R6 interface with invalid TLV value.	Int32
r6keychaack-unknowntrlv	The total number of key change acknowledgement messages on the R6 interface with unknown TLVs.	Int32
r6keychaack-duptlvfound	The total number of key change acknowledgement messages on the R6 interface with duplicate TLVs.	Int32
r6keychaack-nosessfound	The total number of key change acknowledgement messages on the R6 interface without any session information.	Int32
r6keychaack-adminprohib	The total number of key change acknowledgement messages discarded or denied due to admin prohibit. Triggers: Changes every time a key change acknowledgement message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r6keychaack-noresourcedrop	The total number of key change acknowledgement messages discarded or denied due to resource unavailability. Triggers: Changes every time a key change acknowledgement message is discarded or denied due to resource unavailability. Availability: across all the ASNGW service	Int32
r6keychaack-transiderr	The total number of key change acknowledgement messages on the R6 interface with transaction ID errors.	Int32
r6keychacnf-totrec	The total number of key change confirm messages received on the R6 interface.	Int32
r6keychacnf-totacc	The total number of key change confirm messages accepted on the R6 interface.	Int32

Statistic	Description	Data Type
r6keychacnf-totrelay	The total number of key change confirm messages received from the base station and relayed on the R6 interface. Triggers: Changes every time a key change confirm message is relayed by the R6 interface. Availability: across all ASNGW services.	Int32
r6keychacnf-totdenied	The total number of key change confirm messages denied on the R6 interface.	Int32
r6keychacnf-totdiscard	The total number of key change confirm messages discarded on the R6 interface.	Int32
r6keychacnf-badform	The total number of badly formed key change confirm messages on the R6 interface.	Int32
r6keychacnf-decodeerr	The total number of key change confirm messages on the R6 interface with decode error.	Int32
r6keychacnf-unspecerr	The total number of key change confirm messages on the R6 interface with unspecified error.	Int32
r6keychacnf-missmandtlv	The total number of key change confirm messages on the R6 interface with missing mandatory TLVs.	Int32
r6keychacnf-tlvvalinval	The total number of key change confirm messages on the R6 interface with invalid TLV value.	Int32
r6keychacnf-unknowntrlv	The total number of key change confirm messages on the R6 interface with unknown TLVs.	Int32
r6keychacnf-duptlvfound	The total number of key change confirm messages on the R6 interface with duplicate TLVs.	Int32
r6keychacnf-nosessfound	The total number of key change confirm messages on the R6 interface without any session information.	Int32
r6keychacnf-adminprohib	The total number of key change confirm messages discarded or denied due to admin prohibit. Triggers: Changes every time a key change confirm message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r6keychacnf-noresourcedrop	The total number of key change confirm messages discarded or denied due to resource unavailability. Triggers: Changes every time a key change confirm message is discarded or denied due to resource unavailability. Availability: across all the ASNGW service	Int32
r6keychacnf-transiderr	The total number of key change confirm messages on the R6 interface with transaction ID errors.	Int32
r6cmackeycountupd-totsent	The total number of CMAC key count update messages sent on the R6 interface.	Int32
r6cmackeycountupd-retranssent	The total number of CMAC key count update messages re-transmitted on the R6 interface.	Int32
r6cmackeycountupd-totsendfail	The total number of failures occurred during transaction ID generation and R6 CMAC key count update message not sent for specific interface. This counter is used to count the error while sending the R6 packets.	Int32
r6cmackeycountupd-totrec	The total number of CMAC key count update messages received on the R6 interface.	Int32

Statistic	Description	Data Type
r6cmackeycountupd-totacc	The total number of CMAC key count update messages accepted on the R6 interface.	Int32
r6cmackeycountupd-totrelay	The total number of CMAC key count update messages received from the base station and relayed on the R6 interface. Triggers: Changes every time a CMAC key count update message is relayed by the R6 interface. Availability: across all ASNGW services.	Int32
r6cmackeycountupd-totdenied	The total number of CMAC key count update messages denied on the R6 interface.	Int32
r6cmackeycountupd-totdiscard	The total number of CMAC key count update messages discarded on the R6 interface.	Int32
r6cmackeycountupd-badform	The total number of badly formed CMAC key count update messages on the R6 interface.	Int32
r6cmackeycountupd-decodeerr	The total number of CMAC key count update messages on the R6 interface with decode error.	Int32
r6cmackeycountupd-unspecerr	The total number of CMAC key count update messages on the R6 interface with unspecified error.	Int32
r6cmackeycountupd-mismandtlv	The total number of CMAC key count update messages on the R6 interface with missing mandatory TLVs.	Int32
r6cmackeycountupd-tlvvalinval	The total number of CMAC key count update messages on the R6 interface with invalid TLV value.	Int32
r6cmackeycountupd-unknowntrlv	The total number of CMAC key count update messages on the R6 interface with unknown TLVs.	Int32
r6cmackeycountupd-duptlvfound	The total number of CMAC key count update messages on the R6 interface with duplicate TLVs.	Int32
r6cmackeycountupd-nosessfound	The total number of CMAC key count update messages on the R6 interface without any session information.	Int32
r6cmackeycountupd-adminprohib	The total number of CMAC key count update messages discarded or denied due to admin prohibit. Triggers: Changes every time a CMAC key count update message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r6cmackeycountupd-noresourcedrop	The total number of CMAC key count update messages discarded or denied due to resource unavailability. Triggers: Changes every time a CMAC key count update message is discarded or denied due to resource unavailability. Availability: across all the ASNGW services.	Int32
r6cmackeycountupd-transiderr	The total number of CMAC key count update messages on the R6 interface with transaction ID errors.	Int32
r6cmackeycountack-totsent	The total number of CMAC key count acknowledgement messages sent on the R6 interface.	Int32

Statistic	Description	Data Type
r6cmackeycountack-retranssent	The total number of CMAC key count acknowledgement messages re-transmitted on the R6 interface.	Int32
r6cmackeycountack-totsendfail	The total number of failures occurred during transaction ID generation and R6 CMAC key count acknowledgement message not sent for specific interface. This counter is used to count the error while sending the R6 packets.	Int32
r6cmackeycountack-totrec	The total number of CMAC key count acknowledgement messages received on the R6 interface.	Int32
r6cmackeycountack-totacc	The total number of CMAC key count acknowledgement messages accepted on the R6 interface.	Int32
r6cmackeycountack-totrelay	The total number of CMAC key count acknowledgement messages received from the base station and relayed on the R6 interface. Triggers: Changes every time a CMAC key count acknowledgement message is relayed by the R6 interface. Availability: across all ASNGW services.	Int32
r6cmackeycountack-totdenied	The total number of CMAC key count acknowledgement messages denied on the R6 interface.	Int32
r6cmackeycountack-totdiscard	The total number of CMAC key count acknowledgement messages discarded on the R6 interface.	Int32
r6cmackeycountack-badform	The total number of badly formed CMAC key count acknowledgement messages on the R6 interface.	Int32
r6cmackeycountack-decodeerr	The total number of CMAC key count acknowledgement messages on the R6 interface with decode error.	Int32
r6cmackeycountack-unspecerr	The total number of CMAC key count acknowledgement messages on the R6 interface with unspecified error.	Int32
r6cmackeycountack-missmandtlv	The total number of CMAC key count acknowledgement messages on the R6 interface with missing mandatory TLVs.	Int32
r6cmackeycountack-tlvvalinval	The total number of CMAC key count acknowledgement messages on the R6 interface with invalid TLV value.	Int32
r6cmackeycountack-unknowntlv	The total number of CMAC key count acknowledgement messages on the R6 interface with unknown TLVs.	Int32
r6cmackeycountack-duptlvfound	The total number of CMAC key count acknowledgement messages on the R6 interface with duplicate TLVs.	Int32
r6cmackeycountack-nosessfound	The total number of CMAC key count acknowledgement messages on the R6 interface without any session information.	Int32
r6cmackeycountack-adminprohib	The total number of CMAC key count acknowledgement messages discarded or denied due to admin prohibit. Triggers: Changes every time a CMAC key count acknowledgement message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32

Statistic	Description	Data Type
r6cmackeycountack-noresourcedrop	The total number of CMAC key count acknowledgement messages discarded or denied due to resource unavailability. Triggers: Changes every time a CMAC key count acknowledgement message is discarded or denied due to resource unavailability. Availability: across all the ASNGW services.	Int32
r6cmackeycountack-transiderr	The total number of CMAC key count acknowledgement messages on the R6 interface with transaction ID errors.	Int32
r6horeq-totsent	The total number of R6 handover request messages sent on the R6 interface.	Int32
r6horeq-retranssent	The total number of R6 handover request messages re-transmitted on the R6 interface.	Int32
r6horeq-totsendfail	The total number of failures occurred during transaction ID generation and R6 handover request message not sent for specific interface. This counter is used to count the error while sending the R6 packets.	Int32
r6horeq-totrec	The total number of R6 handover request messages received on the R6 interface.	Int32
r6horeq-totacc	The total number of R6 handover request messages accepted on the R6 interface.	Int32
r6horeq-totrelay	The total number of R6 handover request messages received from the base station and relayed on the R6 interface. Triggers: Changes every time an R6 handover request message is relayed by the R6 interface. Availability: across all ASNGW services.	Int32
r6horeq-totdenied	The total number of R6 handover request messages denied on the R6 interface.	Int32
r6horeq-totdiscard	The total number of R6 handover request messages discarded on the R6 interface.	Int32
r6horeq-badform	The total number of badly formed R6 handover request messages on the R6 interface.	Int32
r6horeq-decodeerr	The total number of R6 handover request messages on the R6 interface with decode error.	Int32
r6horeq-unspecerr	The total number of R6 handover request messages on the R6 interface with unspecified error.	Int32
r6horeq-missmandtlv	The total number of R6 handover request messages on the R6 interface with missing mandatory TLVs.	Int32
r6horeq-tlvvalinval	The total number of R6 handover request messages on the R6 interface with invalid TLV value.	Int32
r6horeq-unknowntlv	The total number of R6 handover request messages on the R6 interface with unknown TLVs.	Int32
r6horeq-duptlvfound	The total number of R6 handover request messages on the R6 interface with duplicate TLVs.	Int32
r6horeq-nosessfound	The total number of R6 handover request messages on the R6 interface without any session information.	Int32
r6horeq-adminprohib	The total number of R6 handover request messages discarded or denied due to admin prohibit. Triggers: Changes every time an R6 handover request message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32

Statistic	Description	Data Type
r6horeq-noresourcedrop	The total number of R6 handover request messages discarded or denied due to resource unavailability. Triggers: Changes every time an R6 handover request message is discarded or denied due to resource unavailability. Availability: across all the ASNGW services.	Int32
r6horeq-transiderr	The total number of R6 handover request messages on the R6 interface with transaction ID errors.	Int32
r6horsp-totsent	The total number of R6 handover response messages sent on the R6 interface.	Int32
r6horsp-retranssent	The total number of R6 handover response messages re-transmitted on the R6 interface.	Int32
r6horsp-totendfail	The total number of failures occurred during transaction ID generation and R6 handover response message not sent for specific interface. This counter is used to count the error while sending the R6 packets.	Int32
r6horsp-totrec	The total number of R6 handover response messages received on the R6 interface.	Int32
r6horsp-totacc	The total number of R6 handover response messages accepted on the R6 interface.	Int32
r6horsp-totrelay	The total number of R6 handover response messages received from the base station and relayed on the R6 interface. Triggers: Changes every time an R6 handover response message is relayed by the R6 interface. Availability: across all ASNGW services.	Int32
r6horsp-totdenied	The total number of R6 handover response messages denied on the R6 interface.	Int32
r6horsp-totdiscard	The total number of R6 handover response messages discarded on the R6 interface.	Int32
r6horsp-badform	The total number of badly formed R6 handover response messages on the R6 interface.	Int32
r6horsp-decodeerr	The total number of R6 handover response messages on the R6 interface with decode error.	Int32
r6horsp-unspecerr	The total number of R6 handover response messages on the R6 interface with unspecified error.	Int32
r6horsp-mismandtlv	The total number of R6 handover response messages on the R6 interface with missing mandatory TLVs.	Int32
r6horsp-tlvvalinval	The total number of R6 handover response messages on the R6 interface with invalid TLV value.	Int32
r6horsp-unknowntrlv	The total number of R6 handover response messages on the R6 interface with unknown TLVs.	Int32
r6horsp-duptlvfound	The total number of R6 handover response messages on the R6 interface with duplicate TLVs.	Int32
r6horsp-nosessfound	The total number of R6 handover response messages on the R6 interface without any session information.	Int32

Statistic	Description	Data Type
r6horsp-adminprohib	The total number of R6 handover response messages discarded or denied due to admin prohibit. Triggers: Changes every time an R6 handover response message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r6horsp-noresourcedrop	The total number of R6 handover response messages discarded or denied due to resource unavailability. Triggers: Changes every time an R6 handover response message is discarded or denied due to resource unavailability. Availability: across all the ASNGW services.	Int32
r6horsp-transiderr	The total number of R6 handover response messages on the R6 interface with transaction ID errors.	Int32
r6hoack-totsent	The total number of R6 handover acknowledgement messages sent on the R6 interface.	Int32
r6hoack-retranssent	The total number of R6 handover acknowledgement messages re-transmitted on the R6 interface.	Int32
r6hoack-totsendfail	The total number of failures occurred during transaction ID generation and R6 handover acknowledgement message not sent for specific interface. This counter is used to count the error while sending the R6 packets.	Int32
r6hoack-totrec	The total number of R6 handover acknowledgement messages received on the R6 interface.	Int32
r6hoack-totacc	The total number of R6 handover acknowledgement messages accepted on the R6 interface.	Int32
r6hoack-totrelay	The total number of R6 handover acknowledgement messages received from the base station and relayed on the R6 interface. Triggers: Changes every time an R6 handover acknowledgement message is relayed by the R6 interface. Availability: across all ASNGW services.	Int32
r6hoack-totdenied	The total number of R6 handover acknowledgement messages denied on the R6 interface.	Int32
r6hoack-totdiscard	The total number of R6 handover acknowledgement messages discarded on the R6 interface.	Int32
r6hoack-badform	The total number of badly formed R6 handover acknowledgement messages on the R6 interface.	Int32
r6hoack-decodeerr	The total number of R6 handover acknowledgement messages on the R6 interface with decode error.	Int32
r6hoack-unspecerr	The total number of R6 handover acknowledgement messages on the R6 interface with unspecified error.	Int32
r6hoack-missmandtlv	The total number of R6 handover acknowledgement messages on the R6 interface with missing mandatory TLVs.	Int32
r6hoack-tlvvalinval	The total number of R6 handover acknowledgement messages on the R6 interface with invalid TLV value.	Int32

Statistic	Description	Data Type
r6hoack-unknowntrlv	The total number of R6 handover acknowledgement messages on the R6 interface with unknown TLVs.	Int32
r6hoack-duptlvfound	The total number of R6 handover acknowledgement messages on the R6 interface with duplicate TLVs.	Int32
r6hoack-nosessfound	The total number of R6 handover acknowledgement messages on the R6 interface without any session information.	Int32
r6hoack-adminprohib	The total number of R6 handover acknowledgement messages discarded or denied due to admin prohibit. Triggers: Changes every time an R6 handover acknowledgement message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r6hoack-noresourcedrop	The total number of R6 handover acknowledgement messages discarded or denied due to resource unavailability. Triggers: Changes every time an R6 handover acknowledgement message is discarded or denied due to resource unavailability. Availability: across all the ASNGW services.	Int32
r6hoack-transiderr	The total number of R6 handover acknowledgement messages on the R6 interface with transaction ID errors.	Int32
r6hocnf-totsent	The total number of R6 handover confirm messages sent on the R6 interface.	Int32
r6hocnf-retranssent	The total number of R6 handover confirm messages re-transmitted on the R6 interface.	Int32
r6hocnf-totsendfail	The total number of failures occurred during transaction ID generation and R6 handover confirm message not sent for specific interface. This counter is used to count the error while sending the R6 packets.	Int32
r6hocnf-totrec	The total number of R6 handover confirm messages received on the R6 interface.	Int32
r6hocnf-totacc	The total number of R6 handover confirm messages accepted on the R6 interface.	Int32
r6hocnf-totrelay	The total number of R6 handover confirm messages received from the base station and relayed on the R6 interface. Triggers: Changes every time an R6 handover confirm message is relayed by the R6 interface. Availability: across all ASNGW services.	Int32
r6hocnf-totdenied	The total number of R6 handover confirm messages denied on the R6 interface.	Int32
r6hocnf-totdiscard	The total number of R6 handover confirm messages discarded on the R6 interface.	Int32
r6hocnf-badform	The total number of badly formed R6 handover confirm messages on the R6 interface.	Int32
r6hocnf-decodeerr	The total number of R6 handover confirm messages on the R6 interface with decode error.	Int32
r6hocnf-unspecerr	The total number of R6 handover confirm messages on the R6 interface with unspecified error.	Int32
r6hocnf-misssmandtlv	The total number of R6 handover confirm messages on the R6 interface with missing mandatory TLVs.	Int32
r6hocnf-tlvvalinval	The total number of R6 handover confirm messages on the R6 interface with invalid TLV value.	Int32

Statistic	Description	Data Type
r6hocnf-unknowntrlv	The total number of R6 handover confirm messages on the R6 interface with unknown TLVs.	Int32
r6hocnf-duptlvfound	The total number of R6 handover confirm messages on the R6 interface with duplicate TLVs.	Int32
r6hocnf-nosessfound	The total number of R6 handover confirm messages on the R6 interface without any session information.	Int32
r6hocnf-adminprohib	The total number of R6 handover confirm messages discarded or denied due to admin prohibit. Triggers: Changes every time an R6 handover confirm message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r6hocnf-noresourcedrop	The total number of R6 handover confirm messages discarded or denied due to resource unavailability. Triggers: Changes every time an R6 handover confirm message is discarded or denied due to resource unavailability. Availability: across all the ASNGW services.	Int32
r6hocnf-transiderr	The total number of R6 handover confirm messages on the R6 interface with transaction ID errors.	Int32
r6hocmpl-totsent	The total number of R6 handover complete messages sent on the R6 interface.	Int32
r6hocmpl-retranssent	The total number of R6 handover complete messages re-transmitted on the R6 interface.	Int32
r6hocmpl-totsendfail	The total number of failures occurred during transaction ID generation and R6 handover complete message not sent for specific interface. This counter is used to count the error while sending the R6 packets.	Int32
r6hocmpl-totrec	The total number of R6 handover complete messages received on the R6 interface.	Int32
r6hocmpl-totacc	The total number of R6 handover complete messages accepted on the R6 interface.	Int32
r6hocmpl-totrelay	The total number of R6 handover complete messages received from the base station and relayed on the R6 interface. Triggers: Changes every time an R6 handover complete message is relayed by the R6 interface. Availability: across all ASNGW services.	Int32
r6hocmpl-totdenied	The total number of R6 handover complete messages denied on the R6 interface.	Int32
r6hocmpl-totdiscard	The total number of R6 handover complete messages discarded on the R6 interface.	Int32
r6hocmpl-badform	The total number of badly formed R6 handover complete messages on the R6 interface.	Int32
r6hocmpl-decodeerr	The total number of R6 handover complete messages on the R6 interface with decode error.	Int32
r6hocmpl-unspecerr	The total number of R6 handover complete messages on the R6 interface with unspecified error.	Int32
r6hocmpl-missmandtrlv	The total number of R6 handover complete messages on the R6 interface with missing mandatory TLVs.	Int32

Statistic	Description	Data Type
r6hocmpl-tlvvalinval	The total number of R6 handover complete messages on the R6 interface with invalid TLV value.	Int32
r6hocmpl-unknowntlv	The total number of R6 handover complete messages on the R6 interface with unknown TLVs.	Int32
r6hocmpl-duptlvfound	The total number of R6 handover complete messages on the R6 interface with duplicate TLVs.	Int32
r6hocmpl-nosessfound	The total number of R6 handover complete messages on the R6 interface without any session information.	Int32
r6hocmpl-adminprohib	The total number of R6 handover complete messages discarded or denied due to admin prohibit. Triggers: Changes every time an R6 handover complete message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r6hocmpl-noresourcedrop	The total number of R6 handover complete messages discarded or denied due to resource unavailability. Triggers: Changes every time an R6 handover complete message is discarded or denied due to resource unavailability. Availability: across all the ASNGW services.	Int32
r6hocmpl-transiderr	The total number of R6 handover complete messages on the R6 interface with transaction ID errors.	Int32
r6unknown-totrec	The total number of unknown messages received on the R6 interface.	Int32
r6unknown-totacc	The total number of unknown messages accepted on the R6 interface.	Int32
r6unknown-totrelay	The total number of unknown messages received from the base station and relayed on the R6 interface. Triggers: Changes every time an unknown message is relayed by the R6 interface. Availability: across all ASNGW services.	Int32
r6unknown-totdenied	The total number of unknown messages denied on the R6 interface.	Int32
r6unknown-totdiscard	The total number of unknown messages discarded on the R6 interface.	Int32
r6unknown-badform	The total number of badly formed unknown messages on the R6 interface.	Int32
r6unknown-decodeerr	The total number of unknown messages on the R6 interface with decode error.	Int32
r6unknown-unspecerr	The total number of unknown messages on the R6 interface with unspecified error.	Int32
r6unknown-missmandtlv	The total number of unknown messages on the R6 interface with missing mandatory TLVs.	Int32
r6unknown-tlvvalinval	The total number of unknown messages on the R6 interface with invalid TLV value.	Int32
r6unknown-unknowntlv	The total number of unknown messages on the R6 interface with unknown TLVs.	Int32
r6unknown-duptlvfound	The total number of unknown messages on the R6 interface with duplicate TLVs.	Int32
r6unknown-nosessfound	The total number of unknown messages on the R6 interface without any session information.	Int32

Statistic	Description	Data Type
r6unknown-adminprohib	The total number of unknown messages discarded or denied due to admin prohibit. Triggers: Changes every time an unknown message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r6unknown-noresourcedrop	The total number of unknown messages discarded or denied due to resource unavailability. Triggers: Changes every time an unknown message is discarded or denied due to resource unavailability. Availability: across all the ASNGW services.	Int32
r6unknown-transiderr	The total number of unknown messages on the R6 interface with transaction ID errors.	Int32
r6datagrerec-totpackrec	The total number of data packets received through GRE tunnel R6 interface.	Int32
r6datagrerec-protyperror	Total number of protectd type errors received through GRE tunnel R6 interface.	Int32
r6datagrerec-totbytrec	The total number of data bytes received through GRE tunnel R6 interface.	Int32
r6datagrerec-grekeyabs	The total number of data message received without GRE key through GRE tunnel R6 interface.	Int32
r6datagrerec-grechker	The total number of data message received with checksum error through GRE tunnel R6 interface.	Int32
r6datagrerec-invpacklen	The total number of data message received with invalid packet length error through GRE tunnel R6 interface.	Int32
r6datagrerec-nosessfou	The total number of data message received through GRE tunnel without session information the R6 interface.	Int32
r6datagrerec-unspeerr	The total number of data message received through GRE tunnel with unspecified error R6 interface.	Int32
r6datagresend-totpacksent	Total number of data packets sent through GRE tunnel R6 interface.	Int32
r6datagresend-sender	Total number of errors happend while sending data packets through GRE tunnel R6 interface.	Int32
r6datagresend-totbytsent	Total number of data bytes sent through GRE tunnel R6 interface.	Int32
r6datagresend-unspeerr	The total number of data message sent through GRE tunnel with unspecified error R6 interface.	Int 32
r6imexitstaind-totsent	The total number of R6 Idle Mode Exit State Indication messages sent to the base station.	Int32
r6imexitstaind-retranssent	The total number of Idle Mode Exit State Indication messages retransmitted on the R6 interface to the base station.	Int32
r6imexitstaind-totsefail	The total number of Idle Mode Exit State Indication message failures received from the base station and relayed on the R6 interface. This counter is used to count the error while sending the R6 packets.	Int32
r6imexitstaind-totrec	The total number of R6 Idle Mode Exit State Indication messages received by the base station.	Int32
r6imexitstaind-totacc	The total number of R6 Idle Mode Exit State Indication messages accepted by base station.	Int32

Statistic	Description	Data Type
r6imexitstaind-totrelay	The total number of R6 Idle Mode Exit State Indication messages sent to the base station and relayed on the R6 interface. Triggers: Changes every time an R6 Idle Mode Exit State Indication message is relayed by the R6 interface. Availability: across all ASNGW services.	Int32
r6imexitstaind-totdenied	The total number of Idle Mode Exit State Indication messages denied on the R6 interface.	Int32
r6imexitstaind-totdiscard	The total number of Idle Mode Exit State Indication messages discarded on the R6 interface.	Int32
r6imexitstaind-badform	The total number of badly formed R6 Idle Mode Exit State Indication messages sent to the base station.	Int32
r6imexitstaind-decodeerr	The total number of R6 Idle Mode Exit State Indication messages sent to the base station with decode errors.	Int32
r6imexitstaind-unspecerr	The total number of R6 Idle Mode Exit State Indication messages sent to the base station with unspecified errors.	Int32
r6imexitstaind-missmandtlv	The total number of R6 Idle Mode Exit State Indication messages sent to the base station with missing mandatory TLVs.	Int32
r6imexitstaind-tlvvalinval	The total number of R6 Idle Mode Exit State Indication messages sent to the base station with an invalid TLV.	Int32
r6imexitstaind-unknownnltlv	The total number of R6 Idle Mode Exit State Indication messages sent to the base station with an unknown TLV.	Int32
r6imexitstaind-duptlvfound	The total number of R6 Idle Mode Exit State Indication messages sent to the base station with duplicate TLVs.	Int32
r6imexitstaind-nosessfound	The total number of R6 Idle Mode Exit State Indication messages sent to the base station without any session information.	Int32
r6imexitstaind-admprohibit	The total number of R6 Idle Mode Exit State Indication messages sent to the base station that were discarded or denied due to admin prohibit. Triggers: Changes every time an R6 Idle Mode Exit State Indication message is discarded or denied due to admin prohibit. Availability: across all ASN GW services.	Int32
r6imexitstaind-noresourcedrop	The total number of R6 Idle Mode Exit State Indication messages sent to the base station that were discarded or denied due to resource unavailability. Triggers: Changes every time an R6 Idle Mode Exit State Indication message is discarded or denied due to resource unavailability. Availability: across all ASN GW services.	Int32
r6imexitstaind-transiderr	The total number of R6 Idle Mode Exit State Indication messages sent to the base station with a transaction ID error.	Int32
r6imexitstaindack-totsent	The total number of R6 Idle Mode Exit State Indication Acknowledgement messages sent to the base station.	Int32
r6imexitstaindack-retranssent	The total number of Idle Mode Exit State Indication Acknowledgement messages retransmitted on the R6 interface to the base station.	Int32

Statistic	Description	Data Type
r6imexitstaindack-totsendfail	The total number of Idle Mode Exit State Indication Acknowledgement message failures received from the base station and relayed on the R6 interface. This counter is used to count the error while sending the R6 packets.	Int 32
r6imexitstaindack-totrec	The total number of R6 Idle Mode Exit State Indication Acknowledgement messages received by the base station.	Int32
r6imexitstaindack-totacc	The total number of R6 Idle Mode Exit State Indication Acknowledgement messages accepted by base station.	
r6imexitstaindack-totrelay	The total number of R6 Idle Mode Exit State Indication Acknowledgement messages sent to the base station and relayed on the R6 interface. Triggers: Changes every time an R6 Idle Mode Exit State Indication Acknowledgement message is relayed by the R6 interface. Availability: across all ASNGW services.	Int32
r6imexitstaindack-totdenied	The total number of Idle Mode Exit State Indication Acknowledgement messages denied on the R6 interface	Int32
r6imexitstaindack-totdiscard	The total number of Idle Mode Exit State Indication Acknowledgement messages discarded on the R6 interface.	Int32
r6imexitstaindack-badform	The total number of badly formed R6 Idle Mode Exit State Indication Acknowledgement messages sent to the base station.	Int32
r6imexitstaindack-decodeerr	The total number of R6 Idle Mode Exit State Indication Acknowledgement messages sent to the base station with decode errors.	Int32
r6imexitstaindack-unspecerr	The total number of R6 Idle Mode Exit State Indication Acknowledgement messages sent to the base station with unspecified errors.	Int32
r6imexitstaindack-missmandtlv	The total number of R6 Idle Mode Exit State Indication Acknowledgement messages sent to the base station with missing mandatory TLVs.	Int32
r6imexitstaindack-tlvvalinval	The total number of R6 Idle Mode Exit State Indication Acknowledgement messages sent to the base station with an invalid TLV.	Int32
r6imexitstaindack-unknowntrlv	The total number of R6 Idle Mode Exit State Indication Acknowledgement messages sent to the base station with an unknown TLV.	Int32
r6imexitstaindack-duptlvfound	The total number of R6 Idle Mode Exit State Indication Acknowledgement messages sent to the base station with duplicate TLVs.	Int32
r6imexitstaindack-nosessfound	The total number of R6 Idle Mode Exit State Indication Acknowledgement messages sent to the base station without any session information.	Int32
r6imexitstaindack-admprohibit	The total number of R6 Idle Mode Exit State Indication Acknowledgement messages sent to the base station that were discarded or denied due to admin prohibit. Triggers: Changes every time an R6 Idle Mode Exit State Indication Acknowledgement message is discarded or denied due to admin prohibit. Availability: across all ASN GW services.	Int32
r6imexitstaindack-noresourcedrop	The total number of R6 Idle Mode Exit State Indication Acknowledgement messages sent to the base station that were discarded or denied due to resource unavailability. Triggers: Changes every time an R6 Idle Mode Exit State Indication Acknowledgement message is discarded or denied due to resource unavailability. Availability: across all ASN GW services.	Int32

Statistic	Description	Data Type
r6imexitstaindack-transiderr	The total number of R6 Idle Mode Exit State Indication Acknowledgement messages sent to the base station with a transaction ID error.	Int32
r6datapathderegack-totsent	The total number of R6 Data Path Deregistration Acknowledgement messages sent to the base station.	Int32
r6datapathderegack-retranssent	The total number of Data Path Deregistration Acknowledgement messages retransmitted on the R6 interface to the base station.	Int32
r6datapathderegack-totsendfail	The total number of Data Path Deregistration Acknowledgement message failures received from the base station and relayed on the R6 interface. This counter is used to count the error while sending the R6 packets.	Int32
r6datapathderegack-totrec	The total number of R6 Data Path Deregistration Acknowledgement messages received by the base station.	Int32
r6datapathderegack-totacc	The total number of R6 Idle Mode Exit State Indication Acknowledgement messages accepted by base station.	Int32
r6datapathderegack-totrelay	The total number of R6 Data Path Deregistration Acknowledgement messages sent to the base station and relayed on the R6 interface. Triggers: Changes every time an R6 Idle Mode Exit State Indication Acknowledgement message is relayed by the R6 interface. Availability: across all ASNGW services.	Int32
r6datapathderegack-totdenied	The total number of Data Path Deregistration Acknowledgement messages denied on the R6 interface	Int32
r6datapathderegack-totdiscard	The total number of Data Path Deregistration Acknowledgement messages discarded on the R6 interface.	Int32
r6datapathderegack-badform	The total number of badly formed R6 Data Path Deregistration Acknowledgement messages sent to the base station.	Int32
r6datapathderegack-decodeerr	The total number of R6 Data Path Deregistration Acknowledgement messages sent to the base station with decode errors.	Int32
r6datapathderegack-missmandtlv	The total number of R6 Data Path Deregistration Acknowledgement messages sent to the base station with missing mandatory TLVs.	Int32
r6datapathderegack-tlvvalinval	The total number of R6 Data Path Deregistration Acknowledgement messages sent to the base station with an invalid TLV.	Int32
r6datapathderegack-unknowntlv	The total number of R6 Data Path Deregistration Acknowledgement messages sent to the base station with an unknown TLV.	Int32
r6datapathderegack-duptlvfound	The total number of R6 Data Path Deregistration Acknowledgement messages sent to the base station with duplicate TLVs.	Int32
r6datapathderegack-nosessfound	The total number of R6 Data Path Deregistration Acknowledgement messages sent to the base station without any session information.	Int32
r6datapathderegack-admprohibit	The total number of R6 Data Path Deregistration Acknowledgement messages sent to the base station that were discarded or denied due to admin prohibit. Triggers: Changes every time an R6 Idle Mode Exit State Indication Acknowledgement message is discarded or denied due to admin prohibit. Availability: across all ASN GW services.	Int32

Statistic	Description	Data Type
r6datapathderegack-noresourcedrop	The total number of R6 Data Path Deregistration Acknowledgement messages sent to the base station that were discarded or denied due to resource unavailability. Triggers: Changes every time an R6 Idle Mode Exit State Indication Acknowledgement message is discarded or denied due to resource unavailability. Availability: across all ASN GW services.	Int32
r6datapathderegack-transiderr	The total number of R6Data Path Deregistration Acknowledgement messages sent to the base station with a transaction ID error.	Int32
r4nwexitmsstachareq-totsent	The total number of network exit MS state change request messages sent on the R4 interface.	Int32
r4nwexitmsstachareq-retranssent	The total number of network exit MS state change request messages re-transmitted on the the R4 interface.	Int32
r4nwexitmsstachareq-totsendfail	The total number of failures occurred during transaction ID generation and R4 network exit MS state change request message not sent for specific interface. This counter is used to count the error while sending the R4 packets.	Int32
r4nwexitmsstachareq-totrec	The total number of network exit MS state change request messages received on the the R4 interface.	Int32
r4nwexitmsstachareq-totacc	The total number of network exit MS state change request messages accepted on the the R4 interface.	Int32
r4nwexitmsstachareq-totrelay	The total number of network exit MS state change request messages received from the base station and relayed on the the the R4 interface. Triggers: Changes every time a network exit MS state change request message is relayed by the the the R4 interface. Availability: across all ASNGW services.	Int32
r4nwexitmsstachareq-totdenied	The total number of network exit MS state change request messages denied on the the R4 interface.	Int32
r4nwexitmsstachareq-totdiscard	The total number of network exit MS state change request messages discarded on the the R4 interface.	Int32
r4nwexitmsstachareq-badform	The total number of badly formed network exit MS state change request messages on the the R4 interface.	Int32
r4nwexitmsstachareq-decodeerr	The total number of network exit MS state change request messages on the the R4 interface with decode error.	Int32
r4nwexitmsstachareq-unspecerr	The total number of network exit MS state change request messages on the the R4 interface with unspecified error.	Int32
r4nwexitmsstachareq-missmandtlv	The total number of network exit MS state change request messages on the the R4 interface with missing mandatory TLVs.	Int32
r4nwexitmsstachareq-tlvvalinval	The total number of network exit MS state change request messages on the the R4 interface with invalid TLV value.	Int32
r4nwexitmsstachareq-unknowntrlv	The total number of network exit MS state change request messages on the the R4 interface with unknown TLVs.	Int32
r4nwexitmsstachareq-duptrlvfound	The total number of network exit MS state change request messages on the the R4 interface with duplicate TLVs.	Int32

Statistic	Description	Data Type
r4nwexitmsstachareq-nosessfound	The total number of network exit MS state change request messages on the the R4 interface without any session information.	Int32
r4nwexitmsstachareq-adminprohib	The total number of network exit MS state change request messages discarded or denied due to admin prohibit. Triggers: Changes every time a network exit MS state change request message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r4nwexitmsstachareq-noresourcedrop	The total number of network exit MS state change request messages discarded or denied due to resource unavailability. Triggers: Changes every time a network exit MS state change request message is discarded or denied due to resource unavailability. Availability: across all the ASNGW services.	Int32
r4nwexitmsstachareq-transiderr	The total number of network exit MS state change request messages on the the R4 interface with transaction ID errors.	Int32
r4nwexitmsstacharsp-totsent	The total number of network exit MS state change response messages sent on the the R4 interface.	Int32
r4nwexitmsstacharsp-retranssent	The total number of network exit MS state change response messages re-transmitted on the the R4 interface.	Int32
r4nwexitmsstacharsp-totsendfail	The total number of failures occurred during transaction ID generation and R4 network exit MS state change response message not sent for specific interface. This counter is used to count the error while sending the R4 packets.	Int32
r4nwexitmsstacharsp-totrec	The total number of network exit MS state change response messages received on the the R4 interface.	Int32
r4nwexitmsstacharsp-totacc	The total number of network exit MS state change response messages accepted on the the R4 interface.	Int32
r4nwexitmsstacharsp-totrelay	The total number of network exit MS state change response messages received from the base station and relayed on the the the R4 interface. Triggers: Changes every time a network exit MS state change response message is relayed by the the the R4 interface. Availability: across all ASNGW services.	Int32
r4nwexitmsstacharsp-totdenied	The total number of network exit MS state change response messages denied on the the R4 interface.	Int32
r4nwexitmsstacharsp-totdiscard	The total number of network exit MS state change response messages discarded on the the R4 interface.	Int32
r4nwexitmsstacharsp-badform	The total number of badly formed network exit MS state change response messages on the the R4 interface.	Int32
r4nwexitmsstacharsp-decodeerr	The total number of network exit MS state change response messages on the the R4 interface with decode error.	Int32
r4nwexitmsstacharsp-unspecerr	The total number of network exit MS state change response messages on the the R4 interface with unspecified error.	Int32
r4nwexitmsstacharsp-mismandtlv	The total number of network exit MS state change response messages on the the R4 interface with missing mandatory TLVs.	Int32

Statistic	Description	Data Type
r4nwexitmsstacharsp-tlvvalinval	The total number of network exit MS state change response messages on the the R4 interface with invalid TLV value.	Int32
r4nwexitmsstacharsp-unknownTLV	The total number of network exit MS state change response messages on the the R4 interface with unknown TLVs.	Int32
r4nwexitmsstacharsp-dupTLVfound	The total number of network exit MS state change response messages on the the R4 interface with duplicate TLVs.	Int32
r4nwexitmsstacharsp-nosessfound	The total number of network exit MS state change response messages on the the R4 interface without any session information.	Int32
r4nwexitmsstacharsp-adminprohib	The total number of network exit MS state change response messages discarded or denied due to admin prohibit. Triggers: Changes every time a network exit MS state change response message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r4nwexitmsstacharsp-noresourcedrop	The total number of network exit MS state change response messages discarded or denied due to resource unavailability. Triggers: Changes every time a network exit MS state change response message is discarded or denied due to resource unavailability. Availability: across all the ASNGW services.	Int32
r4nwexitmsstacharsp-transiderr	The total number of network exit MS state change response messages on the the R4 interface with transaction ID errors.	Int32
r4contextreq-totsent	The total number of context request messages sent on the the R4 interface.	Int32
r4contextreq-retranssent	The total number of context request messages re-transmitted on the the R4 interface.	Int32
r4contextreq-totsendfail	The total number of failures occurred during transaction ID generation and R4 Context Request message not sent for specific interface. This counter is used to count the error while sending the R4 packets.	Int32
r4contextreq-totrec	The total number of context request messages received on the the R4 interface.	Int32
r4contextreq-totacc	The total number of context request messages accepted on the the R4 interface.	Int32
r4contextreq-totrelay	The total number of context request messages received from the base station and relayed on the the the R4 interface. Triggers: Changes every time a context request message is relayed by the the the R4 interface. Availability: across all ASNGW services.	Int32
r4contextreq-totdenied	The total number of context request messages denied on the the R4 interface.	Int32
r4contextreq-totdiscard	The total number of context request messages discarded on the the R4 interface.	Int32
r4contextreq-badform	The total number of badly formed context request messages on the the R4 interface.	Int32
r4contextreq-decodeerr	The total number of context request messages on the the R4 interface with decode error.	Int32
r4contextreq-unspecerr	The total number of context request messages on the the R4 interface with unspecified error.	Int32
r4contextreq-missmandtlv	The total number of context request messages on the the R4 interface with missing mandatory TLVs.	Int32

Statistic	Description	Data Type
r4contextreq-tlvvalinval	The total number of context request messages on the the R4 interface with invalid TLV value.	Int32
r4contextreq-unknownctlv	The total number of context request messages on the the R4 interface with unknown TLVs.	Int32
r4contextreq-duptlvfound	The total number of context request messages on the the R4 interface with duplicate TLVs.	Int32
r4contextreq-nosessfound	The total number of context request messages on the the R4 interface without any session information.	Int32
r4contextreq-adminprohib	The total number of context request messages discarded or denied due to admin prohibit. Triggers: Changes every time a context request message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r4contextreq-noresourcedrop	The total number of context request messages discarded or denied due to resource unavailability. Triggers: Changes every time a context request message is discarded or denied due to resource unavailability. Availability: across all the ASNGW services.	Int32
r4contextreq-transiderr	The total number of context request messages on the the R4 interface with transaction ID errors.	Int32
r4contextrepo-totsent	The total number of context report messages sent on the the R4 interface.	Int32
r4contextrepo-retranssent	The total number of context report messages re-transmitted on the the R4 interface.	Int32
r4contextrepo-totsendfail	The total number of failures occurred during transaction ID generation and R4 Context Report message not sent for specific interface. This counter is used to count the error while sending the R4 packets.	Int32
r4contextrepo-totrec	The total number of context report messages received on the the R4 interface.	Int32
r4contextrepo-totacc	The total number of context report messages =accepted on the the R4 interface.	Int32
r4contextrepo-totrelay	The total number of context report messages received from the base station and relayed on the the the R4 interface. Triggers: Changes every time a context report message is relayed by the the the R4 interface. Availability: across all ASNGW services.	Int32
r4contextrepo-totdenied	The total number of context report messages denied on the the R4 interface.	Int32
r4contextrepo-totdiscard	The total number of context report messages discarded on the the R4 interface.	Int32
r4contextrepo-badform	The total number of badly formed context report messages on the the R4 interface.	Int32
r4contextrepo-decodeerr	The total number of context report messages on the the R4 interface with decode error.	Int32
r4contextrepo-unspecerr	The total number of context report messages on the the R4 interface with unspecified error.	Int32
r4contextrepo-missmandtlv	The total number of context report messages on the the R4 interface with missing mandatory TLVs.	Int32

## Common Statistics

Statistic	Description	Data Type
r4contextrepo-tlvvalinval	The total number of context report messages on the the R4 interface with invalid TLV value.	Int32
r4contextrepo-unknowntrlv	The total number of context report messages on the the R4 interface with unknown TLVs.	Int32
r4contextrepo-duptlvfound	The total number of context report messages on the the R4 interface with duplicate TLVs.	Int32
r4contextrepo-nosessfound	The total number of context report messages on the the R4 interface without any session information.	Int32
r4contextrepo-adminprohib	The total number of context report messages discarded or denied due to admin prohibit. Triggers: Changes every time a context report message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r4contextrepo-noresourcedrop	The total number of context report messages discarded or denied due to resource unavailability. Triggers: Changes every time a context report message is discarded or denied due to resource unavailability. Availability: across all the ASNGW services.	Int32
r4contextrepo-transiderr	The total number of context report messages on the the R4 interface with transaction ID errors.	Int32
r4contextack-totsent	The total number of context acknowledgement messages sent on the the R4 interface.	Int32
r4contextack-retranssent	The total number of context acknowledgement messages re-transmitted on the the R4 interface.	Int32
r4contextack-totsendfail	The total number of failures occurred during transaction ID generation and R4 Context acknowledgement message not sent for specific interface. This counter is used to count the error while sending the R4 packets.	Int32
r4contextack-totrec	The total number of context acknowledgement messages received on the the R4 interface.	Int32
r4contextack-totacc	The total number of context acknowledgement messages accepted on the the R4 interface.	Int32
r4contextack-totrelay	The total number of context acknowledgement messages received from the base station and relayed on the the R4 interface. Triggers: Changes every time a context acknowledgement message is relayed by the the R4 interface. Availability: across all ASNGW services.	Int32
r4contextack-totdenied	The total number of context acknowledgement messages denied on the the R4 interface.	Int32
r4contextack-totdiscard	The total number of context acknowledgement messages discarded on the the R4 interface.	Int32
r4contextack-badform	The total number of badly formed context acknowledgement messages on the the R4 interface.	Int32
r4contextack-decodeerr	The total number of context acknowledgement messages on the the the R4 interface with decode error.	Int32
r4contextack-unspecerr	The total number of context acknowledgement messages on the the the R4 interface with unspecified error.	Int32

Statistic	Description	Data Type
r4contextack-missmandtlv	The total number of context acknowledgement messages on the the the R4 interface with missing mandatory TLVs.	Int32
r4contextack-tlvvalinval	The total number of context acknowledgement messages on the the the R4 interface with invalid TLV value.	Int32
r4contextack-unknowntrlv	The total number of context acknowledgement messages on the the the R4 interface with unknown TLVs.	Int32
r4contextack-duptlvfound	The total number of context acknowledgement messages on the the the R4 interface with duplicate TLVs.	Int32
r4contextack-nosessfound	The total number of context acknowledgement messages on the the the R4 interface without any session information.	Int32
r4contextack-adminprohib	The total number of context acknowledgement messages discarded or denied due to admin prohibit. Triggers: Changes every time a context acknowledgement message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r4contextack-noresourcedrop	The total number of context acknowledgement messages discarded or denied due to resource unavailability. Triggers: Changes every time a context acknowledgement message is discarded or denied due to resource unavailability. Availability: across all the ASNGW services.	Int32
r4contextack-transiderr	The total number of context acknowledgement messages on the the the R4 interface with transaction ID errors.	Int32
r4autheaptra-totsent	The total number of authentication EAP transfer messages sent on the the the R4 interface.	Int32
r4autheaptra-retranssent	The total number of authentication EAP transfer messages re-transmitted on the the the R4 interface.	Int32
r4autheaptra-totendfail	The total number of failures that occurred during transaction ID generation and R4 EAP transfer message failure. This counter is used to count the error while sending the R4 packets.	Int32
r4autheaptra-totrec	The total number of authentication EAP transfer messages received on the the the R4 interface.	Int32
r4autheaptra-totacc	The total number of authentication EAP transfer messages accepted on the the the R4 interface.	Int32
r4autheaptra-totrelay	The total number of authentication EAP transfer messages received from the base station and relayed on the the the R4 interface. Triggers: Changes every time an authentication EAP transfer message is relayed by the the the R4 interface. Availability: across all ASNGW services.	Int32
r4autheaptra-totdenied	The total number of authentication EAP transfer messages denied on the the the R4 interface.	Int32
r4autheaptra-totdiscard	The total number of authentication EAP transfer messages discarded on the the the R4 interface.	Int32

## Common Statistics

Statistic	Description	Data Type
r4autheaptra-badform	The total number of badly formed authentication EAP transfer messages on the the the R4 interface.	Int32
r4autheaptra-decodeerr	The total number of authentication EAP transfer messages on the the R4 interface with decode error.	Int32
r4autheaptra-unspecerr	The total number of authentication EAP transfer messages on the the R4 interface with unspecified error.	Int32
r4autheaptra-missmandtlv	The total number of authentication EAP transfer messages on the the R4 interface with missing mandatory TLVs.	Int32
r4autheaptra-tlvvalinval	The total number of authentication EAP transfer messages on the the R4 interface with invalid TLV value.	Int32
r4autheaptra-unknowntrlv	The total number of authentication EAP transfer messages on the the R4 interface with unknown TLVs.	Int32
r4autheaptra-duptlvfound	The total number of authentication EAP transfer messages on the the R4 interface with duplicate TLVs.	Int32
r4autheaptra-noessfound	The total number of authentication EAP transfer messages on the the R4 interface without any session information.	Int32
r4autheaptra-adminprohib	The total number of badly formed authentication EAP transfer messages on the the R4 interface.	Int32
r4autheaptra-noresourcedrop	The total number of authentication EAP transfer messages on the the R4 interface with decode error.	Int32
r4autheaptra-transiderr	The total number of authentication EAP transfer messages on the the R4 interface with transaction ID errors.	Int32
r4autheapsta-totrec	The total number of authentication EAP start messages sent on the the R4 interface.	Int32
r4autheapsta-totacc	The total number of authentication EAP start messages accepted on the the R4 interface.	Int32
r4autheapsta-totrelay	The total number of authentication EAP start messages received from the base station and relayed on the the the R4 interface. Triggers: Changes every time an authentication EAP start message is relayed by the the the R4 interface. Availability: across all ASNGW services.	Int32
r4autheapsta-totdenied	The total number of authentication EAP start messages denied on the the R4 interface.	Int32
r4autheapsta-totdiscard	The total number of authentication EAP start messages discarded on the the R4 interface.	Int32
r4autheapsta-badform	The total number of badly formed authentication EAP start messages on the the R4 interface.	Int32
r4autheapsta-decodeerr	The total number of authentication EAP start messages on the the R4 interface with decode error.	Int32
r4autheapsta-unspecerr	The total number of authentication EAP start messages on the the R4 interface with unspecified error.	Int32
r4autheapsta-missmandtlv	The total number of authentication EAP start messages on the the R4 interface with missing mandatory TLVs.	Int32

Statistic	Description	Data Type
r4autheapsta-tlvvalinval	The total number of authentication EAP start messages on the the R4 interface with invalid TLV value.	Int32
r4autheapsta-unknowntlv	The total number of authentication EAP start messages on the the R4 interface with unknown TLVs.	Int32
r4autheapsta-duptlvfound	The total number of authentication EAP start messages on the the R4 interface with duplicate TLVs.	Int32
r4autheapsta-nosessfound	The total number of authentication EAP start messages on the the R4 interface without any session information.	Int32
r4autheapsta-adminprohib	The total number of authentication EAP start messages discarded or denied due to admin prohibit. Triggers: Changes every time an authentication EAP start message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r4autheapsta-noresourcedrop	The total number of authentication EAP start messages discarded or denied due to resource unavailability. Triggers: Changes every time an authentication EAP start message is discarded or denied due to resource unavailability. Availability: across all the ASNGW services.	Int32
r4autheapsta-transiderr	The total number of authentication EAP start messages on the the R4 interface with transaction ID errors.	Int32
r4datapathpreregreq-totsent	The total number of data path pre-registration request messages sent on the the R4 interface.	Int32
r4datapathpreregreq-retranssent	The total number of data path pre-registration request messages re-transmitted on the the R4 interface.	Int32
r4datapathpreregreq-totsendfail	The total number of failures occurred during transaction ID generation and R4 data path pre-registration request message not sent for specific interface. This counter is used to count the error while sending the R4 packets.	Int32
r4datapathpreregreq-totrec	The total number of data path pre-registration request messages received on the the R4 interface.	Int32
r4datapathpreregreq-totacc	The total number of data path pre-registration request messages accepted on the the R4 interface.	Int32
r4datapathpreregreq-totrelay	The total number of data path pre-registration request messages received from the base station and relayed on the the the R4 interface. Triggers: Changes every time a data path pre-registration request message is relayed by the the the R4 interface. Availability: across all ASNGW services.	Int32
r4datapathpreregreq-totdenied	The total number of data path pre-registration request messages denied on the the R4 interface.	Int32
r4datapathpreregreq-totdiscard	The total number of data path pre-registration request messages discarded on the the R4 interface.	Int32
r4datapathpreregreq-badform	The total number of badly formed data path pre-registration request messages on the the R4 interface.	Int32

Statistic	Description	Data Type
r4datapathpreregreq-decodeerr	The total number of data path pre-registration request messages on the the R4 interface with decode error.	Int32
r4datapathpreregreq-unspecerr	The total number of data path pre-registration request messages on the the R4 interface with unspecified error.	Int32
r4datapathpreregreq-missmandtlv	The total number of data path pre-registration request messages on the the R4 interface with missing mandatory TLVs.	Int32
r4datapathpreregreq-tlvvalinval	The total number of data path pre-registration request messages on the the R4 interface with invalid TLV value.	Int32
r4datapathpreregreq-unknowntrlv	The total number of data path pre-registration request messages on the the R4 interface with unknown TLVs.	Int32
r4datapathpreregreq-duptrlvfound	The total number of data path pre-registration request messages on the the R4 interface with duplicate TLVs.	Int32
r4datapathpreregreq-nosessfound	The total number of data path pre-registration request messages on the the R4 interface without any session information.	Int32
r4datapathpreregreq-adminprohib	The total number of data path pre-registration request messages discarded or denied due to admin prohibit. Triggers: Changes every time a data path pre-registration request message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r4datapathpreregreq-noresourcedrop	The total number of data path pre-registration request messages discarded or denied due to resource unavailability. Triggers: Changes every time a data path pre-registration request message is discarded or denied due to resource unavailability. Availability: across all the ASNGW services.	Int32
r4datapathpreregreq-transiderr	The total number of data path pre-registration request messages on the the R4 interface with transaction ID errors.	Int32
r4datapathpreregresp-totsent	The total number of data path pre-registration response messages sent on the the R4 interface.	Int32
r4datapathpreregresp-retranssent	The total number of data path pre-registration response messages re-transmitted on the the R4 interface.	Int32
r4datapathpreregresp-totsendfail	The total number of failures occurred during transaction ID generation and R4 data path pre-registration response message not sent for specific interface. This counter is used to count the error while sending the R4 packets.	Int32
r4datapathpreregresp-totrec	The total number of data path pre-registration response messages received on the the R4 interface.	Int32
r4datapathpreregresp-totacc	The total number of data path pre-registration response messages accepted on the the R4 interface.	Int32
r4datapathpreregresp-totrelay	The total number of data path pre-registration response messages received from the base station and relayed on the the the R4 interface. Triggers: Changes every time a data path pre-registration response message is relayed by the the the R4 interface. Availability: across all ASNGW services.	Int32

Statistic	Description	Data Type
r4datapathpreregsp-totdenied	The total number of data path pre-registration response messages denied on the the R4 interface.	Int32
r4datapathpreregsp-totdiscard	The total number of data path pre-registration response messages discarded on the the R4 interface.	Int32
r4datapathpreregsp-badform	The total number of badly formed data path pre-registration response messages on the the R4 interface.	Int32
r4datapathpreregsp-decodeerr	The total number of data path pre-registration response messages on the the R4 interface with decode error.	Int32
r4datapathpreregsp-unspecerr	The total number of data path pre-registration response messages on the the R4 interface with unspecified error.	Int32
r4datapathpreregsp-missmandtlv	The total number of data path pre-registration response messages on the the R4 interface with missing mandatory TLVs.	Int32
r4datapathpreregsp-tlvvalinval	The total number of data path pre-registration response messages on the the R4 interface with invalid TLV value.	Int32
r4datapathpreregsp-unknowntlv	The total number of data path pre-registration response messages on the the R4 interface with unknown TLVs.	Int32
r4datapathpreregsp-duptlvfound	The total number of data path pre-registration response messages on the the R4 interface with duplicate TLVs.	Int32
r4datapathpreregsp-nosessfound	The total number of data path pre-registration response messages on the the R4 interface without any session information.	Int32
r4datapathpreregsp-adminprohib	The total number of data path pre-registration response messages discarded or denied due to admin prohibit. Triggers: Changes every time a data path pre-registration response message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r4datapathpreregsp-noresourcedrop	The total number of data path pre-registration response messages discarded or denied due to resource unavailability. Triggers: Changes every time a data path pre-registration response message is discarded or denied due to resource unavailability. Availability: across all the ASNGW services.	Int32
r4datapathpreregsp-transiderr	The total number of data path pre-registration response messages on the the R4 interface with transaction ID errors.	Int32
r4datapathpreregack-totsent	The total number of data path pre-registration acknowledgement messages sent on the the R4 interface.	Int32
r4datapathpreregack-retranssent	The total number of data path pre-registration acknowledgement messages re-transmitted on the the R4 interface.	Int32
r4datapathpreregack-totsendfail	The total number of failures occurred during transaction ID generation and R4 data path pre-registration acknowledgement message not sent for specific interface. This counter is used to count the error while sending the R4 packets.	Int32
r4datapathpreregack-totrec	The total number of data path pre-registration acknowledgement messages received on the the R4 interface.	Int32

## Common Statistics

Statistic	Description	Data Type
r4datapathpreregack-totacc	The total number of data path pre-registration acknowledgement messages accepted on the the R4 interface.	Int32
r4datapathpreregack-totrelay	The total number of data path pre-registration acknowledgement messages received from the base station and relayed on the the the R4 interface. Triggers: Changes every time a data path pre-registration acknowledgement message is relayed by the the the R4 interface. Availability: across all ASNGW services.	Int32
r4datapathpreregack-totdenied	The total number of data path pre-registration acknowledgement messages denied on the the R4 interface.	Int32
r4datapathpreregack-totdiscard	The total number of data path pre-registration acknowledgement messages discarded on the the R4 interface.	Int32
r4datapathpreregack-badform	The total number of badly formed data path pre-registration acknowledgement messages on the the R4 interface.	Int32
r4datapathpreregack-decodeerr	The total number of data path pre-registration acknowledgement messages on the the R4 interface with decode error.	Int32
r4datapathpreregack-unspecerr	The total number of data path pre-registration acknowledgement messages on the the R4 interface with unspecified error.	Int32
r4datapathpreregack-mismandtlv	The total number of data path pre-registration acknowledgement messages on the the R4 interface with missing mandatory TLVs.	Int32
r4datapathpreregack-tlvvalinval	The total number of data path pre-registration acknowledgement messages on the the R4 interface with invalid TLV value.	Int32
r4datapathpreregack-unknowntrlv	The total number of data path pre-registration acknowledgement messages on the the R4 interface with unknown TLVs.	Int32
r4datapathpreregack-duptlvfound	The total number of data path pre-registration acknowledgement messages on the the R4 interface with duplicate TLVs.	Int32
r4datapathpreregack-nosessfound	The total number of data path pre-registration acknowledgement messages on the the R4 interface without any session information.	Int32
r4datapathpreregack-adminprohib	The total number of data path pre-registration acknowledgement messages discarded or denied due to admin prohibit. Triggers: Changes every time a data path pre-registration acknowledgement message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r4datapathpreregack-noresourcedrop	The total number of data path pre-registration acknowledgement messages discarded or denied due to resource unavailability. Triggers: Changes every time a data path pre-registration acknowledgement message is discarded or denied due to resource unavailability. Availability: across all the ASNGW services.	Int32
r4datapathpreregack-transiderr	The total number of data path pre-registration acknowledgement messages on the the R4 interface with transaction ID errors.	Int32
r4datapathregreq-totsent	The total number of data path registration request messages sent on the the R4 interface.	Int32

Statistic	Description	Data Type
r4datapathregreq-retranssent	The total number of data path registration request messages re-transmitted on the the R4 interface.	Int32
r4datapathregreq-totsendfail	The total number of failures occurred during transaction ID generation and R4 data path registration request message not sent for specific interface. This counter is used to count the error while sending the R4 packets.	Int32
r4datapathregreq-totrec	The total number of data path registration request messages received on the the R4 interface.	Int32
r4datapathregreq-totacc	The total number of data path registration request messages accepted on the the R4 interface.	Int32
r4datapathregreq-totrelay	The total number of data path registration request messages received from the base station and relayed on the the the R4 interface. Triggers: Changes every time a data path registration request message is relayed by the the the R4 interface. Availability: across all ASNGW services.	Int32
r4datapathregreq-totdenied	The total number of data path registration request messages denied on the the R4 interface.	Int32
r4datapathregreq-totdiscard	The total number of data path registration request messages discarded on the the R4 interface.	Int32
r4datapathregreq-badform	The total number of badly formed data path registration request messages on the the R4 interface.	Int32
r4datapathregreq-decodeerr	The total number of data path registration request messages on the the R4 interface with decode error.	Int32
r4datapathregreq-unspecerr	The total number of data path registration request messages on the R4 interface with unspecified error.	Int32
r4datapathregreq-missmandtlv	The total number of data path registration request messages on the R4 interface with missing mandatory TLVs.	Int32
r4datapathregreq-tlvvalinval	The total number of data path registration request messages on the R4 interface with invalid TLV value.	Int32
r4datapathregreq-unknowntlv	The total number of data path registration request messages on the R4 interface with unknown TLVs.	Int32
r4datapathregreq-duptlvfound	The total number of data path registration request messages on the R4 interface with duplicate TLVs.	Int32
r4datapathregreq-nosessfound	The total number of data path registration request messages on the R4 interface without any session information.	Int32
r4datapathregreq-adminprohib	The total number of data path registration request messages discarded or denied due to admin prohibit. Triggers: Changes every time a data path registration request message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32

## Common Statistics

Statistic	Description	Data Type
r4datapathregreq-noresourcedrop	The total number of data path registration request messages discarded or denied due to resource unavailability. Triggers: Changes every time a data path registration request message is discarded or denied due to resource unavailability. Availability: across all the ASNGW service	Int32
r4datapathregreq-transiderr	The total number of data path registration request messages on the R4 interface with transaction ID errors.	Int32
r4datapathregrsp-totsent	The total number of data path registration response messages sent on the R4 interface.	Int32
r4datapathregrsp-retransent	The total number of data path registration response messages re-transmitted on the R4 interface.	Int32
r4datapathregrsp-totsendfail	The total number of failures occurred during transaction ID generation and R4 data path registration response message not sent for specific interface. This counter is used to count the error while sending the R4 packets.	Int32
r4datapathregrsp-totrec	The total number of data path registration response messages received on the R4 interface.	Int32
r4datapathregrsp-totacc	The total number of data path registration response messages accepted on the R4 interface.	Int32
r4datapathregrsp-totrelay	The total number of data path registration response messages received from the base station and relayed on the the R4 interface. Triggers: Changes every time a data path registration response message is relayed by the the R4 interface. Availability: across all ASNGW services.	Int32
r4datapathregrsp-totdenied	The total number of data path registration response messages denied on the R4 interface.	Int32
r4datapathregrsp-totdiscard	The total number of data path registration response messages discarded on the R4 interface.	Int32
r4datapathregrsp-badform	The total number of badly formed data path registration response messages on the R4 interface.	Int32
r4datapathregrsp-decodeerr	The total number of data path registration response messages on the R4 interface with decode error.	Int32
r4datapathregrsp-unspecerr	The total number of data path registration response messages on the R4 interface with unspecified error.	Int32
r4datapathregrsp-missmandtlv	The total number of data path registration response messages on the R4 interface with missing mandatory TLVs.	Int32
r4datapathregrsp-tlvvalinval	The total number of data path registration response messages on the R4 interface with invalid TLV value.	Int32
r4datapathregrsp-unknowntrlv	The total number of data path registration response messages on the R4 interface with unknown TLVs.	Int32
r4datapathregrsp-duptrlvfound	The total number of data path registration response messages on the R4 interface with duplicate TLVs.	Int32
r4datapathregrsp-nosessfound	The total number of data path registration response messages on the R4 interface without any session information.	Int32

Statistic	Description	Data Type
r4datapathregrsp-adminprohib	The total number of data path registration response messages discarded or denied due to admin prohibit. Triggers: Changes every time a data path registration response message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r4datapathregrsp-noresourcedrop	The total number of data path registration response messages discarded or denied due to resource unavailability. Triggers: Changes every time a data path registration response message is discarded or denied due to resource unavailability. Availability: across all the ASNGW services.	Int32
r4datapathregrsp-transiderr	The total number of data path registration response messages on the R4 interface with transaction ID errors.	Int32
r4datapathregack-totsent	The total number of data path registration acknowledgement messages sent on the R4 interface.	Int32
r4datapathregack-retranssent	The total number of data path registration acknowledgement messages re-transmitted on the R4 interface.	Int32
r4datapathregack-totsendfail	The total number of failures occurred during transaction id generation and R4 data path registration acknowledgement message not sent for specific interface. This counter is used to count the error while sending the R4 packets.	Int32
r4datapathregack-totrec	The total number of data path registration acknowledgement messages received on the R4 interface.	Int32
r4datapathregack-totacc	The total number of data path registration acknowledgement messages accepted on the R4 interface.	Int32
r4datapathregack-totrelay	The total number of data path registration acknowledgement messages received from the base station and relayed on the the R4 interface. Triggers: Changes every time a data path registration acknowledgement message is relayed by the the R4 interface. Availability: across all ASNGW services.	Int32
r4datapathregack-totdenied	The total number of data path registration acknowledgement messages denied on the R4 interface.	Int32
r4datapathregack-totdiscard	The total number of data path registration acknowledgement messages discarded on the R4 interface.	Int32
r4datapathregack-badform	The total number of badly formed data path registration acknowledgement messages on the R4 interface.	Int32
r4datapathregack-decodeerr	The total number of data path registration acknowledgement messages on the R4 interface with decode error.	Int32
r4datapathregack-unspecerr	The total number of data path registration acknowledgement messages on the R4 interface with unspecified error.	Int32
r4datapathregack-misssmandtlv	The total number of data path registration acknowledgement messages on the R4 interface with missing mandatory TLVs.	Int32
r4datapathregack-tlvvalinval	The total number of data path registration acknowledgement messages on the R4 interface with invalid TLV value.	Int32

Statistic	Description	Data Type
r4datapathregack-unknowntlv	The total number of data path registration acknowledgement messages on the R4 interface with unknown TLVs.	Int32
r4datapathregack-duptlvfound	The total number of data path registration acknowledgement messages on the R4 interface with duplicate TLVs.	Int32
r4datapathregack-nosessfound	The total number of data path registration acknowledgement messages on the R4 interface without any session information.	Int32
r4datapathregack-adminprohib	The total number of data path registration acknowledgement messages denied on the R4 interface.	Int32
r4datapathregack-noresourcedrop	The total number of data path registration acknowledgement messages discarded on the R4 interface.	Int32
r4datapathregack-transiderr	The total number of data path registration acknowledgement messages on the R4 interface with transaction ID errors.	Int32
r4datapathderegreq-totsent	The total number of data path deregistration request messages sent on the R4 interface.	Int32
r4datapathderegreq-retranssent	The total number of data path deregistration request messages re-transmitted on the R4 interface.	Int32
r4datapathderegreq-totsendfail	The total number of failures occurred during transaction id generation and R4 data path de-registration request message not sent for specific interface. This counter is used to count the error while sending the R4 packets.	Int32
r4datapathderegreq-totrec	The total number of data path deregistration request messages received on the R4 interface.	Int32
r4datapathderegreq-totacc	The total number of data path deregistration request messages accepted on the R4 interface.	Int32
r4datapathderegreq-totrelay	The total number of data path de-registration request messages received from the base station and relayed on the the R4 interface. Triggers: Changes every time a data path de-registration request message is relayed by the the R4 interface. Availability: across all ASNGW services.	Int32
r4datapathderegreq-totdenied	The total number of data path deregistration request messages denied on the R4 interface.	Int32
r4datapathderegreq-totdiscard	The total number of data path deregistration request messages discarded on the R4 interface.	Int32
r4datapathderegreq-badform	The total number of badly formed data path deregistration request messages on the R4 interface.	Int32
r4datapathderegreq-decodeerr	The total number of data path deregistration request messages on the R4 interface with decode error.	Int32
r4datapathderegreq-unspecerr	The total number of data path deregistration request messages on the R4 interface with unspecified error.	Int32
r4datapathderegreq-missingmandtlv	The total number of data path deregistration request messages on the R4 interface with missing mandatory TLVs.	Int32

Statistic	Description	Data Type
r4datapathderegreq-tlvvalinval	The total number of data path deregistration request messages on the R4 interface with invalid TLV value.	Int32
r4datapathderegreq-unknown_tlv	The total number of data path deregistration request messages on the R4 interface with unknown TLVs.	Int32
r4datapathderegreq-duptlvfound	The total number of data path deregistration request messages on the R4 interface with duplicate TLVs.	Int32
r4datapathderegreq-nosessfound	The total number of data path deregistration request messages on the R4 interface without any session information.	Int32
r4datapathderegreq-adminprohib	The total number of data path de-registration request messages discarded or denied due to admin prohibit. Triggers: Changes every time a data path de-registration request message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r4datapathderegreq-noresourcedrop	The total number of data path de-registration request messages discarded or denied due to resource unavailability. Triggers: Changes every time a data path de-registration request message is discarded or denied due to resource unavailability. Availability: across all the ASNGW services.	Int32
r4datapathderegreq-transiderr	The total number of data path deregistration request messages on the R4 interface with transaction ID errors.	Int32
r4datapathderegresp-totsent	The total number of data path deregistration response messages sent on the R4 interface.	Int32
r4datapathderegresp-retranssent	The total number of data path deregistration response messages re-transmitted on the R4 interface.	Int32
r4datapathderegresp-totsendfail	The total number of failures occurred during transaction id generation and R4 data path de-registration response message not sent for specific interface. This counter is used to count the error while sending the R4 packets.	Int32
r4datapathderegresp-totrec	The total number of data path deregistration response messages received on the R4 interface.	Int32
r4datapathderegresp-totacc	The total number of data path deregistration response messages accepted on the R4 interface.	Int32
r4datapathderegresp-totrelay	The total number of data path de-registration response messages received from the base station and relayed on the the R4 interface. Triggers: Changes every time a data path de-registration response message is relayed by the the R4 interface. Availability: across all ASNGW services.	Int32
r4datapathderegresp-totdenied	The total number of data path deregistration response messages denied on the R4 interface.	Int32
r4datapathderegresp-totdiscard	The total number of data path deregistration response messages discarded on the R4 interface.	Int32
r4datapathderegresp-badform	The total number of badly formed data path deregistration response messages on the R4 interface.	Int32

Statistic	Description	Data Type
r4datapathderegsp-decodeerr	The total number of data path deregistration response messages on the R4 interface with decode error.	Int32
r4datapathderegsp-unspecerr	The total number of data path deregistration response messages on the R4 interface with unspecified error.	Int32
r4datapathderegsp-missmandtlv	The total number of data path deregistration response messages on the R4 interface with missing mandatory TLVs.	Int32
r4datapathderegsp-tlvvalinval	The total number of data path deregistration response messages on the R4 interface with invalid TLV value.	Int32
r4datapathderegsp-unknowntlv	The total number of data path deregistration response messages on the R4 interface with unknown TLVs.	Int32
r4datapathderegsp-dupltlvfound	The total number of data path deregistration response messages on the R4 interface with duplicate TLVs.	Int32
r4datapathderegsp-nosessfound	The total number of data path deregistration response messages on the R4 interface without any session information.	Int32
r4datapathderegsp-adminprohib	The total number of data path de-registration response messages discarded or denied due to admin prohibit. Triggers: Changes every time a data path de-registration response message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r4datapathderegsp-noresourcedrop	The total number of data path de-registration response messages discarded or denied due to resource unavailability. Triggers: Changes every time a data path de-registration response message is discarded or denied due to resource unavailability. Availability: across all the ASNGW services.	Int32
r4datapathderegsp-transiderr	The total number of data path deregistration response messages on the R4 interface with transaction ID errors.	Int32
r4keychadir-totsent	The total number of key change directive messages sent on the R4 interface.	Int32
r4keychadir-retranssent	The total number of key change directive messages re-transmitted on the R4 interface.	Int32
r4keychadir-totsendfail	The total number of failures occurred during transaction id generation and R4 Key Change Directive message not sent for specific interface. This counter is used to count the error while sending the R4 packets.	Int32
r4keychadir-totrec	The total number of key change directive messages received on the R4 interface.	Int32
r4keychadir-totacc	The total number of key change directive messages accepted on the R4 interface.	Int32
r4keychadir-totrelay	The total number of key change directive messages received from the base station and relayed on the the R4 interface. Triggers: Changes every time a key change directive message is relayed by the the R4 interface. Availability: across all ASNGW services.	Int32
r4keychadir-totdenied	The total number of key change directive messages denied on the R4 interface.	Int32
r4keychadir-totdiscard	The total number of key change directive messages discarded on the R4 interface.	Int32

Statistic	Description	Data Type
r4keychadir-badform	The total number of badly formed key change directive messages on the R4 interface.	Int32
r4keychadir-decodeerr	The total number of key change directive messages on the R4 interface with decode error.	Int32
r4keychadir-unspecerr	The total number of key change directive messages on the R4 interface with unspecified error.	Int32
r4keychadir-missmandtlv	The total number of key change directive messages on the R4 interface with missing mandatory TLVs.	Int32
r4keychadir-tlvvalinval	The total number of key change directive messages on the R4 interface with invalid TLV value.	Int32
r4keychadir-unknowntrlv	The total number of key change directive messages on the R4 interface with unknown TLVs.	Int32
r4keychadir-duptlvfound	The total number of key change directive messages on the R4 interface with duplicate TLVs.	Int32
r4keychadir-nosessfound	The total number of key change directive messages on the R4 interface without any session information.	Int32
r4keychadir-adminprohib	The total number of key change directive messages discarded or denied due to admin prohibit. Triggers: Changes every time a key change directive message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r4keychadir-noresourcedrop	The total number of key change directive messages discarded or denied due to resource unavailability. Triggers: Changes every time a key change directive message is discarded or denied due to resource unavailability. Availability: across all the ASNGW services.	Int32
r4keychadir-transiderr	The total number of key change directive messages on the R4 interface with transaction ID errors.	Int32
r4keychaack-totsent	The total number of key change acknowledgement messages sent on the R4 interface.	Int32
r4keychaack-retranssent	The total number of key change acknowledgement messages re-transmitted on the R4 interface.	Int32
r4keychaack-totsendfail	The total number of failures occurred during transaction id generation and R4 Key Change acknowledgement message not sent for specific interface. This counter is used to count the error while sending the R4 packets.	Int32
r4keychaack-totrec	The total number of key change acknowledgement messages received on the R4 interface.	Int32
r4keychaack-totacc	The total number of key change acknowledgement messages accepted on the R4 interface.	Int32
r4keychaack-totrelay	The total number of key change acknowledgement messages received from the base station and relayed on the the R4 interface. Triggers: Changes every time a key change acknowledgement message is relayed by the the R4 interface. Availability: across all ASNGW services.	Int32
r4keychaack-totdenied	The total number of key change acknowledgement messages denied on the R4 interface.	Int32

Statistic	Description	Data Type
r4keychaack-totdiscard	The total number of key change acknowledgement messages discarded on the R4 interface.	Int32
r4keychaack-badform	The total number of badly formed key change acknowledgement messages on the R4 interface.	Int32
r4keychaack-decodeerr	The total number of key change acknowledgement messages on the R4 interface with decode error.	Int32
r4keychaack-unspecerr	The total number of key change acknowledgement messages on the R4 interface with unspecified error.	Int32
r4keychaack-missmandtlv	The total number of key change acknowledgement messages on the R4 interface with missing mandatory TLVs.	Int32
r4keychaack-tlvvalinval	The total number of key change acknowledgement messages on the R4 interface with invalid TLV value.	Int32
r4keychaack-unknowntrlv	The total number of key change acknowledgement messages on the R4 interface with unknown TLVs.	Int32
r4keychaack-duptlvfound	The total number of key change acknowledgement messages on the R4 interface with duplicate TLVs.	Int32
r4keychaack-nosessfound	The total number of key change acknowledgement messages on the R4 interface without any session information.	Int32
r4keychaack-adminprohib	The total number of key change acknowledgement messages discarded or denied due to admin prohibit. Triggers: Changes every time a key change acknowledgement message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r4keychaack-noresourcedrop	The total number of key change acknowledgement messages discarded or denied due to resource unavailability. Triggers: Changes every time a key change acknowledgement message is discarded or denied due to resource unavailability. Availability: across all the ASNGW services.	Int32
r4keychaack-transiderr	The total number of key change acknowledgement messages on the R4 interface with transaction ID errors.	Int32
r4keychacnf-totrec	The total number of key change confirm messages received on the R4 interface.	Int32
r4keychacnf-totacc	The total number of key change confirm messages accepted on the R4 interface.	Int32
r4keychacnf-totrelay	The total number of key change confirm messages received from the base station and relayed on the the R4 interface. Triggers: Changes every time a key change confirm message is relayed by the the R4 interface. Availability: across all ASNGW services.	Int32
r4keychacnf-totdenied	The total number of key change confirm messages denied on the R4 interface.	Int32
r4keychacnf-totdiscard	The total number of key change confirm messages discarded on the R4 interface.	Int32
r4keychacnf-badform	The total number of badly formed key change confirm messages on the R4 interface.	Int32

Statistic	Description	Data Type
r4keychacnf-decodeerr	The total number of key change confirm messages on the R4 interface with decode error.	Int32
r4keychacnf-unspecerr	The total number of key change confirm messages on the R4 interface with unspecified error.	Int32
r4keychacnf-missmandtlv	The total number of key change confirm messages on the R4 interface with missing mandatory TLVs.	Int32
r4keychacnf-tlvvalinval	The total number of key change confirm messages on the R4 interface with invalid TLV value.	Int32
r4keychacnf-unknowntrlv	The total number of key change confirm messages on the R4 interface with unknown TLVs.	Int32
r4keychacnf-duptlvfound	The total number of key change confirm messages on the R4 interface with duplicate TLVs.	Int32
r4keychacnf-nosessfound	The total number of key change confirm messages on the R4 interface without any session information.	Int32
r4keychacnf-adminprohib	The total number of key change confirm messages discarded or denied due to admin prohibit. Triggers: Changes every time a key change confirm message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r4keychacnf-noresourcedrop	The total number of key change confirm messages discarded or denied due to resource unavailability. Triggers: Changes every time a key change confirm message is discarded or denied due to resource unavailability. Availability: across all the ASNGW services.	Int32
r4keychacnf-transiderr	The total number of key change confirm messages on the R4 interface with transaction ID errors.	Int32
r4cmackeycounupd-totsent	The total number of CMAC key count update messages sent on the R4 interface.	Int32
r4cmackeycounupd-retranssent	The total number of CMAC key count update messages re-transmitted on the R4 interface.	Int32
r4cmackeycounupd-totsendfail	The total number of failures occurred during transaction id generation and R4 CMAC key count update message not sent for specific interface. This counter is used to count the error while sending the R4 packets.	Int32
r4cmackeycounupd-totrec	The total number of CMAC key count update messages received on the R4 interface.	Int32
r4cmackeycounupd-totacc	The total number of CMAC key count update messages accepted on the R4 interface.	Int32
r4cmackeycounupd-totrelay	The total number of CMAC key count update messages received from the base station and relayed on the the R4 interface. Triggers: Changes every time a CMAC key count update message is relayed by the the R4 interface. Availability: across all ASNGW services.	Int32
r4cmackeycounupd-totdenied	The total number of CMAC key count update messages denied on the R4 interface.	Int32

Statistic	Description	Data Type
r4cmackeycounupd-totdiscard	The total number of CMAC key count update messages discarded on the R4 interface.	Int32
r4cmackeycounupd-badform	The total number of badly formed CMAC key count update messages on the R4 interface.	Int32
r4cmackeycounupd-decodeerr	The total number of CMAC key count update messages on the R4 interface with decode error.	Int32
r4cmackeycounupd-unspecerr	The total number of CMAC key count update messages on the R4 interface with unspecified error.	Int32
r4cmackeycounupd-missmandtlv	The total number of CMAC key count update messages on the R4 interface with missing mandatory TLVs.	Int32
r4cmackeycounupd-tlvvalinval	The total number of CMAC key count update messages on the R4 interface with invalid TLV value.	Int32
r4cmackeycounupd-unknowntrlv	The total number of CMAC key count update messages on the R4 interface with unknown TLVs.	Int32
r4cmackeycounupd-duptlvfound	The total number of CMAC key count update messages on the R4 interface with duplicate TLVs.	Int32
r4cmackeycounupd-nosessfound	The total number of CMAC key count update messages on the R4 interface without any session information.	Int32
r4cmackeycounupd-adminprohib	The total number of CMAC key count update messages discarded or denied due to admin prohibit. Triggers: Changes every time a CMAC key count update message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r4cmackeycounupd-noresourcedrop	The total number of CMAC key count update messages discarded or denied due to resource unavailability. Triggers: Changes every time a CMAC key count update message is discarded or denied due to resource unavailability. Availability: across all the ASNGW services.	Int32
r4cmackeycounupd-transiderr	The total number of CMAC key count update messages on the R4 interface with transaction ID errors.	Int32
r4cmackeycounack-totsent	The total number of CMAC key count acknowledgement messages sent on the R4 interface.	Int32
r4cmackeycounack-retranssent	The total number of CMAC key count acknowledgement messages re-transmitted on the R4 interface.	Int32
r4cmackeycounack-totsendfail	The total number of failures occurred during transaction id generation and R4 CMAC key count acknowledgement message not sent for specific interface. This counter is used to count the error while sending the R4 packets.	Int32
r4cmackeycounack-totrec	The total number of CMAC key count acknowledgement messages received on the R4 interface.	Int32
r4cmackeycounack-totacc	The total number of CMAC key count acknowledgement messages accepted on the R4 interface.	Int32

Statistic	Description	Data Type
r4cmackeycounack-totrelay	The total number of CMAC key count acknowledgement messages received from the base station and relayed on the the R4 interface. Triggers: Changes every time a CMAC key count acknowledgement message is relayed by the the R4 interface. Availability: across all ASNGW services.	Int32
r4cmackeycounack-totdenied	The total number of CMAC key count acknowledgement messages denied on the R4 interface.	Int32
r4cmackeycounack-totdiscard	The total number of CMAC key count acknowledgement messages discarded on the R4 interface.	Int32
r4cmackeycounack-badform	The total number of badly formed CMAC key count acknowledgement messages on the R4 interface.	Int32
r4cmackeycounack-decodeerr	The total number of CMAC key count acknowledgement messages on the R4 interface with decode error.	Int32
r4cmackeycounack-unspecerr	The total number of CMAC key count acknowledgement messages on the R4 interface with unspecified error.	Int32
r4cmackeycounack-missmandtlv	The total number of CMAC key count acknowledgement messages on the R4 interface with missing mandatory TLVs.	Int32
r4cmackeycounack-tlvvalinval	The total number of CMAC key count acknowledgement messages on the R4 interface with invalid TLV value.	Int32
r4cmackeycounack-unknowntlv	The total number of CMAC key count acknowledgement messages on the R4 interface with unknown TLVs.	Int32
r4cmackeycounack-duptlvfound	The total number of CMAC key count acknowledgement messages on the R4 interface with duplicate TLVs.	Int32
r4cmackeycounack-nosessfound	The total number of CMAC key count acknowledgement messages on the R4 interface without any session information.	Int32
r4cmackeycounack-adminprohib	The total number of CMAC key count acknowledgement messages discarded or denied due to admin prohibit. Triggers: Changes every time a CMAC key count acknowledgement message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r4cmackeycounack-noresourcedrop	The total number of CMAC key count acknowledgement messages discarded or denied due to resource unavailability. Triggers: Changes every time a CMAC key count acknowledgement message is discarded or denied due to resource unavailability. Availability: across all the ASNGW services.	Int32
r4cmackeycounack-transiderr	The total number of CMAC key count acknowledgement messages on the R4 interface with transaction ID errors.	Int32
r4imentstachareq-totsent	The total number of R4 idle mode entry MS state change request messages sent on the R4 interface.	Int32
r4imentstachareq-retranssent	The total number of R4 idle mode entry MS state change request messages re-transmitted on the R4 interface.	Int32

Statistic	Description	Data Type
r4imentstachareq-totendfail	The total number of failures occurred during transaction id generation and R4 idle mode entry MS state change request message not sent for specific interface. This counter is used to count the error while sending the R4 packets.	Int32
r4imentstachareq-totrec	The total number of R4 idle mode entry MS state change request messages received on the R4 interface.	Int32
r4imentstachareq-totacc	The total number of R4 idle mode entry MS state change request messages accepted on the R4 interface.	Int32
r4imentstachareq-totrelay	The total number of R4 idle mode entry MS state change request messages received from the base station and relayed on the the R4 interface. Triggers: Changes every time an R4 idle mode entry MS state change request message is relayed by the the R4 interface. Availability: across all ASNGW services.	Int32
r4imentstachareq-totdenied	The total number of R4 idle mode entry MS state change request messages denied on the R4 interface.	Int32
r4imentstachareq-totdiscard	The total number of R4 idle mode entry MS state change request messages discarded on the R4 interface.	Int32
r4imentstachareq-badform	The total number of badly formed R4 idle mode entry MS state change request messages on the R4 interface.	Int32
r4imentstachareq-decodeerr	The total number of R4 idle mode entry MS state change request messages on the R4 interface with decode error.	Int32
r4imentstachareq-unspecerr	The total number of R4 idle mode entry MS state change request messages on the R4 interface with unspecified error.	Int32
r4imentstachareq-misssmandtlv	The total number of R4 idle mode entry MS state change request messages on the R4 interface with missing mandatory TLVs.	Int32
r4imentstachareq-tlvvalinval	The total number of R4 idle mode entry MS state change request messages on the R4 interface with invalid TLV value.	Int32
r4imentstachareq-unknownnlv	The total number of R4 idle mode entry MS state change request messages on the R4 interface with unknown TLVs.	Int32
r4imentstachareq-duptlvfound	The total number of R4 idle mode entry MS state change request messages on the R4 interface with duplicate TLVs.	Int32
r4imentstachareq-nosessfound	The total number of R4 idle mode entry MS state change request messages on the R4 interface without any session information.	Int32
r4imentstachareq-adminprohib	The total number of R4 idle mode entry MS state change request messages discarded or denied due to admin prohibit. Triggers: Changes every time a R4 idle mode entry MS state change request message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r4imentstachareq-noresourcedrop	The total number of R4 idle mode entry MS state change request messages discarded or denied due to resource unavailability. Triggers: Changes every time a R4 idle mode entry MS state change request message is discarded or denied due to resource unavailability. Availability: across all the ASNGW services.	Int32

Statistic	Description	Data Type
r4imentstachareq-transiderr	The total number of R4 idle mode entry MS state change request messages on the R4 interface with transaction ID errors.	Int32
r4imentstacharsp-totsent	The total number of R4 idle mode entry MS state change response messages sent on the R4 interface.	Int32
r4imentstacharsp-retranssent	The total number of R4 idle mode entry MS state change response messages re-transmitted on the R4 interface.	Int32
r4imentstacharsp-totsendfail	The total number of failures occurred during transaction id generation and R4 idle mode entry MS state change response message not sent for specific interface. This counter is used to count the error while sending the R4 packets.	Int32
r4imentstacharsp-totrec	The total number of R4 idle mode entry MS state change response messages received on the R4 interface.	Int32
r4imentstacharsp-totacc	The total number of R4 idle mode entry MS state change response messages accepted on the R4 interface.	Int32
r4imentstacharsp-totrelay	The total number of R4 idle mode entry MS state change response messages received from the base station and relayed on the the R4 interface. Triggers: Changes every time an R4 idle mode entry MS state change response message is relayed by the the R4 interface. Availability: across all ASNGW services.	Int32
r4imentstacharsp-totdenied	The total number of R4 idle mode entry MS state change response messages denied on the R4 interface.	Int32
r4imentstacharsp-totdiscard	The total number of R4 idle mode entry MS state change response messages discarded on the R4 interface.	Int32
r4imentstacharsp-badform	The total number of badly formed R4 idle mode entry MS state change response messages on the R4 interface.	Int32
r4imentstacharsp-decodeerr	The total number of R4 idle mode entry MS state change response messages on the R4 interface with decode error.	Int32
r4imentstacharsp-unspecerr	The total number of R4 idle mode entry MS state change response messages on the R4 interface with unspecified error.	Int32
r4imentstacharsp-missmandtlv	The total number of R4 idle mode entry MS state change response messages on the R4 interface with missing mandatory TLVs.	Int32
r4imentstacharsp-tlvvalinval	The total number of R4 idle mode entry MS state change response messages on the R4 interface with invalid TLV value.	Int32
r4imentstacharsp-unknowntrlv	The total number of R4 idle mode entry MS state change response messages on the R4 interface with unknown TLVs.	Int32
r4imentstacharsp-duptlvfound	The total number of R4 idle mode entry MS state change response messages on the R4 interface with duplicate TLVs.	Int32
r4imentstacharsp-nosessfound	The total number of R4 idle mode entry MS state change response messages on the R4 interface without any session information.	Int32

Statistic	Description	Data Type
r4imentstacharsp-adminprohib	The total number of R4 idle mode entry MS state change response messages discarded or denied due to admin prohibit. Triggers: Changes every time an R4 idle mode entry MS state change response message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r4imentstacharsp-noresourcedrop	The total number of R4 idle mode entry MS state change response messages discarded or denied due to resource unavailability. Triggers: Changes every time an R4 idle mode entry MS state change response message is discarded or denied due to resource unavailability. Availability: across all the ASNGW services.	Int32
r4imentstacharsp-transiderr	The total number of R4 idle mode entry MS state change response messages on the R4 interface with transaction ID errors.	Int32
r4imentstachaack-totsent	The total number of R4 idle mode entry state change acknowledgement messages sent on the R4 interface.	Int32
r4imentstachaack-retranssent	The total number of R4 idle mode entry state change acknowledgement messages re-transmitted on the R4 interface.	Int32
r4imentstachaack-totsendfail	The total number of failures occurred during transaction id generation and R4 idle mode entry state change acknowledgement message not sent for specific interface. This counter is used to count the error while sending the R4 packets.	Int32
r4imentstachaack-totrec	The total number of R4 idle mode entry state change acknowledgement messages received on the R4 interface.	Int32
r4imentstachaack-totacc	The total number of R4 idle mode entry state change acknowledgement messages accepted on the R4 interface.	Int32
r4imentstachaack-totrelay	The total number of R4 idle mode entry state change acknowledgement messages received from the base station and relayed on the the R4 interface. Triggers: Changes every time an R4 idle mode entry state change acknowledgement message is relayed by the the R4 interface. Availability: across all ASNGW services.	Int32
r4imentstachaack-totdenied	The total number of R4 idle mode entry state change acknowledgement messages denied on the R4 interface.	Int32
r4imentstachaack-totdiscard	The total number of R4 idle mode entry state change acknowledgement messages discarded on the R4 interface.	Int32
r4imentstachaack-badform	The total number of badly formed R4 idle mode entry state change acknowledgement messages on the R4 interface.	Int32
r4imentstachaack-decodeerr	The total number of R4 idle mode entry state change acknowledgement messages on the R4 interface with decode error.	Int32
r4imentstachaack-unspecerr	The total number of R4 idle mode entry state change acknowledgement messages on the R4 interface with unspecified error.	Int32
r4imentstachaack-mismandtlv	The total number of R4 idle mode entry state change acknowledgement messages on the R4 interface with missing mandatory TLVs.	Int32
r4imentstachaack-tlvvalinval	The total number of R4 idle mode entry state change acknowledgement messages on the R4 interface with invalid TLV value.	Int32

Statistic	Description	Data Type
r4imentstachaack-unknownlv	The total number of R4 idle mode entry state change acknowledgement messages on the R4 interface with unknown TLVs.	Int32
r4imentstachaack-duptlvfound	The total number of R4 idle mode entry state change acknowledgement messages on the R4 interface with duplicate TLVs.	Int32
r4imentstachaack-nosessfound	The total number of R4 idle mode entry state change acknowledgement messages on the R4 interface without any session information.	Int32
r4imentstachaack-adminprohib	The total number of R4 idle mode entry state change acknowledgement messages discarded or denied due to admin prohibit. Triggers: Changes every time an R4 idle mode entry state change acknowledgement message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r4imentstachaack-noresourcedrop	The total number of R4 idle mode entry state change acknowledgement messages discarded or denied due to resource unavailability. Triggers: Changes every time an R4 idle mode entry state change acknowledgement message is discarded or denied due to resource unavailability. Availability: across all the ASNGW services.	Int32
r4imentstachaack-transiderr	The total number of R4 idle mode entry state change acknowledgement messages on the R4 interface with transaction ID errors.	Int32
r4anchorpcind-totsent	The total number of R4 anchor paging controller indicator messages sent on the R4 interface.	Int32
r4anchorpcind-retranssent	The total number of R4 anchor paging controller indicator messages re-transmitted on the R4 interface.	Int32
r4anchorpcind-totsendfail	The total number of failures occurred during transaction id generation and R4 anchor paging controller indicator message not sent for specific interface. This counter is used to count the error while sending the R4 packets.	Int32
r4anchorpcind-totrec	The total number of R4 anchor paging controller indicator messages received on the R4 interface.	Int32
r4anchorpcind-totacc	The total number of R4 anchor paging controller indicator messages accepted on the R4 interface.	Int32
r4anchorpcind-totrelay	The total number of R4 anchor paging controller indicator messages received from the base station and relayed on the the R4 interface. Triggers: Changes every time an R4 anchor paging controller indicator message is relayed by the the R4 interface. Availability: across all ASNGW services.	Int32
r4anchorpcind-totdenied	The total number of R4 anchor paging controller indicator messages denied on the R4 interface.	Int32
r4anchorpcind-totdiscard	The total number of R4 anchor paging controller indicator messages discarded on the R4 interface.	Int32
r4anchorpcind-badform	The total number of badly formed R4 anchor paging controller indicator messages on the R4 interface.	Int32
r4anchorpcind-decodeerr	The total number of R4 anchor paging controller indicator messages on the R4 interface with decode error.	Int32

Statistic	Description	Data Type
r4anchorpcind-unspecerr	The total number of R4 anchor paging controller indicator messages on the R4 interface with unspecified error.	Int32
r4anchorpcind-missmandtlv	The total number of R4 anchor paging controller indicator messages on the R4 interface with missing mandatory TLVs.	Int32
r4anchorpcind-tlvvalinval	The total number of R4 anchor paging controller indicator messages on the R4 interface with invalid TLV value.	Int32
r4anchorpcind-unknownctlv	The total number of R4 anchor paging controller indicator messages on the R4 interface with unknown TLVs.	Int32
r4anchorpcind-duptlvfound	The total number of R4 anchor paging controller indicator messages on the R4 interface with duplicate TLVs.	Int32
r4anchorpcind-nosessfound	The total number of R4 anchor paging controller indicator messages on the R4 interface without any session information.	Int32
r4anchorpcind-adminprohib	The total number of R4 anchor paging controller indicator messages discarded or denied due to admin prohibit. Triggers: Changes every time an R4 anchor paging controller indicator message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r4anchorpcind-noresourcedrop	The total number of R4 anchor paging controller indicator messages discarded or denied due to resource unavailability. Triggers: Changes every time an R4 anchor paging controller indicator message is discarded or denied due to resource unavailability. Availability: across all the ASNGW services.	Int32
r4anchorpcind-transiderr	The total number of R4 anchor paging controller indicator messages on the R4 interface with transaction ID errors.	Int32
r4anchorpcack-totsent	The total number of R4 anchor paging controller acknowledgement messages sent on the R4 interface.	Int32
r4anchorpcack-retranssent	The total number of R4 anchor paging controller acknowledgement messages re-transmitted on the R4 interface.	Int32
r4anchorpcack-totsendfail	The total number of failures occurred during transaction id generation and R4 anchor paging controller acknowledgement message not sent for specific interface. This counter is used to count the error while sending the R4 packets.	Int32
r4anchorpcack-totrec	The total number of R4 anchor paging controller acknowledgement messages received on the R4 interface.	Int32
r4anchorpcack-totacc	The total number of R4 anchor paging controller acknowledgement messages accepted on the R4 interface.	Int32
r4anchorpcack-totrelay	The total number of R4 anchor paging controller acknowledgement messages received from the base station and relayed on the the R4 interface. Triggers: Changes every time an R4 anchor paging controller acknowledgement message is relayed by the the R4 interface. Availability: across all ASNGW services.	Int32
r4anchorpcack-totdenied	The total number of R4 anchor paging controller acknowledgement messages denied on the R4 interface.	Int32

Statistic	Description	Data Type
r4anchorpack-totdiscard	The total number of R4 anchor paging controller acknowledgement messages discarded on the R4 interface.	Int32
r4anchorpack-badform	The total number of badly formed R4 anchor paging controller acknowledgement messages on the R4 interface.	Int32
r4anchorpack-decodeerr	The total number of R4 anchor paging controller acknowledgement messages on the R4 interface with decode error.	Int32
r4anchorpack-unspecerr	The total number of R4 anchor paging controller acknowledgement messages on the R4 interface with unspecified error.	Int32
r4anchorpack-missmandtlv	The total number of R4 anchor paging controller acknowledgement messages on the R4 interface with missing mandatory TLVs.	Int32
r4anchorpack-tlvvalinval	The total number of R4 anchor paging controller acknowledgement messages on the R4 interface with invalid TLV value.	Int32
r4anchorpack-unknowntrlv	The total number of R4 anchor paging controller acknowledgement messages on the R4 interface with unknown TLVs.	Int32
r4anchorpack-duptlvfound	The total number of R4 anchor paging controller acknowledgement messages on the R4 interface with duplicate TLVs.	Int32
r4anchorpack-nosessfound	The total number of R4 anchor paging controller acknowledgement messages on the R4 interface without any session information.	Int32
r4anchorpack-adminprohib	The total number of R4 anchor paging controller acknowledgement messages discarded or denied due to admin prohibit. Triggers: Changes every time an R4 anchor paging controller acknowledgement message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r4anchorpack-noresourcedrop	The total number of R4 anchor paging controller acknowledgement messages discarded or denied due to resource unavailability. Triggers: Changes every time an R4 anchor paging controller acknowledgement message is discarded or denied due to resource unavailability. Availability: across all the ASNGW services.	Int32
r4anchorpack-transiderr	The total number of R4 anchor paging controller acknowledgement messages on the R4 interface with transaction ID errors.	Int32
r4imexitstachareq-totsent	The total number of R4 idle mode exit MS state change request messages sent on the R4 interface.	Int32
r4imexitstachareq-retranssent	The total number of R4 idle mode exit MS state change request messages re-transmitted on the R4 interface.	Int32
r4imexitstachareq-totsendfail	The total number of failures occurred during transaction id generation and R4 idle mode exit MS state change request message not sent for specific interface. This counter is used to count the error while sending the R4 packets.	Int32
r4imexitstachareq-totrec	The total number of R4 idle mode exit MS state change request messages received on the R4 interface.	Int32
r4imexitstachareq-totacc	The total number of R4 idle mode exit MS state change request messages accepted on the R4 interface.	Int32

Statistic	Description	Data Type
r4imexitstachareq-totrelay	The total number of R4 idle mode exit MS state change request messages received from the base station and relayed on the the R4 interface. Triggers: Changes every time an R4 idle mode exit MS state change request message is relayed by the the R4 interface. Availability: across all ASNGW services.	Int32
r4imexitstachareq-totdenied	The total number of R4 idle mode exit MS state change request messages denied on the R4 interface.	Int32
r4imexitstachareq-totdiscard	The total number of R4 idle mode exit MS state change request messages discarded on the R4 interface.	Int32
r4imexitstachareq-badform	The total number of badly formed R4 idle mode exit MS state change request messages on the R4 interface.	Int32
r4imexitstachareq-decodeerr	The total number of R4 idle mode exit MS state change request messages on the R4 interface with decode error.	Int32
r4imexitstachareq-unspecerr	The total number of R4 idle mode exit MS state change request messages on the R4 interface with unspecified error.	Int32
r4imexitstachareq-mismandtlv	The total number of R4 idle mode exit MS state change request messages on the R4 interface with missing mandatory TLVs.	Int32
r4imexitstachareq-tlvvalinval	The total number of R4 idle mode exit MS state change request messages on the R4 interface with invalid TLV value.	Int32
r4imexitstachareq-unknowntrlv	The total number of R4 idle mode exit MS state change request messages on the R4 interface with unknown TLVs.	Int32
r4imexitstachareq-duptlvfound	The total number of R4 idle mode exit MS state change request messages on the R4 interface with duplicate TLVs.	Int32
r4imexitstachareq-nosessfound	The total number of R4 idle mode exit MS state change request messages on the R4 interface without any session information.	Int32
r4imexitstachareq-adminprohib	The total number of R4 idle mode exit MS state change request messages discarded or denied due to admin prohibit. Triggers: Changes every time an R4 idle mode exit MS state change request message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r4imexitstachareq-noresourcedrop	The total number of R4 idle mode exit MS state change request messages discarded or denied due to resource unavailability. Triggers: Changes every time an R4 idle mode exit MS state change request message is discarded or denied due to resource unavailability. Availability: across all the ASNGW services.	Int32
r4imexitstachareq-transiderr	The total number of R4 idle mode exit MS state change request messages on the R4 interface with transaction ID errors.	Int32
r4imexitstacharsp-totsent	The total number of R4 idle mode exit MS state change response messages sent on the R4 interface.	Int32
r4imexitstacharsp-retranssent	The total number of R4 idle mode exit MS state change response messages re-transmitted on the R4 interface.	Int32

Statistic	Description	Data Type
r4imexitstacharsp-totsendfail	The total number of failures that occurred during transaction id generation and R4 idle mode exit MS state change response message not sent for specific interface. This counter is used to count the error while sending the R4 packets.	Int32
r4imexitstacharsp-totrec	The total number of R4 idle mode exit MS state change response messages received on the R4 interface.	Int32
r4imexitstacharsp-totacc	The total number of R4 idle mode exit MS state change response messages accepted on the R4 interface.	Int32
r4imexitstacharsp-totrelay	The total number of R4 idle mode exit MS state change response messages received from the base station and relayed on the the R4 interface. Triggers: Changes every time an R4 idle mode exit MS state change response message is relayed by the the R4 interface. Availability: across all ASNGW services.	Int32
r4imexitstacharsp-totdenied	The total number of R4 idle mode exit MS state change response messages denied on the R4 interface.	Int32
r4imexitstacharsp-totdiscard	The total number of R4 idle mode exit MS state change response messages discarded on the R4 interface.	Int32
r4imexitstacharsp-badform	The total number of badly formed R4 idle mode exit MS state change response messages on the R4 interface.	Int32
r4imexitstacharsp-decodeerr	The total number of R4 idle mode exit MS state change response messages on the R4 interface with decode error.	Int32
r4imexitstacharsp-unspecerr	The total number of R4 idle mode exit MS state change response messages on the R4 interface with unspecified error.	Int32
r4imexitstacharsp-missmandtlv	The total number of R4 idle mode exit MS state change response messages on the R4 interface with missing mandatory TLVs.	Int32
r4imexitstacharsp-tlvvalinval	The total number of R4 idle mode exit MS state change response messages on the R4 interface with invalid TLV value.	Int32
r4imexitstacharsp-unknowntrlv	The total number of R4 idle mode exit MS state change response messages on the R4 interface with unknown TLVs.	Int32
r4imexitstacharsp-duptlvfound	The total number of R4 idle mode exit MS state change response messages on the R4 interface with duplicate TLVs.	Int32
r4imexitstacharsp-nosessfound	The total number of R4 idle mode exit MS state change response messages on the R4 interface without any session information.	Int32
r4imexitstacharsp-adminprohib	The total number of R4 idle mode exit MS state change response messages discarded or denied due to admin prohibit. Triggers: Changes every time an R4 idle mode exit MS state change response message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r4imexitstacharsp-noresourcedrop	The total number of R4 idle mode exit MS state change response messages discarded or denied due to resource unavailability. Triggers: Changes every time an R4 idle mode exit MS state change response message is discarded or denied due to resource unavailability. Availability: across all the ASNGW services.	Int32

## ■ Common Statistics

Statistic	Description	Data Type
r4imexitstacharsp-transiderr	The total number of R4 idle mode exit MS state change response messages on the R4 interface with transaction ID errors.	Int32
r4inipagreq-totsent	The total number of R4 initial paging request messages sent on the R4 interface.	Int32
r4inipagreq-retranssent	The total number of R4 initial paging request messages re-transmitted on the R4 interface.	Int32
r4inipagreq-totsendfail	The total number of failures occurred during transaction id generation and R4 initial paging request message not sent for specific interface. This counter is used to count the error while sending the R4 packets.	Int32
r4inipagreq-totrec	The total number of R4 initial paging request messages received on the R4 interface.	Int32
r4inipagreq-totacc	The total number of R4 initial paging request messages accepted on the R4 interface.	Int32
r4inipagreq-totrelay	The total number of R4 initial paging request messages received from the base station and relayed on the the R4 interface. Triggers: Changes every time an R4 initial paging request message is relayed by the the R4 interface. Availability: across all ASNGW services.	Int32
r4inipagreq-totdenied	The total number of R4 initial paging request messages denied on the R4 interface.	Int32
r4inipagreq-totdiscard	The total number of R4 initial paging request messages discarded on the R4 interface.	Int32
r4inipagreq-badform	The total number of badly formed R4 initial paging request messages on the R4 interface.	Int32
r4inipagreq-decodeerr	The total number of R4 initial paging request messages on the R4 interface with decode error.	Int32
r4inipagreq-unspecerr	The total number of R4 initial paging request messages on the R4 interface with unspecified error.	Int32
r4inipagreq-misssmandtlv	The total number of R4 initial paging request messages on the R4 interface with missing mandatory TLVs.	Int32
r4inipagreq-tlvvalinval	The total number of R4 initial paging request messages on the R4 interface with invalid TLV value.	Int32
r4inipagreq-unknowntrlv	The total number of R4 initial paging request messages on the R4 interface with unknown TLVs.	Int32
r4inipagreq-duptlvfound	The total number of R4 initial paging request messages on the R4 interface with duplicate TLVs.	Int32
r4inipagreq-nosessfound	The total number of R4 initial paging request messages on the R4 interface without any session information.	Int32
r4inipagreq-adminprohib	The total number of R4 initial paging request messages discarded or denied due to admin prohibit. Triggers: Changes every time an R4 initial paging request message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32

Statistic	Description	Data Type
r4inipagreq-noresourcedrop	The total number of R4 initial paging request messages discarded or denied due to resource unavailability. Triggers: Changes every time an R4 initial paging request message is discarded or denied due to resource unavailability. Availability: across all the ASNGW services.	Int32
r4inipagreq-transiderr	The total number of R4 initial paging request messages on the R4 interface with transaction ID errors.	Int32
r4inipagrsp-totsent	The total number of R4 initial paging response messages sent on the R4 interface.	Int32
r4inipagrsp-retranssent	The total number of R4 initial paging response messages re-transmitted on the R4 interface.	Int32
r4inipagrsp-totsendfail	The total number of failures occurred during transaction id generation and R4 initial paging response message not sent for specific interface. This counter is used to count the error while sending the R4 packets.	Int32
r4inipagrsp-totrec	The total number of R4 initial paging response messages received on the R4 interface.	Int32
r4inipagrsp-totacc	The total number of R4 initial paging response messages accepted on the R4 interface.	Int32
r4inipagrsp-totrelay	The total number of R4 initial paging response messages received from the base station and relayed on the the R4 interface. Triggers: Changes every time an R4 initial paging response message is relayed by the the R4 interface. Availability: across all ASNGW services.	Int32
r4inipagrsp-totdenied	The total number of R4 initial paging response messages denied on the R4 interface.	Int32
r4inipagrsp-totdiscard	The total number of R4 initial paging response messages discarded on the R4 interface.	Int32
r4inipagrsp-badform	The total number of badly formed R4 initial paging response messages on the R4 interface.	Int32
r4inipagrsp-decodeerr	The total number of R4 initial paging response messages on the R4 interface with decode error.	Int32
r4inipagrsp-unspecerr	The total number of R4 initial paging response messages on the R4 interface with unspecified error.	Int32
r4inipagrsp-missmandtlv	The total number of R4 initial paging response messages on the R4 interface with missing mandatory TLVs.	Int32
r4inipagrsp-tlvvalinval	The total number of R4 initial paging response messages on the R4 interface with invalid TLV value.	Int32
r4inipagrsp-unknowntlv	The total number of R4 initial paging response messages on the R4 interface with unknown TLVs.	Int32
r4inipagrsp-duptlvfound	The total number of R4 initial paging response messages on the R4 interface with duplicate TLVs.	Int32
r4inipagrsp-nosessfound	The total number of R4 initial paging response messages on the R4 interface without any session information.	Int32

Statistic	Description	Data Type
r4inipagrsp-adminprohib	The total number of R4 initial paging response messages discarded or denied due to admin prohibit. Triggers: Changes every time an R4 initial paging response message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r4inipagrsp-noresourcedrop	The total number of R4 initial paging response messages discarded or denied due to resource unavailability. Triggers: Changes every time an R4 initial paging response message is discarded or denied due to resource unavailability. Availability: across all the ASNGW services.	Int32
r4inipagrsp-transiderr	The total number of R4 initial paging response messages on the R4 interface with transaction ID errors.	Int32
r4delmsentreq-totsent	The total number of R4 delete MS entry request messages sent on the R4 interface.	Int32
r4delmsentreq-retranssent	The total number of R4 delete MS entry request messages re-transmitted on the R4 interface.	Int32
r4delmsentreq-totsefail	The total number of failures occurred during transaction id generation and R4 delete MS entry request message not sent for specific interface. This counter is used to count the error while sending the R4 packets.	Int32
r4delmsentreq-totrec	The total number of R4 delete MS entry request messages received on the R4 interface.	Int32
r4delmsentreq-totacc	The total number of R4 delete MS entry request messages accepted on the R4 interface.	Int32
r4delmsentreq-totrelay	The total number of R4 delete MS entry request messages received from the base station and relayed on the the R4 interface. Triggers: Changes every time an R4 delete MS entry request message is relayed by the the R4 interface. Availability: across all ASNGW services.	Int32
r4delmsentreq-totdenied	The total number of R4 delete MS entry request messages denied on the R4 interface.	Int32
r4delmsentreq-totdiscard	The total number of R4 delete MS entry request messages discarded on the R4 interface.	Int32
r4delmsentreq-badform	The total number of badly formed R4 delete MS entry request messages on the R4 interface.	Int32
r4delmsentreq-decodeerr	The total number of R4 delete MS entry request messages on the R4 interface with decode error.	Int32
r4delmsentreq-unspeccerr	The total number of R4 delete MS entry request messages on the R4 interface with unspecified error.	Int32
r4delmsentreq-mismandtlv	The total number of R4 delete MS entry request messages on the R4 interface with missing mandatory TLVs.	Int32
r4delmsentreq-tlvvalinval	The total number of R4 delete MS entry request messages on the R4 interface with invalid TLV value.	Int32
r4delmsentreq-unknowntlv	The total number of R4 delete MS entry request messages on the R4 interface with unknown TLVs.	Int32
r4delmsentreq-dupltlvfound	The total number of R4 delete MS entry request messages on the R4 interface with duplicate TLVs.	Int32

Statistic	Description	Data Type
r4delmsentreq-nosessfound	The total number of R4 delete MS entry request messages on the R4 interface without any session information.	Int32
r4delmsentreq-adminprohib	The total number of R4 delete MS entry request messages discarded or denied due to admin prohibit. Triggers: Changes every time an R4 delete MS entry request message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r4delmsentreq-noresourcedrop	The total number of R4 delete MS entry request messages discarded or denied due to resource unavailability. Triggers: Changes every time an R4 delete MS entry request message is discarded or denied due to resource unavailability. Availability: across all the ASNGW services.	Int32
r4delmsentreq-transiderr	The total number of R4 delete MS entry request messages on the R4 interface with transaction ID errors.	Int32
r4delmsentrsp-totsent	The total number of R4 delete MS entry response messages sent on the R4 interface.	Int32
r4delmsentrsp-retranssent	The total number of R4 delete MS entry response messages re-transmitted on the R4 interface.	Int32
r4delmsentrsp-totsendfail	The total number of failures occurred during transaction id generation and R4 delete MS entry response message not sent for specific interface. This counter is used to count the error while sending the R4 packets.	Int32
r4delmsentrsp-totrec	The total number of R4 delete MS entry response messages received on the R4 interface.	Int32
r4delmsentrsp-totacc	The total number of R4 delete MS entry response messages accepted on the R4 interface.	Int32
r4delmsentrsp-totrelay	The total number of R4 delete MS entry response messages received from the base station and relayed on the the R4 interface. Triggers: Changes every time an R4 delete MS entry response message is relayed by the the R4 interface. Availability: across all ASNGW services.	Int32
r4delmsentrsp-totdenied	The total number of R4 delete MS entry response messages denied on the R4 interface.	Int32
r4delmsentrsp-totdiscard	The total number of R4 delete MS entry response messages discarded on the R4 interface.	Int32
r4delmsentrsp-badform	The total number of badly formed R4 delete MS entry response messages on the R4 interface.	Int32
r4delmsentrsp-decodeerr	The total number of R4 delete MS entry response messages on the R4 interface with decode error.	Int32
r4delmsentrsp-unspecerr	The total number of R4 delete MS entry response messages on the R4 interface with unspecified error.	Int32
r4delmsentrsp-missmandtlv	The total number of R4 delete MS entry response messages on the R4 interface with missing mandatory TLVs.	Int32
r4delmsentrsp-tlvvalinval	The total number of R4 delete MS entry response messages on the R4 interface with invalid TLV value.	Int32
r4delmsentrsp-unknowntlv	The total number of R4 delete MS entry response messages on the R4 interface with unknown TLVs.	Int32

Statistic	Description	Data Type
r4delmsentrsp-duptlvfound	The total number of R4 delete MS entry response messages on the R4 interface with duplicate TLVs.	Int32
r4delmsentrsp-nosessfound	The total number of R4 delete MS entry response messages on the R4 interface without any session information.	Int32
r4delmsentrsp-adminprohib	The total number of R4 delete MS entry response messages discarded or denied due to admin prohibit. Triggers: Changes every time an R4 delete MS entry response message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r4delmsentrsp-noresourcedrop	The total number of R4 delete MS entry response messages discarded or denied due to resource unavailability. Triggers: Changes every time an R4 delete MS entry response message is discarded or denied due to resource unavailability. Availability: across all the ASNGW services.	Int32
r4delmsentrsp-transiderr	The total number of R4 delete MS entry response messages on the R4 interface with transaction ID errors.	Int32
r4horeq-totsent	The total number of R4 handover request messages sent on the R4 interface.	Int32
r4horeq-retranssent	The total number of R4 handover request messages re-transmitted on the R4 interface.	Int32
r4horeq-totsendfail	The total number of failures occurred during transaction id generation and R4 handover request message not sent for specific interface. This counter is used to count the error while sending the R4 packets.	Int32
r4horeq-totrec	The total number of R4 handover request messages received on the R4 interface.	Int32
r4horeq-totacc	The total number of R4 handover request messages accepted on the R4 interface.	Int32
r4horeq-totrelay	The total number of R4 handover request messages received from the base station and relayed on the the R4 interface. Triggers: Changes every time an R4 handover request message is relayed by the the R4 interface. Availability: across all ASNGW services.	Int32
r4horeq-totdenied	The total number of R4 handover request messages denied on the R4 interface.	Int32
r4horeq-totdiscard	The total number of R4 handover request messages discarded on the R4 interface.	Int32
r4horeq-badform	The total number of badly formed R4 handover request messages on the R4 interface.	Int32
r4horeq-decodeerr	The total number of R4 handover request messages on the R4 interface with decode error.	Int32
r4horeq-unspecerr	The total number of R4 handover request messages on the R4 interface with unspecified error.	Int32
r4horeq-missmandtlv	The total number of R4 handover request messages on the R4 interface with missing mandatory TLVs.	Int32
r4horeq-tlvvalinval	The total number of R4 handover request messages on the R4 interface with invalid TLV value.	Int32
r4horeq-unknowntlv	The total number of R4 handover request messages on the R4 interface with unknown TLVs.	Int32

Statistic	Description	Data Type
r4horeq-duptlvfound	The total number of R4 handover request messages on the R4 interface with duplicate TLVs.	Int32
r4horeq-nosessfound	The total number of R4 handover request messages on the R4 interface without any session information.	Int32
r4horeq-adminprohib	The total number of R4 handover request messages discarded or denied due to admin prohibit. Triggers: Changes every time an R4 handover request message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r4horeq-noresourcedrop	The total number of R4 handover request messages discarded or denied due to resource unavailability. Triggers: Changes every time an R4 handover request message is discarded or denied due to resource unavailability. Availability: across all the ASNGW services.	Int32
r4horeq-transiderr	The total number of R4 handover request messages on the R4 interface with transaction ID errors.	Int32
r4horsp-totsent	The total number of R4 handover response messages sent on the R4 interface.	Int32
r4horsp-retranssent	The total number of R4 handover response messages re-transmitted on the R4 interface.	Int32
r4horsp-totsendfail	The total number of failures occurred during transaction id generation and R4 handover response message not sent for specific interface. This counter is used to count the error while sending the R4 packets.	Int32
r4horsp-totrec	The total number of R4 handover response messages received on the R4 interface.	Int32
r4horsp-totacc	The total number of R4 handover response messages accepted on the R4 interface.	Int32
r4horsp-totrelay	The total number of R4 handover request messages received from the base station and relayed on the the R4 interface. Triggers: Changes every time an R4 handover request message is relayed by the the R4 interface. Availability: across all ASNGW services.	Int32
r4horsp-totdenied	The total number of R4 handover response messages denied on the R4 interface.	Int32
r4horsp-totdiscard	The total number of R4 handover response messages discarded on the R4 interface.	Int32
r4horsp-badform	The total number of badly formed R4 handover response messages on the R4 interface.	Int32
r4horsp-decodeerr	The total number of R4 handover response messages on the R4 interface with decode error.	Int32
r4horsp-unspeccerr	The total number of R4 handover response messages on the R4 interface with unspecified error.	Int32
r4horsp-missmandtlv	The total number of R4 handover response messages on the R4 interface with missing mandatory TLVs.	Int32
r4horsp-tlvvalinval	The total number of R4 handover response messages on the R4 interface with invalid TLV value.	Int32

Statistic	Description	Data Type
r4horsp-unknowntrlv	The total number of R4 handover response messages on the R4 interface with unknown TLVs.	Int32
r4horsp-duptlrvfound	The total number of R4 handover response messages on the R4 interface with duplicate TLVs.	Int32
r4horsp-nosessfound	The total number of R4 handover response messages on the R4 interface without any session information.	Int32
r4horsp-adminprohib	The total number of R4 handover response messages discarded or denied due to admin prohibit. Triggers: Changes every time an R4 handover response message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r4horsp-noresourcedrop	The total number of R4 handover response messages discarded or denied due to resource unavailability. Triggers: Changes every time an R4 handover response message is discarded or denied due to resource unavailability. Availability: across all the ASNGW services.	Int32
r4horsp-transiderr	The total number of R4 handover response messages on the R4 interface with transaction ID errors.	Int32
r4hoack-totsent	The total number of R4 handover acknowledgement messages sent on the R4 interface.	Int32
r4hoack-retranssent	The total number of R4 handover acknowledgement messages re-transmitted on the R4 interface.	Int32
r4hoack-totsendfail	The total number of failures occurred during transaction id generation and R4 handover acknowledgement message not sent for specific interface. This counter is used to count the error while sending the R4 packets.	Int32
r4hoack-totrec	The total number of R4 handover acknowledgement messages received on the R4 interface.	Int32
r4hoack-totacc	The total number of R4 handover acknowledgement messages accepted on the R4 interface.	Int32
r4hoack-totrelay	The total number of R4 handover acknowledgement messages received from the base station and relayed on the the R4 interface. Triggers: Changes every time an R4 handover acknowledgement message is relayed by the the R4 interface. Availability: across all ASNGW services.	Int32
r4hoack-totdenied	The total number of R4 handover acknowledgement messages denied on the R4 interface.	Int32
r4hoack-totdiscard	The total number of R4 handover acknowledgement messages discarded on the R4 interface.	Int32
r4hoack-badform	The total number of badly formed R4 handover acknowledgement messages on the R4 interface.	Int32
r4hoack-decodeerr	The total number of R4 handover acknowledgement messages on the R4 interface with decode error.	Int32

Statistic	Description	Data Type
r4hoack-unspecerr	The total number of R4 handover acknowledgement messages on the R4 interface with unspecified error.	Int32
r4hoack-mismandtlv	The total number of R4 handover acknowledgement messages on the R4 interface with missing mandatory TLVs.	Int32
r4hoack-tlvvalinval	The total number of R4 handover acknowledgement messages on the R4 interface with invalid TLV value.	Int32
r4hoack-unknownctlv	The total number of R4 handover acknowledgement messages on the R4 interface with unknown TLVs.	Int32
r4hoack-duptlvfound	The total number of R4 handover acknowledgement messages on the R4 interface with duplicate TLVs.	Int32
r4hoack-nosessfound	The total number of R4 handover acknowledgement messages on the R4 interface without any session information.	Int32
r4hoack-adminprohib	The total number of R4 handover acknowledgement messages discarded or denied due to admin prohibit. Triggers: Changes every time an R4 handover acknowledgement message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r4hoack-noresourcedrop	The total number of R4 handover acknowledgement messages discarded or denied due to resource unavailability. Triggers: Changes every time an R4 handover acknowledgement message is discarded or denied due to resource unavailability. Availability: across all the ASNGW services.	Int32
r4hoack-transiderr	The total number of R4 handover acknowledgement messages on the R4 interface with transaction ID errors.	Int32
r4hocnf-totsent	The total number of R4 handover confirm messages sent on the R4 interface.	Int32
r4hocnf-retranssent	The total number of R4 handover confirm messages re-transmitted on the R4 interface.	Int32
r4hocnf-totsendfail	The total number of failures occurred during transaction id generation and R4 handover confirm message not sent for specific interface. This counter is used to count the error while sending the R4 packets.	Int32
r4hocnf-totrec	The total number of R4 handover confirm messages received on the R4 interface.	Int32
r4hocnf-totacc	The total number of R4 handover confirm messages accepted on the R4 interface.	Int32
r4hocnf-totrelay	The total number of R4 handover confirm messages received from the base station and relayed on the the R4 interface. Triggers: Changes every time an R4 handover confirm message is relayed by the the R4 interface. Availability: across all ASNGW services.	Int32
r4hocnf-totdenied	The total number of R4 handover confirm messages denied on the R4 interface.	Int32
r4hocnf-totdiscard	The total number of R4 handover confirm messages discarded on the R4 interface.	Int32
r4hocnf-badform	The total number of badly formed R4 handover confirm messages on the R4 interface.	Int32
r4hocnf-decodeerr	The total number of R4 handover confirm messages on the R4 interface with decode error.	Int32

Statistic	Description	Data Type
r4hocnf-unspecerr	The total number of R4 handover confirm messages on the R4 interface with unspecified error.	Int32
r4hocnf-missmandtlv	The total number of R4 handover confirm messages on the R4 interface with missing mandatory TLVs.	Int32
r4hocnf-tlvvalinval	The total number of R4 handover confirm messages on the R4 interface with invalid TLV value.	Int32
r4hocnf-unknownctlv	The total number of R4 handover confirm messages on the R4 interface with unknown TLVs.	Int32
r4hocnf-duptlvfound	The total number of R4 handover confirm messages on the R4 interface with duplicate TLVs.	Int32
r4hocnf-nosessfound	The total number of R4 handover confirm messages on the R4 interface without any session information.	Int32
r4hocnf-adminprohib	The total number of R4 handover confirm messages discarded or denied due to admin prohibit. Triggers: Changes every time an R4 handover confirm message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r4hocnf-noresourcedrop	The total number of R4 handover confirm messages discarded or denied due to resource unavailability. Triggers: Changes every time an R4 handover confirm message is discarded or denied due to resource unavailability. Availability: across all the ASNGW services.	Int32
r4hocnf-transiderr	The total number of R4 handover confirm messages on the R4 interface with transaction ID errors.	Int32
r4hocmpl-totsent	The total number of R4 handover complete messages sent on the R4 interface.	Int32
r4hocmpl-retranssent	The total number of R4 handover complete messages re-transmitted on the R4 interface.	Int32
r4hocmpl-totsendfail	The total number of failures occurred during transaction id generation and R4 handover complete message not sent for specific interface. This counter is used to count the error while sending the R4 packets.	Int32
r4hocmpl-totrec	The total number of R4 handover complete messages received on the R4 interface.	Int32
r4hocmpl-totacc	The total number of R4 handover complete messages accepted on the R4 interface.	Int32
r4hocmpl-totrelay	The total number of R4 handover complete messages received from the base station and relayed on the the R4 interface. Triggers: Changes every time an R4 handover complete message is relayed by the the R4 interface. Availability: across all ASNGW services.	Int32
r4hocmpl-totdenied	The total number of R4 handover complete messages denied on the R4 interface.	Int32
r4hocmpl-totdiscard	The total number of R4 handover complete messages discarded on the R4 interface.	Int32
r4hocmpl-badform	The total number of badly formed R4 handover complete messages on the R4 interface.	Int32

Statistic	Description	Data Type
r4hocmpl-decodeerr	The total number of R4 handover complete messages on the R4 interface with decode error.	Int32
r4hocmpl-unspecerr	The total number of R4 handover complete messages on the R4 interface with unspecified error.	Int32
r4hocmpl-mismandtlv	The total number of R4 handover complete messages on the R4 interface with missing mandatory TLVs.	Int32
r4hocmpl-tlvvalinval	The total number of R4 handover complete messages on the R4 interface with invalid TLV value.	Int32
r4hocmpl-unknowntlv	The total number of R4 handover complete messages on the R4 interface with unknown TLVs.	Int32
r4hocmpl-duptlvfound	The total number of R4 handover complete messages on the R4 interface with duplicate TLVs.	Int32
r4hocmpl-nosessfound	The total number of R4 handover complete messages on the R4 interface without any session information.	Int32
r4hocmpl-adminprohib	The total number of R4 handover complete messages discarded or denied due to admin prohibit. Triggers: Changes every time an R4 handover complete message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r4hocmpl-noresourcedrop	The total number of R4 handover complete messages discarded or denied due to resource unavailability. Triggers: Changes every time an R4 handover complete message is discarded or denied due to resource unavailability. Availability: across all the ASNGW services.	Int32
r4hocmpl-transiderr	The total number of R4 handover complete messages on the the R4 interface with transaction ID errors.	Int32
r4unknown-totrec	The total number of unknown messages sent on the R4 interface.	Int32
r4unknown-totacc	The total number of unknown messages re-transmitted on the R4 interface.	Int32
r4unknown-totrelay	The total number of R4 unknown messages received from the base station and relayed on the the R4 interface. Triggers: Changes every time an R4 unknown message is relayed by the the R4 interface. Availability: across all ASNGW services.	Int32
r4unknown-totdenied	The total number of unknown denied messages received on the R4 interface.	Int32
r4unknown-totdiscard	The total number of unknown discarded messages accepted on the R4 interface.	Int32
r4unknown-badform	The total number of unknown badly formed messages on the R4 interface.	Int32
r4unknown-decodeerr	The total number of unknown messages discarded on the R4 interface.	Int32
r4unknown-unspecerr	The total number of unknown unspecified error messages on the R4 interface.	Int32
r4unknown-mismandtlv	The total number of unknown messages on the R4 interface with missing mandatory TLV.	Int32
r4unknown-tlvvalinval	The total number of unknown messages on the R4 interface with an invalid TLV.	Int32

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Statistic	Description	Data Type
r4unknown-unknownctlv	The total number of unknown messages on the R4 interface with unknown TLVs.	Int32
r4unknown-duptlvfound	The total number of messages on the R4 interface with duplicate TLV values.	Int32
r4unknown-nosessfound	The total number of messages on the R4 interface with no session information.	Int32
r4unknown-adminprohib	The total number of R4 unknown messages discarded or denied due to admin prohibit. Triggers: Changes every time an R4 unknown message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r4unknown-noresourcedrop	The total number of R4 unknown messages discarded or denied due to resource unavailability. Triggers: Changes every time an R4 unknown message is discarded or denied due to resource unavailability. Availability: across all the ASNGW services.	Int32
r4unknown-transiderr	The total number of unknown messages on the R4 interface with transaction ID errors.	Int32
r4datagrerec-totpackrec	The total number of data packets received through GRE tunnel on the R4 interface.	Int32
r4datagrerec-prottyperrror	Total number of protected type errors received through GRE tunnel the R4 interface.	Int32
r4datagrerec-totbytrec	The total number of data bytes received through GRE tunnel the R4 interface.	Int32
r4datagrerec-grekeyabs	The total number of data message received without GRE key through GRE tunnel the R4 interface.	Int32
r4datagrerec-grecherr	The total number of data message received with checksum error through GRE tunnel the R4 interface.	Int32
r4datagrerec-invpcklen	Total number of protectd type errors received through GRE tunnel the R4 interface.	Int32
r4datagrerec-nosessfound	The total number of data bytes received through GRE tunnel the R4 interface.	Int32
r4datagrerec-unspecerr	The total number of data message received without GRE key through GRE tunnel the R4 interface.	Int32
r4prelocind-totsent	The total number of R4 PC Relocation Indication messages sent to the ASNPC.	Int32
r4prelocind-retranssent	The total number of PC Relocation Indication messages retransmitted on the the R4 interface to the ASNPC.	Int32
r4prelocind-totsendfail	The total number of PC Relocation Indication message failures received from the ASNPC and relayed on the the R4 interface. This counter is used to count the error while sending the R4 packets.	Int32
r4prelocind-totrec	The total number of R4 PC Relocation Indication messages received by the ASNPC.	Int32
r4prelocind-totacc	The total number of R4 PC Relocation Indication messages accepted by the ASNPC.	Int32
r4prelocind-totrelay	The total number of R4 PC Relocation Indication messages sent to the ASNPC and relayed on the R6 interface. Triggers: Changes every time an R4 PC Relocation Indication message is relayed by the the R4 interface. Availability: across all ASNGW services.	Int32
r4prelocind-totdenied	The total number of PC Relocation Indication messages denied on the the R4 interface.	Int32

Statistic	Description	Data Type
r4prelocind-totdiscard	The total number of PC Relocation Indication messages discarded on the the R4 interface.	Int32
r4prelocind-badform	The total number of badly formed R4 PC Relocation Indication messages sent to the ASNPC.	Int32
r4prelocind-decodeerr	The total number of R4 PC Relocation Indication messages sent to the ASNPC with decode errors.	Int32
r4prelocind-unspecerr	The total number of R4 PC Relocation Indication messages sent to the ASNPC with unspecified errors.	Int32
r4prelocind-missmandtlv	The total number of R4 PC Relocation Indication messages sent to the ASNPC with missing mandatory TLVs.	Int32
r4prelocind-tlvvalinval	The total number of R4 PC Relocation Indication messages sent to the ASNPC with an invalid TLV.	Int32
r4prelocind-unknowntrlv	The total number of R4 PC Relocation Indication messages sent to the ASNPC with an unknown TLV.	Int32
r4prelocind-duptlvfound	The total number of R4 PC Relocation Indication messages sent to the ASNPC with duplicate TLVs.	Int32
r4prelocind-nosessfound	The total number of R4 PC Relocation Indication messages sent to the ASNPC without any session information.	Int32
r4prelocind-admprohibit	The total number of R4 PC Relocation Indication messages sent to the ASNPC that were discarded or denied due to admin prohibit. Triggers: Changes every time an R4 PC Relocation Indication message is discarded or denied due to admin prohibit. Availability: across all ASN GW services.	Int32
r4prelocind-noresourcedrop	The total number of R4 PC Relocation Indication messages sent to the ASNPC that were discarded or denied due to resource unavailability. Triggers: Changes every time an R4 PC Relocation Indication message is discarded or denied due to resource unavailability. Availability: across all ASN GW services.	Int32
r4prelocind-transiderr	The total number of R4 PC Relocation Indication messages sent to the ASNPC with a transaction ID error.	Int32
r4imexitstaind-totsent	The total number of Idle Mode Exit State Indication messages sent to the peer ASNGW.	Int32
r4imexitstaind-retranssent	The total number of Idle Mode Exit State Indication messages retransmitted on the the R4 interface to the peer ASNGW.	Int32
r4imexitstaind-totsendfail	The total number of Idle Mode Exit State Indication message failures received from the peer ASNGW and relayed on the the R4 interface. This counter is used to count the error while sending the R4 packets.	Int 32
r4imexitstaind-totrec	The total number of R4 Idle Mode Exit State Indication messages received by the peer ASNGW.	Int32
r4imexitstaind-totacc	The total number of R4 Idle Mode Exit State Indication messages accepted by the peer ASNGW.	Int32

Statistic	Description	Data Type
r4imexitstaind-totrelay	The total number of R4 Idle Mode Exit State Indication messages sent to the peer ASNPC and relayed on the R6 interface. Triggers: Changes every time an R4 Idle Mode Exit State Indication message is relayed by the the R4 interface. Availability: across all ASNGW services.	Int32
r4imexitstaind-totdenied	The total number of Idle Mode Exit State Indication messages to the peer ASNGW that were denied on the the R4 interface.	Int32
r4imexitstaind-totdiscard	The total number of Idle Mode Exit State Indication messages sent to the peer ASNGW that were discarded on the the R4 interface.	Int32
r4imexitstaind-badform	The total number of badly formed R4 Idle Mode Exit State Indication messages sent to the peer ASNGW.	Int32
r4imexitstaind-decodeerr	The total number of R4 Idle Mode Exit State Indication messages sent to the peer ASNGW with decode errors.	Int32
r4imexitstaind-unspecerr	The total number of R4 Idle Mode Exit State Indication messages sent to the peer ASNGW with unspecified errors.	Int32
r4imexitstaind-missmandtlv	The total number of R4 Idle Mode Exit State Indication messages sent to the peer ASNGW with missing mandatory TLVs.	Int32
r4imexitstaind-tlvvalinval	The total number of R4 Idle Mode Exit State Indication messages sent to the peer ASNGW with an invalid TLV.	Int32
r4imexitstaind-unknownctlv	The total number of R4 Idle Mode Exit State Indication messages sent to the peer ASNGW with an unknown TLV.	Int32
r4imexitstaind-duptlvfound	The total number of R4 Idle Mode Exit State Indication messages sent to the peer ASNGW with duplicate TLVs.	Int32
r4imexitstaind-nosessfound	The total number of R4 Idle Mode Exit State Indication messages sent to the peer ASNGW without any session information.	Int32
r4imexitstaind-admprohibit	The total number of R4 Idle Mode Exit State Indication messages sent to the peer ASNGW that were discarded or denied due to admin prohibit. Triggers: Changes every time an Idle Mode Exit State Indication message is discarded or denied due to admin prohibit. Availability: across all ASN GW services.	Int32
r4imexitstaind-noresourcedrop	The total number of R4 Idle Mode Exit State Indication messages sent to the peer ASNGW that were discarded or denied due to resource unavailability. Triggers: Changes every time an R4 Idle Mode Exit State Indication message is discarded or denied due to resource unavailability. Availability: across all ASN GW services.	Int32
r4imexitstaind-transiderr	The total number of R4 Idle Mode Exit State Indication messages sent to the peer ASNGW with a transaction ID error.	Int32
r4prelocack-totsent	The number of PC Relocation Acknowledgement messages sent to the ASNPC.	Int32
r4prelocack-retranssent	The total number of PC Relocation Acknowledgement messages retransmitted on the the R4 interface to the ASNPC.	Int32

Statistic	Description	Data Type
r4prelocack-totsendfail	The total number of PC Relocation Acknowledgement message failures sent to the ASNPC and relayed on the the R4 interface. This counter is used to count the error while sending the R4 packets.	Int32
r4prelocack-totrec	The total number of R4 PC Relocation Acknowledgement messages sent to the ASNPC.	Int32
r4prelocack-totacc	The total number of R4 PC Relocation Acknowledgement messages sent to the ASNPC.	Int32
r4prelocack-totrelay	The total number of R4 PC Relocation Acknowledgement messages sent to the ASNPC and relayed on the the R4 interface. Triggers: Changes every time an R4 Idle Mode Exit State Indication message is relayed by the the R4 interface. Availability: across all ASNGW services.	Int 32
r4prelocack-totdenied	The total number of PC Relocation Acknowledgement messages sent to the ASNPC that were denied on the the R4 interface.	Int32
r4prelocack-totdiscard	The total number of PC Relocation Acknowledgement messages sent to the ASNPC that were discarded on the the R4 interface.	Int32
r4prelocack-badform	The total number of badly formed R4 PC Relocation Acknowledgement messages sent to the ASNPC.	Int32
r4prelocack-decodeerr	The total number of R4 PC Relocation Acknowledgement messages sent to the ASNPC with decode errors.	Int32
r4prelocack-unspecerr	The total number of R4 PC Relocation Acknowledgement messages sent to the ASNPC with unspecified errors.	Int32
r4prelocack-missmandtlv	The total number of R4 PC Relocation Acknowledgement messages sent to the ASNPC with missing mandatory TLVs.	Int32
r4prelocack-tlvvalinval	The total number of R4 PC Relocation Acknowledgement messages sent to the ASNPC with an invalid TLV.	Int32
r4prelocack-unknowntrlv	The total number of R4 PC Relocation Acknowledgement messages sent to the ASNPC with an unknown TLV.	Int32
r4prelocack-duptlvfound	The total number of R4 PC Relocation Acknowledgement messages sent to the ASNPC with duplicate TLVs.	Int32
r4prelocack-nosessfound	The total number of R4 PC Relocation Acknowledgement messages sent to the ASNPC without any session information.	Int32
r4prelocack-admprohibit	The total number of R4 PC Relocation Acknowledgement messages sent to the ASNPC that were discarded or denied due to admin prohibit. Triggers: Changes every time an R4 PC Relocation Acknowledgement message is discarded or denied due to admin prohibit. Availability: across all ASN GW services.	Int32
r4prelocack-noresourcedrop	The total number of R4 PC Relocation Acknowledgement messages sent to the ASNPC that were discarded or denied due to resource unavailability. Triggers: Changes every time an R4 PC Relocation Acknowledgement message is discarded or denied due to resource unavailability. Availability: across all ASN GW services.	Int32

Statistic	Description	Data Type
r4pcrelocack-transiderr	The total number of R4 IPC Relocation Acknowledgement messages sent to the ASNPC with a transaction ID error.	Int32
r4imexitstaindack-totsent	The total number of Idle Mode Exit State Indication Acknowledgement messages sent to the peer ASNGW.	Int32
r4imexitstaindack-retranssent	The total number of Idle Mode Exit State Indication Acknowledgement messages retransmitted on the the R4 interface to the peer ASNGW.	Int32
r4imexitstaindack-totsendfail	The total number of Idle Mode Exit State Indication Acknowledgement message sent to the peer ASNGW that failed.	Int32
r4imexitstaindack-totrec	The total number of Idle Mode Exit State Indication Acknowledgement messages received on the the R4 interface to the peer ASNGW.	Int32
r4imexitstaindack-totacc	The total number of accepted Idle Mode Exit State Indication Acknowledgement messages sent to the peer ASNGW.	Int32
r4imexitstaindack-totrelay	The total number of Idle Mode Exit State Indication Acknowledgement messages relayed on the the R4 interface to the peer ASNGW.	Int32
r4imexitstaindack-totdenied	The total number of denied Idle Mode Exit State Indication Acknowledgement messages sent to the peer ASNGW.	Int32
r4imexitstaindack-totdiscard	The total number of discarded Idle Mode Exit State Indication Acknowledgement messages sent on the the R4 interface to the peer ASNGW.	Int32
r4imexitstaindack-badform	The total number of badly formed Idle Mode Exit State Indication Acknowledgement messages sent to the peer ASNG	Int32
r4imexitstaindack-decodeerr	The total number of Idle Mode Exit State Indication Acknowledgement messages retransmitted on the the R4 interface to the peer ASNGW with decode errors.	Int32
r4imexitstaindack-unspecerr	The total number of Idle Mode Exit State Indication messages sent to the peer ASNGW on the the R4 interface with unspecified errors.	Int32
r4imexitstaindack-missmandtlv	The total number of Idle Mode Exit State Acknowledgement Indication messages sent to the peer ASNGW with missing mandatory TLVs..	Int32
r4imexitstaindack-tlvvalinval	The total number of Idle Mode Exit State Acknowledgement Indication messages sent to the peer ASNGW with an invalid TLV.	Int32
r4imexitstaindack-unknowntrlv	The total number of Idle Mode Exit State Acknowledgement Indication messages with an unknown TLV sent to the peer ASNGW on the the R4 interface.	Int32
r4imexitstaindack-duptrlvfound	The total number of Idle Mode Exit State Acknowledgement Indication messages with duplicate TLVs sent to the peer ASNGW over the the R4 interface.	Int32
r4imexitstaindack-nosessfound	The total number of Idle Mode Exit State Acknowledgement Indication messages sent to the peer ASNGW over the the R4 interface with no session information.	Int32
r4imexitstaindack-admprohibit	The total number of Idle Mode Exit State Indication Acknowledgement messages sent on the the R4 interface to the peer ASNGW discarded or denied due to admin prohibit. Triggers: Changes every time an R4 Idle Mode Exit State Indication message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32

Statistic	Description	Data Type
r4imexitstaindack-noresourcedrop	The total number of Idle Mode Exit State Indication Acknowledgement messages sent to the peer ASNGW on the the R4 interface that were discarded or denied due to resource unavailability. Triggers: Changes every time an Idle Mode Exit State Indication Acknowledgement message is discarded or denied due to resource unavailability. This counter is used to count the error while sending the R4 packets.	Int 32
r4imexitstaindack-transiderr	The total number of R4 Idle Mode Exit State Indication Acknowledgement messages sent to the peer ASNGW on the the R4 interface with transaction errors.	Int32
r4datapathderegack-totsent	The total number of Data Path Deregistration Acknowledgement messages sent to the peer ASNGW on the the R4 interface.	Int32
r4datapathderegack-retranssent	The total number retransmitted Data Path Deregistration Acknowledgement messages sent to the peer ASNGW on the the R4 interface.	Int32
r4datapathderegack-totsendfail	The total number of failed Data Path Deregistration Acknowledgement messages sent on the the R4 interface to the peer ASNGW.	Int32
r4datapathderegack-totrec	The total number of received Data Path Deregistration Acknowledgement messages sent to the peer ASNGW on the the R4 interface.	Int32
r4datapathderegack-totacc	The total number of accepted Data Path Deregistration Acknowledgement messages sent on the the R4 interface to the peer ASNGW.	Int32
r4datapathderegack-totrelay	The total number of relayed Data Path Deregistration Acknowledgement messages sent to the peer ASNGW on the the R4 interface.	Int32
r4datapathderegack-totdenied	The total number of denied Data Path Deregistration Acknowledgement messages sent on the the R4 interface to the peer ASNGW.	Int32
r4datapathderegack-totdiscard	The total number of discarded Data Path Deregistration Acknowledgement messages sent to the peer ASNGW on the the R4 interface.	Int32
r4datapathderegack-badform	The total number of badly formed Data Path Deregistration Acknowledgement messages sent to the peer ASNGW on the the R4 interface. This counter is used to count the error while sending the R4 packets.	Int32
r4datapathderegack-decodeerr	The total number of Data Path Deregistration Acknowledgement messages sent to the peer ASNGW with decode errors.	Int32
r4datapathderegack-unspecerr	The total number of Data Path Deregistration Acknowledgement messages with unspecified errors sent to the peer ASNGW on the the R4 interface.	Int32
r4datapathderegack-missmandtlv	The total number of Data Path Deregistration Acknowledgement messages with missing mandatory TLVs sent to the peer ASNGW on the the R4 interface.	Int32
r4datapathderegack-tlvvalinval	The total number of Data Path Deregistration Acknowledgement messages with invalid TLVs sent to the peer ASNGW on the the R4 interface.	Int32
r4datapathderegack-unknowntlv	The total number of Data Path Deregistration Acknowledgement messages with unknown TLVs sent to the peer ASNGW on the the R4 interface.	Int32
r4datapathderegack-duptlvfound	The total number of Data Path Deregistration Acknowledgement messages with duplicate TLVs sent to the peer ASNGW on the the R4 interface.	Int32
r4datapathderegack-nosessfound	The total number of Data Path Deregistration Acknowledgement messages sent to the peer ASNGW over the the R4 interface with no session information.	Int32

Statistic	Description	Data Type
r4datapathderegack-admprohibit	The total number of Data Path Deregistration Acknowledgement messages sent on the the R4 interface to the peer ASNGW discarded or denied due to admin prohibit. Triggers: Changes every time an R4 Data Path Deregistration Acknowledgement message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r4datapathderegack-noresourcedrop	The total number of Data Path Deregistration Acknowledgement messages sent to the peer ASNGW on the the R4 interface that were discarded or denied due to resource unavailability. Triggers: Changes every time an Data Path Deregistration Acknowledgement message is discarded or denied due to resource unavailability. This counter is used to count the error while sending the R4 packets.	Int32
r4datapathderegack-transiderr	The total number of R4 Data Path Deregistration Acknowledgement messages sent to the peer ASNGW on the the R4 interface with transaction ID errors.	Int32
r6keepalivereq-totsent	The total number of R6 Keep-alive Request messages sent to the base station.	Int32
r6keepalivereq-retranssent	The total number of Keep-alive Request messages retransmitted on the R6 interface to the base station.	Int32
r6keepalivereq-totsendfail	The total number of Keep-alive Request message failures received from the base station and relayed on the R6 interface. This counter is used to count the error while sending the R6 packets.	Int32
r6keepalivereq-totrec	The total number of R6 Keep-alive Request messages received by the base station.	Int32
r6keepalivereq-totacc	The total number of R6 Keep-alive Request messages accepted by base station.	Int32
r6keepalivereq-totrelay	The total number of R6 Keep-alive Request messages sent to the base station and relayed on the R6 interface. Triggers: Changes every time an R6 Keep-alive Request message is relayed by the R6 interface. Availability: across all ASNGW services.	Int32
r6keepalivereq-totdenied	The total number of Keep-alive Request messages denied on the R6 interface.	Int32
r6keepalivereq-totdiscard	The total number of Keep-alive Request messages discarded on the R6 interface.	Int32
r6keepalivereq-badform	The total number of badly formed R6 Keep-alive Request messages sent to the base station.	Int32
r6keepalivereq-decodeerr	The total number of R6 Keep-alive Request messages sent to the base station with decode errors.	Int32
r6keepalivereq-unspeccerr	The total number of R6 Keep-alive Request messages sent to the base station with unspecified errors.	Int32
r6keepalivereq-missmandtlv	The total number of R6 Keep-alive Request messages sent to the base station with missing mandatory TLVs.	Int32
r6keepalivereq-tlvvalinval	The total number of R6 Keep-alive Request messages sent to the base station with an invalid TLV.	Int32
r6keepalivereq-unknowntrlv	The total number of R6 Keep-alive Request messages sent to the base station with an unknown TLV.	Int32

Statistic	Description	Data Type
r6keepalivereq-duptlvfound	The total number of R6 Keep-alive Request messages sent to the base station with duplicate TLVs.	Int32
r6keepalivereq-nosessfound	The total number of R6 Keep-alive Request messages sent to the base station without any session information.	Int32
r6keepalivereq-admprohibit	The total number of R6 Keep-alive Request messages sent to the base station that were discarded or denied due to admin prohibit. Triggers: Changes every time an R6 Keep-alive Request message is discarded or denied due to admin prohibit. Availability: across all ASN GW services.	Int32
r6keepalivereq-noresourcedrop	The total number of R6 Keep-alive Request messages sent to the base station that were discarded or denied due to resource unavailability. Triggers: Changes every time an R6 Keep-alive Request message is discarded or denied due to resource unavailability. Availability: across all ASN GW services.	Int32
r6keepalivereq-transiderr	The total number of R6 Keep-alive Request messages sent to the base station with a transaction ID error.	Int32
r6keepaliversp-totsent	The total number of R6 Keep-alive Response messages sent to the base station.	Int32
r6keepaliversp-retranssent	The total number of Keep-alive Response messages retransmitted on the R6 interface to the base station.	Int 32
r6keepaliversp-totsendfail	The total number of Keep-alive Response message failures received from the base station and relayed on the R6 interface. This counter is used to count the error while sending the R6 packets.	Int32
r6keepaliversp-totrec	The total number of R6 Keep-alive Response messages received by the base station.	Int32
r6keepaliversp-totacc	The total number of R6 Keep-alive Response messages accepted by base station.	Int32
r6keepaliversp-totrelay	The total number of R6 Keep-alive Response messages sent to the base station and relayed on the R6 interface. Triggers: Changes every time an R6 Keep-alive Response message is relayed by the R6 interface. Availability: across all ASNGW services.	Int32
r6keepaliversp-totdenied	The total number of Keep-alive Response messages denied on the R6 interface.	Int32
r6keepaliversp-totdiscard	The total number of Keep-alive Response messages discarded on the R6 interface.	Int32
r6keepaliversp-badform	The total number of badly formed R6 Keep-alive Response messages sent to the base station.	Int32
r6keepaliversp-decodeerr	The total number of R6 Keep-alive Response messages sent to the base station with decode errors.	Int32
r6keepaliversp-unspecerr	The total number of R6 Keep-alive Response messages sent to the base station with unspecified errors.	Int32
r6keepaliversp-missmandtlv	The total number of R6 Keep-alive Response messages sent to the base station with missing mandatory TLVs.	Int32
r6keepaliversp-tlvvalinval	The total number of R6 Keep-alive Response messages sent to the base station with an invalid TLV.	Int32

Statistic	Description	Data Type
r6keepaliversp-unknowntlv	The total number of R6 Keep-alive Response messages sent to the base station with an unknown TLV.	Int32
r6keepaliversp-dupltlvfound	The total number of R6 Keep-alive Response messages sent to the base station with duplicate TLVs.	Int32
r6keepaliversp-nosessfound	The total number of R6 Keep-alive Response messages sent to the base station without any session information.	Int32
r6keepaliversp-admprohibit	The total number of R6 Keep-alive Response messages sent to the base station that were discarded or denied due to admin prohibit. Triggers: Changes every time an R6 Keep-alive Response message is discarded or denied due to admin prohibit. Availability: across all ASN GW services.	Int32
r6keepaliversp-noresourcedrop	The total number of R6 Keep-alive Response messages sent to the base station that were discarded or denied due to resource unavailability. Triggers: Changes every time an R6 Keep-alive Response message is discarded or denied due to resource unavailability. Availability: across all ASN GW services.	Int32
r6keepaliversp-transiderr	The total number of R6 Keep-alive Response messages sent to the base station with a transaction ID error.	Int32
r4datagresend-totpacksent	The total number of data message received with checksum error through GRE tunnel the R4 interface.	Int32
r4datagresend-senderr	The total number of data message received with invalid packet length error through GRE tunnel the R4 interface.	Int32
r4datagresend-totbytssent	The total number of data message received through GRE tunnel without session information the the R4 interface.	Int32
r4datagresend-unspeerr	The total number of data message received through GRE tunnel with unspecified error the the R4 interface.	Int32
r6mspreattreq-congestion	The total number of R6 MS pre-attachment request messages discarded or denied due to congestion or overload. Triggers: Changes every time an R6 MS pre-attachment request message is discarded or denied due to congestion or overload. Availability: across all the ASNGW service	Int32
r6datapathregreq-congestion	The total number of data path registration request messages discarded or denied due to congestion or overload. Triggers: Changes every time a data path registration request message is discarded or denied due to congestion or overload. Availability: across all the ASNGW service	Int32
r6datapathpreregreq-congestion	The total number of data path pre-registration request messages discarded or denied due to congestion or overload. Triggers: Changes every time a data path pre-registration request message is discarded or denied due to congestion or overload. Availability: across all the ASNGW service	Int32
total-sessions-connected	The total number of active sessions currently connected through the ASN GW.	Int32

Statistic	Description	Data Type
 <b>Important:</b> See Bulk Statistics Overview for statistics that are common to all schema.		



# Chapter 4

## ASNPC Schema Statistics

The ASNPC schema provides the following types of statistics:

- **Counter:** A counter records incremental data cumulatively and rolls over when the counter limit is reached. The limit depends upon the counter data type.
- **Gauge:** A gauge statistic indicates a single value representative of a single instance. This type is often used to track particular events in time.

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 **Important:** The format string syntax is described by Schema Format String Syntax in the Bulk Statistics Overview chapter.

 **Important:** Unless otherwise indicated, all statistics are counters. For statistics with the Int32 data type, the roll-over to zero limit is 4,294,967,295. For statistics with the Int64 data type, the roll-over to zero limit is 18,446,744,073,709,551,615. All counter statistics are cumulative and reset only by one of the following methods: roll-over (as described above), after a system restart, or after a clear command is performed. All statistics are considered standards-based unless otherwise noted.

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The following variables are supported:

**Table 4. ASN-PC Schema Statistics**

Statistic	Description	Data Type
vpnname	The name of the context configured on the system that is currently facilitating the ASN PC service.	String
vpnid	The identification number of the context configured on the system that is currently facilitating the ASN PC service. This is an internal reference number.	Int32
servname	The name of the ASN PC service for which the statistics are displayed.	String
servid	The identification number of the ASN PC service for which the statistics are displayed.	Int32
r6imentstachareq-totsent	The number of Idle Mode Entry State Change Requests sent to the base station on the R6 interface.	Int32
r6imentstachareq-retranssent	The total number of Idle Mode Entry State Change Requests re-transmitted on R6 the interface to the base station.	Int32

## Common Statistics

Statistic	Description	Data Type
r6imentstachareq-totseendfail	The total number of failures that occurred during transaction ID generation of R6 Idle Mode Entry State Change Request messages. This counter is used to count the error while sending the R6 packets.	Int32
r6imentstachareq-totrec	The total number of Idle Mode Entry State Change Request messages received on R6 interface.	Int32
r6imentstachareq-totacc	The total number of Idle Mode Entry State Change Request messages accepted on R6 interface.	Int32
r6imentstachareq-totrelay	The total number of Idle Mode Entry State Change Requests messages relayed to the base station on the R6 interface. Triggers: Changes every time an Idle Mode Entry State Change Request message is relayed over the R6 interface. Availability: across all ASNGW services.	Int32
r6imentstachareq-totdenied	The total number of Idle Mode Entry State Change Request messages denied on R6 interface.	Int32
r6imentstachareq-totdiscard	The total number of Idle Mode Entry State Change Request messages discarded on R6 interface.	Int32
r6imentstachareq-badform	The total number of Idle Mode Entry State Change Request messages sent on the R6 interface.	Int32
r6imentstachareq-decodeerr	The total number of Idle Mode Entry State Change Request messages on R6 interface with decode error.	Int32
r6imentstachareq-unspecerr	The total number of Idle Mode Entry State Change Request messages on R6 interface with unspecified error.	Int32
r6imentstachareq-mismandtlv	The total number of Idle Mode Entry State Change Request messages on R6 interface with missing mandatory TLVs.	Int32
r6imentstachareq-tlvvalinval	The total number of Idle Mode Entry State Change Request messages on R6 interface with invalid TLV value.	Int32
r6imentstachareq-unknownTLV	The total number of Idle Mode Entry State Change Request messages on R6 interface with unknown TLVs.	Int32
r6imentstachareq-duptlvfound	The total number of Idle Mode Entry State Change Request messages on R6 interface with duplicate TLVs.	Int32
r6imentstachareq-nosessfound	The total number of Idle Mode Entry State Change Request messages on R6 interface without any session information.	Int32
r6imentstachareq-admprohibit	The total number of Idle Mode Entry State Change Request messages on R6 interface with transaction ID errors.	Int32
r6imentstachareq-noresourcedrop	The total number of Idle Mode Entry State Change Request messages discarded or denied due to admin prohibit. Triggers: Changes every time an Idle Mode Entry State Change Request message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r6imentstachareq-transiderr	The total number of Idle Mode Entry State Change Request messages discarded or denied due to transaction ID errors	Int32

Statistic	Description	Data Type
r6imentstacharsp-totsent	The total number of Idle Mode Entry State Change Responses sent to the Base Station.	Int32
r6imentstacharsp-retranssent	The total number of Idle Mode Entry State Change Responses re-transmitted on R6 the interface.	Int32
r6imentstacharsp-totsendfail	The total number of failures that occurred during transaction ID generation of R6 Idle Mode Entry State Change Response messages. This counter is used to count the error while sending the R6 packets.	Int32
r6imentstacharsp-totrec	The total number of Idle Mode Entry State Change Response messages received on R6 interface.	Int32
r6imentstacharsp-totacc	The total number of Idle Mode Entry State Change Response messages accepted on R6 interface.	Int32
r6imentstacharsp-totrelay	The total number of Idle Mode Entry State Change Response messages relayed to the base station on the R6 interface. Triggers: Changes every time an Idle Mode Entry State Change Response message is relayed by the R6 interface. Availability: across all ASNGW services.	Int32
r6imentstacharsp-totdenied	The total number of Idle Mode Entry State Change Response messages denied on R6 interface.	Int32
r6imentstacharsp-totdiscard	The total number of Idle Mode Entry State Change Response messages discarded on R6 interface.	Int32
r6imentstacharsp-badform	The total number of Idle Mode Entry State Change Response messages sent on the R6 interface.	Int32
r6imentstacharsp-decodeerr	The total number of Idle Mode Entry State Change Response messages on R6 interface with decode error.	Int32
r6imentstacharsp-unspecerr	The total number of Idle Mode Entry State Change Response messages on R6 interface with unspecified error.	Int32
r6imentstacharsp-missmandtlv	The total number of Idle Mode Entry State Change Response messages on R6 interface with missing mandatory TLVs.	Int32
r6imentstacharsp-tlvvalinval	The total number of Idle Mode Entry State Change Response messages on R6 interface with invalid TLV value.	Int32
r6imentstacharsp-unknowntrlv	The total number of Idle Mode Entry State Change Response messages on R6 interface with unknown TLVs.	Int32
r6imentstacharsp-duptlvfound	The total number of Idle Mode Entry State Change Response messages on R6 interface with duplicate TLVs	Int32
r6imentstacharsp-nosessfound	The total number of Idle Mode Entry State Change Response messages on R6 interface without any session information.	Int32
r6imentstacharsp-admprohibit	The total number of Idle Mode Entry State Change Response messages on R6 interface with transaction ID errors.	Int32

## Common Statistics

Statistic	Description	Data Type
r6imentstacharsp-noresourcedrop	The total number of Idle Mode Entry State Change Response messages discarded or denied due to admin prohibit. Triggers: Changes every time an Idle Mode Entry State Change Response message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r6imentstacharsp-transiderr	The total number of Idle Mode Entry State Change Response messages discarded or denied due to transaction ID errors	Int32
r6imentstachaack-totsent	The total number of Idle Mode Entry State Change Acknowledgements sent to the Base Station.	Int32
r6imentstachaack-retranssent	The total number of Idle Mode Entry State Change Acknowledgement messages re-transmitted on R6 interface.	Int32
r6imentstachaack-totsendfai	The total number of R6 idle Mode Entry State Change Acknowledgement messages sent to the base station. This counter is used to count the error while sending the R6 packets.	Int32
r6imentstachaack-totrec	The total number of R6 Idle Mode Entry State Change Acknowledgement messages received on R6 interface.	Int32
r6imentstachaack-totacc	The total number of R6 Idle Mode Entry State Change Acknowledgement messages accepted on R6 interface.	Int32
r6imentstachaack-totrelay	The total number of R6 Idle Mode Entry State Change Acknowledgement messages relayed to the base station on the R6 interface. Triggers: Changes every time an R6 Idle Mode Entry State Change Acknowledgement message is relayed by the R6 interface. Availability: across all ASNGW services.	Int32
r6imentstachaack-totdenied	The total number of R6 Idle Mode Entry State Change Acknowledgement messages denied on R6 interface.	Int32
r6imentstachaack-totdiscard	The total number of R6 Idle Mode Entry State Change Acknowledgement messages discarded on R6 interface.	Int32
r6imentstachaack-badform	The total number of badly formed R6 Idle Mode Entry State Change Acknowledgement messages on R6 interface.	Int32
r6imentstachaack-decodeerr	The total number of R6 Idle Mode Entry State Change Acknowledgement messages on R6 interface with decode error.	Int32
r6imentstachaack-unspecerr	The total number of R6 Idle Mode Entry State Change Acknowledgement messages on R6 interface with unspecified error.	Int32
r6imentstachaack-missmandtlv	The total number of R6 Idle Mode Entry State Change Acknowledgement messages on R6 interface with missing mandatory TLVs.	Int32
r6imentstachaack-tlvvalinval	The total number of R6 Idle Mode Entry State Change Acknowledgement messages on R6 interface with invalid TLV value	Int32
r6imentstachaack-unknowntlv	The total number of R6 Idle Mode Entry State Change Acknowledgement messages on R6 interface with unknown TLVs	Int32
r6imentstachaack-duptlvfound	The total number of R6 Idle Mode Entry State Change Acknowledgement messages on R6 interface with duplicate TLVs.	Int32

Statistic	Description	Data Type
r6imentstachaack-nosessfound	The total number of R6 Idle Mode Entry State Change Acknowledgement messages on R6 interface without any session information.	Int32
r6imentstachaack-adminprohib	The total number of R6 Idle Mode Entry State Change Acknowledgement messages discarded or denied due to admin prohibit. Triggers: Changes every time an R6 Idle Mode Entry State Change Acknowledgement message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r6imentstachaack-noresourcedrop	The total number of R6 Idle Mode Entry State Change Acknowledgement messages discarded or denied due to resource unavailability. Triggers: Changes every time an R6 Idle Mode Entry State Change Acknowledgement message is discarded or denied due to resource unavailability. Availability: across all the ASNGW services.	Int32
r6imentstachaack-transiderr	The total number of R6 Idle Mode Entry State Change Acknowledgement messages on R6 interface with transaction ID errors.	Int32
r6imexitstachareq-totsent	The total number of Idle Mode Exit State Change Requests sent to the Base Station.	Int32
r6imexitstachareq-retranssent	The total number of R6 Idle Mode Exit State Change Request messages sent to the base station.	Int32
r6imexitstachareq-totsendfail	The total number of R6 Idle Mode Exit State Change Request messages sent to the base station. This counter is used to count the error while sending the R6 packets.	Int32
r6imexitstachareq-totrec	The total number of R6 Idle Mode Exit State Change Request messages received on R6 interface.	Int32
r6imexitstachareq-totacc	The total number of R6 Idle Mode Exit State Change Request messages accepted on R6 interface.	Int32
r6imexitstachareq-totrelay	The total number of R6 Idle Mode Exit State Change Request messages relayed to the base station on the R6 interface. Triggers: Changes every time an R6 Idle Mode Exit State Change Request message is relayed by the R6 interface. Availability: across all ASNGW services.	Int32
r6imexitstachareq-totdenied	The total number of R6 Idle Mode Exit State Change Request messages denied on R6 interface.	Int32
r6imexitstachareq-totdiscard	The total number of R6 Idle Mode Exit State Change Request messages discarded on R6 interface.	Int32
r6imexitstachareq-badform	The total number of badly formed R6 Idle Mode Exit State Change Request messages on R6 interface.	Int32
r6imexitstachareq-decodeerr	The total number of R6 Idle Mode Exit State Change Request messages on R6 interface with decode error.	Int32
r6imexitstachareq-unspecerr	The total number of R6 Idle Mode Exit State Change Request messages on R6 interface with unspecified error.	Int32
r6imexitstachareq-missmandtlv	The total number of R6 Idle Mode Exit State Change Request messages on R6 interface with missing mandatory TLVs.	Int32

Statistic	Description	Data Type
r6imexitstachareq-tlvvalinval	The total number of R6 Idle Mode Exit State Change Request messages on R6 interface with invalid TLV value	Int32
r6imexitstachareq-unknownTLV	The total number of R6 Idle Mode Exit State Change Request messages on R6 interface with unknown TLVs	Int32
r6imexitstachareq-dupTLVfound	The total number of R6 Idle Mode Exit State Change Request messages on R6 interface with duplicate TLVs.	Int32
r6imexitstachareq-nosessfound	The total number of R6 Idle Mode Exit State Change Request messages on R6 interface without any session information.	Int32
r6imexitstachareq-admprohibit	The total number of R6 Idle Mode Exit State Change Request messages discarded or denied due to admin prohibit. Triggers: Changes every time an R6 Idle Mode Exit State Change Request message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r6imexitstachareq-noresourcedrop	The total number of R6 Idle Mode Exit State Change Request messages discarded or denied due to resource unavailability. Triggers: Changes every time an R6 Idle Mode Exit State Change Request message is discarded or denied due to resource unavailability. Availability: across all the ASNGW services.	Int32
r6imexitstachareq-transiderr	The total number of R6 Idle Mode Exit State Change Request messages on R6 interface with transaction ID errors.	Int32
r6imexitstacharsp-totsent	The total number of Idle Mode Exit State Change Responses sent to the Base Station.	Int32
r6imexitstacharsp-retranssent	The total number of R6 Idle Mode Exit State Change Response messages re-transmitted on R6 interface.	Int32
r6imexitstacharsp-totsefail	The total number of failed R6 idle Mode Exit State Change Response messages sent to the base station. This counter is used to count the error while sending the R6 packets.	Int32
r6imexitstacharsp-totrec	The total number of R6 Idle Mode Exit State Change Response messages received on R6 interface.	Int32
r6imexitstacharsp-totacc	The total number of R6 Idle Mode Exit State Change Response messages accepted on R6 interface.	Int32
r6imexitstacharsp-totrelay	The total number of R6 Idle Mode Exit State Change Response messages relayed to the base station on the R6 interface. Triggers: Changes every time an R6 Idle Mode Exit State Change Response message is relayed by the R6 interface. Availability: across all ASNGW services.	Int32
r6imexitstacharsp-totdenied	The total number of R6 Idle Mode Exit State Change Response messages denied on R6 interface.	Int32
r6imexitstacharsp-totdiscard	The total number of R6 Idle Mode Exit State Change Response messages discarded on R6 interface.	Int32
r6imexitstacharsp-badform	The total number of badly formed R6 Idle Mode Exit State Change Response messages on R6 interface.	Int32

Statistic	Description	Data Type
r6imexitstacharsp-decodeerr	The total number of R6 Idle Mode Exit State Change Response messages on R6 interface with decode error.	Int32
r6imexitstacharsp-unspecerr	The total number of R6 Idle Mode Exit State Change Response messages on R6 interface with unspecified error.	Int32
r6imexitstacharsp-missmandtlv	The total number of R6 Idle Mode Exit State Change Response messages on R6 interface with missing mandatory TLVs.	Int32
r6imexitstacharsp-unknowntrlv	The total number of R6 Idle Mode Exit State Change Response messages on R6 interface with an unknown TLV value.	Int32
r6imexitstacharsp-duptlvfound	The total number of R6 Idle Mode Exit State Change Response messages on R6 interface with duplicate TLVs.	Int32
r6imexitstacharsp-nosessfound	The total number of R6 Idle Mode Exit State Change Response messages on R6 interface without any session information.	Int32
r6imexitstacharsp-admprohibit	The total number of R6 Idle Mode Exit State Change Response messages discarded or denied due to admin prohibit. Triggers: Changes every time an R6 Idle Mode Exit State Change Response message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r6imexitstacharsp-noresourcedrop	The total number of R6 Idle Mode Exit State Change Response messages discarded or denied due to resource unavailability. Triggers: Changes every time an R6 Idle Mode Exit State Change Response message is discarded or denied due to resource unavailability. Availability: across all ASNGW services.	Int32
r6imexitstacharsp-transiderr	The total number of R6 Idle Mode Exit State Change Response messages with translation ID errors.	Int32
r6locupdreq-totsent	The total number of R6 Location Update Request messages sent to the base station.	Int32
r6locupdreq-retranssent	The total number of R6 Location Update Request messages re-transmitted on R6 interface.	Int32
r6locupdreq-totsendfail	The total number of failed R6 Location Update Request messages sent to the base station. This counter is used to count the error while sending the R6 packets.	Int32
r6locupdreq-totrec	The total number of R6 Location Update Request Location Update Request messages received on R6 interface.	Int32
r6locupdreq-totacc	The total number of R6 Location Update Request messages accepted on R6 interface.	Int32
r6locupdreq-totrelay	The total number of R6 Location Update Request messages relayed to the base station on the R6 interface. Triggers: Changes every time an R6 Location Update Request message is relayed by the R6 interface. Availability: across all ASNGW services.	Int32
r6locupdreq-totdenied	The total number of R6 Location Update Request messages denied on R6 interface.	Int32
r6locupdreq-totdiscard	The total number of R6 Location Update Request messages discarded on R6 interface.	Int32
r6locupdreq-badform	The total number of badly formed R6 Location Update Request messages on R6 interface.	Int32

## Common Statistics

Statistic	Description	Data Type
r6locupdreq-decodeerr	The total number of R6 Location Update Request messages on R6 interface with decode errors.	Int32
r6locupdreq-unspecerr	The total number of R6 Location Update Request messages on R6 interface with unspecified error.	Int32
r6locupdreq-missmandtlv	The total number of R6 Location Update Request messages on R6 interface with missing mandatory TLVs.	Int32
r6locupdreq-tlvvalinval	The total number of R6 Location Update Request messages on R6 interface with an unknown TLV value.	Int32
r6locupdreq-unknowntlv	The total number of R6 Location Update Request messages on R6 interface with unknown TLVs.	Int32
r6locupdreq-duptlvfound	The total number of R6 Location Update Request messages on R6 interface with duplicate TLVs.	Int32
r6locupdreq-nosessfound	The total number of R6 Location Update Request messages without any session information.	Int32
r6locupdreq-admprohibit	The total number of R6 Location Update Request messages discarded or denied due to admin prohibit. Triggers: Changes every time an R6 Location Update Request message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r6locupdreq-noresourcedrop	The total number of R6 Location Update Request messages discarded or denied due to resource unavailability. Triggers: Changes every time an R6 Location Update Request message is discarded or denied due to resource unavailability. Availability: across all ASNGW services.	Int32
r6locupdreq-transiderr	The total number of R6 Location Update Request messages with translation ID errors.	Int32
r6locupdrsp-totsent	The total number of Location Update Responses sent to the Base Station.	Int32
r6locupdrsp-totsendfail	The total number of failed R6 Location Update Response messages sent on the R6 interface. This counter is used to count the error while sending the R6 packets.	Int32
r6locupdrsp-totrec	The total number of R6 Location Update Response messages received on R6 interface.	Int32
r6locupdrsp-totacc	The total number of R6 Location Update Response messages accepted on R6 interface.	Int32
r6locupdrsp-totrelay	The total number of R6 Location Update Response messages relayed to the base station on the R6 interface. Triggers: Changes every time an R6 Location Update Response message is relayed by the R6 interface. Availability: across all ASNGW services.	Int32
r6locupdrsp-totdenied	The total number of R6 Location Update Response messages denied on R6 interface.	Int32
r6locupdrsp-totdiscard	The total number of R6 Location Update Response messages discarded on R6 interface.	Int32
r6locupdrsp-badform	The total number of badly formed R6 Location Update Response messages on R6 interface.	Int32

Statistic	Description	Data Type
r6locupdrsp-decodeerr	The total number of R6 Location Update Response messages on R6 interface with decode errors.	Int32
r6locupdrsp-unspecerr	The total number of R6 Location Update Response messages on R6 interface with unspecified error.	Int32
r6locupdrsp-missmandtlv	The total number of R6 Location Update Response messages on R6 interface with missing mandatory TLVs.	Int32
r6locupdrsp-tlvvalinval	The total number of R6 Location Update Response messages on R6 interface with an unknown TLV value.	Int32
r6locupdrsp-unknowntlv	The total number of R6 Location Update Response messages on R6 interface with unknown TLVs.	Int32
r6locupdrsp-duptlvfound	The total number of R6 Location Update Response messages on R6 interface with duplicate TLVs.	Int32
r6locupdrsp-nosessfound	The total number of R6 Location Update Response messages without any session information.	Int32
r6locupdrsp-admprohibit	The total number of R6 Location Update Response messages discarded or denied due to admin prohibit. Triggers: Changes every time an R6 Location Update Response message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r6locupdrsp-noresourcedrop	The total number of R6 Location Update Response messages discarded or denied due to resource unavailability. Triggers: Changes every time an R6 Location Update Response message is discarded or denied due to resource unavailability. Availability: across all ASNGW services.	Int32
r6locupdrsp-transiderr	The total number of R6 Location Update Response messages with translation ID errors	Int32
r6locupdcnf-totsent	Indicates the number of R6 Location Update Confirm messages sent to the Base Station.	Int32
r6locupdcnf-retranssent	The total number of Location Update Confirm messages retransmitted on the R6 interface to the base station.	Int32
r6locupdcnf-totsendfail	The total number of Location Update Confirm message failures received from the base station and relayed on the R6 interface. This counter is used to count the error while sending the R6 packets.	Int32
r6locupdcnf-totrec	The total number of R6 Location Update Confirm messages received by the base station.	Int32
r6locupdcnf-totacc	The total number of R6 Location Update Confirm messages accepted by base station.	Int32
r6locupdcnf-totrelay	The total number of R6 Location Update Confirm messages sent to the base station and relayed on the R6 interface. Triggers: Changes every time an R6 Location Update Confirm message is relayed by the R6 interface. Availability: across all ASNGW services	Int32
r6locupdcnf-totdenied	The total number of Location Update Confirm messages denied on the R6 interface.	Int32
r6locupdcnf-totdiscard	The total number of Location Update Confirm messages discarded on the R6 interface.	Int32

## Common Statistics

Statistic	Description	Data Type
r6locupdcnf-badform	The total number of badly formed R6 Location Update Confirm messages sent to the base station.	Int32
r6locupdcnf-decodeerr	The total number of R6 Location Update Confirm messages sent to the base station with decode errors.	Int32
r6locupdcnf-unspecerr	The total number of R6 Location Update Confirm messages sent to the base station with unspecified errors.	Int32
r6locupdcnf-missmandtlv	The total number of R6 Location Update Confirm messages sent to the base station with missing mandatory TLVs.	Int32
r6locupdcnf-tlvvalinval	The total number of R6 Location Update Confirm messages sent to the base station with an invalid TLV.	Int32
r6locupdcnf-unknowntrlv	The total number of R6 Location Update Confirm messages sent to the base station with an unknown TLV.	Int32
r6locupdcnf-duptlvfound	The total number of R6 Location Update Confirm messages sent to the base station with duplicate TLVs.	Int32
r6locupdcnf-nosessfound	The total number of R6 Location Update Confirm messages sent to the base station without any session information.	Int32
r6locupdcnf-admprohibit	The total number of R6 Location Update Confirm messages sent to the base station that were discarded or denied due to admin prohibit. Triggers: Changes every time an R6 Location Update Confirm message is discarded or denied due to admin prohibit. Availability: across all ASN GW services.	Int32
r6locupdcnf-noresourcedrop	The total number of R6 Location Update Confirm messages sent to the base station that were discarded or denied due to resource unavailability. Triggers: Changes every time an R6 Location Update Confirm message is discarded or denied due to resource unavailability. Availability: across all ASN GW services.	Int32
r6locupdcnf-transiderr	The total number of R6 Location Update Confirm messages sent to the base station with a transaction ID error.	Int32
r6pagannouce-totsent	The total number of R6 Paging Announcement messages sent to the Base Station.	Int32
r6pagannouce-retranssent	The total number of Paging Announcement messages retransmitted on the R6 interface to the base station.	Int32
r6pagannouce-totsendfail	The total number of Paging Announcement message failures received from the base station and relayed on the R6 interface. This counter is used to count the error while sending the R6 packets.	Int32
r6pagannouce-totrec	The total number of R6 Paging Announcement messages received by the base station.	Int32
r6pagannouce-totacc	The total number of R6 Paging Announcement messages accepted by base station.	Int32
r6pagannouce-totrelay	The total number of R6 Paging Announcement messages sent to the base station and relayed on the R6 interface. Triggers: Changes every time an R6 Paging Announcement message is relayed by the R6 interface. Availability: across all ASNGW services.	Int32

Statistic	Description	Data Type
r6pagannouce-totdenied	The total number of Paging Announcement messages denied on the R6 interface.	Int32
r6pagannouce-totdiscard	The total number of Paging Announcement messages discarded on the R6 interface.	Int32
r6pagannouce-badform	The total number of badly formed R6 Paging Announcement messages sent to the base station.	Int32
r6pagannouce-decodeerr	The total number of R6 Paging Announcement messages sent to the base station with decode errors.	Int32
r6pagannouce-unspecerr	The total number of R6 Paging Announcement messages sent to the base station with unspecified errors.	Int32
r6pagannouce-missmandtlv	The total number of R6 Paging Announcement messages sent to the base station with missing mandatory TLVs.	Int32
r6pagannouce-tlvvalinval	The total number of R6 Paging Announcement messages sent to the base station with an invalid TLV.	Int32
r6pagannouce-unknowntlv	The total number of R6 Paging Announcement messages sent to the base station with an unknown TLV.	Int32
r6pagannouce-duptlvfound	The total number of R6 Paging Announcement messages sent to the base station with duplicate TLVs.	Int32
r6pagannouce-nosessfound	The total number of R6 Paging Announcement messages sent to the base station without any session information.	Int32
r6pagannouce-admprohibit	The total number of R6 Paging Announcement messages sent to the base station that were discarded or denied due to admin prohibit. Triggers: Changes every time an R6 Paging Announcement message is discarded or denied due to admin prohibit. Availability: across all ASN GW services.	Int32
r6pagannouce-noresourcedrop	The total number of R6 Paging Announcement messages sent to the base station that were discarded or denied due to resource unavailability. Triggers: Changes every time an R6 Paging Announcement message is discarded or denied due to resource unavailability. Availability: across all ASN GW services.	Int32
r6pagannouce-transiderr	The total number of R6 Paging Announcement messages sent to the base station with a transaction ID error.	Int32
r6keepalivereq-totrec	The total number of R6 Keep-alive Request messages received by the base station.	Int32
r6keepalivereq-totacc	The total number of R6 Keep-alive Request messages accepted by base station.	Int32
r6keepalivereq-totrelay	The total number of R6 Keep-alive Request messages sent to the base station and relayed on the R6 interface. Triggers: Changes every time an R6 Keep-alive Request message is relayed by the R6 interface. Availability: across all ASNGW services.	Int32
r6keepalivereq-totdenied	The total number of Keep-alive Request messages denied on the R6 interface.	Int32
r6keepalivereq-totdiscard	The total number of Keep-alive Request messages discarded on the R6 interface.	Int32
r6keepalivereq-badform	The total number of badly formed R6 Keep-alive Request messages sent to the base station.	Int32

## Common Statistics

Statistic	Description	Data Type
r6keepalivereq-decodeerr	The total number of R6 Keep-alive Request messages sent to the base station with decode errors.	Int32
r6keepalivereq-unspecerr	The total number of R6 Keep-alive Request messages sent to the base station with unspecified errors.	Int32
r6keepalivereq-missmandtlv	The total number of R6 Keep-alive Request messages sent to the base station with missing mandatory TLVs.	Int32
r6keepalivereq-tlvvalinval	The total number of R6 Keep-alive Request messages sent to the base station with an invalid TLV.	Int32
r6keepalivereq-unknown_tlv	The total number of R6 Keep-alive Request messages sent to the base station with an unknown TLV.	Int32
r6keepalivereq-dup_tlv_found	The total number of R6 Keep-alive Request messages sent to the base station with duplicate TLVs.	Int32
r6keepalivereq-no-session-found	The total number of R6 Keep-alive Request messages sent to the base station without any session information.	Int32
r6keepalivereq-admin-prohibit	The total number of R6 Keep-alive Request messages sent to the base station that were discarded or denied due to admin prohibit. Triggers: Changes every time an R6 Keep-alive Request message is discarded or denied due to admin prohibit. Availability: across all ASN GW services.	Int32
r6keepalivereq-no-resource-drop	The total number of R6 Keep-alive Request messages sent to the base station that were discarded or denied due to resource unavailability. Triggers: Changes every time an R6 Keep-alive Request message is discarded or denied due to resource unavailability. Availability: across all ASN GW services.	Int32
r6keepalivereq-transaction-id-error	The total number of R6 Keep-alive Request messages sent to the base station with a transaction ID error.	Int32
r6keepaliversp-tot-sent	The total number of Keep-alive Response messages sent to the Base Station on the R6 interface.	Int32
r6keepaliversp-retrans-sent	The total number of Keep-alive Response messages retransmitted on the R6 interface.	Int32
r6keepaliversp-tot-send-fail	The total number of failed Keep-alive Response messages that occurred during transaction ID generation. This counter is used to count the error while sending the R6 packets.	Int32
r6unknown-tot-rec	The total number of Unknown messages received on R6 interface.	Int32
r6unknown-tot-acc	The total number of Unknown messages accepted on R6 interface.	Int32
r6unknown-tot-relay	The total number of Unknown messages received from the base station and relayed on the R6 interface. Triggers: Changes every time an Unknown message is relayed by the R6 interface. Availability: across all ASNGW services.	Int32
r6unknown-tot-denied	The total number of Unknown messages denied on R6 interface.	Int32
r6unknown-tot-discard	The total number of Unknown messages discarded on R6 interface.	Int32
r6unknown-bad-form	The total number of badly formed Unknown messages on R6 interface	Int32

Statistic	Description	Data Type
r6unknown-decodeerr	The total number of Unknown messages on R6 interface with decode error.	Int32
r6unknown-unspecerr	The total number of Unknown messages on R6 interface with unspecified error.	Int32
r6unknown-misssmandtlv	The total number of Unknown messages on R6 interface with missing mandatory TLVs.	Int32
r6unknown-tlvvalinval	The total number of Unknown messages on R6 interface with invalid TLV value	Int32
r6unknown-unknowntlv	The total number of Unknown messages on R6 interface with unknown TLV value	Int32
r6unknown-duptlvfound	The total number of Unknown messages on R6 interface with duplicate TLVs.	Int32
r6unknown-nosessfound	The total number of Unknown messages on R6 interface without any session information.	Int32
r6unknown-admprohibit	The total number of Unknown messages discarded or denied due to admin prohibit. Triggers: Changes every time an Unknown message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r6unknown-noresourcedrop	The total number of Unknown messages discarded or denied due to resource unavailability. Triggers: Changes every time an Unknown message is discarded or denied due to resource unavailability. Availability: across all the ASNGW services.	Int32
r6unknown-transiderr	The total number of Unknown messages on R6 interface with transaction ID errors.	Int32
r4imentstachareq-totsent	The total number of R4 Idle Mode Entry State Change Request messages sent to the ASNGW.	Int32
r4imentstachareq-retranssent	The total number of R4 Idle Mode Entry State Change Request messages re-transmitted on R4 interface.	Int32
r4imentstachareq-totsendfail	The total number of failures occurred during transaction id generation and R4 Idle Mode Entry State Change Request message not sent for specific interface. This counter is used to count the error while sending the R4 packets.	Int32
r4imentstachareq-totrec	The total number of R4 Idle Mode Entry State Change Request messages received on R4 interface.	Int32
r4imentstachareq-totacc	The total number of R4 Idle Mode Entry State Change Request messages accepted on R4 interface.	Int32
r4imentstachareq-totrelay	The total number of R4 Idle Mode Entry State Change Request messages received from the base station and relayed on the R4 interface. Triggers: Changes every time an R4 Idle Mode Entry State Change Request message is relayed by the R4 interface. Availability: across all ASNGW services.	Int32
r4imentstachareq-totdenied	The total number of R4 Idle Mode Entry State Change Request messages denied on R4 interface.	Int32
r4imentstachareq-totdiscard	The total number of R4 Idle Mode Entry State Change Request messages discarded on R4 interface.	Int32
r4imentstachareq-badform	The total number of badly formed R4 Idle Mode Entry State Change Request messages on R4 interface.	Int32

## Common Statistics

Statistic	Description	Data Type
r4imentstachareq-decodeerr	The total number of R4 Idle Mode Entry State Change Request messages on R4 interface with decode error.	Int32
r4imentstachareq-unspecerr	The total number of R4 Idle Mode Entry State Change Request messages on R4 interface with unspecified error.	Int32
r4imentstachareq-missmandtlv	The total number of R4 Idle Mode Entry State Change Request messages on R4 interface with missing mandatory TLVs.	Int32
r4imentstachareq-tlvvalinval	The total number of R4 Idle Mode Entry State Change Request messages on R4 interface with invalid TLV value	Int32
r4imentstachareq-unknowntrlv	The total number of R4 Idle Mode Entry State Change Request messages on R4 interface with unknown TLVs.	Int32
r4imentstachareq-duptrlvfound	The total number of R4 Idle Mode Entry State Change Request messages on R4 interface with duplicate TLVs.	Int32
r4imentstachareq-nosessfound	The total number of R4 Idle Mode Entry State Change Request messages on R4 interface without any session information	Int32
r4imentstachareq-admprohibit	The total number of R4 Idle Mode Entry State Change Request messages discarded or denied due to admin prohibit. Triggers: Changes every time a R4 Idle Mode Entry State Change Request message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r4imentstachareq-noresourcedrop	The total number of R4 Idle Mode Entry State Change Request messages discarded or denied due to resource unavailability. Triggers: Changes every time a R4 idle mode entry MS state change request message is discarded or denied due to resource unavailability. Availability: across all the ASNGW services.	Int32
r4imentstachareq-transiderr	The total number of R4 Idle Mode Entry State Change Request messages on R4 interface with transaction ID errors.	Int32
r4imentstacharsp-totsent	The number of Idle Mode Entry State Change Responses sent to the ASNGW.	Int32
r4imentstacharsp-retranssent	The total number of R4 Idle Mode Entry State Change Response messages re-transmitted on R4 interface.	Int32
r4imentstacharsp-totsendfail	The total number of failures occurred during transaction id generation and R4 Idle Mode Entry State Change Response message not sent for specific interface. This counter is used to count the error while sending the R4 packets.	Int32
r4imentstacharsp-totrec	The total number of R4 Idle Mode Entry State Change Response messages received on R4 interface	Int32
r4imentstacharsp-totacc	The total number of R4 Idle Mode Entry State Change Response messages accepted on R4 interface.	Int32
r4imentstacharsp-totrelay	The total number of R4 Idle Mode Entry State Change Response messages received from the base station and relayed on the R4 interface. Triggers: Changes every time an R4 Idle Mode Entry State Change Response message is relayed by the R4 interface. Availability: across all ASNGW services.	Int32

Statistic	Description	Data Type
r4imentstacharsp-totdenied	The total number of R4 Idle Mode Entry State Change Response messages denied on R4 interface.	Int32
r4imentstacharsp-totdiscard	The total number of R4 Idle Mode Entry State Change Response messages discarded on R4 interface.	Int32
r4imentstacharsp-badform	The total number of badly formed R4 idle mode entry MS state change response messages on R4 interface.	Int32
r4imentstacharsp-decodeerr	The total number of R4 Idle Mode Entry State Change Response messages on R4 interface with decode error.	Int32
r4imentstacharsp-unspecerr	The total number of R4 Idle Mode Entry State Change Response messages on R4 interface with unspecified error.	Int32
r4imentstacharsp-missmandtlv	The total number of R4 Idle Mode Entry State Change Response messages on R4 interface with missing mandatory TLVs.	Int32
r4imentstacharsp-tlvvalinval	The total number of R4 Idle Mode Entry State Change Response messages on R4 interface with invalid TLV value.	Int32
r4imentstacharsp-unknowntrlv	The total number of R4 Idle Mode Entry State Change Response messages on R4 interface with unknown TLVs.	Int32
r4imentstacharsp-duptlvfound	The total number of R4 Idle Mode Entry State Change Response messages on R4 interface with duplicate TLVs.	Int32
r4imentstacharsp-nosessfound	The total number of R4 Idle Mode Entry State Change Response messages on R4 interface without any session information.	Int32
r4imentstacharsp-admprohibit	The total number of R4 Idle Mode Entry State Change Response messages discarded or denied due to admin prohibit. Triggers: Changes every time an R4 Idle Mode Entry State Change Response message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r4imentstacharsp-noresourcedrop	The total number of R4 Idle Mode Entry State Change Response messages discarded or denied due to resource unavailability. Triggers: Changes every time an R4 Idle Mode Entry State Change Response message is discarded or denied due to resource unavailability. Availability: across all the ASNGW services.	Int32
r4imentstacharsp-transiderr	The total number of R4 Idle Mode Entry State Change Response messages on R4 interface with transaction ID errors.	Int32
r4imentstachaack-totsent	The total number of Idle Mode Entry State Change Acknowledgements sent to the ASNGW.	Int32
r4imentstachaack-retranssent	The total number of R4 Idle Mode Entry State Change Acknowledgement messages re-transmitted to the ASNGW on the R4 interface.	Int32
r4imentstachaack-totsendfail	The total number of failures that occurred during transaction id generation and R4 Idle Mode Entry State Change Acknowledgement message not sent for specific interface. This counter is used to count the error while sending the R4 packets.	Int32
r4imentstachaack-totrec	The total number of R4 Idle Mode Entry State Change Acknowledgement messages received by the ASNGW on R4 interface	Int32

Statistic	Description	Data Type
r4imentstachaack-totacc	The total number of R4 Idle Mode Entry State Change Acknowledgement messages accepted on R4 interface by the ASNGW.	Int32
r4imentstachaack-totrelay	The total number of R4 Idle Mode Entry State Change Acknowledgement messages received from the base station and relayed on the R4 interface. Triggers: Changes every time an R4 Idle Mode Entry State Change Acknowledgement message is relayed by the R4 interface. Availability: across all ASNGW services.	Int32
r4imentstachaack-totdenied	The total number of R4 Idle Mode Entry State Change Acknowledgement messages denied by the ASNGW on the R4 interface.	Int32
r4imentstachaack-totdiscard	The total number of R4 Idle Mode Entry State Change Acknowledgement messages discarded by the ASNGW on the R4 interface	Int32
r4imentstachaack-badform	The total number of badly formed R4 Idle Mode Entry State Change Acknowledgement messages received by the ASNGW on the R4 interface.	Int32
r4imentstachaack-decodeerr	The total number of R4 Idle Mode Entry State Change Acknowledgement messages received by the ASNGW on the R4 interface with decode errors.	Int32
r4imentstachaack-unspecerr	The total number of R4 Idle Mode Entry State Change Acknowledgement messages received by the ASNGW on the R4 interface with unspecified error.	Int32
r4imentstachaack-missmandtlv	The total number of R4 Idle Mode Entry State Change Acknowledgement messages received by the ASNGW on the R4 interface with missing mandatory TLVs.	Int32
r4imentstachaack-tlvvalinval	The total number of R4 Idle Mode Entry State Change Acknowledgement messages received by the ASNGW on the R4 interface with invalid TLV value.	Int32
r4imentstachaack-unknowntrlv	The total number of R4 Idle Mode Entry State Change Acknowledgement messages received by the ASNGW on the R4 interface with unknown TLVs.	Int32
r4imentstachaack-duptlvfound	The total number of R4 Idle Mode Entry State Change Acknowledgement messages received by the ASNGW on the R4 interface with duplicate TLVs.	Int32
r4imentstachaack-nosessfound	The total number of R4 Idle Mode Entry State Change Acknowledgement messages received by the ASNGW on the R4 interface without any session information.	Int32
r4imentstachaack-admprohibit	The total number of R4 Idle Mode Entry State Change Acknowledgement messages discarded or denied by the ASNGW on the R4 interface due to admin prohibit. Triggers: Changes every time an R4 Idle Mode Entry State Change Acknowledgement message is discarded or denied due to admin prohibit. Availability: across all ASNGW services	Int32
r4imentstachaack-noresourcedrop	The total number of R4 Idle Mode Entry State Change Acknowledgement messages discarded or denied by the ASNGW on the R4 interface due to resource unavailability. Triggers: Changes every time an R4 Idle Mode Entry State Change Acknowledgement message is discarded or denied due to resource unavailability. Availability: across all the ASNGW services.	Int32
r4imentstachaack-transiderr	The total number of R4 Idle Mode Entry State Change Acknowledgement messages received by the ASNGW on the R4 interface with transaction ID errors.	Int32
r4imexitstachareq-totsent	The total number of Idle Mode Exit State Change Requests sent to the ASNGW.	Int32

Statistic	Description	Data Type
r4imexitstachareq-retranssent	The total number of R4R4 Idle Mode Exit State Change Request messages re-transmitted on R4 interface.	Int32
r4imexitstachareq-totsendfail	The total number of R4 idle Mode Exit State Change Request messages sent to the base station. This counter is used to count the error while sending the R4 packets.	Int32
r4imexitstachareq-totrec	The total number of R4 Idle Mode Exit State Change Request messages received on R4 interface.	Int32
r4imexitstachareq-totacc	The total number of R4 Idle Mode Exit State Change Request messages accepted on R4 interface.	Int32
r4imexitstachareq-totrelay	The total number of R4 Idle Mode Exit State Change Request messages relayed to the base station on the R4 interface. Triggers: Changes every time an R4 Idle Mode Exit State Change Request message is relayed by the R4 interface. Availability: across all ASNGW services.	Int32
r4imexitstachareq-totdenied	The total number of R4 Idle Mode Exit State Change Request messages denied on R4 interface.	Int32
r4imexitstachareq-totdiscard	The total number of R4 Idle Mode Exit State Change Request messages discarded on R4 interface.	Int32
r4imexitstachareq-badform	The total number of badly formed R4 Idle Mode Exit State Change Request messages on R4 interface.	Int32
r4imexitstachareq-decodeerr	The total number of R4 Idle Mode Exit State Change Request messages on R4 interface with decode error.	Int32
r4imexitstachareq-unspecerr	The total number of R4 Idle Mode Exit State Change Request messages on R4 interface with unspecified error.	Int32
r4imexitstachareq-missmandtlv	The total number of R4 Idle Mode Exit State Change Request messages on R4 interface with missing mandatory TLVs.	Int32
r4imexitstachareq-tlvvalinval	The total number of R4 Idle Mode Exit State Change Request messages on R4 interface with invalid TLV value	Int32
r4imexitstachareq-unknowntlv	The total number of R4 Idle Mode Exit State Change Request messages on R4 interface with unknown TLVs	Int32
r4imexitstachareq-duptlvfound	The total number of R4 Idle Mode Exit State Change Request messages on R4 interface with duplicate TLVs.	Int32
r4imexitstachareq-nosessfound	The total number of R4 Idle Mode Exit State Change Request messages on R4 interface without any session information.	Int32
r4imexitstachareq-admprohibit	The total number of R4 Idle Mode Exit State Change Request messages discarded or denied due to admin prohibit. Triggers: Changes every time an R4 Idle Mode Exit State Change Request message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32

Statistic	Description	Data Type
r4imexitstachareq-noresourcedrop	The total number of R4 Idle Mode Exit State Change Request messages discarded or denied due to resource unavailability. Triggers: Changes every time an R4 Idle Mode Exit State Change Request message is discarded or denied due to resource unavailability. Availability: across all the ASNGW services.	Int32
r4imexitstachareq-transiderr	The total number of R4 Idle Mode Exit State Change Request messages on R4 interface with transaction ID errors.	Int32
r4imexitstacharsp-totsent	The total number of Idle Mode Exit State Change Responses sent to the Base Station.	Int32
r4imexitstacharsp-retransent	The total number of R4 Idle Mode Exit State Change Response messages re-transmitted on R4 interface.	Int32
r4imexitstacharsp-totsendfail	The total number of failed R4 idle Mode Exit State Change Response messages sent to the base station. This counter is used to count the error while sending the R4 packets.	Int32
r4imexitstacharsp-totrec	The total number of R4 Idle Mode Exit State Change Response messages received on R4 interface.	Int32
r4imexitstacharsp-totacc	The total number of R4 Idle Mode Exit State Change Response messages accepted on R4 interface.	Int32
r4imexitstacharsp-totrelay	The total number of R4 Idle Mode Exit State Change Response messages relayed to the base station on the R4 interface. Triggers: Changes every time an R4 Idle Mode Exit State Change Response message is relayed by the R4 interface. Availability: across all ASNGW services.	Int32
r4imexitstacharsp-totdenied	The total number of R4 Idle Mode Exit State Change Response messages denied on R4 interface.	Int32
r4imexitstacharsp-totdiscard	The total number of R4 Idle Mode Exit State Change Response messages discarded on R4 interface.	Int32
r4imexitstacharsp-badform	The total number of badly formed R4 Idle Mode Exit State Change Response messages on R4 interface.	Int32
r4imexitstacharsp-decodeerr	The total number of R4 Idle Mode Exit State Change Response messages on R4 interface with decode error.	Int32
r4imexitstacharsp-unspecerr	The total number of R4 Idle Mode Exit State Change Response messages on R4 interface with unspecified error.	Int32
r4imexitstacharsp-missmandtlv	The total number of R4 Idle Mode Exit State Change Response messages on R4 interface with missing mandatory TLVs.	Int32
r4imexitstacharsp-tlvvalinval	The total number of R4 Idle Mode Exit State Change Response messages on R4 interface with an invalid TLV value.	Int32
r4imexitstacharsp-unknowntrlv	The total number of R4 Idle Mode Exit State Change Response messages on R4 interface with unknown TLVs.	Int32
r4imexitstacharsp-duptlvfound	The total number of R4 Idle Mode Exit State Change Response messages on R4 interface with duplicate TLVs.	Int32

Statistic	Description	Data Type
r4imexitstacharsp-nosessfound	The total number of R4 Idle Mode Exit State Change Response messages with no session information.	Int32
r4imexitstacharsp-admprohibit	The total number of R4 Idle Mode Exit State Change Response messages discarded or denied due to admin prohibit. Triggers: Changes every time an R4 Idle Mode Exit State Change Response message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r4imexitstacharsp-noresourcedrop	The total number of R4 Idle Mode Exit State Change Response messages discarded or denied due to resource unavailability. Triggers: Changes every time an R4 Idle Mode Exit State Change Response message is discarded or denied due to resource unavailability. Availability: across all ASNGW services.	Int32
r4imexitstacharsp-transiderr	The total number of R4 Idle Mode Exit State Change Response messages with translation ID errors.	Int32
r4inipagreq-totsent	The total number of Initial Paging Requests sent to the ASNGW.	Int32
r4inipagreq-retranssent	The total number of R4 Initial Paging Request messages re-transmitted on R4 interface.	Int32
r4inipagreq-totsendfail	The total number of failures occurred during transaction id generation and R4 Initial Paging Request message not sent for specific interface. This counter is used to count the error while sending the R4 packets.	Int32
r4inipagreq-totrec	The total number of R4 Initial Paging Request messages received on R4 interface.	Int32
r4inipagreq-totacc	The total number of R4 Initial Paging Request messages accepted on R4 interface.	Int32
r4inipagreq-totrelay	The total number of R4 Initial Paging Request messages received from the base station and relayed on the R4 interface. Triggers: Changes every time an R4 Initial Paging Request message is relayed by the R4 interface. Availability: across all ASNGW services.	Int32
r4inipagreq-totdenied	The total number of R4 Initial Paging Request messages denied on R4 interface.	Int32
r4inipagreq-totdiscard	The total number of R4 Initial Paging Request messages discarded on R4 interface.	Int32
r4inipagreq-badform	The total number of badly formed R4 Initial Paging Request messages on R4 interface.	Int32
r4inipagreq-decodeerr	The total number of R4 Initial Paging Request messages on R4 interface with decode error.	Int32
r4inipagreq-unspecerr	The total number of R4 Initial Paging Request messages on R4 interface with unspecified error.	Int32
r4inipagreq-missmandtlv	The total number of R4 Initial Paging Request messages on R4 interface with missing mandatory TLVs.	Int32
r4inipagreq-tlvvalinval	The total number of R4 Initial Paging Request messages on R4 interface with invalid TLV value.	Int32
r4inipagreq-unknowntrlv	The total number of R4 Initial Paging Request messages on R4 interface with unknown TLVs.	Int32
r4inipagreq-duptlvfound	The total number of R4 Initial Paging Request messages on R4 interface with duplicate TLVs.	Int32

## Common Statistics

Statistic	Description	Data Type
r4inipagreq-nosessfound	The total number of R4 Initial Paging Request messages on R4 interface without any session information.	Int32
r4inipagreq-admprohibit	The total number of R4 Initial Paging Request messages discarded or denied due to admin prohibit. Triggers: Changes every time an R4 Initial Paging Request message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r4inipagreq-noresourcedrop	The total number of R4 Initial Paging Request messages discarded or denied due to resource unavailability. Triggers: Changes every time an R4 Initial Paging Request message is discarded or denied due to resource unavailability. Availability: across all the ASNGW services.	Int32
r4inipagreq-transiderr	The total number of R4 Initial Paging Request messages on R4 interface with transaction ID errors.	Int32
r4inipagrsp-totsent	The total number of Initiate Paging Responses sent to the ASNGW.	Int32
r4inipagrsp-retranssent	The total number of R4 Initial Paging Response messages re-transmitted on R4 interface.	Int32
r4inipagrsp-totsendfail	The total number of failures occurred during transaction id generation and R4 Initial Paging Response message not sent for specific interface. This counter is used to count the error while sending the R4 packets.	Int32
r4inipagrsp-totrec	The total number of R4 Initial Paging Response messages received on R4 interface.	Int32
r4inipagrsp-totacc	The total number of R4 Initial Paging Response messages accepted on R4 interface.	Int32
r4inipagrsp-totrelay	The total number of R4 Initial Paging Response messages received from the base station and relayed on the R4 interface. Triggers: Changes every time an R4 Initial Paging Response message is relayed by the R4 interface. Availability: across all ASNGW services.	Int32
r4inipagrsp-totdenied	The total number of R4 Initial Paging Response messages denied on R4 interface	Int32
r4inipagrsp-totdiscard	The total number of R4 Initial Paging Response messages discarded on R4 interface.	Int32
r4inipagrsp-badform	The total number of badly formed R4 Initial Paging Response messages on R4 interface.	Int32
r4inipagrsp-decodeerr	The total number of R4 Initial Paging Response messages on R4 interface with decode error.	Int32
r4inipagrsp-unspecerr	The total number of R4 Initial Paging Response messages on R4 interface with unspecified error.	Int32
r4inipagrsp-mismandtlv	The total number of R4 Initial Paging Response messages on R4 interface with missing mandatory TLVs.	Int32
r4inipagrsp-tlvvalinval	The total number of R4 Initial Paging Response messages on R4 interface with invalid TLV value.	Int32
r4inipagrsp-unknowntrlv	The total number of R4 Initial Paging Response messages on R4 interface with unknown TLVs.	Int32

Statistic	Description	Data Type
r4inipagrsp-duptlvfound	The total number of R4 Initial Paging Response messages on R4 interface with duplicate TLVs.	Int32
r4inipagrsp-nosessfound	The total number of R4 Initial Paging Response messages on R4 interface without any session information.	Int32
r4inipagrsp-admprohibit	The total number of R4 Initial Paging Response messages discarded or denied due to admin prohibit. Triggers: Changes every time an R4 Initial Paging Response message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r4inipagrsp-noresourcedrop	The total number of R4 Initial Paging Response messages discarded or denied due to resource unavailability. Triggers: Changes every time an R4 Initial Paging Response message is discarded or denied due to resource unavailability. Availability: across all the ASNGW services.	Int32
r4inipagrsp-transiderr	The total number of R4 Initial Paging Response messages on R4 interface with transaction ID errors.	Int32
r4nwexitmsstachareq-totsent	The total number of Network Exit MS State Change Requests sent to the ASNGW.	Int32
r4nwexitmsstachareq-retranssent	The total number of Network Exit MS State Change Request messages re-transmitted on the R4 interface.	Int32
r4nwexitmsstachareq-totsendfail	The total number of failures occurred during transaction ID generation and R4 Network Exit MS State Change Request message not sent for specific interface. This counter is used to count the error while sending the R4 packets.	Int32
r4nwexitmsstachareq-totrec	The total number of Network Exit MS State Change Request messages received on R4 interface	Int32
r4nwexitmsstachareq-totacc	The total number of Network Exit MS State Change Request messages accepted on R4 interface	Int32
r4nwexitmsstachareq-totrelay	The total number of Network Exit MS State Change Request messages received from the base station and relayed on the R4 interface. Triggers: Changes every time a Network Exit MS State Change Request message is relayed by the R4 interface. Availability: across all ASNGW services.	Int32
r4nwexitmsstachareq-totdenied	The total number of Network Exit MS State Change Request messages denied on R4 interface.	Int32
r4nwexitmsstachareq-totdiscard	The total number of Network Exit MS State Change Request messages discarded on R4 interface.	Int32
r4nwexitmsstachareq-badform	The total number of badly formed Network Exit MS State Change Request messages on R4 interface.	Int32
r4nwexitmsstachareq-decodeerr	The total number of Network Exit MS State Change Request messages on R4 interface with decode error.	Int32
r4nwexitmsstachareq-unspecerr	The total number of Network Exit MS State Change Request messages on R4 interface with unspecified error.	Int32

Statistic	Description	Data Type
r4nwexitmsstachareq-missmandtlv	The total number of Network Exit MS State Change Request messages on R4 interface with missing mandatory TLVs.	Int32
r4nwexitmsstachareq-tlvvalinval	The total number of Network Exit MS State Change Request messages on R4 interface with invalid TLV value.	Int32
r4nwexitmsstachareq-unknownTLV	The total number of Network Exit MS State Change Request messages on R4 interface with unknown TLVs.	Int32
r4nwexitmsstachareq-dupTLVfound	The total number of Network Exit MS State Change Request messages on R4 interface with duplicate TLVs.	Int32
r4nwexitmsstachareq-nosessfound	The total number of Network Exit MS State Change Request messages on R4 interface without any session information.	Int32
r4nwexitmsstachareq-admprohibit	The total number of Network Exit MS State Change Request messages on R4 interface with transaction ID errors.	Int32
r4nwexitmsstachareq-noresourcedrop	The total number of Network Exit MS State Change Request messages discarded or denied due to admin prohibit. Triggers: Changes every time a Network Exit MS State Change Request message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r4nwexitmsstachareq-transiderr	The total number of Network Exit MS State Change Request messages discarded or denied due to transaction ID errors.	Int32
r4nwexitmsstacharsp-totsent	The total number of Network Exit MS State Change Responses sent to the ASNGW.	Int32
r4nwexitmsstacharsp-retranssent	The total number of Network Exit MS State Change Response messages re-transmitted on R4 interface.	Int32
r4nwexitmsstacharsp-totsendfail	The total number of Network Exit MS State Change Response failures that occurred during transaction ID generation and R4 Network Exit MS State Change Response message not sent for specific interface. This counter is used to count the error while sending the R4 packets.	Int32
r4nwexitmsstacharsp-totrec	The total number of Network Exit MS State Change Response messages received on R4 interface.	Int32
r4nwexitmsstacharsp-totacc	The total number of Network Exit MS State Change Response messages accepted on R4 interface.	Int32
r4nwexitmsstacharsp-totrelay	The total number of Network Exit MS State Change Response messages received from the base station and relayed on the R4 interface. Triggers: Changes every time a Network Exit MS State Change Response message is relayed by the R4 interface. Availability: across all ASNGW services.	Int32
r4nwexitmsstacharsp-totdenied	The total number of Network Exit MS State Change Response messages denied on R4 interface.	Int32
r4nwexitmsstacharsp-totdiscard	The total number of Network Exit MS State Change Response messages discarded on R4 interface.	Int32

Statistic	Description	Data Type
4nwexitmsstacharsp-badform	The total number of badly formed Network Exit MS State Change Response messages on R4 interface.	Int32
r4nwexitmsstacharsp-decodeerr	The total number of Network Exit MS State Change Response messages on R4 interface with decode error.	Int32
r4nwexitmsstacharsp-unspecerr	The total number of Network Exit MS State Change Response messages on R4 interface with unspecified error.	Int32
r4nwexitmsstacharsp-missmandtlv	The total number of Network Exit MS State Change Response messages on R4 interface with missing mandatory TLVs.	Int32
r4nwexitmsstacharsp-tlvvalinval	The total number of Network Exit MS State Change Response messages on R4 interface with invalid TLV value.	Int32
r4nwexitmsstacharsp-unknowntlv	The total number of Network Exit MS State Change Response messages on R4 interface with unknown TLVs.	Int32
r4nwexitmsstacharsp-duptlvfound	The total number of Network Exit MS State Change Response messages on R4 interface with duplicate TLVs.	Int32
r4nwexitmsstacharsp-nosessfound	The total number of Network Exit MS State Change Response messages on R4 interface without any session information.	Int32
r4nwexitmsstacharsp-admprohibit	The total number of Network Exit MS State Change Response messages discarded or denied due to admin prohibit. Triggers: Changes every time a Network Exit MS State Change Response message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r4nwexitmsstacharsp-noresourcedrop	The total number of Network Exit MS State Change Response messages discarded or denied due to resource unavailability. Triggers: Changes every time a Network Exit MS State Change Response message is discarded or denied due to resource unavailability. Availability: across all the ASNGW service.	Int32
r4nwexitmsstacharsp-transiderr	The total number of Network Exit MS State Change Response messages on R4 interface with transaction ID errors.	Int32
r4delmsentreq-totsent	The total number of Delete MS Entry Requests sent to the ASNGW on the R4 interface.	Int32
r4delmsentreq-retranssent	The total number of R4 Delete MS Entry Request messages re-transmitted on R4 interface	Int32
r4delmsentreq-totsefail	The total number of failures occurred during transaction id generation and R4 Delete MS Entry Request message not sent for specific interface. This counter is used to count the error while sending the R4 packets.	Int32
r4delmsentreq-totrec	The total number of R4 Delete MS Entry Request messages received on R4 interface.	Int32
r4delmsentreq-totacc	The total number of R4 Delete MS Entry Request messages accepted on R4 interface	Int32
r4delmsentreq-totrelay	The total number of R4 Delete MS Entry Request messages received from the base station and relayed on the R4 interface. Triggers: Changes every time an R4 Delete MS Entry Request message is relayed by the R4 interface. Availability: across all ASNGW services.	Int32
r4delmsentreq-totdenied	The total number of R4 Delete MS Entry Request messages denied on R4 interface.	Int32

## Common Statistics

Statistic	Description	Data Type
r4delmsentreq-totdiscard	The total number of R4 Delete MS Entry Request messages discarded on R4 interface.	Int32
r4delmsentreq-badform	The total number of badly formed R4 Delete MS Entry Request messages on R4 interface.	Int32
r4delmsentreq-decodeerr	The total number of R4 Delete MS Entry Request messages on R4 interface with decode error.	Int32
r4delmsentreq-unspecerr	The total number of R4 Delete MS Entry Request messages on R4 interface with unspecified error.	Int32
r4delmsentreq-mismandtlv	The total number of R4 Delete MS Entry Request messages on R4 interface with missing mandatory TLVs.	Int32
r4delmsentreq-tlvvalinval	The total number of R4 Delete MS Entry Request messages on R4 interface with invalid TLV value.	Int32
r4delmsentreq-unknowntrlv	The total number of R4 Delete MS Entry Request messages on R4 interface with unknown TLVs.	Int32
r4delmsentreq-duptlvfound	The total number of R4 Delete MS Entry Request messages on R4 interface with duplicate TLVs.	Int32
r4delmsentreq-nosessfound	The total number of R4 Delete MS Entry Request messages on R4 interface without any session information.	Int32
r4delmsentreq-admprohibit	The total number of R4 Delete MS Entry Request messages discarded or denied due to admin prohibit. Triggers: Changes every time an R4 Delete MS Entry Request message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r4delmsentreq-noresourcedrop	The total number of R4 Delete MS Entry Request messages discarded or denied due to resource unavailability. Triggers: Changes every time an R4 Delete MS Entry Request message is discarded or denied due to resource unavailability. Availability: across all the ASNGW services.	Int32
r4delmsentreq-transiderr	The total number of R4 Delete MS Entry Request messages on R4 interface with transaction ID errors.	Int32
r4delmsentrsp-totsent	The total number of Delete MS Entry Responses sent to the ASNGW.	Int32
r4delmsentrsp-retranssent	The total number of R4 Delete MS Entry Response messages retransmitted on the R4 interface.	Int32
r4delmsentrsp-totsendfail	The total number of failures occurred during transaction id generation and R4 Delete MS Entry Response message not sent for specific interface. This counter is used to count the error while sending the R4 packets.	Int32
r4delmsentrsp-totrec	The total number of R4 Delete MS Entry Response messages received on R4 interface.	Int32
r4delmsentrsp-totacc	The total number of R4 Delete MS Entry Response messages accepted on the R4 interface.	Int32
r4delmsentrsp-totrelay	The total number of R4 Delete MS Entry Response messages received from the base station and relayed on the R4 interface. Triggers: Changes every time an R4 Delete MS Entry Response message is relayed by the R4 interface. Availability: across all ASNGW services.	Int32

Statistic	Description	Data Type
r4delmsentrsp-totdenied	The total number of R4 Delete MS Entry Response messages denied on R4 interface.	Int32
r4delmsentrsp-totdiscard	The total number of R4 Delete MS Entry Response messages discarded on R4 interface.	Int32
r4delmsentrsp-badform	The total number of badly formed R4 Delete MS Entry Response messages on R4 interface.	Int32
r4delmsentrsp-decodeerr	The total number of R4 Delete MS Entry Response messages on R4 interface with decode error.	Int32
r4delmsentrsp-unspecerr	The total number of R4 Delete MS Entry Response messages on R4 interface with unspecified error.	Int32
r4delmsentrsp-missmandtlv	The total number of R4 Delete MS Entry Response messages on R4 interface with missing mandatory TLVs.	Int32
r4delmsentrsp-tlvvalinval	The total number of R4 Delete MS Entry Response messages on R4 interface with invalid TLV value.	Int32
r4delmsentrsp-unknowntrlv	The total number of R4 Delete MS Entry Response messages on R4 interface with unknown TLVs.	Int32
r4delmsentrsp-duptrlvfound	The total number of R4 Delete MS Entry Response messages on R4 interface with duplicate TLVs.	Int32
r4delmsentrsp-nosessfound	The total number of R4 Delete MS Entry Response messages on R4 interface without any session information.	Int32
r4delmsentrsp-admprohibit	The total number of R4 Delete MS Entry Response messages discarded or denied due to admin prohibit. Triggers: Changes every time an R4 Delete MS Entry Response message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r4delmsentrsp-noresourcedrop	The total number of R4 Delete MS Entry Response messages discarded or denied due to resource unavailability. Triggers: Changes every time an R4 Delete MS Entry Response message is discarded or denied due to resource unavailability. Availability: across all the ASNGW services.	Int32
r4delmsentrsp-transiderr	The total number of R4 Delete MS Entry Response messages on R4 interface with transaction ID errors.	Int32
r4anchorpcind-totsent	The total number of Anchor Paging Controller Indicator messages sent to the ASNGW on the R4 interface.	Int32
r4anchorpcind-retranssent	The total number of R4 Anchor Paging Controller Indicator messages re-transmitted on R4 interface.	Int32
r4anchorpcind-totsendfail	The total number of failures occurred during transaction id generation and R4 Anchor Paging Controller Indicator message not sent for specific interface. This counter is used to count the error while sending the R4 packets.	Int32
r4anchorpcind-totrec	The total number of R4 Anchor Paging Controller Indicator messages received on R4 interface.	Int32
r4anchorpcind-totacc	The total number of R4 Anchor Paging Controller Indicator messages accepted on R4 interface.	Int32

Statistic	Description	Data Type
r4anchorpcind-totrelay	The total number of R4 Anchor Paging Controller Indicator messages received from the base station and relayed on the R4 interface. Triggers: Changes every time an R4 Anchor Paging Controller Indicator message is relayed by the R4 interface. Availability: across all ASNGW services.	Int32
r4anchorpcind-totdenied	The total number of R4 Anchor Paging Controller Indicator messages denied on R4 interface.	Int32
r4anchorpcind-totdiscard	The total number of R4 Anchor Paging Controller Indicator messages discarded on R4 interface.	Int32
r4anchorpcind-badform	The total number of badly formed R4 Anchor Paging Controller Indicator messages on R4 interface.	Int32
r4anchorpcind-decodeerr	The total number of R4 Anchor Paging Controller Indicator messages on R4 interface with decode error.	Int32
r4anchorpcind-unspeccerr	The total number of R4 Anchor Paging Controller Indicator messages on R4 interface with unspecified error.	Int32
r4anchorpcind-mismandtlv	The total number of R4 Anchor Paging Controller Indicator messages on R4 interface with missing mandatory TLVs.	Int32
r4anchorpcind-tlvvalinval	The total number of R4 Anchor Paging Controller Indicator messages on R4 interface with invalid TLV value.	Int32
r4anchorpcind-unknowntrlv	The total number of R4 Anchor Paging Controller Indicator messages on R4 interface with unknown TLVs.	Int32
r4anchorpcind-duptlvfound	The total number of R4 Anchor Paging Controller Indicator messages on R4 interface with duplicate TLVs.	Int32
r4anchorpcind-nosessfound	The total number of R4 Anchor Paging Controller Indicator messages on R4 interface without any session information.	Int32
r4anchorpcind-admprohibit	The total number of R4 Anchor Paging Controller Indicator messages discarded or denied due to admin prohibit. Triggers: Changes every time an R4 Anchor Paging Controller Indicator message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r4anchorpcind-noresourcepdrop	The total number of R4 Anchor Paging Controller Indicator messages discarded or denied due to resource unavailability. Triggers: Changes every time an R4 Anchor Paging Controller Indicator message is discarded or denied due to resource unavailability. Availability: across all the ASNGW services.	Int32
r4anchorpcind-transiderr	The total number of R4 Anchor Paging Controller Indicator messages on R4 interface with transaction ID errors.	Int32
r4anchorpcack-totsent	The total number of Anchor Paging Controller Acknowledgements sent to the ASNGW.	Int32
r4anchorpcack-retranssent	The total number of R4 Anchor Paging Controller Acknowledgement messages re-transmitted on R4 interface.	Int32

Statistic	Description	Data Type
r4anchorpcack-totsefail	The total number of failures occurred during transaction id generation and R4 Anchor Paging Controller Acknowledgement message not sent for specific interface. This counter is used to count the error while sending the R4 packets.	Int32
r4anchorpcack-totrec	The total number of R4 Anchor Paging Controller Acknowledgement messages received on R4 interface.	Int32
r4anchorpcack-totacc	The total number of R4 Anchor Paging Controller Acknowledgement messages accepted on R4 interface.	Int32
r4anchorpcack-totrelay	The total number of R4 Anchor Paging Controller Acknowledgement messages received from the base station and relayed on the R4 interface. Triggers: Changes every time an R4 Anchor Paging Controller Acknowledgement message is relayed by the R4 interface. Availability: across all ASNGW services.	Int32
r4anchorpcack-totdenied	The total number of R4 Anchor Paging Controller Acknowledgement messages denied on R4 interface.	Int32
r4anchorpcack-totdiscard	The total number of R4 Anchor Paging Controller Acknowledgement messages discarded on R4 interface.	Int32
r4anchorpcack-badform	The total number of badly formed R4 Anchor Paging Controller Acknowledgement messages on R4 interface.	Int32
r4anchorpcack-decodeerr	The total number of R4 Anchor Paging Controller Acknowledgement messages on R4 interface with decode error.	Int32
r4anchorpcack-unspecerr	The total number of R4 Anchor Paging Controller Acknowledgement messages on R4 interface with unspecified error.	Int32
r4anchorpcack-missmandtlv	The total number of R4 Anchor Paging Controller Acknowledgement messages on R4 interface with missing mandatory TLVs.	Int32
r4anchorpcack-tlvvalinval	The total number of R4 Anchor Paging Controller Acknowledgement messages on R4 interface with invalid TLV value.	Int32
r4anchorpcack-unknown-tlv	The total number of R4 Anchor Paging Controller Acknowledgement messages on R4 interface with unknown TLVs.	Int32
r4anchorpcack-duptlvfound	The total number of R4 Anchor Paging Controller Acknowledgement messages on R4 interface with duplicate TLVs.	Int32
r4anchorpcack-nosessfound	The total number of R4 Anchor Paging Controller Acknowledgement messages on R4 interface without any session information.	Int32
r4anchorpcack-adminprohib	The total number of R4 Anchor Paging Controller Acknowledgement messages discarded or denied due to admin prohibit. Triggers: Changes every time an R4 Anchor Paging Controller Acknowledgement message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r4anchorpcack-noresourcedrop	The total number of R4 Anchor Paging Controller Acknowledgement messages discarded or denied due to resource unavailability. Triggers: Changes every time an R4 Anchor Paging Controller Acknowledgement message is discarded or denied due to resource unavailability. Availability: across all the ASNGW services.	Int32

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Statistic	Description	Data Type
r4anchorpack-transiderr	The total number of R4 Anchor Paging Controller Acknowledgement messages on R4 interface with transaction ID errors.	Int32
r4locupdreq-totsent	The total number of Location Update Requests sent to the peer ASNPC over the R4 interface.	Int32
r4locupdreq-retranssent	The total number of R4 Location Update Request messages re-transmitted on R4 interface.	Int32
r4locupdreq-totsefail	The total number of failures occurred during transaction id generation and R4 Location Update Request messages not sent for specific interface. This counter is used to count the error while sending the R4 packets.	Int32
r4locupdreq-totrec	The total number of R4 Location Update Request messages received on R4 interface.	Int32
r4locupdreq-totacc	The total number of R4 Location Update Request messages accepted on R4 interface.	Int32
r4locupdreq-totrelay	The total number of R4 Location Update Request messages received from the base station and relayed on the R4 interface. Triggers: Changes every time an R4 Location Update Request message is relayed by the R4 interface. Availability: across all ASNGW services.	Int32
r4locupdreq-totdenied	The total number of R4 Location Update Request messages denied on R4 interface.	Int32
r4locupdreq-totdiscard	The total number of R4 Location Update Request messages discarded on R4 interface.	Int32
r4locupdreq-badform	The total number of badly formed R4 Location Update Request messages on R4 interface.	Int32
r4locupdreq-decodeerr	The total number of R4 Location Update Request messages on R4 interface with decode error.	Int32
r4locupdreq-unspecerr	The total number of R4 Location Update Request messages on R4 interface with unspecified error.	Int32
r4locupdreq-missmandtlv	The total number of R4 Location Update Request messages on R4 interface with missing mandatory TLVs.	Int32
r4locupdreq-tlvvalinval	The total number of R4 Location Update Request messages on R4 interface with invalid TLV value.	Int32
r4locupdreq-unknowntrlv	The total number of R4 Location Update Request messages on R4 interface with unknown TLVs.	Int32
r4locupdreq-duptlvfound	The total number of R4 Location Update Request messages on R4 interface with duplicate TLVs.	Int32
r4locupdreq-nosessfound	The total number of R4 Location Update Request messages on R4 interface without any session information.	Int32
r4locupdreq-admprohibit	The total number of R4 Location Update Request messages discarded or denied due to admin prohibit. Triggers: Changes every time an R4 Location Update Request message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32

Statistic	Description	Data Type
r4locupdrq- noresourcedrop	The total number of R4 Location Update Request messages discarded or denied due to resource unavailability. Triggers: Changes every time an R4 Location Update Request message is discarded or denied due to resource unavailability. Availability: across all the ASNGW services.	Int32
r4locupdrq-transiderr	The total number of R4 Location Update Request messages on R4 interface with transaction ID errors.	Int32
r4locupdrsp-totsent	The total number of Location Update Responses sent to the peer ASNPC.	Int32
r4locupdrsp-retranssent	The total number of R4 Location Update Response messages re-transmitted on R4 interface.	Int32
r4locupdrsp-totsefail	The total number of failures occurred during transaction id generation and R4 Location Update Response messages not sent for specific interface. This counter is used to count the error while sending the R4 packets.	Int32
r4locupdrsp-totrec	The total number of R4 Location Update Response messages received on R4 interface.	Int32
r4locupdrsp-totacc	The total number of R4 Location Update Response messages accepted on R4 interface.	Int32
r4locupdrsp-totrelay	The total number of R4 Location Update Response messages received from the base station and relayed on the R4 interface. Triggers: Changes every time an R4 Location Update Response message is relayed by the R4 interface. Availability: across all ASNGW services.	Int32
r4locupdrsp-totdenied	The total number of R4 Location Update Response messages denied on R4 interface.	Int32
r4locupdrsp-totdiscard	The total number of R4 Location Update Response messages discarded on R4 interface.	Int32
r4locupdrsp-badform	The total number of badly formed R4 Location Update Response messages on R4 interface.	Int32
r4locupdrsp-decodeerr	The total number of R4 Location Update Response messages on R4 interface with decode error.	Int32
r4locupdrsp-unspecerr	The total number of R4 Location Update Response messages on R4 interface with unspecified error.	Int32
r4locupdrsp-missmandtlv	The total number of R4 Location Update Response messages on R4 interface with missing mandatory TLVs.	Int32
r4locupdrsp-tlvvalinval	The total number of R4 Location Update Response messages on R4 interface with invalid TLV value.	Int32
r4locupdrsp-unknowntrlv	The total number of R4 Location Update Response messages on R4 interface with unknown TLVs.	Int32
r4locupdrsp-duptlvfound	The total number of R4 Location Update Response messages on R4 interface with duplicate TLVs.	Int32
r4locupdrsp-nosessfound	The total number of R4 Location Update Response messages on R4 interface without any session information.	Int32

Statistic	Description	Data Type
r4locupdrsp-admprohibit	The total number of R4 Location Update Response messages discarded or denied due to admin prohibit. Triggers: Changes every time an R4 Location Update Response message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r4locupdrsp-noresourcedrop	The total number of R4 Location Update Response messages discarded or denied due to resource unavailability. Triggers: Changes every time an R4 Location Update Response message is discarded or denied due to resource unavailability. Availability: across all the ASNGW services.	Int32
r4locupdrsp-transiderr	The total number of R4 Location Update Response messages on R4 interface with transaction ID errors.	Int32
r4locupdcnf-totsent	The total number of Location Update Confirmations sent to the peer ASNPC.	Int32
r4locupdcnf-retranssent	The total number of R4 Location Update Confirmation messages re-transmitted on R4 interface.	Int32
r4locupdcnf-totsendfail	The total number of failures occurred during transaction id generation and R4 Location Update Confirmation messages not sent for specific interface. This counter is used to count the error while sending the R4 packets.	Int32
r4locupdcnf-totrec	The total number of R4 Location Update Confirmation messages received on R4 interface.	Int32
r4locupdcnf-totacc	The total number of R4 Location Update Confirmation messages accepted on R4 interface.	Int32
r4locupdcnf-totrelay	The total number of R4 Location Update Confirmation messages received from the base station and relayed on the R4 interface. Triggers: Changes every time an R4 Location Update Confirmation message is relayed by the R4 interface. Availability: across all ASNGW services.	Int32
r4locupdcnf-totdenied	The total number of R4 Location Update Confirmation messages denied on R4 interface.	Int32
r4locupdcnf-totdiscard	The total number of R4 Location Update Confirmation messages discarded on R4 interface.	Int32
r4locupdcnf-badform	The total number of badly formed R4 Location Update Confirmation messages on R4 interface.	Int32
r4locupdcnf-decodeerr	The total number of R4 Location Update Confirmation messages on R4 interface with decode error.	Int32
r4locupdcnf-unspecerr	The total number of R4 Location Update Confirmation messages on R4 interface with unspecified error.	Int32
r4locupdcnf-mismandtlv	The total number of R4 Location Update Confirmation messages on R4 interface with missing mandatory TLVs.	Int32
r4locupdcnf-tlvvalinval	The total number of R4 Location Update Confirmation messages on R4 interface with invalid TLV value.	Int32
r4locupdcnf-unknowntrlv	The total number of R4 Location Update Confirmation messages on R4 interface with unknown TLVs.	Int32
r4locupdcnf-duptlvfound	The total number of R4 Location Update Confirmation messages on R4 interface with duplicate TLVs.	Int32

Statistic	Description	Data Type
r4locupdcnf-nosessfound	The total number of R4 Location Update Confirmation messages on R4 interface without any session information.	Int32
r4locupdcnf-admprohibit	The total number of R4 Location Update Confirmation messages discarded or denied due to admin prohibit. Triggers: Changes every time an R4 Location Update Confirmation message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r4locupdcnf-noresourcedrop	The total number of R4 Location Update Confirmation messages discarded or denied due to resource unavailability. Triggers: Changes every time an R4 Location Update Confirmation message is discarded or denied due to resource unavailability. Availability: across all the ASNGW services.	Int32
r4locupdcnf-transiderr	The total number of R4 Location Update Confirmation messages on R4 interface with transaction ID errors.	Int32
r4prelocind-totsent	The total number of PC Relocation Indicator messages sent to the ASNGW on the R4 interface.	Int32
r4prelocind-retranssent	The total number of R4 PC Relocation Indicator messages re-transmitted on R4 interface.	Int32
r4prelocind-totsefail	The total number of failures occurred during transaction id generation and R4 PC Relocation Indicator messages not sent for specific interface. This counter is used to count the error while sending the R4 packets.	Int32
r4prelocind-totrec	The total number of R4 PC Relocation Indicator messages received on R4 interface.	Int32
r4prelocind-totacc	The total number of R4 PC Relocation Indicator messages accepted on R4 interface.	Int32
r4prelocind-totrelay	The total number of R4 PC Relocation Indicator messages received from the base station and relayed on the R4 interface. Triggers: Changes every time an R4 PC Relocation Indicator message is relayed by the R4 interface. Availability: across all ASNGW services.	Int32
r4prelocind-totdenied	The total number of R4 PC Relocation Indicator messages denied on R4 interface.	Int32
r4prelocind-totdiscard	The total number of R4 PC Relocation Indicator messages discarded on R4 interface.	Int32
r4prelocind-badform	The total number of badly formed R4 PC Relocation Indicator messages on R4 interface.	Int32
r4prelocind-decodeerr	The total number of R4 PC Relocation Indicator messages on R4 interface with decode error.	Int32
r4prelocind-unspecerr	The total number of R4 PC Relocation Indicator messages on R4 interface with unspecified error.	Int32
r4prelocind-missmandtlv	The total number of R4 PC Relocation Indicator messages on R4 interface with missing mandatory TLVs.	Int32
r4prelocind-tlvvalinval	The total number of R4 PC Relocation Indicator messages on R4 interface with invalid TLV value.	Int32
r4prelocind-unknowntrlv	The total number of R4 PC Relocation Indicator messages on R4 interface with unknown TLVs.	Int32

Statistic	Description	Data Type
r4prelocind-duptlvfound	The total number of R4 PC Relocation Indicator messages on R4 interface with duplicate TLVs.	Int32
r4prelocind-noessfound	The total number of R4 PC Relocation Indicator messages on R4 interface without any session information.	Int32
r4prelocind-admprohibit	The total number of R4 PC Relocation Indicator messages discarded or denied due to admin prohibit. Triggers: Changes every time an R4 PC Relocation Indicator message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r4prelocind-noresourcedrop	The total number of R4 PC Relocation Indicator messages discarded or denied due to resource unavailability. Triggers: Changes every time an R4 PC Relocation Indicator message is discarded or denied due to resource unavailability. Availability: across all the ASNGW services.	Int32
r4prelocind-transiderr	The total number of R4 PC Relocation Indicator messages on R4 interface with transaction ID errors.	Int32
r4prelocack-totsent	The total number of PC Relocation Acknowledgement messages sent to the ASNGW.	Int32
r4prelocack-retranssent	The total number of PC Relocation Acknowledgement messages retransmitted on the R4 interface to the ASNGW.	Int32
r4prelocack-totsendfail	The total number of PC Relocation Acknowledgement message failures sent to the ASNGW and relayed on the R4 interface. This counter is used to count the error while sending the R4 packets.	Int32
r4prelocack-totrec	The total number of R4 PC Relocation Acknowledgement messages sent to the ASNGW.	Int32
r4prelocack-totacc	The total number of R4 PC Relocation Acknowledgement messages sent to the ASNGW	Int32
r4prelocack-totrelay	The total number of R4 PC Relocation Acknowledgement messages sent to the ASNGW and relayed on the R4 interface. Triggers: Changes every time an R4 Idle Mode Exit State Indication message is relayed by the R4 interface. Availability: across all ASNGW services	Int32
r4prelocack-totdenied	The total number of PC Relocation Acknowledgement messages sent to the ASNGW that were denied on the R4 interface	Int32
r4prelocack-totdiscard	The total number of PC Relocation Acknowledgement messages sent to the ASNGW that were discarded on the R4 interface.	Int32
r4prelocack-badform	The total number of badly formed R4 PC Relocation Acknowledgement messages sent to the ASNGW.	Int32
r4prelocack-decodeerr	The total number of R4 PC Relocation Acknowledgement messages sent to the ASNGW with decode errors.	Int32
r4prelocack-unspecerr	The total number of R4 PC Relocation Acknowledgement messages sent to the ASNGW with unspecified errors.	Int32
r4prelocack-missmandtlv	The total number of R4 PC Relocation Acknowledgement messages sent to the ASNGW with missing mandatory TLVs.	Int32

Statistic	Description	Data Type
r4prelocack-tlvvalinval	The total number of R4 PC Relocation Acknowledgement messages sent to the ASNGW with an invalid TLV.	Int32
r4prelocack-unknownctlv	The total number of R4 PC Relocation Acknowledgement messages sent to the ASNGW with an unknown TLV.	Int32
r4prelocack-duptlvfound	The total number of R4 PC Relocation Acknowledgement messages sent to the ASNGW with duplicate TLVs.	Int32
r4prelocack-nosessfound	The total number of R4 PC Relocation Acknowledgement messages sent to the ASNGW without any session information.	Int32
r4prelocack-admprohibit	The total number of R4 PC Relocation Acknowledgement messages sent to the ASNGW that were discarded or denied due to admin prohibit. Triggers: Changes every time an R4 PC Relocation Acknowledgement message is discarded or denied due to admin prohibit. Availability: across all ASN GW services.	Int32
r4prelocack-noresourcedrop	The total number of R4 PC Relocation Acknowledgement messages sent to the ASNGW that were discarded or denied due to resource unavailability. Triggers: Changes every time an R4 PC Relocation Acknowledgement message is discarded or denied due to resource unavailability. Availability: across all ASN GW services.	Int32
r4prelocack-transiderr	The total number of R4 IPC Relocation Acknowledgement messages sent to the ASNGW with a transaction ID error.	Int32
r4contextreq-totsent	The total number of Context Request messages sent to the ASNGW.	Int32
r4contextreq-retranssent	The total number of Context Request messages re-transmitted to the ASNGW on R4 interface.	Int32
r4contextreq-totsendfail	The total number of failures that occurred during transaction ID generation and R4 Context Request message not sent for specific interface. This counter is used to count the error while sending the R4 packets.	Int32
r4contextreq-totrec	The total number of Context Request messages received by the ASNGW on R4 interface.	Int32
r4contextreq-totacc	The total number of Context Request messages accepted by the ASNGW on R4 interface.	Int32
r4contextreq-totrelay	The total number of Context Request messages received on the ASNGW from the base station and relayed on the R4 interface. Triggers: Changes every time a Context Request message is relayed by the R4 interface. Availability: across all ASNGW services.	Int32
r4contextreq-totdenied	The total number of Context Request messages denied by the ASNGW on R4 interface.	Int32
r4contextreq-totdiscard	The total number of Context Request messages discarded by the ASNGW on R4 interface.	Int32
r4contextreq-badform	The total number of badly formed Context Request messages on R4 interface.	Int32
r4contextreq-decodeerr	The total number of Context Request messages on R4 interface with decode error.	Int32
r4contextreq-unspecerr	The total number of Context Request messages on R4 interface with unspecified error.	Int32
r4contextreq-missmandtlv	The total number of Context Request messages on R4 interface with missing mandatory TLVs.	Int32

## Common Statistics

Statistic	Description	Data Type
r4contextreq-tlvvalinval	The total number of Context Request messages on R4 interface with invalid TLV value.	Int32
r4contextreq-unknowntrlv	The total number of Context Request messages on R4 interface with unknown TLVs.	Int32
r4contextreq-duptlvfound	The total number of Context Request messages on R4 interface with duplicate TLV values.	Int32
r4contextreq-nosessfound	The total number of Context Request messages on R4 interface without any session information.	Int32
r4contextreq-adminprohib	The total number of Context Request messages discarded or denied due to admin prohibit. Triggers: Changes every time a Context Request message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r4contextreq-noresourcedrop	The total number of Context Request messages discarded or denied due to resource unavailability. Triggers: Changes every time a Context Request message is discarded or denied due to resource unavailability. Availability: across all the ASNGW service.	Int32
r4contextreq-transiderr	The total number of Context Request messages on R4 interface with transaction ID errors.	Int32
r4contextrpt-totsent	The total number of Context Report messages sent to the ASNGW.	Int32
r4contextrpt-retranssent	The total number of Context Report messages re-transmitted to the ASNGW on R4 interface.	Int32
r4contextrpt-totsendfail	The total number of failures that occurred during transaction ID generation and R4 Context Report message not sent for specific interface. This counter is used to count the error while sending the R4 packets.	Int32
r4contextrpt-totrec	The total number of Context Report messages received by the ASNGW on R4 interface.	Int32
r4contextrpt-totacc	The total number of Context Report messages accepted by the ASNGW on R4 interface.	Int32
r4contextrpt-totrelay	The total number of Context Report messages received on the ASNGW from the base station and relayed on the R4 interface. Triggers: Changes every time a Context Report message is relayed by the R4 interface. Availability: across all ASNGW services.	Int32
r4contextrpt-totdenied	The total number of Context Report messages denied by the ASNGW on R4 interface.	Int32
r4contextrpt-totdiscard	The total number of Context Report messages discarded by the ASNGW on R4 interface.	Int32
r4contextrpt-badform	The total number of badly formed Context Report messages on R4 interface.	Int32
r4contextrpt-decodeerr	The total number of Context Report messages on R4 interface with decode error.	Int32
r4contextrpt-unspecerr	The total number of Context Report messages on R4 interface with unspecified error.	Int32
r4contextrpt-missmandtrlv	The total number of Context Report messages on R4 interface with missing mandatory TLVs.	Int32
r4contextrpt-tlvvalinval	The total number of Context Report messages on R4 interface with invalid TLV value.	Int32
r4contextrpt-unknowntrlv	The total number of Context Report messages on R4 interface with unknown TLVs.	Int32
r4contextrpt-duptlvfound	The total number of Context Report messages on R4 interface with duplicate TLV values.	Int32

Statistic	Description	Data Type
r4contextrpt-nosessfound	The total number of Context Report messages on R4 interface without any session information.	Int32
r4contextrpt-adminprohib	The total number of Context Report messages discarded or denied due to admin prohibit. Triggers: Changes every time a Context Report message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r4contextrpt-noresourcedrop	The total number of Context Report messages discarded or denied due to resource unavailability. Triggers: Changes every time a Context Report message is discarded or denied due to resource unavailability. Availability: across all the ASNGW service.	Int32
r4contextrpt-transiderr	The total number of Context Report messages on R4 interface with transaction ID errors.	Int32
r4cmackeycountupd-totsent	The total number of CMAC Key Count Update messages sent to the ASNGW.	Int32
r4cmackeycountupd-retranssent	The total number of CMAC Key Count Update messages re-transmitted on R4 inter	Int32
r4cmackeycountupd-totsendfail	The total number of failures occurred during transaction ID generation and R4 CMAC Key Count Update message not sent for specific interface. This counter is used to count the error while sending the R4 packets.	Int32
r4cmackeycountupd-totrec	The total number of CMAC Key Count Update messages received on R4 interface.	Int32
r4cmackeycountupd-totacc	The total number of CMAC Key Count Update messages accepted on R4 interface.	Int32
r4cmackeycountupd-totrelay	The total number of CMAC Key Count Update messages received from the base station and relayed on the R4 interface. Triggers: Changes every time a CMAC Key Count Update message is relayed by the R4 interface. Availability: across all ASNGW services.	Int32
r4cmackeycountupd-totdenied	The total number of CMAC Key Count Update messages denied on R4 interface.	Int32
r4cmackeycountupd-totdiscard	The total number of CMAC Key Count Update messages discarded on R4 interface.	Int32
r4cmackeycountupd-badform	The total number of badly formed CMAC Key Count Update messages on R4 interface.	Int32
r4cmackeycountupd-decodeerr	The total number of CMAC Key Count Update messages on R4 interface with decode error.	Int32
r4cmackeycountupd-unspecerr	The total number of CMAC Key Count Update messages on R4 interface with unspecified error.	Int32
r4cmackeycountupd-missmandtlv	The total number of CMAC Key Count Update messages on R4 interface with missing mandatory TLVs.	Int32

## Common Statistics

Statistic	Description	Data Type
r4cmackeycountupd-tlvvalinval	The total number of CMAC Key Count Update messages on R4 interface with invalid TLV value.	Int32
r4cmackeycountupd-unknown_tlv	The total number of CMAC Key Count Update messages on R4 interface with unknown TLVs.	Int32
r4cmackeycountupd-duptlvfound	The total number of CMAC Key Count Update messages on R4 interface with duplicate TLVs.	Int32
r4cmackeycountupd-nosessfound	The total number of CMAC Key Count Update messages on R4 interface without any session information.	Int32
r4cmackeycountupd-adminprohib	The total number of CMAC Key Count Update messages discarded or denied due to admin prohibit. Triggers: Changes every time a CMAC Key Count Update message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r4cmackeycountupd-noresourcedrop	The total number of CMAC Key Count Update messages discarded or denied due to resource unavailability. Triggers: Changes every time a CMAC Key Count Update message is discarded or denied due to resource unavailability. Availability: across all the ASNGW services.	Int32
r4cmackeycountupd-transiderr	The total number of CMAC Key Count Update messages on R4 interface with transaction ID errors.	Int32
r4cmackeycountack-totsent	The total number of CMAC Key Count Acknowledgement messages sent to the ASNGW.	Int32
r4cmackeycountack-retranssent	The total number of CMAC Key Count Acknowledgement messages re-transmitted on R6 interface	Int32
r4cmackeycountack-totsefail	The total number of failures occurred during transaction ID generation and R6 CMAC Key Count Acknowledgement message not sent for specific interface. This counter is used to count the error while sending the R6 packets	Int32
r4cmackeycountack-totrec	The total number of failures occurred during transaction ID generation and R6 CMAC Key Count Acknowledgement message not sent for specific interface. This counter is used to count the error while sending the R6 packets	Int32
r4cmackeycountack-totacc	The total number of CMAC Key Count Acknowledgement messages accepted on R6 interface.	Int32
r4cmackeycountack-totrelay	The total number of CMAC Key Count Acknowledgement messages received from the base station and relayed on the R6 interface. Triggers: Changes every time a CMAC Key Count Acknowledgement message is relayed by the R6 interface. Availability: across all ASNGW services.	Int32
r4cmackeycountack-totdenied	The total number of CMAC Key Count Acknowledgement messages denied on R6 interface.	Int32
r4cmackeycountack-totdiscard	The total number of CMAC Key Count Acknowledgement messages discarded on R6 interface.	Int32

Statistic	Description	Data Type
r4cmackeycountack-badform	The total number of badly formed CMAC Key Count Acknowledgement messages on R6 interface.	Int32
r4cmackeycountack-decodeerr	The total number of CMAC Key Count Acknowledgement messages on R6 interface with decode error.	Int32
r4cmackeycountack-unspecerr	The total number of CMAC Key Count Acknowledgement messages on R6 interface with unspecified error.	Int32
r4cmackeycountack-missmandtlv	The total number of CMAC Key Count Acknowledgement messages on R6 interface with missing mandatory TLVs.	Int32
r4cmackeycountack-tlvvalinval	The total number of CMAC Key Count Acknowledgement messages on R6 interface with invalid TLV value.	Int32
r4cmackeycountack-unknowntlv	The total number of CMAC Key Count Acknowledgement messages on R6 interface with unknown TLVs.	Int32
r4cmackeycountack-duptlvfound	The total number of CMAC Key Count Acknowledgement messages on R6 interface with duplicate TLVs.	Int32
r4cmackeycountack-nosessfound	The total number of CMAC Key Count Acknowledgement messages on R6 interface without any session information.	Int32
r4cmackeycountack-adminprohib	The total number of CMAC Key Count Acknowledgement messages discarded or denied due to admin prohibit. Triggers: Changes every time a CMAC Key Count Acknowledgement message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r4cmackeycountack-noresourcedrop	The total number of CMAC Key Count Acknowledgement messages discarded or denied due to resource unavailability. Triggers: Changes every time a CMAC Key Count Acknowledgement message is discarded or denied due to resource unavailability. Availability: across all the ASNGW services.	Int32
r4cmackeycountack-transiderr	The total number of CMAC Key Count Acknowledgement messages on R6 interface with transaction ID errors.	Int32
r4unknown-totrec	The total number of Unknown messages received on the R4 interface.	Int32
r4unknown-totacc	The total number of Unknown messages accepted on R4 interface.	Int32
r4unknown-totrelay	The total number of R4 Unknown messages received from the base station and relayed on the R4 interface. Triggers: Changes every time an R4 Unknown message is relayed by the R4 interface. Availability: across all ASNGW services.	Int32
r4unknown-totdenied	The total number of Unknown messages denied on the R4 interface.	Int32
r4unknown-totdiscard	The total number of Unknown messages discarded on R4 interface.	Int32
r4unknown-badform	The total number of Unknown badly formed messages on the R4 interface.	Int32
r4unknown-decodeerr	The total number of Unknown decode errors on R4 interface.	Int32
r4unknown-unspecerr	The total number of Unknown messages with unspecified errors on R4 interface.	Int32

## Common Statistics

Statistic	Description	Data Type
r4unknown-missmandtlv	The total number of Unknown messages on R4 interface with missing TLVs.	Int32
r4unknown-tlvvalinval	The total number of Unknown messages on R4 interface with invalid TLV values.	Int32
r4unknown-unknownctlv	The total number of Unknown messages on R4 interface with unknown TLVs.	Int32
r4unknown-duptlvfound	The total number of Unknown messages on R4 interface with duplicate TLV values.	Int32
r4unknown-nosessfound	The total number of Unknown messages on R4 interface with no session information.	Int32
r4unknown-admprohibit	The total number of R4 Unknown messages discarded or denied due to admin prohibit. Triggers: Changes every time an R4 Unknown message is discarded or denied due to admin prohibit. Availability: across all ASNGW services.	Int32
r4unknown-noresourcedrop	The total number of R4 Unknown messages discarded or denied due to resource unavailability. Triggers: Changes every time an R4 Unknown message is discarded or denied due to resource unavailability. Availability: across all the ASNGW service	Int32
r4unknown-transiderr	The total number of R4 Unknown messages with transaction ID errors.	Int32
total-sessions-connected	The total number of active sessions currently connected through the ASN PC.	Int32



**Important:** See Bulk Statistics Overview for statistics that are common to all schema.

# Chapter 5

## BCMCS Schema Statistics

The BCMCS schema provides the following types of statistics:

- **Counter:** A counter records incremental data cumulatively and rolls over when the counter limit is reached. The limit depends upon the counter data type.
- **Gauge:** A gauge statistic indicates a single value representative of a single instance. This type is often used to track particular events in time.

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 **Important:** The format string syntax is described by Schema Format String Syntax in the Bulk Statistics Overview chapter.

 **Important:** Unless otherwise indicated, all statistics are counters. For statistics with the Int32 data type, the roll-over to zero limit is 4,294,967,295. For statistics with the Int64 data type, the roll-over to zero limit is 18,446,744,073,709,551,615. All counter statistics are cumulative and reset only by one of the following methods: roll-over (as described above), after a system restart, or after a clear command is performed. All statistics are considered standards-based unless otherwise noted.

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The following variables are supported:

**Table 5. BCMCS Schema Statistics**

Statistic	Description	Data Type
vpnname	The name of the context configured on the system that is currently facilitating the BCMCS configuration.	String
vpnid	The identification number of the context configured on the system that is currently facilitating the BCMCS configuration. This is an internal reference number.	Int32
servname	The name of the BCMCS service for which the statistics are displayed.	String
srsp-recv-total	The total number of service requests received.	Int32
srsp-accept-total	The total number of service requests accepted.	Int32
srsp-denied-total	The total number of service requests that were denied.	Int32
srsp-reply-total	The total number of service replies sent.	Int32
srsp-discard-total	The total number of service requests that were discarded.	Int32
srsp-accept-initial	The total number of initial service requests received and accepted.	Int32

Statistic	Description	Data Type
srsp-recv-initial	The total number of initial service requests received.	Int32
srsp-denied-initial	The total number of initial service requests received and rejected.	Int32
srsp-discard-initial	The total number of initial service requests discarded.	Int32
srsp-accept-renew	The total number of service registration requests accepted.	Int32
srsp-denied-renew	The total number of renewal service requests denied.	Int32
srsp-recv-renew	The total number of service registration requests received.	Int32
srsp-discard-renew	The total number of service request renewals received and discarded.	Int32
srsp-send-error	The total number of service replies for which errors were experienced during transmission.	Int32
srsp-decode-error	The total number of service requests that had decode errors.	Int32
srsp-unhandled	The total number of service requests that had unhandled errors.	Int32
srsp-deny-unspec	The total number of service requests that were denied for an unspecified reason.	Int32
srsp-deny-auth	The total number of service requests that were denied because the mobile node failed authentication.	Int32
srsp-deny-idmismatch	The total number of denied service updates that were sent due to identification mismatch.	Int32
srsp-deny-unknownbsn	The total number of service requests that were denied due to an unknown BSN address.	Int32
srsp-deny-noresource-noessmgr	The total number of service requests denied due to insufficient resource, no session manager reported per service.	Int32
srsp-deny-noresource-nomem	The total number of service requests denied due to Insufficient resource, no memory reported per service.	Int32
srsp-deny-noresource-sessmgrretried	The total number of service requests denied due to Insufficient resource, session managers retried reported per service.	Int32
srsp-deny-noresource-inputq	The total number of service requests denied due to Insufficient resource, input queue exceeded reported per service.	Int32
srsp-deny-badrequest-alrdorm	The total number of service requests denied due to poorly formed request, session already dormant reported per service.	Int32
srsp-deny-badrequest-alractive	The total number of service requests denied due to poorly formed request, already active reported per service.	Int32
srsp-deny-badrequest-other	The total number of service requests denied due to poorly formed request, other reason reported per service.	Int32
srsp-deny-cong-adminprohib	The total number of denied service replies that were denied due to administrative prohibition due to congestion. Refer to the Configuring Congestion Control chapter of this guide for additional information.	Int32

Statistic	Description	Data Type
srsp-deny-cong-unknownbsn	The total number of denied service replies that were denied due to congestion. Refer to the Configuring Congestion Control chapter of this guide for additional information.	Int32
num-sessions	The current total number of BCMCS sessions.	Int32
recv-total	The total number of registration requests received.	Int32
accept-total	The total number of registration requests accepted.	Int32
denied-total	The total number of registration requests denied.	Int32
reply-total	The total number of registration replies sent.	Int32
discard-total	The total number of registration requests that were discarded.	Int32
accept-initial	The total number of initial registration requests received and accepted.	Int32
recv-initial	The total number of initial registration requests received.	Int32
denied-initial	The total number of initial registration requests received and rejected.	Int32
discard-initial	The total number of initial registration requests discarded.	Int32
accept-renew	The total number of renewal registration requests accepted.	Int32
denied-renew	The total number of renewal registration requests denied.	Int32
discard-renew	The total number of registration request renewals received and discarded.	Int32
recv-renew	The total number of renewal registration requests received.	Int32
active-start-renew	The total number of ACTIVE START registration request renewals received.	Int32
active-stop-renew	The total number of ACTIVE STOP registration request renewals received.	Int32
accept-dereg	The total number of requests for de-registration accepted.	Int32
denied-dereg	The total number of requests for de-registration denied.	Int32
discard-dereg	The total number of requests for de-registration discarded.	Int32
recv-dereg	The total number of de-registration request renewals received.	Int32
active-stop-dereg	The total number of ACTIVE STOP de-registration request renewals received and accepted.	Int32
send-error	The total number of registration replies for which errors were experienced during transmission.	Int32
hash-error	The total number of registration requests that had internal hash lookup errors.	Int32
decode-error	The total number of registration requests that had decode errors.	Int32
unhandled	The total number of registration requests that had unhandled errors.	Int32
seqerror	The total number of registration requests that had sequence numbers that were not acceptable.	Int32
deny-unspec	The total number of registration requests that were denied using reply code of 80H (Registration Denied - reason unspecified)	Int32
deny-adminprohib	The total number of registration requests that were denied using reply code of 81H (Registration Denied - administratively prohibited).	Int32

Statistic	Description	Data Type
deny-noresource	The total number of registration requests that were denied using reply code of 82H (Registration Denied - insufficient resources).	Int32
deny-auth	The total number of registration requests that were denied using reply code of 83H (Registration Denied - mobile node failed authentication).	Int32
deny-idmismatch	The total number of registration requests that were denied using reply code of 85H (Registration Denied - identification mismatch).	Int32
deny-badrequest	The total number of registration requests that were denied using reply code of 86H (Registration Denied - poorly formed request).	Int32
deny-unknownbsn	The total number of registration requests that were denied due to an unknown BSN address.	Int32
deny-revtununavail	The total number of registration requests that were denied using reply code of 89H (Registration Denied - requested reverse tunnel unavailable).	Int32
deny-revtunreq	The total number of registration requests that were denied using reply code of 8AH (Registration Denied - reverse tunnel is mandatory and "T"-bit not set).	Int32
deny-unrecogvend	The total number of registration requests that were denied using reply code of 8DH (Registration Denied - unsupported vendor ID or unable to interpret data in the CVSE).	Int32
deny-sessclosed	The total number of registration requests that were denied using an error code 0x8E for absent RP sessions	Int32
deny-bsninfo	The total number of registration requests that were denied because BSN information was unavailable.	Int32
deny-noresource-nosessmgr	The total number of requests denied due to Insufficient resource, no session manager reported per service.	Int32
deny-noresource-nomem	The total number of requests denied due to Insufficient resource, no memory reported per service.	Int32
deny-noresource-sessmgrretried	The total number of requests denied due to Insufficient resource, session managers retried reported per service.	Int32
deny-noresource-inputq	The total number of requests denied due to Insufficient resource, input queue exceeded reported per service.	Int32
deny-badrequest-alrdorm	The total number of requests denied due to poorly formed request, session already dormant reported per service.	Int32
deny-badrequest-alractive	The total number of requests denied due to poorly formed request, already active reported per service.	Int32
deny-badrequest-other	The total number of requests denied due to poorly formed request, other reason reported per service.	Int32
deny-cong-drop	The total number of denied registration replies discarded due to congestion. Refer to the Configuring Congestion Control chapter of this guide for additional information.	Int32
deny-cong-adminprohib	The total number of denied registration replies that were sent with a reply code of 81H (Registration Denied - administratively prohibited) due to congestion. Refer to the Configuring Congestion Control chapter of this guide for additional information.	Int32

Statistic	Description	Data Type
deny-cong-unknownbsn	The total number of denied registration replies due to congestion. Refer to the Configuring Congestion Control chapter of this guide for additional information.	Int32
upd-total	The total number of registration updates that were transmitted.	Int32
upd-accept	The total number of registration updates that were accepted by the PCF.	Int32
upd-denied	The total number of registration updates that were denied.	Int32
upd-unack	The total number of registration updates that were not acknowledged.	Int32
upd-trans	The total number of initial registration updates that were transmitted.	Int32
upd-ttlnoetrans	The total number of registration updates that were not re-transmitted due to TTL expiration.	Int32
upd-retrans	The total number of registration updates that were re-transmitted.	Int32
upd-received	The total number of registration updates that were received	Int32
upd-ack-received	The total number of registration acknowledgements that were received.	Int32
upd-discard	The total number of registration acknowledgements that were discarded.	Int32
upd-senderror	The total number of registration updates for which errors were experienced during transmission.	Int32
upd-lifetime	The total number of registration updates that the send reason was Lifetime Expiry reported per service.	Int32
upd-uplyrinit	The total number of registration updates that were initiated by upper processing layers.	Int32
upd-other	The total number of registration updates that were sent due to reasons other than those listed here.	Int32
upd-smgrexit	The total number of registration updates that the send reason was that the session manager exited reported per service.	Int32
upddeny-unspec	The total number of denied registration updates that were sent with a reply code of 80H (Registration Denied - reason unspecified).	Int32
upddeny-adminprohib	The total number of denied registration updates that were sent with a reply code of 81H (Registration Denied - administratively prohibited).	Int32
upddeny-auth	The total number of denied registration updates that were sent with a reply code of 83H (Registration Denied - mobile node failed authentication).	Int32
upddeny-idmismatch	The total number of denied registration updates that were sent with a reply code of 85H (Registration Denied - identification mismatch).	Int32
upddeny-badrequest	The total number of denied registration updates that were sent with a reply code of 86H (Registration Denied - poorly formed request).	Int32
sec-violations	The total number of security violations that occurred.	Int32
sec-badauth	The total number of security violations that occurred due to a mis-computed authentication field.	Int32
sec-badid	The total number of security violations that occurred due to a bad ID.	Int32
sec-badspi	The total number of security violations that occurred due to the receipt of a Security Parameter Index (SPI) that was in the reserved range (0 through 255).	Int32

Statistic	Description	Data Type
sec-mnhaauth	The total number of security violations that occurred due to missing mobile node-home agent authentication extensions.	Int32
sec-regupdate	The total number of security violations that occurred due to missing registration update authentication extensions.	Int32
disc-absent	The total number of registration acknowledgements that were discarded due to the session having been already ended because the acknowledgement was late.	Int32
disc-nomem	The total number of registration acknowledgements that were discarded due to insufficient memory.	Int32
disc-malform	The total number of registration acknowledgements that were discarded due to being poorly formed.	Int32
disc-authfail	The total number of registration acknowledgements that were discarded due to the mobile node failing authentication.	Int32
disc-bounce	The total number of internal communication messages between an A11 Manager task and a Session Manager task that bounced (were not successfully sent).	Int32
disc-inputq	The number of times that the queue in which incoming calls are kept prior to being processed exceeded its capacity.	Int32
disc-mismatchid	The total number of discarded registration acknowledgements due to reply code 85H (Registration Denied - identification mismatch).	Int32
disc-invpkflen	The total number of registration acknowledgements that were discarded due to having an invalid packet length.	Int32
disc-misc	The number of registration acknowledgements that were discarded due to reasons other than those listed above.	Int32

 **Important:** See Bulk Statistics Overview for statistics that are common to all schema.

# Chapter 6

## Card Schema Statistics

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This schema provides the following type of statistics:

- **Counter:** A counter records incremental data cumulatively and rolls over when the counter limit is reached. The limit depends upon the counter data type.
- **Gauge:** A gauge statistic indicates a single value representative of a single instance. This type is often used to track particular events in time.

---

 **Important:** The format string syntax is described by Schema Format String Syntax in the Bulk Statistics Overview chapter.

 **Important:** Unless otherwise indicated, all statistics are counters. For statistics with the Int32 data type, the roll-over to zero limit is 4,294,967,295. For statistics with the Int64 data type, the roll-over to zero limit is 18,446,744,073,709,551,615. All counter statistics are cumulative and reset only by one of the following methods: roll-over (as described above), after a system restart, or after a clear command is performed. All statistics are considered standards-based unless otherwise noted.

---

The following variables are supported:

**Table 6. Card-level Schema Statistics**

Statistic	Description	Data Type
card	Chassis slot number between 1 and 16	Int32
cpubusy	Total CPU busy (across all CPUs, as percentage)	Float
cpuidle	Total CPU idle (across all CPUs, as percentage)	Float
numproc	Total number of processes	Int32
memused	Total amount of memory used (across all processors)	Int32
memtotal	Total amount of memory available (across all processors)	Int32
numcpu	The total number of CPUs	Int32
cpu0-cpubusy	The percentage of time that CPU 0 was busy	Float
cpu0-cpuidle	The percentage of time that CPU 0 was idle	Float
cpu0-numproc	The number of processes running on CPU 0	Int32

## ■ Common Statistics

Statistic	Description	Data Type
cpu0-memused	The amount of memory used on CPU 0	Int32
cpu0-memtotal	The total amount of memory available for CPU 0	Int32
cpu0-name	A string designating the name of CPU 0.	String
cpu0-cpuused-user	The percentage of resources on CPU 0 used in user session processing.	Float
cpu0-cpuused-sys	The percentage of resources on CPU 0 used by system tasks.	Float
cpu0-cpuused-io	The percentage of resources on CPU 0 used by input/output functions.	Float
cpu0-cpuused-irq	The percentage of resources on CPU 0 used by interrupt requests.	Float
cpu0-cpuused-idle	The percentage of resources on CPU 0 that are idle.	Float
cpu1-cpubusy	The percentage of time that CPU 1 was busy	Float
cpu1-cpuidle	The percentage of time that CPU 1 was idle	Float
cpu1-numproc	The number of processes running on CPU 1	Int32
cpu1-memused	The amount of memory used on CPU 1	Int32
cpu1-memtotal	The total amount of memory available for CPU 2	Int32
cpu1-name	A string designating the name of CPU 1.	String
cpu1-cpuused-user	The percentage of resources on CPU 1 used in user session processing.	Float
cpu1-cpuused-sys	The percentage of resources on CPU 1 used by system tasks.	Float
cpu1-cpuused-io	The percentage of resources on CPU 1 used by input/output functions.	Float
cpu1-cpuused-irq	The percentage of resources on CPU 1 used by interrupt requests.	Float
cpu1-cpuused-idle	The percentage of resources on CPU 1 that are idle.	Float
cpu2-cpubusy	The percentage of time that CPU 2 was busy	Float
cpu2-cpuidle	The percentage of time that CPU 2 was idle	Float
cpu2-numproc	The number of processes running on CPU 2	Int32
cpu2-memused	The amount of memory used on CPU 2	Int32
cpu2-memtotal	The total amount of memory available for CPU 2	Int32
cpu2-name	A string designating the name of CPU 2.	String
cpu2-cpuused-user	The percentage of resources on CPU 2 used in user session processing.	Float
cpu2-cpuused-sys	The percentage of resources on CPU 2 used by system tasks.	Float
cpu2-cpuused-io	The percentage of resources on CPU 2 used by input/output functions.	Float
cpu2-cpuused-irq	The percentage of resources on CPU 2 used by interrupt requests.	Float
cpu2-cpuused-idle	The percentage of resources on CPU 2 that are idle.	Float
cpu3-cpubusy	The percentage of time that CPU 3 was busy	Float

Statistic	Description	Data Type
cpu3-cpuidle	The percentage of time that CPU 3 was idle	Float
cpu3-numproc	The number of processes running on CPU 3	Int32
cpu3-memused	The amount of memory used on CPU 3	Int32
cpu3-memtotal	The total amount of memory available for CPU 3	Int32
cpu3-name	A string designating the name of CPU 3.	String
cpu3-cpuused-user	The percentage of resources on CPU 3 used in user session processing.	Float
cpu3-cpuused-sys	The percentage of resources on CPU 3 used by system tasks.	Float
cpu3-cpuused-io	The percentage of resources on CPU 3 used by input/output functions.	Float
cpu3-cpuused-irq	The percentage of resources on CPU 3 used by interrupt requests.	Float
cpu3-cpuused-idle	The percentage of resources on CPU 3 that are idle.	Float
15avg-cpubusy	Average CPU usage across all CPUs on this card over a 15 minute period	Float
15peak-cpubusy	Peak CPU usage across all CPUs on this card. This is the peak one minute average over the last 15 minutes.	Float
5avg-cpubusy	Average CPU usage across all CPUs on this card over a 5 minute period	Float
5peak-cpubusy	Peak CPU usage across all CPUs on this card. This is the peak one minute average over the last 5 minutes.	Float
1avg-cpubusy	Average CPU usage across all CPUs on this card over a 1 minute period	Float
15avg-memused	Average memory usage across all CPUs on this card over a 15 minute period	Float
15peak-memused	Peak memory usage across all CPUs on this card. This is the peak one minute average over the last 15 minutes.	Float
5avg-memused	Average memory usage across all CPUs on this card over a 5 minute period	Float
5peak-memused	Peak memory usage across all CPUs on this card. This is the peak one minute average over the last 5 minutes.	Float
1avg-memused	Average memory usage across all CPUs on this card over a 1 minute period.	Float
cpu0-15avg-cpubusy	Average CPU usage for CPU 0 on this card over a 15 minute period	Float
cpu0-15peak-cpubusy	Peak CPU usage for CPU 0. This is the peak one minute average over the last 15 minutes.	Float
cpu0-5avg-cpubusy	Average CPU usage for CPU 0 on this card over a 5 minute period	Float
cpu0-5peak-cpubusy	Peak CPU usage for CPU 0. This is the peak one minute average over the last 5 minutes.	Float
cpu0-1avg-cpubusy	Average CPU usage for CPU 0 on this card over a 1 minute period	Float
cpu0-15avg-memused	Average memory usage for CPU 0 over a 15 minute period	Float
cpu0-15peak-memused	Peak memory usage for CPU 0. This is the peak one minute average over the last 15 minutes.	Float

## ■ Common Statistics

Statistic	Description	Data Type
cpu0-5avg-memused	Average memory usage for CPU 0 over a 5 minute period	Float
cpu0-5peak-memused	Peak memory usage for CPU 0. This is the peak one minute average over the last 15 minutes.	Float
cpu0-1avg-memused	Average memory usage for CPU 0 over a 1 minute period	Float
cpu1-15avg-cpubusy	Average CPU usage for CPU 1on this card over a 15 minute period	Float
cpu1-15peak-cpubusy	Peak CPU usage for CPU 1. This is the peak one minute average over the last 15 minutes.	Float
cpu1-5avg-cpubusy	Average CPU usage for CPU 1on this card over a 5 minute period	Float
cpu1-5peak-cpubusy	Peak CPU usage for CPU 1. This is the peak one minute average over the last 5 minutes.	Float
cpu1-1avg-cpubusy	Average CPU usage for CPU 1on this card over a 1 minute period	Float
cpu1-15avg-memused	Average memory usage for CPU 1over a 15 minute period	Float
cpu1-15peak-memused	Peak memory usage for CPU 1. This is the peak one minute average over the last 15 minutes.	Float
cpu1-5avg-memused	Average memory usage for CPU 1 over a 5 minute period	Float
cpu1-5peak-memused	Peak memory usage for CPU 1. This is the peak one minute average over the last 5 minutes.	Float
cpu1-1avg-memused	Average memory usage for CPU 1over a 1 minute period	Float
cpu2-15avg-cpubusy	Average CPU usage for CPU 2on this card over a 15 minute period	Float
cpu2-15peak-cpubusy	Peak CPU usage for CPU 2 This is the peak one minute average over the last 15 minutes.	Float
cpu2-5avg-cpubusy	Average CPU usage for CPU 2on this card over a 5 minute period	Float
cpu2-5peak-cpubusy	Peak CPU usage for CPU 2 This is the peak one minute average over the last 5 minutes.	Float
cpu2-1avg-cpubusy	Average CPU usage for CPU 2on this card over a 1minute period	Float
cpu2-15avg-memused	Average memory usage for CPU 2 over a 15 minute period	Float
cpu2-15peak-memused	Peak memory usage for CPU 2. This is the peak one minute average over the last 15 minutes.	Float
cpu2-5avg-memused	Average memory usage for CPU 2 over a 5 minute period	Float
cpu2-5peak-memused	Peak memory usage for CPU 2. This is the peak one minute average over the last 5 minutes.	Float
cpu2-1avg-memused	Average memory usage for CPU 2 over a 1 minute period	Float
cpu3-15avg-cpubusy	Average CPU usage for CPU 3on this card over a 15 minute period	Float
cpu3-15peak-cpubusy	Peak CPU usage for CPU 3. This is the peak one minute average over the last 15 minutes.	Float

Statistic	Description	Data Type
cpu3-5avg-cpubusy	Average CPU usage for CPU 3 on this card over a 5 minute period	Float
cpu3-5peak-cpubusy	Peak CPU usage for CPU 3. This is the peak one minute average over the last 5 minutes.	Float
cpu3-1avg-cpubusy	Average CPU usage for CPU 3 on this card over a 1 minute period	Float
cpu3-15avg-memused	Average memory usage for CPU 3 over a 5 minute period	Float
cpu3-15peak-memused	Peak memory usage for CPU 3. This is the peak one minute average over the last 15 minutes.	Float
cpu3-5avg-memused	Average memory usage for CPU 3 over a 15 minute period	Float
cpu3-5peak-memused	Peak memory usage for CPU 3. This is the peak one minute average over the last 5 minutes.	Float
cpu3-1avg-memused	Average memory usage for CPU 3 over a 1 minute period	Float
task-sessmgr-num	Total number of active <b>sessmgr</b> tasks across all CPUs on this card.	Int32
task-sessmgr-avgcpu	Average percentage of CPU utilization of all active sessmgr tasks across all CPUs on this card.	Float
task-sessmgr-avgmem	Average percentage of allocated memory utilization of all active sessmgr tasks across all CPUs on this card.	Float
task-sessmgr-maxcpu	Maximum percentage of CPU utilization of the busiest sessmgr task across all CPUs on this card.	Float
task-sessmgr-maxmem	Maximum percentage of allocated memory utilization of the peak sessmgr task across all CPUs on this card.	Float
task-a1l1mgr-num	Total number of active a1l1mgr tasks across all CPUs on this card.	Int32
task-a1l1mgr-maxcpu	Maximum percentage of CPU utilization of the busiest a1l1mgr task across all CPUs on this card.	Float
task-a1l1mgr-maxmem	Maximum percentage of allocated memory utilization of the peak a1l1mgr task across all CPUs on this card.	Float
task-l2tpmgr-num	Total number of active l2tpmgr tasks across all CPUs on this card.	Int32
task-l2tpmgr-maxcpu	Maximum percentage of CPU utilization of the busiest l2tpmgr task across all CPUs on this card.	Float
task-l2tpmgr-maxmem	Maximum percentage of allocated memory utilization of the peak l2tpmgr task across all CPUs on this card.	Float
task-famgr-num	Total number of active famgr tasks across all CPUs on this card.	Int32
task-famgr-maxcpu	Maximum percentage of CPU utilization of the busiest famgr task across all CPUs on this card.	Float
task-famgr-maxmem	Maximum percentage of allocated memory utilization of the peak famgr task across all CPUs on this card.	Float
task-hamgr-num	Total number of active hamgr tasks across all CPUs on this card.	Int32
task-hamgr-maxcpu	Maximum percentage of CPU utilization of the busiest hamgr task across all CPUs on this card.	Float

## ■ Common Statistics

Statistic	Description	Data Type
task-hamgr-maxmem	Maximum percentage of allocated memory utilization of the peak hamgr task across all CPUs on this card.	Float
task-acsmgr-num	Total number of active acsmgr tasks across all CPUs on this card.	Int32
task-acsmgr-avgcpu	Average percentage of CPU utilization of all active acsmgr tasks across all CPUs on this card.	Float
task-acsmgr-avgmem	Average percentage of allocated memory utilization of all active acsmgr tasks across all CPUs on this card.	Float
task-acsmgr-maxcpu	Maximum percentage of CPU utilization of the busiest acsmgr task across all CPUs on this card.	Float
task-acsmgr-maxmem	Maximum percentage of allocated memory utilization of the peak acsmgr task across all CPUs on this card.	Float
task-vpnmgr-num	Total number of active vpnmgr tasks across all CPUs on this card.	Int32
task-vpnmgr-maxcpu	Maximum percentage of CPU utilization of the busiest vpnmgr task across all CPUs on this card.	Float
task-vpnmgr-maxmem	Maximum percentage of allocated memory utilization of the peak vpnmgr task across all CPUs on this card.	Float



**Important:** See Bulk Statistics Overview for statistics that are common to all schema.

# Chapter 7

## Closed R-P Schema Statistics

This schema provides the following type of statistics:

- **Counter:** A counter records incremental data cumulatively and rolls over when the counter limit is reached. The limit depends upon the counter data type.
- **Gauge:** A gauge statistic indicates a single value representative of a single instance. This type is often used to track particular events in time.

---

 **Important:** The format string syntax is described by Schema Format String Syntax in the Bulk Statistics Overview chapter.

 **Important:** Unless otherwise indicated, all statistics are counters. For statistics with the Int32 data type, the roll-over to zero limit is 4,294,967,295. For statistics with the Int64 data type, the roll-over to zero limit is 18,446,744,073,709,551,615. All counter statistics are cumulative and reset only by one of the following methods: roll-over (as described above), after a system restart, or after a clear command is performed. All statistics are considered standards-based unless otherwise noted.

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The following variables are supported:

*Table 7. Closed R-P Service Schema Statistics*

Statistic	Description	Data Type
vpnname	The name of the context configured on the system that is currently facilitating the Closed R-P PDSN service.	String
vpnid	The identification number of the context configured on the system that is currently facilitating the Closed R-P PDSN service. This is an internal reference number.	Int32
servname	Displays the name of the Closed R-P PDSN service for which the statistics are displayed.	String
tun-conn-attempt	The total number of tunnel connection attempts.	Int32
tun-conn-success	The total number of successful tunnel connections.	Int32
tun-conn-fail	The total number of failed tunnel connections.	Int32
tun-conn-curactive	The total number of currently active tunnel connections.	Int32
sess-attempts	The total number of session connection attempts.	Int32
sess-successful	The total number of successful session connections.	Int32

## Common Statistics

Statistic	Description	Data Type
sess-failed	The total number of failed session connections.	Int32
sess-curactive	The total number of currently active session connections.	int2
sess-intrapdsnho-attempt	The total number of Intra-PDSN Hand-Offs connection attempts.	Int32
sess-intrapdsnho-success	The total number of successful Intra-PDSN Hand-Offs connections.	Int32
sess-intrapdsnho-failed	The total number of failed Intra-PDSN Hand-Offs connections.	Int32
sess-interpdsnho-attempt	The total number of Inter-PDSN Hand-Offs connection attempts.	Int32
recv-err-malformed	The total number of Tunnel Receive Control Packet errors experienced due to malformed packets .	Int32
recv-err-ctrlfield	The total number of Tunnel Receive Control Packet errors experienced due to control field errors.	Int32
recv-err-pktlen	The total number of Tunnel Receive Control Packet errors experienced due to packet length errors.	Int32
recv-err-avplen	The total number of Tunnel Receive Control Packet errors experienced due to AVP length errors.	Int32
recv-err-protover	The total number of Tunnel Receive Control Packet errors experienced due to protocol version errors.	Int32
recv-err-md5	The total number of Tunnel Receive Control Packet errors experienced due to MD5 errors.	Int32
recv-err-invattr	The total number of Tunnel Receive Control Packet errors experienced due to invalid attribute errors.	Int32
recv-err-unkattr	The total number of Tunnel Receive Control Packet errors experienced due to unknown attribute errors.	Int32
recv-err-invsessid	The total number of Tunnel Receive Control Packet errors experienced due to invalid session ID errors.	Int32
recv-err-invstate	The total number of Tunnel Receive Control Packet errors experienced due to invalid state errors.	Int32
recv-err-unkmsg	The total number of Tunnel Receive Control Packet errors experienced due to unknown message errors.	Int32
recv-err-unmatchpktlen	The total number of Tunnel Receive Control Packet errors experienced due to unmatched packet length errors.	Int32
recv-err-invtunid	The total number of Tunnel Receive Control Packet errors experienced due to invalid tunnel length errors.	Int32
tun-genclear	The total number of tunnels cleared normally.	Int32
tun-ctrlconnexists	The total number of tunnel disconnects/failures experienced due to a pre-existing control connection.	Int32

Statistic	Description	Data Type
tun-unauth	The total number of tunnel disconnects/failures experienced due to unauthorized errors.	Int32
tun-badproto	The total number of tunnel disconnects/failures experienced due to bad protocol errors.	Int32
tun-reqshutdown	The total number of tunnel disconnects experienced due to requester shutdown.	Int32
tun-statemacherr	The total number of tunnel disconnects/failures experienced due to state machine errors.	Int32
tun-badlen	The total number of tunnel disconnects/failures experienced due to wrong length errors.	Int32
tun-oor	The total number of tunnel disconnects/failures experienced due to out-of-range errors.	Int32
tun-noresource	The total number of tunnel disconnects/failures experienced due to insufficient resources.	Int32
tun-vendspec	The total number of tunnel disconnects/failures experienced due to vendor-specific errors.	Int32
tun-tryanotherlns	The total number of tunnel disconnects/failures experienced resulting in “Try Another LNS” message generation.	Int32
tun-unkavp	The total number of tunnel disconnects/failures experienced due to unknown AVP with M-bit errors.	Int32
tun-ipsecdisc	The total number of tunnel disconnects experienced due to IPSEC.	Int32
tun-ipsecfail	The total number of tunnel failures experienced due to IPSEC.	Int32
tun-license	The total number of tunnel disconnects/failures experienced due to license exceeded errors.	Int32
tun-newcallpoldisc	The total number of tunnel disconnects experienced due to new call policies.	Int32
tun-maxretry	The total number of tunnel disconnects/failures experienced due to the maximum number of retries being exceeded.	Int32
tun-syslimit	The total number of tunnel disconnects/failures experienced due to reaching the system tunnel limit.	Int32
tun-miscerr	The total number of tunnel disconnects/failures experienced due to miscellaneous errors.	Int32
sess-nogeneral	The total number of sessions for which there were no general errors experienced.	Int32
sess-admin	The total number of session disconnects/failures experienced due to administrative reasons.	Int32
sess-lossofcarr	The total number of session disconnects/failures experienced due to loss of carrier.	Int32
sess-remoteadmin	The total number of session disconnects/failures experienced due to remote administrative reasons.	Int32
sess-nofactemp	The total number of session disconnects/failures experienced due to temporary no facility available errors.	Int32
sess-nofacperm	The total number of session disconnects/failures experienced due to permanent no facility available errors.	Int32
sess-invdest	The total number of session disconnects/failures experienced due to invalid destination errors.	Int32
sess-nocarrier	The total number of session disconnects/failures experienced due no carrier being detected.	Int32
sess-busysig	The total number of session disconnects/failures experienced due to receipt of a busy signal.	Int32
sess-nodialtime	The total number of session disconnects/failures experienced due to receipt of no dial tone.	Int32

## Common Statistics

Statistic	Description	Data Type
sess-lactimeout	The total number of session disconnects/failures experienced due to LAC timeout.	Int32
sess-noframing	The total number of session disconnects/failures experienced due to no appropriate framing.	Int32
sess-noctrlconn	The total number of session disconnects/failures experienced due to no control connection existing.	Int32
sess-badlen	The total number of session disconnects/failures experienced due to wrong length errors.	Int32
sess-oor	The total number of session disconnects/failures experienced due to out-of-range errors.	Int32
sess-noresource	The total number of session disconnects/failures experienced due to insufficient resources.	Int32
sess-invsessid	The total number of session disconnects/failures experienced due to an invalid session ID.	Int32
sess-vendspec	The total number of session disconnects/failures experienced due to vendor specific errors.	Int32
sess-tryanotherlns	The total number of session disconnects/failures experienced resulting in “Try Another LNS” message generation.	Int32
sess-unkavp	The total number of session disconnects/failures experienced due to unknown AVP with M-bit errors.	Int32
sess-maxtunnel	The total number of session disconnects/failures experienced due to reaching the maximum tunnel limit.	Int32
sess-ipsecfail	The total number of session failures experienced due to IPSEC.	Int32
sess-ipsecdisc	The total number of session disconnects experienced due to IPSEC.	Int32
sess-newcallpoldisc	The total number of session disconnects experienced due to new call policies.	Int32
sess-license	The total number of session disconnects/failures experienced due to license exceeded errors.	Int32
sess-servmismatch	The total number of session disconnects/failures experienced due to service mismatch errors.	Int32
sess-miscerr	The total number of session disconnects/failures experienced due to miscellaneous errors.	Int32
sess-hocomplete	The total number of session disconnects experienced due to handoff completions.	Int32
sess-invho	The total number of session disconnects/failures experienced due to invalid handoffs.	Int32
sess-duplssess	The total number of session disconnects/failures experienced due to duplicate sessions.	Int32
ttlprepaid	The total number of Prepaid calls facilitated by the service.	Int32
curprepaid	The total number of Prepaid calls currently being facilitated by the service.	Int32
ttlonlineauthsucc	The total number of successful Online Authentications for the service.	Int32
ttlonlineauthfail	The total number of successful Online Authentications for the service.	Int32



**Important:** See Bulk Statistics Overview for statistics that are common to all schema.

# Chapter 8

## Context Schema Statistics

The Context schema provides the following types of statistics:

- **Counter:** A counter records incremental data cumulatively and rolls over when the counter limit is reached. The limit depends upon the counter data type.
- **Gauge:** A gauge statistic indicates a single value representative of a single instance. This type is often used to track particular events in time.

 **Important:** The format string syntax is described by Schema Format String Syntax in the Bulk Statistics Overview chapter.

 **Important:** Unless otherwise indicated, all statistics are counters. For statistics with the Int32 data type, the roll-over to zero limit is 4,294,967,295. For statistics with the Int64 data type, the roll-over to zero limit is 18,446,744,073,709,551,615. All counter statistics are cumulative and reset only by one of the following methods: roll-over (as described above), after a system restart, or after a clear command is performed. All statistics are considered standards-based unless otherwise noted.

The following variables are supported:

**Table 8. Context Schema Statistics**

Statistic	Description	Data Type
vpnname	Name of the VPN context.	String
vpnid	Identifier for VPN context.	Int32
sfw-total-rxpackets	Total number of packets received by the Firewall service.	Int64
sfw-total-rxbytes	Total number of bytes received by the Firewall service.	Int64
sfw-total-txpackets	Total number of packets transmitted by the Firewall service.	Int64
sfw-total-txbytes	Total number of bytes transmitted by the Firewall service.	Int64
sfw-total-injectedpkts	Total number of packets injected by the Firewall service.	Int64
sfw-total-injectedbytes	Total number of bytes injected by the Firewall service.	Int64
sfw-dnlnk-dropkts	Total number of packets dropped by the Firewall service in downlink direction.	Int64
sfw-dnlnk-dropbytes	Total number of bytes dropped by the Firewall service in downlink direction.	Int64

## Common Statistics

Statistic	Description	Data Type
sfw-uplnk-droppkts	Total number of packets dropped by the Firewall service in uplink direction.	Int64
sfw-uplnk-dropbytes	Total number of bytes dropped by the Firewall service in uplink direction.	Int64
sfw-total-malpackets	Total number of invalid packets received by the Firewall service.	Int64
sfw-ip-discardpackets	Total number of IP packets discarded by the Firewall service.	Int64
sfw-ip-malpackets	Total number of invalid IP packets received by the Firewall service.	Int64
sfw-icmp-discardpackets	Total number of invalid ICMP packets discarded by the Firewall service.	Int64
sfw-icmp-malpackets	Total number of invalid ICMP packets received by the Firewall service.	Int64
sfw-tcp-discardpackets	Total number of invalid TCP packets discarded by the Firewall service.	Int64
sfw-tcp-malpackets	Total number of invalid TCP packets received by the Firewall service.	Int64
sfw-udp-discardpackets	Total number of invalid UDP packets discarded by the Firewall service.	Int64
sfw-udp-malpackets	Total number of invalid UDP packets received by the Firewall service.	Int64
sfw-total-dosattacks	Total number of DoS attacks detected by the Firewall service.	Int64
sfw-total-flows	Total number of flows processed by the Firewall service.	Int32
dns-local-a-atmpts	Total number of local A query attempts.	Int32
dns-local-srv-atmpts	Total number of local SRV query attempts.	Int32
dns-local-aaaa-atmpts	Total number of local AAAA query attempts.	Int32
dns-local-naptr-atmpts	Total number of local NAPTR query attempts.	Int32
dns-local-a-succs	Total number of local A query successes.	Int32
dns-local-srv-succs	Total number of local SRV query successes.	Int32
dns-local-aaaa-succs	Total number of local AAAA query successes.	Int32
dns-local-naptr-succs	Total number of local NAPTR query successes.	Int32
dns-local-a-fails	Total number of local A query failures.	Int32
dns-local-srv-fails	Total number of local SRV query failures.	Int32
ns-local-aaaa-fails	Total number of local AAAA query failures.	Int32
dns-local-naptr-fails	Total number of local NAPTR query failures.	Int32
dns-primary-ns-a-atmpts	Total number of A query attempts to Primary Name server.	Int32
dns-primary-ns-srv-atmpts	Total number of local SRV query attempts to Primary Name server.	Int32
dns-primary-ns-aaaa-atmpts	Total number of local AAAA query attempts to Primary Name server.	Int32
dns-primary-ns-naptr-atmpts	Total number of local NAPTR query attempts to Primary Name server.	Int32
dns-primary-ns-a-succs	Total number of A query successes from Primary Name server.	Int32
dns-primary-ns-srv-succs	Total number of local SRV query successes from Primary Name server.	Int32
dns-primary-ns-aaaa-succs	Total number of local AAAA query successes from Primary Name server.	Int32

Statistic	Description	Data Type
dns-primary-ns-naptr-succs	Total number of local NAPTR query successes from Primary Name server.	Int32
dns-primary-ns-a-fails	Total number of local A query failures from Primary Name server.	Int32
dns-primary-ns-srv-fails	Total number of local SRV query failures from Primary Name server.	Int32
dns-primary-ns-aaaa-fails	Total number of local AAAA query failures from Primary Name server.	Int32
dns-primary-ns-naptr-fails	Total number of local NAPTR query failures from Primary Name server.	Int32
dns-secondary-ns-a-atmpts	Total number of A query attempts to Secondary Name server.	Int32
dns-secondary-ns-srv-atmpts	Total number of local SRV query attempts to Secondary Name server.	Int32
dns-secondary-ns-aaaa-atmpts	Total number of local AAAA query attempts to Secondary Name server.	Int32
dns-secondary-ns-naptr-atmpts	Total number of local NAPTR query attempts to Secondary Name server.	Int32
dns-secondary-ns-a-succs	Total number of A query successes from Secondary Name server.	Int32
dns-secondary-ns-srv-succs	Total number of local SRV query successes from Secondary Name server.	Int32
dns-secondary-ns-aaaa-succs	Total number of local AAAA query successes from Secondary Name server.	Int32
dns-secondary-ns-naptr-succs	Total number of local NAPTR query successes from Secondary Name server.	Int32
dns-secondary-ns-a-fails	Total number of local A query failures from Secondary Name server.	Int32
dns-secondary-ns-srv-fails	Total number of local SRV query failures from Secondary Name server.	Int32
dns-secondary-ns-aaaa-fails	Total number of local AAAA query failures from Secondary Name server.	Int32
dns-secondary-ns-naptr-fails	Total number of local NAPTR query failures from Secondary Name server.	Int32
bgp-maxroute	Maximum number of BGP routes. It is the sum of all the VRFs in a context.	Int32
bgp-totroute	Total number of BGP routes. It is the sum of all the VRFs in a context.	Int32



**Important:** See Bulk Statistics Overview for statistics that are common to all schema.



# Chapter 9

## CSCFINTF Schema Statistics

The CSCFINTF schema provides the following types of service-level statistics:

- **Counter:** A counter records incremental data cumulatively and rolls over when the counter limit is reached. The limit depends upon the counter data type.
- **Gauge:** A gauge statistic indicates a single value representative of a single instance. This type is often used to track particular events in time.

 **Important:** The format string syntax is described by Schema Format String Syntax in the *Bulk Statistics Overview* chapter.

 **Important:** Unless otherwise indicated, all statistics are counters. For statistics with the Int32 data type, the roll-over to zero limit is 4,294,967,295. For statistics with the Int64 data type, the roll-over to zero limit is 18,446,744,073,709,551,615. All counter statistics are cumulative and reset only by one of the following methods: roll-over (as described above), after a system restart, or after a clear command is performed. All statistics are considered standards-based unless otherwise noted.

The following variables are supported:

**Table 9. CSCFINTF Schema Statistics**

Statistic	Description	Data Type
vpnname	VPN Name	String (Fixed Value)
vpnid	VPN ID	Int32 (Fixed Value)
svcname	Service Name	String (Fixed Value)
svcid	Service ID	Int32 (Fixed Value)
peer-ipaddr	Peer Ip-address	String (Fixed Value)
peer-domain	Peer Domain Name	String (Fixed Value)
regreqrx	Total number of Register requests received.	Int64
regreqtx	Total number of Register requests transmitted.	Int64
invreqrx	Total number of Invite requests received.	Int64
invreqtx	Total number of Invite requests transmitted.	Int64

Statistic	Description	Data Type
ackreqrx	Total number of ACK requests received.	Int64
ackreqtx	Total number of ACK requests transmitted.	Int64
byereqrx	Total number of Bye requests received.	Int64
byereqtx	Total number of Bye requests transmitted.	Int64
cancelreqrx	Total number of Cancel requests received.	Int64
cancelreqtx	Total number of Cancel requests transmitted.	Int64
optreqrx	Total number of Options requests received.	Int64
optreqtx	Total number of Options requests transmitted.	Int64
prackreqrx	Total number of PRACK requests received.	Int64
prackreqtx	Total number of PRACK requests transmitted.	Int64
subreqrx	Total number of Subscribe requests received.	Int64
subreqtx	Total number of Subscribe requests transmitted.	Int64
notreqrx	Total number of Notify requests received.	Int64
notreqtx	Total number of Notify requests transmitted.	Int64
refreqrx	Total number of Refer requests received.	Int64
refreqtx	Total number of Refer requests transmitted.	Int64
inforeqrx	Total number of Info requests received.	Int64
inforeqtx	Total number of Info requests transmitted.	Int64
updreqrx	Total number of Update requests received.	Int64
updreqtx	Total number of Update requests transmitted.	Int64
msgreqrx	Total number of Message requests received.	Int64
msgreqtx	Total number of Message requests transmitted.	Int64
pubreqrx	Total number of Publish requests received.	Int64
pubreqtx	Total number of Publish requests transmitted.	Int64
trysprx	Total number of Trying responses received.	Int64
trysptx	Total number of Trying responses transmitted.	Int64
rngsprx	Total number of Ringing responses received.	Int64
rngsptx	Total number of Ringing responses transmitted.	Int64
fwdrsprx	Total number of Forwarded responses received.	Int64
fwdrsptx	Total number of Forwarded responses transmitted.	Int64
quersprx	Total number of Queued responses received.	Int64
quersptx	Total number of Queued responses transmitted.	Int64

Statistic	Description	Data Type
prgrsprx	Total number of Progress responses received.	Int64
prgrsptx	Total number of Progress responses transmitted.	Int64
200-rsprx	Total number of 200 OK responses received.	Int64
200-rsptx	Total number of 200 OK responses transmitted.	Int64
202-rsprx	Total number of 202 Accepted responses received.	Int64
202-rsptx	Total number of 202 Accepted responses transmitted.	Int64
mchrsprx	Total number of Multiple Choices responses received.	Int64
mchrsptx	Total number of Multiple Choices responses transmitted.	Int64
mpersprx	Total number of Moved Permanently responses received.	Int64
mpersptx	Total number of Moved Permanently responses transmitted.	Int64
mtersprx	Total number of Moved Temporarily responses received.	Int64
mtersptx	Total number of Moved Temporarily responses transmitted.	Int64
uprsprx	Total number of Use Proxy responses received.	Int64
uprsptx	Total number of Use Proxy responses transmitted.	Int64
altrsprx	Total number of Alternative Service responses received.	Int64
altrsptx	Total number of Alternative Service responses transmitted.	Int64
brqerrrx	Total number of BadRequest errors received.	Int64
brqerrtx	Total number of BadRequest errors transmitted.	Int64
uauerrrx	Total number of Unauthorized errors received.	Int64
uauerrtx	Total number of Unauthorized errors transmitted.	Int64
prerrrx	Total number of Payment Required Errors received.	Int64
prerrtx	Total number of Payment Required Errors transmitted.	Int64
forerrrx	Total number of Forbidden errors received.	Int64
forerrtx	Total number of Forbidden errors transmitted.	Int64
nfderrrx	Total number of NotFound errors received.	Int64
nfderrtx	Total number of NotFound errors transmitted.	Int64
mnaerrrx	Total number of MethodNotAllowed errors received.	Int64
mnaerrtx	Total number of MethodNotAllowed errors transmitted.	Int64
nac406errrx	Total number of NotAcceptable(406) errors received.	Int64
nac406errtx	Total number of NotAcceptable(406) errors transmitted.	Int64
parerrrx	Total number of ProxyAuthRequired errors received.	Int64
parerrtx	Total number of ProxyAuthRequired errors transmitted.	Int64

Statistic	Description	Data Type
rtoerrrx	Total number of RequestTimeout errors received.	Int64
rtoerrtx	Total number of RequestTimeout errors transmitted.	Int64
conferrrx	Total number of Conflict Errors received.	Int64
conferrtx	Total number of Conflict Errors transmitted.	Int64
lrerrrx	Total number of Length Required Errors received.	Int64
lrerrtx	Total number of Length Required Errors transmitted.	Int64
gonerrrx	Total number of Gone errors received.	Int64
gonerrtx	Total number of Gone errors transmitted.	Int64
crferrrx	Total number of ConditionalRequestFail errors received.	Int64
crferrtx	Total number of ConditionalRequestFail errors transmitted.	Int64
relerrrx	Total number of RequestEntityTooLarge errors received.	Int64
relerrtx	Total number of RequestEntityTooLarge errors transmitted.	Int64
rulerrrx	Total number of RequestURITooLong errors received.	Int64
rulerrtx	Total number of RequestURITooLong errors transmitted.	Int64
umterrrx	Total number of UnsupportedMediaType errors received.	Int64
umterrtx	Total number of UnsupportedMediaType errors transmitted.	Int64
uuserrrx	Total number of Unsupported URI Scheme errors received.	Int64
uuserrtx	Total number of Unsupported URI Scheme errors transmitted.	Int64
bexerrrx	Total number of BadExtension errors received.	Int64
bexerrtx	Total number of BadExtension errors transmitted.	Int64
exrerrrx	Total number of Extension Required errors received.	Int64
exrerrtx	Total number of Extension Required errors transmitted.	Int64
sitserrrx	Total number of Session Interval Too Small errors received.	Int64
sitserrrtx	Total number of Session Interval Too Small errors transmitted.	Int64
itberrrx	Total number of Interval Too Brief errors received.	Int64
itberrrtx	Total number of Interval Too Brief errors transmitted.	Int64
blierrrx	Total number of Bad Location Information errors received.	Int64
blierrtx	Total number of Bad Location Information errors transmitted.	Int64
tnaerrrx	Total number of TempNotAvailable errors received.	Int64
tnaerrtx	Total number of TempNotAvailable errors transmitted.	Int64
tdnerrrx	Total number of Transaction Does Not Exist errors received.	Int64
tdnerrtx	Total number of Transaction Does Not Exist errors transmitted.	Int64

Statistic	Description	Data Type
ldterrxx	Total number of LoopDetected errors received.	Int64
ldterrxt	Total number of LoopDetected errors transmitted.	Int64
tmherrxx	Total number of TooManyHops errors received.	Int64
tmherrxt	Total number of TooManyHops errors transmitted.	Int64
adierrxx	Total number of AddrIncomplete errors received.	Int64
adierrxt	Total number of AddrIncomplete errors transmitted.	Int64
amberrxx	Total number of Ambiguous errors received.	Int64
amberrxt	Total number of Ambiguous errors transmitted.	Int64
bherrxx	Total number of BusyHere errors received.	Int64
bherrxt	Total number of BusyHere errors transmitted.	Int64
rqcerrxx	Total number of RequestCancel errors received.	Int64
rqcerrxt	Total number of RequestCancel errors transmitted.	Int64
namerrxx	Total number of NotAcceptableMedia errors received.	Int64
namerrxt	Total number of NotAcceptableMedia errors transmitted.	Int64
beerrxx	Total number of BusyEverywhere errors received.	Int64
beerrxt	Total number of BusyEverywhere errors transmitted.	Int64
trperrxx	Total number of Request Pending errors received.	Int64
trperrxt	Total number of Request Pending errors transmitted.	Int64
udperrxx	Total number of Undecipherable errors received.	Int64
udperrxt	Total number of Undecipherable errors transmitted.	Int64
sarerrxx	Total number of sec-agree Required errors received.	Int64
sarerrxt	Total number of Sec-agree Required errors transmitted.	Int64
ineerrxx	Total number of InternalError errors received.	Int64
ineerrxt	Total number of InternalError errors transmitted.	Int64
nimerrxx	Total number of NotImplemented errors received.	Int64
nimerrxt	Total number of NotImplemented errors transmitted.	Int64
bgterrxx	Total number of BadGateway errors received.	Int64
bgterrxt	Total number of BadGateway errors transmitted.	Int64
suaerrxx	Total number of ServiceUnavailable errors received.	Int64
suaerrxt	Total number of ServiceUnavailable errors transmitted.	Int64
gtterrxx	Total number of GatewayTimeout errors received.	Int64
gtterrxt	Total number of GatewayTimeout errors transmitted.	Int64

Statistic	Description	Data Type
bsverrrx	Total number of BadSipVersion errors received.	Int64
bsverrtx	Total number of BadSipVersion errors transmitted.	Int64
mtlerrrx	Total number of Message Too Large errors received.	Int64
mtlerrtx	Total number of Message Too Large errors transmitted.	Int64
pcferrrx	Total number of Precondition Failure errors received.	Int64
pcferrtx	Total number of Precondition Failure errors transmitted.	Int64
bewerrrx	Total number of BusyEverywhere errors received.	Int64
bewerrtx	Total number of BusyEverywhere errors transmitted.	Int64
decerrrx	Total number of Decline errors received.	Int64
decerrtx	Total number of Decline errors transmitted.	Int64
neaerrrx	Total number of NotExistAnywhere errors received.	Int64
neaerrtx	Total number of NotExistAnywhere errors transmitted.	Int64
nac606errrx	Total number of NotAcceptable(606) errors received.	Int64
nac606errtx	Total number of NotAcceptable(606) errors transmitted.	Int64



**Important:** See *Bulk Statistics Overview* for statistics that are common to all schema.

# Chapter 10

## CSCF Schema Statistics

The CSCF schema provides the following types of service-level statistics:

- **Counter:** A counter records incremental data cumulatively and rolls over when the counter limit is reached. The limit depends upon the counter data type.
- **Gauge:** A gauge statistic indicates a single value representative of a single instance. This type is often used to track particular events in time.

---

 **Important:** The format string syntax is described by Schema Format String Syntax in the *Bulk Statistics Overview* chapter.

 **Important:** Unless otherwise indicated, all statistics are counters. For statistics with the Int32 data type, the roll-over to zero limit is 4,294,967,295. For statistics with the Int64 data type, the roll-over to zero limit is 18,446,744,073,709,551,615. All counter statistics are cumulative and reset only by one of the following methods: roll-over (as described above), after a system restart, or after a clear command is performed. All statistics are considered standards-based unless otherwise noted.

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The following variables are supported:

**Table 10. CSCF Schema Statistics**

Statistic	Description	Data Type
vpnname	VPN Name	String (Fixed Value)
vpnid	VPN ID	Int32 (Fixed Value)
svcname	Service Name	String (Fixed Value)
svcid	Service ID	Int32 (Fixed Value)
curregusers	Current Registered Users	Int32 Gauge
failedauth	Total number of Failed Authentications.	Int64
regexp	Total number of Registration Expires.	Int64
total-roaming-ue-regs	Total number of Registrations from Roaming UE.	Int64

## ■ Common Statistics

Statistic	Description	Data Type
total-roaming-ue-succ-regs	Total number of 200 OK Registrations from Roaming UE.	Int64
total-roaming-ue-fail-regs	Total number of Failed Registrations from Roaming UE.	Int64
total-roaming-ue-regs-403	Total number of 403 responses to Registration from Roaming UE.	Int64
total-roaming-ue-re-regs	Total number of Re-Registrations from Roaming UE.	Int64
total-roaming-ue-succ-re-regs	Total number of 200 OK Re-Registrations from Roaming UE.	Int64
total-roaming-ue-fail-re-regs	Total number of Failed Re-Registrations from Roaming UE.	Int64
total-roaming-ue-re-regs-403	Total number of 403 responses to Re-Registration from Roaming UE.	Int64
total-roaming-ue-de-regs	Total number of De-Registrations from Roaming UE.	Int64
total-roaming-ue-succ-de-regs	Total number of 200 OK De-Registrations from Roaming UE.	Int64
total-roaming-ue-fail-de-regs	Total number of Failed De-Registrations from Roaming UE.	Int64
total-roaming-ue-de-regs-403	Total number of 403 responses to De-Registration from Roaming UE.	Int64
de-regs-fromue	Total number of De-registrations from UE.	Int64
de-regs-fromnw	Total number of De-registrations from Network.	Int64
sec-regs	Total number of Secure Registrations	Int64
fail-sec-regs	Total number of Failed Secure Registrations	Int64
callattrx	Total number of Call Attempts received.	Int64
callatttx	Total number of Call Attempts transmitted.	Int64
callsucrx	Total number of Call Success received.	Int64
callsuctx	Total number of Call Success transmitted.	Int64
callfailrx	Total number of Call Failures received.	Int64
callfailtx	Total number of Call Failures transmitted.	Int64
curcscfsess	Total number of current CSCF Sessions.	Int32 Gauge
totalcscfsess	Total number of CSCF Sessions.	Int64
call-resp-3xxrx	Total number of Call 3xx Responses received.	Int64
call-resp-3xxtx	Total number of Call 3xx Responses transmitted.	Int64
call-resp-402rx	Total number of Call 402 Responses received.	Int64
call-resp-402tx	Total number of Call 402 Responses transmitted.	Int64

Statistic	Description	Data Type
call-resp-403rx	Total number of Call 403 Responses received.	Int64
call-resp-403tx	Total number of Call 403 Responses transmitted.	Int64
call-resp-404rx	Total number of Call 404 Responses received.	Int64
call-resp-404tx	Total number of Call 404 Responses transmitted.	Int64
call-resp-407rx	Total number of Call 407 Responses received.	Int64
call-resp-407tx	Total number of Call 407 Responses transmitted.	Int64
call-resp-408rx	Total number of Call 408 Responses received.	Int64
call-resp-408tx	Total number of Call 408 Responses transmitted.	Int64
call-resp-420rx	Total number of Call 420 Responses received.	Int64
call-resp-420tx	Total number of Call 420 Responses transmitted.	Int64
call-resp-421rx	Total number of Call 421 Responses received.	Int64
call-resp-421tx	Total number of Call 421 Responses transmitted.	Int64
call-resp-480rx	Total number of Call 480 Responses received.	Int64
call-resp-480tx	Total number of Call 480 Responses transmitted.	Int64
call-resp-486rx	Total number of Call 486 Responses received.	Int64
call-resp-486tx	Total number of Call 486 Responses transmitted.	Int64
call-resp-487rx	Total number of Call 487 Responses received.	Int64
call-resp-487tx	Total number of Call 487 Responses transmitted.	Int64
call-resp-488rx	Total number of Call 488 Responses received.	Int64
call-resp-488tx	Total number of Call 488 Responses transmitted.	Int64
call-resp-4xxrx	Total number of Call 4xx Responses received.	Int64
call-resp-4xxtx	Total number of Call 4xx Responses transmitted.	Int64
call-resp-500rx	Total number of Call 500 Responses received.	Int64
call-resp-500tx	Total number of Call 500 Responses transmitted.	Int64
call-resp-503rx	Total number of Call 503 Responses received.	Int64
call-resp-503tx	Total number of Call 503 Responses transmitted.	Int64
call-resp-5xxrx	Total number of Call 5xx Responses received.	Int64
call-resp-5xxtx	Total number of Call 5xx Responses transmitted.	Int64
call-resp-6xxrx	Total number of Call 6xx Responses received.	Int64
call-resp-6xxtx	Total number of Call 6xx Responses transmitted.	Int64
call-rel-atrx	Total number of Call Release Attempts received.	Int64
call-rel-attx	Total number of Call Release Attempts transmitted.	Int64

Statistic	Description	Data Type
call-rel-succrx	Total number of Call Release Success received.	Int64
call-rel-succtx	Total number of Call Release Success transmitted.	Int64
call-rel-failrx	Total number of Call Release Failures received.	Int64
call-rel-failtx	Total number of Call Release Failures transmitted.	Int64
reg-atrx	Total number of Registration Attempts received.	Int64
reg-atctx	Total number of Registration Attempts transmitted.	Int64
reg-succrx	Total number of Registration Successes received.	Int64
reg-succtx	Total number of Registration Successes transmitted.	Int64
reg-failrx	Total number of Registration Failures received.	Int64
reg-failtx	Total number of Registration Failures transmitted.	Int64
reg-resp-401rx	Total number of Registration 401 Responses received.	Int64
reg-resp-401tx	Total number of Registration 401 Responses transmitted.	Int64
reg-resp-403rx	Total number of Registration 403 Responses received.	Int64
reg-resp-403tx	Total number of Registration 403 Responses transmitted.	Int64
reg-resp-404rx	Total number of Registration 404 Responses received.	Int64
reg-resp-404tx	Total number of Registration 404 Responses transmitted.	Int64
reg-resp-420rx	Total number of Registration 420 Responses received.	Int64
reg-resp-420tx	Total number of Registration 420 Responses transmitted.	Int64
reg-resp-4xxrx	Total number of Registration 4xx Responses received.	Int64
reg-resp-4xctx	Total number of Registration 4xx Responses transmitted.	Int64
reg-resp-500rx	Total number of Registration 500 Responses received.	Int64
reg-resp-500tx	Total number of Registration 500 Responses transmitted.	Int64
reg-resp-5xxrx	Total number of Registration 5xx Responses received.	Int64
reg-resp-5xctx	Total number of Registration 5xx Responses transmitted.	Int64
reg-resp-6xxrx	Total number of Registration 6xx Responses received.	Int64
reg-resp-6xctx	Total number of Registration 6xx Responses transmitted.	Int64
rereg-atrx	Total number of Refresh Registration Attempts received.	Int64
rereg-atctx	Total number of Refresh Registration Attempts transmitted.	Int64
rereg-succrx	Total Refresh Registration Successes received.	Int64
rereg-succtx	Total number of Refresh Registration Successes transmitted.	Int64
rereg-failrx	Total number of Refresh Registration Failures received.	Int64
rereg-failtx	Total number of Refresh Registration Failures transmitted.	Int64

Statistic	Description	Data Type
rereg-resp-401rx	Total number of Refresh Registration 401 Responses received.	Int64
rereg-resp-401tx	Total number of Refresh Registration 401 Responses transmitted.	Int64
rereg-resp-403rx	Total number of Refresh Registration 403 Responses received.	Int64
rereg-resp-403tx	Total number of Refresh Registration 403 Responses transmitted.	Int64
rereg-resp-404rx	Total number of Refresh Registration 404 Responses received.	Int64
rereg-resp-404tx	Total number of Refresh Registration 404 Responses transmitted.	Int64
rereg-resp-420rx	Total number of Refresh Registration 420 Responses received.	Int64
rereg-resp-420tx	Total number of Refresh Registration 420 Responses transmitted.	Int64
rereg-resp-4xxrx	Total number of Refresh Registration 4xx Responses received.	Int64
rereg-resp-4xxtx	Total number of Refresh Registration 4xx Responses transmitted.	Int64
rereg-resp-500rx	Total number of Refresh Registration 500 Responses received.	Int64
rereg-resp-500tx	Total number of Refresh Registration 500 Responses transmitted.	Int64
rereg-resp-5xxrx	Total number of Refresh Registration 5xx Responses received.	Int64
rereg-resp-5xxtx	Total number of Refresh Registration 5xx Responses transmitted.	Int64
rereg-resp-6xxrx	Total number of Refresh Registration 6xx Responses received.	Int64
rereg-resp-6xxtx	Total number of Refresh Registration 6xx Responses transmitted.	Int64
dereg-atrx	Total number of Deregistration Attempts received.	Int64
dereg-attx	Total number of Deregistration Attempts transmitted.	Int64
dereg-succrx	Total number of Deregistration Successes received.	Int64
dereg-succtx	Total number of Deregistration Successes transmitted.	Int64
dereg-failrx	Total number of Deregistration Failures received.	Int64
dereg-failtx	Total number of Deregistration Failures transmitted.	Int64
dereg-resp-401rx	Total number of Deregister 401 Responses received.	Int64
dereg-resp-401tx	Total number of Deregister 401 Responses transmitted.	Int64
dereg-resp-403rx	Total number of Deregister 403 Responses received.	Int64
dereg-resp-403tx	Total number of Deregister 403 Responses transmitted.	Int64
dereg-resp-404rx	Total number of Deregister 404 Responses received.	Int64
dereg-resp-404tx	Total number of Deregister 404 Responses transmitted.	Int64
dereg-resp-420rx	Total number of Deregister 420 Responses received.	Int64
dereg-resp-420tx	Total number of Deregister 420 Responses transmitted.	Int64
dereg-resp-4xxrx	Total number of Deregister 4xx Responses received.	Int64
dereg-resp-4xxtx	Total number of Deregister 4xx Responses transmitted.	Int64

Statistic	Description	Data Type
dereg-resp-500rx	Total number of Deregister 500 Responses received.	Int64
dereg-resp-500tx	Total number of Deregister 500 Responses transmitted.	Int64
dereg-resp-5xxrx	Total number of Deregister 5xx Responses received.	Int64
dereg-resp-5xxtx	Total number of Deregister 5xx Responses transmitted.	Int64
dereg-resp-6xxrx	Total number of Deregister 6xx Responses received.	Int64
dereg-resp-6xxtx	Total number of Deregister 6xx Responses transmitted.	Int64
subscribe-attempt-rx	Total number of Subscribe Attempts Received	Int64
subscribe-attempt-tx	Total number of Subscribe Attempts Transmitted	Int64
subscribe-success-rx	Total number of Subscribe Success Received	Int64
subscribe-success-tx	Total number of Subscribe Success Transmitted	Int64
subscribe-failure-rx	Total number of Subscribe Failure Received	Int64
subscribe-failure-tx	Total number of Subscribe Failure Transmitted	Int64
notify-attempt-rx	Total number of Notify Attempts Received	Int64
notify-attempt-tx	Total number of Notify Attempts Transmitted	Int64
notify-success-rx	Total number of Notify Success Received	Int64
notify-success-tx	Total number of Notify Success Transmitted	Int64
notify-failure-rx	Total number of Notify Failure Received	Int64
notify-failure-tx	Total number of Notify Failure Transmitted	Int64
publish-attempt-rx	Total number of Publish Attempts Received	Int64
publish-attempt-tx	Total number of Publish Attempts Transmitted	Int64
publish-success-rx	Total number of Publish Success Received	Int64
publish-success-tx	Total number of Publish Success Transmitted	Int64
publish-failure-rx	Total number of Publish Failure Received	Int64
publish-failure-tx	Total number of Publish Failure Transmitted	Int64
msgsum-sub-attrx	Total number of “msg-summary” Subscription Attempts received.	Int64
msgsum-sub-atttx	Total number of “msg-summary” Subscription Attempts transmitted.	Int64
msgsum-sub-succtx	Total number of “msg-summary” Subscription Successes received.	Int64
msgsum-sub-succtx	Total number of “msg-summary” Subscription Successes transmitted.	Int64
msgsum-sub-failrx	Total number of “msg-summary” Subscription Failures received.	Int64
msgsum-sub-failtx	Total number of “msg-summary” Subscription Failures transmitted.	Int64
msgsum-sub-resp-200rx	Total number of “msg-summary” Subscription 200 Responses received.	Int64
msgsum-sub-resp-200tx	Total number of “msg-summary” Subscription 200 Responses transmitted.	Int64

Statistic	Description	Data Type
msgsum-subs-resp-202rx	Total number of “msg-summary” Subscription 202 Responses received.	Int64
msgsum-subs-resp-202tx	Total number of “msg-summary” Subscription 202 Responses transmitted.	Int64
msgsum-subs-resp-400rx	Total number of “msg-summary” Subscription 400 Responses received.	Int64
msgsum-subs-resp-400tx	Total number of “msg-summary” Subscription 400 Responses transmitted.	Int64
msgsum-subs-resp-403rx	Total number of “msg-summary” Subscription 403 Responses received.	Int64
msgsum-subs-resp-403tx	Total number of “msg-summary” Subscription 403 Responses transmitted.	Int64
msgsum-subs-resp-481rx	Total number of “msg-summary” Subscription 481 Responses received.	Int64
msgsum-subs-resp-481tx	Total number of “msg-summary” Subscription 481 Responses transmitted.	Int64
msgsum-subs-resp-489rx	Total number of “msg-summary” Subscription 489 Responses received.	Int64
msgsum-subs-resp-489tx	Total number of “msg-summary” Subscription 489 Responses transmitted.	Int64
msgsum-subs-resp-500rx	Total number of “msg-summary” Subscription 500 Responses received.	Int64
msgsum-subs-resp-500tx	Total number of “msg-summary” Subscription 500 Responses transmitted.	Int64
msgsum-subs-resp-3xxrx	Total number of “msg-summary” Subscription 3XX Responses received.	Int64
msgsum-subs-resp-3xxtx	Total number of “msg-summary” Subscription 3XX Responses transmitted.	Int64
msgsum-subs-resp-4xxrx	Total number of “msg-summary” Subscription 4XX Responses received.	Int64
msgsum-subs-resp-4xxtx	Total number of “msg-summary” Subscription 4XX Responses transmitted.	Int64
msgsum-subs-resp-5xxrx	Total number of “msg-summary” Subscription 5XX Responses received.	Int64
msgsum-subs-resp-5xxtx	Total number of “msg-summary” Subscription 5XX Responses transmitted.	Int64
msgsum-subs-resp-6xxrx	Total number of “msg-summary” Subscription 6XX Responses received.	Int64
msgsum-subs-resp-6xxtx	Total number of “msg-summary” Subscription 6XX Responses transmitted.	Int64
msgsum-resubs-atrx	Total number of “msg-summary” Refresh Subscription Attempts received.	Int64
msgsum-resubs-atrtx	Total number of “msg-summary” Refresh Subscription Attempts transmitted.	Int64
msgsum-resubs-sucrx	Total number of “msg-summary” Refresh Subscription Successes received.	Int64
msgsum-resubs-suctx	Total number of “msg-summary” Refresh Subscription Successes transmitted.	Int64
msgsum-resubs-failrx	Total number of “msg-summary” Refresh Subscription Failures received.	Int64
msgsum-resubs-failtx	Total number of “msg-summary” Refresh Subscription Failures transmitted.	Int64
msgsum-resubs-resp-200rx	Total number of “msg-summary” Refresh Subscription 200 Responses received.	Int64
msgsum-resubs-resp-200tx	Total number of “msg-summary” Refresh Subscription 200 Responses transmitted.	Int64
msgsum-resubs-resp-202rx	Total number of “msg-summary” Refresh Subscription 202 Responses received.	Int64

## ■ Common Statistics

Statistic	Description	Data Type
msgsum-resubs-resp-202tx	Total number of “msg-summary” Refresh Subscription 202 Responses transmitted.	Int64
msgsum-resubs-resp-400rx	Total number of “msg-summary” Refresh Subscription 400 Responses received.	Int64
msgsum-resubs-resp-400tx	Total number of “msg-summary” Refresh Subscription 400 Responses transmitted.	Int64
msgsum-resubs-resp-403rx	Total number of “msg-summary” Refresh Subscription 403 Responses received.	Int64
msgsum-resubs-resp-403tx	Total number of “msg-summary” Refresh Subscription 403 Responses transmitted.	Int64
msgsum-resubs-resp-481rx	Total number of “msg-summary” Refresh Subscription 481 Responses received.	Int64
msgsum-resubs-resp-481tx	Total number of “msg-summary” Refresh Subscription 481 Responses transmitted.	Int64
msgsum-resubs-resp-489rx	Total number of “msg-summary” Refresh Subscription 489 Responses received.	Int64
msgsum-resubs-resp-489tx	Total number of “msg-summary” Refresh Subscription 489 Responses transmitted.	Int64
msgsum-resubs-resp-500rx	Total number of “msg-summary” Refresh Subscription 500 Responses received.	Int64
msgsum-resubs-resp-500tx	Total number of “msg-summary” Refresh Subscription 500 Responses transmitted.	Int64
msgsum-resubs-resp-3xxrx	Total number of “msg-summary” Refresh Subscription 3XX Responses received.	Int64
msgsum-resubs-resp-3xxtx	Total number of “msg-summary” Refresh Subscription 3XX Responses transmitted.	Int64
msgsum-resubs-resp-4xxrx	Total number of “msg-summary” Refresh Subscription 4XX Responses received.	Int64
msgsum-resubs-resp-4xxtx	Total number of “msg-summary” Refresh Subscription 4XX Responses transmitted.	Int64
msgsum-resubs-resp-5xxrx	Total number of “msg-summary” Refresh Subscription 5XX Responses received.	Int64
msgsum-resubs-resp-5xxtx	Total number of “msg-summary” Refresh Subscription 5XX Responses transmitted.	Int64
msgsum-resubs-resp-6xxrx	Total number of “msg-summary” Refresh Subscription 6XX Responses received.	Int64
msgsum-resubs-resp-6xxtx	Total number of “msg-summary” Refresh Subscription 6XX Responses transmitted.	Int64
msgsum-unsubs-atrx	Total number of “msg-summary” Un-Subscription Attempts received.	Int64
msgsum-unsubs-atrtx	Total number of “msg-summary” Un-Subscription Attempts transmitted.	Int64

Statistic	Description	Data Type
msgsum-unsubs-succrx	Total number of “msg-summary” Un-Subscription Successes received.	Int64
msgsum-unsubs-succtx	Total number of “msg-summary” Un-Subscription Successes transmitted.	Int64
msgsum-unsubs-failrx	Total number of “msg-summary” Un-Subscription Failures received.	Int64
msgsum-unsubs-failtx	Total number of “msg-summary” Un-Subscription Failures transmitted.	Int64
msgsum-unsubs-resp-200rx	Total number of “msg-summary” Un-Subscription 200 Responses received.	Int64
msgsum-unsubs-resp-200tx	Total number of “msg-summary” Un-Subscription 200 Responses transmitted.	Int64
msgsum-unsubs-resp-202rx	Total number of “msg-summary” Un-Subscription 202 Responses received.	Int64
msgsum-unsubs-resp-202tx	Total number of “msg-summary” Un-Subscription 202 Responses transmitted.	Int64
msgsum-unsubs-resp-400rx	Total number of “msg-summary” Un-Subscription 400 Responses received.	Int64
msgsum-unsubs-resp-400tx	Total number of “msg-summary” Un-Subscription 400 Responses transmitted.	Int64
msgsum-unsubs-resp-403rx	Total number of “msg-summary” Un-Subscription 403 Responses received.	Int64
msgsum-unsubs-resp-403tx	Total number of “msg-summary” Un-Subscription 403 Responses transmitted.	Int64
msgsum-unsubs-resp-481rx	Total number of “msg-summary” Un-Subscription 481 Responses received.	Int64
msgsum-unsubs-resp-481tx	Total number of “msg-summary” Un-Subscription 481 Responses transmitted.	Int64
msgsum-unsubs-resp-489rx	Total number of “msg-summary” Un-Subscription 489 Responses received.	Int64
msgsum-unsubs-resp-489tx	Total number of “msg-summary” Un-Subscription 489 Responses transmitted.	Int64
msgsum-unsubs-resp-500rx	Total number of “msg-summary” Un-Subscription 500 Responses received.	Int64
msgsum-unsubs-resp-500tx	Total number of “msg-summary” Un-Subscription 500 Responses transmitted.	Int64
msgsum-unsubs-resp-3xxrx	Total number of “msg-summary” Un-Subscription 3XX Responses received.	Int64
msgsum-unsubs-resp-3xxtx	Total number of “msg-summary” Un-Subscription 3XX Responses transmitted.	Int64
msgsum-unsubs-resp-4xxrx	Total number of “msg-summary” Un-Subscription 4XX Responses received.	Int64

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Statistic	Description	Data Type
msgsum-unsubs-resp-4xxtx	Total number of “msg-summary” Un-Subscription 4XX Responses transmitted.	Int64
msgsum-unsubs-resp-5xxrx	Total number of “msg-summary” Un-Subscription 5XX Responses received.	Int64
msgsum-unsubs-resp-5xxtx	Total number of “msg-summary” Un-Subscription 5XX Responses transmitted.	Int64
msgsum-unsubs-resp-6xxrx	Total number of “msg-summary” Un-Subscription 6XX Responses received.	Int64
msgsum-unsubs-resp-6xxtx	Total number of “msg-summary” Un-Subscription 6XX Responses transmitted.	Int64
msgsum-notify-atrx	Total number of “msg-summary” Notify Attempts received.	Int64
msgsum-notify-attx	Total number of “msg-summary” Notify Attempts transmitted.	Int64
msgsum-notify-sucrx	Total number of “msg-summary” Notify Successes received.	Int64
msgsum-notify-succtx	Total number of “msg-summary” Notify Successes transmitted.	Int64
msgsum-notify-failrx	Total number of “msg-summary” Notify Failures received.	Int64
msgsum-notify-failtx	Total number of “msg-summary” Notify Failures transmitted.	Int64
msgsum-notify-resp-3xxrx	Total number of “msg-summary” Notify 3XX Responses received.	Int64
msgsum-notify-resp-3xxtx	Total number of “msg-summary” Notify 3XX Responses transmitted.	Int64
msgsum-notify-resp-400rx	Total number of “msg-summary” Notify 400 Responses received.	Int64
msgsum-notify-resp-400tx	Total number of “msg-summary” Notify 400 Responses transmitted.	Int64
msgsum-notify-resp-481rx	Total number of “msg-summary” Notify 481 Responses received.	Int64
msgsum-notify-resp-481tx	Total number of “msg-summary” Notify 481 Responses transmitted.	Int64
msgsum-notify-resp-489rx	Total number of “msg-summary” Notify 489 Responses received.	Int64
msgsum-notify-resp-489tx	Total number of “msg-summary” Notify 489 Responses transmitted.	Int64
msgsum-notify-resp-4xxrx	Total number of “msg-summary” Notify 4XX Responses received.	Int64
msgsum-notify-resp-4xxtx	Total number of “msg-summary” Notify 4XX Responses transmitted.	Int64
msgsum-notify-resp-500rx	Total number of “msg-summary” Notify 500 Responses received.	Int64

Statistic	Description	Data Type
msgsum-notify-resp-500tx	Total number of “msg-summary” Notify 500 Responses transmitted.	Int64
msgsum-notify-resp-5xxrx	Total number of “msg-summary” Notify 5XX Responses received.	Int64
msgsum-notify-resp-5xxtx	Total number of “msg-summary” Notify 5XX Responses transmitted.	Int64
msgsum-notify-resp-6xxrx	Total number of “msg-summary” Notify 6XX Responses received.	Int64
msgsum-notify-resp-6xxtx	Total number of “msg-summary” Notify 6XX Responses transmitted.	Int64
msgsum-pub-atrx	Total number of “msg-summary” Publish Attempts received.	Int64
msgsum-pub-atrtx	Total number of “msg-summary” Publish Attempts transmitted.	Int64
msgsum-pub-sucrx	Total number of “msg-summary” Publish Successes received.	Int64
msgsum-pub-succtx	Total number of “msg-summary” Publish Successes transmitted.	Int64
msgsum-pub-failrx	Total number of “msg-summary” Publish Failures received.	Int64
msgsum-pub-failtx	Total number of “msg-summary” Publish Failures transmitted.	Int64
msgsum-pub-resp-3xxrx	Total number of “msg-summary” Publish 3XX Responses received.	Int64
msgsum-pub-resp-3xxtx	Total number of “msg-summary” Publish 3XX Responses transmitted.	Int64
msgsum-pub-resp-400rx	Total number of “msg-summary” Publish 400 Responses received.	Int64
msgsum-pub-resp-400tx	Total number of “msg-summary” Publish 400 Responses transmitted.	Int64
msgsum-pub-resp-404rx	Total number of “msg-summary” Publish 404 Responses received.	Int64
msgsum-pub-resp-404tx	Total number of “msg-summary” Publish 404 Responses transmitted.	Int64
msgsum-pub-resp-412rx	Total number of “msg-summary” Publish 412 Responses received.	Int64
msgsum-pub-resp-412tx	Total number of “msg-summary” Publish 412 Responses transmitted.	Int64
msgsum-pub-resp-423rx	Total number of “msg-summary” Publish 423 Responses received.	Int64
msgsum-pub-resp-423tx	Total number of “msg-summary” Publish 423 Responses transmitted.	Int64
msgsum-pub-resp-489rx	Total number of “msg-summary” Publish 489 Responses received.	Int64
msgsum-pub-resp-489tx	Total number of “msg-summary” Publish 489 Responses transmitted.	Int64
msgsum-pub-resp-4xxrx	Total number of “msg-summary” Publish 4XX Responses received.	Int64
msgsum-pub-resp-4xxtx	Total number of “msg-summary” Publish 4XX Responses transmitted.	Int64
msgsum-pub-resp-500rx	Total number of “msg-summary” Publish 500 Responses received.	Int64
msgsum-pub-resp-500tx	Total number of “msg-summary” Publish 500 Responses transmitted.	Int64
msgsum-pub-resp-503rx	Total number of “msg-summary” Publish 503 Responses received.	Int64
msgsum-pub-resp-503tx	Total number of “msg-summary” Publish 503 Responses transmitted.	Int64

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Statistic	Description	Data Type
msgsum-pub-resp-5xxrx	Total number of “msg-summary” Publish 5XX Responses received.	Int64
msgsum-pub-resp-5xxtx	Total number of “msg-summary” Publish 5XX Responses transmitted.	Int64
msgsum-pub-resp-6xxrx	Total number of “msg-summary” Publish 6XX Responses received.	Int64
msgsum-pub-resp-6xxtx	Total number of “msg-summary” Publish 6XX Responses transmitted.	Int64
msgsum-unpub-attrx	Total number of “msg-summary” Un-Publish Attempts received.	Int64
msgsum-unpub-atttx	Total number of “msg-summary” Un-Publish Attempts transmitted.	Int64
msgsum-unpub-succrx	Total number of “msg-summary” Un-Publish Successes received.	Int64
msgsum-unpub-succtx	Total number of “msg-summary” Un-Publish Successes transmitted.	Int64
msgsum-unpub-failrx	Total number of “msg-summary” Un-Publish Failures received.	Int64
msgsum-unpub-failtx	Total number of “msg-summary” Un-Publish Failures transmitted.	Int64
msgsum-unpub-resp-3xxrx	Total number of “msg-summary” Un-Publish 3XX Responses received.	Int64
msgsum-unpub-resp-3xxtx	Total number of “msg-summary” Un-Publish 3XX Responses transmitted.	Int64
msgsum-unpub-resp-400rx	Total number of “msg-summary” Un-Publish 400 Responses received.	Int64
msgsum-unpub-resp-400tx	Total number of “msg-summary” Un-Publish 400 Responses transmitted.	Int64
msgsum-unpub-resp-404rx	Total number of “msg-summary” Un-Publish 404 Responses received.	Int64
msgsum-unpub-resp-404tx	Total number of “msg-summary” Un-Publish 404 Responses transmitted.	Int64
msgsum-unpub-resp-412rx	Total number of “msg-summary” Un-Publish 412 Responses received.	Int64
msgsum-unpub-resp-412tx	Total number of “msg-summary” Un-Publish 412 Responses transmitted.	Int64
msgsum-unpub-resp-423rx	Total number of “msg-summary” Un-Publish 423 Responses received.	Int64
msgsum-unpub-resp-423tx	Total number of “msg-summary” Un-Publish 423 Responses transmitted.	Int64
msgsum-unpub-resp-489rx	Total number of “msg-summary” Un-Publish 489 Responses received.	Int64
msgsum-unpub-resp-489tx	Total number of “msg-summary” Un-Publish 489 Responses transmitted.	Int64
msgsum-unpub-resp-4xxrx	Total number of “msg-summary” Un-Publish 4XX Responses received.	Int64
msgsum-unpub-resp-4xxtx	Total number of “msg-summary” Un-Publish 4XX Responses transmitted.	Int64

Statistic	Description	Data Type
msgsum-unpub-resp-500rx	Total number of “msg-summary” Un-Publish 500 Responses received.	Int64
msgsum-unpub-resp-500tx	Total number of “msg-summary” Un-Publish 500 Responses transmitted.	Int64
msgsum-unpub-resp-503rx	Total number of “msg-summary” Un-Publish 503 Responses received.	Int64
msgsum-unpub-resp-503tx	Total number of “msg-summary” Un-Publish 503 Responses transmitted.	Int64
msgsum-unpub-resp-5xxrx	Total number of “msg-summary” Un-Publish 5XX Responses received.	Int64
msgsum-unpub-resp-5xxtx	Total number of “msg-summary” Un-Publish 5XX Responses transmitted.	Int64
msgsum-unpub-resp-6xxrx	Total number of “msg-summary” Un-Publish 6XX Responses received.	Int64
msgsum-unpub-resp-6xxtx	Total number of “msg-summary” Un-Publish 6XX Responses transmitted.	Int64
pres-subs-attrx	Total number of “presence” Subscription Attempts received.	Int64
pres-subs-atmtx	Total number of “presence” Subscription Attempts transmitted.	Int64
pres-subs-succrx	Total number of “presence” Subscription Successes received.	Int64
pres-subs-succtx	Total number of “presence” Subscription Successes transmitted.	Int64
pres-subs-failrx	Total number of “presence” Subscription Failures received.	Int64
pres-subs-failtx	Total number of “presence” Subscription Failures transmitted.	Int64
pres-subs-resp-200rx	Total number of “presence” Subscription 200 Responses received.	Int64
pres-subs-resp-200tx	Total number of “presence” Subscription 200 Responses transmitted.	Int64
pres-subs-resp-202rx	Total number of “presence” Subscription 202 Responses received.	Int64
pres-subs-resp-202tx	Total number of “presence” Subscription 202 Responses transmitted.	Int64
pres-subs-resp-400rx	Total number of “presence” Subscription 400 Responses received.	Int64
pres-subs-resp-400tx	Total number of “presence” Subscription 400 Responses transmitted.	Int64
pres-subs-resp-403rx	Total number of “presence” Subscription 403 Responses received.	Int64
pres-subs-resp-403tx	Total number of “presence” Subscription 403 Responses transmitted.	Int64
pres-subs-resp-481rx	Total number of “presence” Subscription 481 Responses received.	Int64
pres-subs-resp-481tx	Total number of “presence” Subscription 481 Responses transmitted.	Int64
pres-subs-resp-489rx	Total number of “presence” Subscription 489 Responses received.	Int64
pres-subs-resp-489tx	Total number of “presence” Subscription 489 Responses transmitted.	Int64
pres-subs-resp-500rx	Total number of “presence” Subscription 500 Responses received.	Int64

Statistic	Description	Data Type
pres-subs-resp-500tx	Total number of "presence" Subscription 500 Responses transmitted.	Int64
pres-subs-resp-3xxrx	Total number of "presence" Subscription 3XX Responses received.	Int64
pres-subs-resp-3xxtx	Total number of "presence" Subscription 3XX Responses transmitted.	Int64
pres-subs-resp-4xxrx	Total number of "presence" Subscription 4XX Responses received.	Int64
pres-subs-resp-4xxtx	Total number of "presence" Subscription 4XX Responses transmitted.	Int64
pres-subs-resp-5xxrx	Total number of "presence" Subscription 5XX Responses received.	Int64
pres-subs-resp-5xxtx	Total number of "presence" Subscription 5XX Responses transmitted.	Int64
pres-subs-resp-6xxrx	Total number of "presence" Subscription 6XX Responses received.	Int64
pres-subs-resp-6xxtx	Total number of "presence" Subscription 6XX Responses transmitted.	Int64
pres-resubs-atrx	Total number of "presence" Refresh Subscription Attempts received.	Int64
pres-resubs-atttx	Total number of "presence" Refresh Subscription Attempts transmitted.	Int64
pres-resubs-succrx	Total number of "presence" Refresh Subscription Successes received.	Int64
pres-resubs-succtx	Total number of "presence" Refresh Subscription Successes transmitted.	Int64
pres-resubs-failrx	Total number of "presence" Refresh Subscription Failures received.	Int64
pres-resubs-failtx	Total number of "presence" Refresh Subscription Failures transmitted.	Int64
pres-resubs-resp-200rx	Total number of "presence" Refresh Subscription 200 Responses received.	Int64
pres-resubs-resp-200tx	Total number of "presence" Refresh Subscription 200 Responses transmitted.	Int64
pres-resubs-resp-202rx	Total number of "presence" Refresh Subscription 202 Responses received.	Int64
pres-resubs-resp-202tx	Total number of "presence" Refresh Subscription 202 Responses transmitted.	Int64
pres-resubs-resp-400rx	Total number of "presence" Refresh Subscription 400 Responses received.	Int64
pres-resubs-resp-400tx	Total number of "presence" Refresh Subscription 400 Responses transmitted.	Int64
pres-resubs-resp-403rx	Total number of "presence" Refresh Subscription 403 Responses received.	Int64
pres-resubs-resp-403tx	Total number of "presence" Refresh Subscription 403 Responses transmitted.	Int64
pres-resubs-resp-481rx	Total number of "presence" Refresh Subscription 481 Responses received.	Int64
pres-resubs-resp-481tx	Total number of "presence" Refresh Subscription 481 Responses transmitted.	Int64
pres-resubs-resp-489rx	Total number of "presence" Refresh Subscription 489 Responses received.	Int64
pres-resubs-resp-489tx	Total number of "presence" Refresh Subscription 489 Responses transmitted.	Int64
pres-resubs-resp-500rx	Total number of "presence" Refresh Subscription 500 Responses received.	Int64
pres-resubs-resp-500tx	Total number of "presence" Refresh Subscription 500 Responses transmitted.	Int64
pres-resubs-resp-3xxrx	Total number of "presence" Refresh Subscription 3XX Responses received.	Int64
pres-resubs-resp-3xxtx	Total number of "presence" Refresh Subscription 3XX Responses transmitted.	Int64
pres-resubs-resp-4xxrx	Total number of "presence" Refresh Subscription 4XX Responses received.	Int64

Statistic	Description	Data Type
pres-resubs-resp-4xrx	Total number of “presence” Refresh Subscription 4XX Responses transmitted.	Int64
pres-resubs-resp-5xrx	Total number of “presence” Refresh Subscription 5XX Responses received.	Int64
pres-resubs-resp-5xrx	Total number of “presence” Refresh Subscription 5XX Responses transmitted.	Int64
pres-resubs-resp-6xrx	Total number of “presence” Refresh Subscription 6XX Responses received.	Int64
pres-resubs-resp-6xrx	Total number of “presence” Refresh Subscription 6XX Responses transmitted.	Int64
pres-unsubs-atrx	Total number of “presence” Un-Subscription Attempts received.	Int64
pres-unsubs-atrx	Total number of “presence” Un-Subscription Attempts transmitted.	Int64
pres-unsubs-sucrx	Total number of “presence” Un-Subscription Successes received.	Int64
pres-unsubs-sucrx	Total number of “presence” Un-Subscription Successes transmitted.	Int64
pres-unsubs-failrx	Total number of “presence” Un-Subscription Failures received.	Int64
pres-unsubs-failrx	Total number of “presence” Un-Subscription Failures transmitted.	Int64
pres-unsubs-resp-200rx	Total number of “presence” Un-Subscription 200 Responses received.	Int64
pres-unsubs-resp-200rx	Total number of “presence” Un-Subscription 200 Responses transmitted.	Int64
pres-unsubs-resp-202rx	Total number of “presence” Un-Subscription 202 Responses received.	Int64
pres-unsubs-resp-202rx	Total number of “presence” Un-Subscription 202 Responses transmitted.	Int64
pres-unsubs-resp-400rx	Total number of “presence” Un-Subscription 400 Responses received.	Int64
pres-unsubs-resp-400rx	Total number of “presence” Un-Subscription 400 Responses transmitted.	Int64
pres-unsubs-resp-403rx	Total number of “presence” Un-Subscription 403 Responses received.	Int64
pres-unsubs-resp-403rx	Total number of “presence” Un-Subscription 403 Responses transmitted.	Int64
pres-unsubs-resp-481rx	Total number of “presence” Un-Subscription 481 Responses received.	Int64
pres-unsubs-resp-481rx	Total number of “presence” Un-Subscription 481 Responses transmitted.	Int64
pres-unsubs-resp-489rx	Total number of “presence” Un-Subscription 489 Responses received.	Int64
pres-unsubs-resp-489rx	Total number of “presence” Un-Subscription 489 Responses transmitted.	Int64
pres-unsubs-resp-500rx	Total number of “presence” Un-Subscription 500 Responses received.	Int64
pres-unsubs-resp-500rx	Total number of “presence” Un-Subscription 500 Responses transmitted.	Int64
pres-unsubs-resp-3xrx	Total number of “presence” Un-Subscription 3XX Responses received.	Int64
pres-unsubs-resp-3xrx	Total number of “presence” Un-Subscription 3XX Responses transmitted.	Int64
pres-unsubs-resp-4xrx	Total number of “presence” Un-Subscription 4XX Responses received.	Int64
pres-unsubs-resp-4xrx	Total number of “presence” Un-Subscription 4XX Responses transmitted.	Int64
pres-unsubs-resp-5xrx	Total number of “presence” Un-Subscription 5XX Responses received.	Int64
pres-unsubs-resp-5xrx	Total number of “presence” Un-Subscription 5XX Responses transmitted.	Int64
pres-unsubs-resp-6xrx	Total number of “presence” Un-Subscription 6XX Responses received.	Int64

Statistic	Description	Data Type
pres-unsubs-resp-6xxtx	Total number of “presence” Un-Subscription 6XX Responses transmitted.	Int64
pres-notify-attrx	Total number of “presence” Notify Attempts received.	Int64
pres-notify-atttx	Total number of “presence” Notify Attempts transmitted.	Int64
pres-notify-succrx	Total number of “presence” Notify Successes received.	Int64
pres-notify-succtx	Total number of “presence” Notify Successes transmitted.	Int64
pres-notify-failrx	Total number of “presence” Notify Failures received.	Int64
pres-notify-failtx	Total number of “presence” Notify Failures transmitted.	Int64
pres-notify-resp-3xxrx	Total number of “presence” Notify 3XX Responses received.	Int64
pres-notify-resp-3xxtx	Total number of “presence” Notify 3XX Responses transmitted.	Int64
pres-notify-resp-400rx	Total number of “presence” Notify 400 Responses received.	Int64
pres-notify-resp-400tx	Total number of “presence” Notify 400 Responses transmitted.	Int64
pres-notify-resp-481rx	Total number of “presence” Notify 481 Responses received.	Int64
pres-notify-resp-481tx	Total number of “presence” Notify 481 Responses transmitted.	Int64
pres-notify-resp-489rx	Total number of “presence” Notify 489 Responses received.	Int64
pres-notify-resp-489tx	Total number of “presence” Notify 489 Responses transmitted.	Int64
pres-notify-resp-4xxrx	Total number of “presence” Notify 4XX Responses received.	Int64
pres-notify-resp-4xxtx	Total number of “presence” Notify 4XX Responses transmitted.	Int64
pres-notify-resp-500rx	Total number of “presence” Notify 500 Responses received.	Int64
pres-notify-resp-500tx	Total number of “presence” Notify 500 Responses transmitted.	Int64
pres-notify-resp-5xxrx	Total number of “presence” Notify 5XX Responses received.	Int64
pres-notify-resp-5xxtx	Total number of “presence” Notify 5XX Responses transmitted.	Int64
pres-notify-resp-6xxrx	Total number of “presence” Notify 6XX Responses received.	Int64
pres-notify-resp-6xxtx	Total number of “presence” Notify 6XX Responses transmitted.	Int64
pres-pub-attrx	Total number of “presence” Publish Attempts received.	Int64
pres-pub-atttx	Total number of “presence” Publish Attempts transmitted.	Int64
pres-pub-succrx	Total number of “presence” Publish Successes received.	Int64
pres-pub-succtx	Total number of “presence” Publish Successes transmitted.	Int64
pres-pub-failrx	Total number of “presence” Publish Failures received.	Int64
pres-pub-failtx	Total number of “presence” Publish Failures transmitted.	Int64
pres-pub-resp-3xxrx	Total number of “presence” Publish 3XX Responses received.	Int64
pres-pub-resp-3xxtx	Total number of “presence” Publish 3XX Responses transmitted.	Int64
pres-pub-resp-400rx	Total number of “presence” Publish 400 Responses received.	Int64

Statistic	Description	Data Type
pres-pub-resp-400tx	Total number of “presence” Publish 400 Responses transmitted.	Int64
pres-pub-resp-404rx	Total number of “presence” Publish 404 Responses received.	Int64
pres-pub-resp-404tx	Total number of “presence” Publish 404 Responses transmitted.	Int64
pres-pub-resp-412rx	Total number of “presence” Publish 412 Responses received.	Int64
pres-pub-resp-412tx	Total number of “presence” Publish 412 Responses transmitted.	Int64
pres-pub-resp-423rx	Total number of “presence” Publish 423 Responses received.	Int64
pres-pub-resp-423tx	Total number of “presence” Publish 423 Responses transmitted.	Int64
pres-pub-resp-489rx	Total number of “presence” Publish 489 Responses received.	Int64
pres-pub-resp-489tx	Total number of “presence” Publish 489 Responses transmitted.	Int64
pres-pub-resp-4xxrx	Total number of “presence” Publish 4XX Responses received.	Int64
pres-pub-resp-4xxtx	Total number of “presence” Publish 4XX Responses transmitted.	Int64
pres-pub-resp-500rx	Total number of “presence” Publish 500 Responses received.	Int64
pres-pub-resp-500tx	Total number of “presence” Publish 500 Responses transmitted.	Int64
pres-pub-resp-503rx	Total number of “presence” Publish 503 Responses received.	Int64
pres-pub-resp-503tx	Total number of “presence” Publish 503 Responses transmitted.	Int64
pres-pub-resp-5xxrx	Total number of “presence” Publish 5XX Responses received.	Int64
pres-pub-resp-5xxtx	Total number of “presence” Publish 5XX Responses transmitted.	Int64
pres-pub-resp-6xxrx	Total number of “presence” Publish 6XX Responses received.	Int64
pres-pub-resp-6xxtx	Total number of “presence” Publish 6XX Responses transmitted.	Int64
pres-unpub-atrrx	Total number of “presence” Un-Publish Attempts received.	Int64
pres-unpub-atttx	Total number of “presence” Un-Publish Attempts transmitted.	Int64
pres-unpub-succrx	Total number of “presence” Un-Publish Successes received.	Int64
pres-unpub-succtx	Total number of “presence” Un-Publish Successes transmitted.	Int64
pres-unpub-failrx	Total number of “presence” Un-Publish Failures received.	Int64
pres-unpub-failtx	Total number of “presence” Un-Publish Failures transmitted.	Int64
pres-unpub-resp-3xxrx	Total number of “presence” Un-Publish 3XX Responses received.	Int64
pres-unpub-resp-3xxtx	Total number of “presence” Un-Publish 3XX Responses transmitted.	Int64
pres-unpub-resp-400rx	Total number of “presence” Un-Publish 400 Responses received.	Int64
pres-unpub-resp-400tx	Total number of “presence” Un-Publish 400 Responses transmitted.	Int64
pres-unpub-resp-404rx	Total number of “presence” Un-Publish 404 Responses received.	Int64
pres-unpub-resp-404tx	Total number of “presence” Un-Publish 404 Responses transmitted.	Int64
pres-unpub-resp-412rx	Total number of “presence” Un-Publish 412 Responses received.	Int64

Statistic	Description	Data Type
pres-unpub-resp-412tx	Total number of "presence" Un-Publish 412 Responses transmitted.	Int64
pres-unpub-resp-423rx	Total number of "presence" Un-Publish 423 Responses received.	Int64
pres-unpub-resp-423tx	Total number of "presence" Un-Publish 423 Responses transmitted.	Int64
pres-unpub-resp-489rx	Total number of "presence" Un-Publish 489 Responses received.	Int64
pres-unpub-resp-489tx	Total number of "presence" Un-Publish 489 Responses transmitted.	Int64
pres-unpub-resp-4xxrx	Total number of "presence" Un-Publish 4XX Responses received.	Int64
pres-unpub-resp-4xxtx	Total number of "presence" Un-Publish 4XX Responses transmitted.	Int64
pres-unpub-resp-500rx	Total number of "presence" Un-Publish 500 Responses received.	Int64
pres-unpub-resp-500tx	Total number of "presence" Un-Publish 500 Responses transmitted.	Int64
pres-unpub-resp-503rx	Total number of "presence" Un-Publish 503 Responses received.	Int64
pres-unpub-resp-503tx	Total number of "presence" Un-Publish 503 Responses transmitted.	Int64
pres-unpub-resp-5xxrx	Total number of "presence" Un-Publish 5XX Responses received.	Int64
pres-unpub-resp-5xxtx	Total number of "presence" Un-Publish 5XX Responses transmitted.	Int64
pres-unpub-resp-6xxrx	Total number of "presence" Un-Publish 6XX Responses received.	Int64
pres-unpub-resp-6xxtx	Total number of "presence" Un-Publish 6XX Responses transmitted.	Int64
reg-subs-attrx	Total number of "reg" Subscription Attempts received.	Int64
reg-subs-atttx	Total number of "reg" Subscription Attempts transmitted.	Int64
reg-subs-succrx	Total number of "reg" Subscription Successes received.	Int64
reg-subs-succtx	Total number of "reg" Subscription Successes transmitted.	Int64
reg-subs-failrx	Total number of "reg" Subscription Failures received.	Int64
reg-subs-failtx	Total number of "reg" Subscription Failures transmitted.	Int64
reg-subs-resp-200rx	Total number of "reg" Subscription 200 Responses received.	Int64
reg-subs-resp-200tx	Total number of "reg" Subscription 200 Responses transmitted.	Int64
reg-subs-resp-202rx	Total number of "reg" Subscription 202 Responses received.	Int64
reg-subs-resp-202tx	Total number of "reg" Subscription 202 Responses transmitted.	Int64
reg-subs-resp-400rx	Total number of "reg" Subscription 400 Responses received.	Int64
reg-subs-resp-400tx	Total number of "reg" Subscription 400 Responses transmitted.	Int64
reg-subs-resp-403rx	Total number of "reg" Subscription 403 Responses received.	Int64
reg-subs-resp-403tx	Total number of "reg" Subscription 403 Responses transmitted.	Int64
reg-subs-resp-481rx	Total number of "reg" Subscription 481 Responses received.	Int64
reg-subs-resp-481tx	Total number of "reg" Subscription 481 Responses transmitted.	Int64
reg-subs-resp-489rx	Total number of "reg" Subscription 489 Responses received.	Int64

Statistic	Description	Data Type
reg-subsp-489tx	Total number of "reg" Subscription 489 Responses transmitted.	Int64
reg-subsp-500rx	Total number of "reg" Subscription 500 Responses received.	Int64
reg-subsp-500tx	Total number of "reg" Subscription 500 Responses transmitted.	Int64
reg-subsp-3xxrx	Total number of "reg" Subscription 3XX Responses received.	Int64
reg-subsp-3xxtx	Total number of "reg" Subscription 3XX Responses transmitted.	Int64
reg-subsp-4xxrx	Total number of "reg" Subscription 4XX Responses received.	Int64
reg-subsp-4xxtx	Total number of "reg" Subscription 4XX Responses transmitted.	Int64
reg-subsp-5xxrx	Total number of "reg" Subscription 5XX Responses received.	Int64
reg-subsp-5xxtx	Total number of "reg" Subscription 5XX Responses transmitted.	Int64
reg-subsp-6xxrx	Total number of "reg" Subscription 6XX Responses received.	Int64
reg-subsp-6xxtx	Total number of "reg" Subscription 6XX Responses transmitted.	Int64
reg-resubsp-atrx	Total number of "reg" Refresh Subscription Attempts received.	Int64
reg-resubsp-attx	Total number of "reg" Refresh Subscription Attempts transmitted.	Int64
reg-resubsp-sucrx	Total number of "reg" Refresh Subscription Successes received.	Int64
reg-resubsp-suctx	Total number of "reg" Refresh Subscription Successes transmitted.	Int64
reg-resubsp-failrx	Total number of "reg" Refresh Subscription Failures received.	Int64
reg-resubsp-failtx	Total number of "reg" Refresh Subscription Failures transmitted.	Int64
reg-resubsp-200rx	Total number of "reg" Refresh Subscription 200 Responses received.	Int64
reg-resubsp-200tx	Total number of "reg" Refresh Subscription 200 Responses transmitted.	Int64
reg-resubsp-202rx	Total number of "reg" Refresh Subscription 202 Responses received.	Int64
reg-resubsp-202tx	Total number of "reg" Refresh Subscription 202 Responses transmitted.	Int64
reg-resubsp-400rx	Total number of "reg" Refresh Subscription 400 Responses received.	Int64
reg-resubsp-400tx	Total number of "reg" Refresh Subscription 400 Responses transmitted.	Int64
reg-resubsp-403rx	Total number of "reg" Refresh Subscription 403 Responses received.	Int64
reg-resubsp-403tx	Total number of "reg" Refresh Subscription 403 Responses transmitted.	Int64
reg-resubsp-481rx	Total number of "reg" Refresh Subscription 481 Responses received.	Int64
reg-resubsp-481tx	Total number of "reg" Refresh Subscription 481 Responses transmitted.	Int64
reg-resubsp-489rx	Total number of "reg" Refresh Subscription 489 Responses received.	Int64
reg-resubsp-489tx	Total number of "reg" Refresh Subscription 489 Responses transmitted.	Int64
reg-resubsp-500rx	Total number of "reg" Refresh Subscription 500 Responses received.	Int64
reg-resubsp-500tx	Total number of "reg" Refresh Subscription 500 Responses transmitted.	Int64
reg-resubsp-3xxrx	Total number of "reg" Refresh Subscription 3XX Responses received.	Int64

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Statistic	Description	Data Type
reg-resubs-resp-3xxrx	Total number of "reg" Refresh Subscription 3XX Responses transmitted.	Int64
reg-resubs-resp-4xxrx	Total number of "reg" Refresh Subscription 4XX Responses received.	Int64
reg-resubs-resp-4xxtx	Total number of "reg" Refresh Subscription 4XX Responses transmitted.	Int64
reg-resubs-resp-5xxrx	Total number of "reg" Refresh Subscription 5XX Responses received.	Int64
reg-resubs-resp-5xxtx	Total number of "reg" Refresh Subscription 5XX Responses transmitted.	Int64
reg-resubs-resp-6xxrx	Total number of "reg" Refresh Subscription 6XX Responses received.	Int64
reg-resubs-resp-6xxtx	Total number of "reg" Refresh Subscription 6XX Responses transmitted.	Int64
reg-unsubs-attrx	Total number of "reg" Un-Subscription Attempts received.	Int64
reg-unsubs-atttx	Total number of "reg" Un-Subscription Attempts transmitted.	Int64
reg-unsubs-succrx	Total number of "reg" Un-Subscription Successes received.	Int64
reg-unsubs-succtx	Total number of "reg" Un-Subscription Successes transmitted.	Int64
reg-unsubs-failrx	Total number of "reg" Un-Subscription Failures received.	Int64
reg-unsubs-failtx	Total number of "reg" Un-Subscription Failures transmitted.	Int64
reg-unsubs-resp-200rx	Total number of "reg" Un-Subscription 200 Responses received.	Int64
reg-unsubs-resp-200tx	Total number of "reg" Un-Subscription 200 Responses transmitted.	Int64
reg-unsubs-resp-202rx	Total number of "reg" Un-Subscription 202 Responses received.	Int64
reg-unsubs-resp-202tx	Total number of "reg" Un-Subscription 202 Responses transmitted.	Int64
reg-unsubs-resp-400rx	Total number of "reg" Un-Subscription 400 Responses received.	Int64
reg-unsubs-resp-400tx	Total number of "reg" Un-Subscription 400 Responses transmitted.	Int64
reg-unsubs-resp-403rx	Total number of "reg" Un-Subscription 403 Responses received.	Int64
reg-unsubs-resp-403tx	Total number of "reg" Un-Subscription 403 Responses transmitted.	Int64
reg-unsubs-resp-481rx	Total number of "reg" Un-Subscription 481 Responses received.	Int64
reg-unsubs-resp-481tx	Total number of "reg" Un-Subscription 481 Responses transmitted.	Int64
reg-unsubs-resp-489rx	Total number of "reg" Un-Subscription 489 Responses received.	Int64
reg-unsubs-resp-489tx	Total number of "reg" Un-Subscription 489 Responses transmitted.	Int64
reg-unsubs-resp-500rx	Total number of "reg" Un-Subscription 500 Responses received.	Int64
reg-unsubs-resp-500tx	Total number of "reg" Un-Subscription 500 Responses transmitted.	Int64
reg-unsubs-resp-3xxrx	Total number of "reg" Un-Subscription 3XX Responses received.	Int64
reg-unsubs-resp-3xxtx	Total number of "reg" Un-Subscription 3XX Responses transmitted.	Int64
reg-unsubs-resp-4xxrx	Total number of "reg" Un-Subscription 4XX Responses received.	Int64
reg-unsubs-resp-4xxtx	Total number of "reg" Un-Subscription 4XX Responses transmitted.	Int64
reg-unsubs-resp-5xxrx	Total number of "reg" Un-Subscription 5XX Responses received.	Int64

Statistic	Description	Data Type
reg-unsubs-resp-5xxtx	Total number of “reg” Un-Subscription 5XX Responses transmitted.	Int64
reg-unsubs-resp-6xxrx	Total number of “reg” Un-Subscription 6XX Responses received.	Int64
reg-unsubs-resp-6xxtx	Total number of “reg” Un-Subscription 6XX Responses transmitted.	Int64
reg-notify-atrx	Total number of “reg” Notify Attempts received.	Int64
reg-notify-attx	Total number of “reg” Notify Attempts transmitted.	Int64
reg-notify-succrx	Total number of “reg” Notify Successes received.	Int64
reg-notify-succtx	Total number of “reg” Notify Successes transmitted.	Int64
reg-notify-failrx	Total number of “reg” Notify Failures received.	Int64
reg-notify-failtx	Total number of “reg” Notify Failures transmitted.	Int64
reg-notify-resp-3xxrx	Total number of “reg” Notify 3XX Responses received.	Int64
reg-notify-resp-3xxtx	Total number of “reg” Notify 3XX Responses transmitted.	Int64
reg-notify-resp-400rx	Total number of “reg” Notify 400 Responses received.	Int64
reg-notify-resp-400tx	Total number of “reg” Notify 400 Responses transmitted.	Int64
reg-notify-resp-481rx	Total number of “reg” Notify 481 Responses received.	Int64
reg-notify-resp-481tx	Total number of “reg” Notify 481 Responses transmitted.	Int64
reg-notify-resp-489rx	Total number of “reg” Notify 489 Responses received.	Int64
reg-notify-resp-489tx	Total number of “reg” Notify 489 Responses transmitted.	Int64
reg-notify-resp-4xxrx	Total number of “reg” Notify 4XX Responses received.	Int64
reg-notify-resp-4xxtx	Total number of “reg” Notify 4XX Responses transmitted.	Int64
reg-notify-resp-500rx	Total number of “reg” Notify 500 Responses received.	Int64
reg-notify-resp-500tx	Total number of “reg” Notify 500 Responses transmitted.	Int64
reg-notify-resp-5xxrx	Total number of “reg” Notify 5XX Responses received.	Int64
reg-notify-resp-5xxtx	Total number of “reg” Notify 5XX Responses transmitted.	Int64
reg-notify-resp-6xxrx	Total number of “reg” Notify 6XX Responses received.	Int64
reg-notify-resp-6xxtx	Total number of “reg” Notify 6XX Responses transmitted.	Int64
reg-pub-atrx	Total number of “reg” Publish Attempts received.	Int64
reg-pub-attx	Total number of “reg” Publish Attempts transmitted.	Int64
reg-pub-succrx	Total number of “reg” Publish Successes received.	Int64
reg-pub-succtx	Total number of “reg” Publish Successes transmitted.	Int64
reg-pub-failrx	Total number of “reg” Publish Failures received.	Int64
reg-pub-failtx	Total number of “reg” Publish Failures transmitted.	Int64
reg-pub-resp-3xxrx	Total number of “reg” Publish 3XX Responses received.	Int64

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Statistic	Description	Data Type
reg-pub-resp-3xxtx	Total number of "reg" Publish 3XX Responses transmitted.	Int64
reg-pub-resp-400rx	Total number of "reg" Publish 400 Responses received.	Int64
reg-pub-resp-400tx	Total number of "reg" Publish 400 Responses transmitted.	Int64
reg-pub-resp-404rx	Total number of "reg" Publish 404 Responses received.	Int64
reg-pub-resp-404tx	Total number of "reg" Publish 404 Responses transmitted.	Int64
reg-pub-resp-412rx	Total number of "reg" Publish 412 Responses received.	Int64
reg-pub-resp-412tx	Total number of "reg" Publish 412 Responses transmitted.	Int64
reg-pub-resp-423rx	Total number of "reg" Publish 423 Responses received.	Int64
reg-pub-resp-423tx	Total number of "reg" Publish 423 Responses transmitted.	Int64
reg-pub-resp-489rx	Total number of "reg" Publish 489 Responses received.	Int64
reg-pub-resp-489tx	Total number of "reg" Publish 489 Responses transmitted.	Int64
reg-pub-resp-4xxrx	Total number of "reg" Publish 4XX Responses received.	Int64
reg-pub-resp-4xxtx	Total number of "reg" Publish 4XX Responses transmitted.	Int64
reg-pub-resp-500rx	Total number of "reg" Publish 500 Responses received.	Int64
reg-pub-resp-500tx	Total number of "reg" Publish 500 Responses transmitted.	Int64
reg-pub-resp-503rx	Total number of "reg" Publish 503 Responses received.	Int64
reg-pub-resp-503tx	Total number of "reg" Publish 503 Responses transmitted.	Int64
reg-pub-resp-5xxrx	Total number of "reg" Publish 5XX Responses received.	Int64
reg-pub-resp-5xxtx	Total number of "reg" Publish 5XX Responses transmitted.	Int64
reg-pub-resp-6xxrx	Total number of "reg" Publish 6XX Responses received.	Int64
reg-pub-resp-6xxtx	Total number of "reg" Publish 6XX Responses transmitted.	Int64
reg-unpub-atrx	Total number of "reg" Un-Publish Attempts received.	Int64
reg-unpub-atrtx	Total number of "reg" Un-Publish Attempts transmitted.	Int64
reg-unpub-sucrx	Total number of "reg" Un-Publish Successes received.	Int64
reg-unpub-suctx	Total number of "reg" Un-Publish Successes transmitted.	Int64
reg-unpub-failrx	Total number of "reg" Un-Publish Failures received.	Int64
reg-unpub-failtx	Total number of "reg" Un-Publish Failures transmitted.	Int64
reg-unpub-resp-3xxrx	Total number of "reg" Un-Publish 3XX Responses received.	Int64
reg-unpub-resp-3xxtx	Total number of "reg" Un-Publish 3XX Responses transmitted.	Int64
reg-unpub-resp-400rx	Total number of "reg" Un-Publish 400 Responses received.	Int64
reg-unpub-resp-400tx	Total number of "reg" Un-Publish 400 Responses transmitted.	Int64
reg-unpub-resp-404rx	Total number of "reg" Un-Publish 404 Responses received.	Int64

Statistic	Description	Data Type
reg-unpub-resp-404tx	Total number of “reg” Un-Publish 404 Responses transmitted.	Int64
reg-unpub-resp-412rx	Total number of “reg” Un-Publish 412 Responses received.	Int64
reg-unpub-resp-412tx	Total number of “reg” Un-Publish 412 Responses transmitted.	Int64
reg-unpub-resp-423rx	Total number of “reg” Un-Publish 423 Responses received.	Int64
reg-unpub-resp-423tx	Total number of “reg” Un-Publish 423 Responses transmitted.	Int64
reg-unpub-resp-489rx	Total number of “reg” Un-Publish 489 Responses received.	Int64
reg-unpub-resp-489tx	Total number of “reg” Un-Publish 489 Responses transmitted.	Int64
reg-unpub-resp-4xxrx	Total number of “reg” Un-Publish 4XX Responses received.	Int64
reg-unpub-resp-4xxtx	Total number of “reg” Un-Publish 4XX Responses transmitted.	Int64
reg-unpub-resp-500rx	Total number of “reg” Un-Publish 500 Responses received.	Int64
reg-unpub-resp-500tx	Total number of “reg” Un-Publish 500 Responses transmitted.	Int64
reg-unpub-resp-503rx	Total number of “reg” Un-Publish 503 Responses received.	Int64
reg-unpub-resp-503tx	Total number of “reg” Un-Publish 503 Responses transmitted.	Int64
reg-unpub-resp-5xxrx	Total number of “reg” Un-Publish 5XX Responses received.	Int64
reg-unpub-resp-5xxtx	Total number of “reg” Un-Publish 5XX Responses transmitted.	Int64
reg-unpub-resp-6xxrx	Total number of “reg” Un-Publish 6XX Responses received.	Int64
reg-unpub-resp-6xxtx	Total number of “reg” Un-Publish 6XX Responses transmitted.	Int64
winfo-sub-attrx	Total number of “winfo” Subscription Attempts received.	Int64
winfo-sub-atttx	Total number of “winfo” Subscription Attempts transmitted.	Int64
winfo-sub-succrx	Total number of “winfo” Subscription Successes received.	Int64
winfo-sub-succtx	Total number of “winfo” Subscription Successes transmitted.	Int64
winfo-sub-failrx	Total number of “winfo” Subscription Failures received.	Int64
winfo-sub-failtx	Total number of “winfo” Subscription Failures transmitted.	Int64
winfo-sub-resp-200rx	Total number of “winfo” Subscription 200 Responses received.	Int64
winfo-sub-resp-200tx	Total number of “winfo” Subscription 200 Responses transmitted.	Int64
winfo-sub-resp-202rx	Total number of “winfo” Subscription 202 Responses received.	Int64
winfo-sub-resp-202tx	Total number of “winfo” Subscription 202 Responses transmitted.	Int64
winfo-sub-resp-400rx	Total number of “winfo” Subscription 400 Responses received.	Int64
winfo-sub-resp-400tx	Total number of “winfo” Subscription 400 Responses transmitted.	Int64
winfo-sub-resp-403rx	Total number of “winfo” Subscription 403 Responses received.	Int64
winfo-sub-resp-403tx	Total number of “winfo” Subscription 403 Responses transmitted.	Int64
winfo-sub-resp-481rx	Total number of “winfo” Subscription 481 Responses received.	Int64

Statistic	Description	Data Type
winfo-subscription-481tx	Total number of “winfo” Subscription 481 Responses transmitted.	Int64
winfo-subscription-489rx	Total number of “winfo” Subscription 489 Responses received.	Int64
winfo-subscription-489tx	Total number of “winfo” Subscription 489 Responses transmitted.	Int64
winfo-subscription-500rx	Total number of “winfo” Subscription 500 Responses received.	Int64
winfo-subscription-500tx	Total number of “winfo” Subscription 500 Responses transmitted.	Int64
winfo-subscription-3xxrx	Total number of “winfo” Subscription 3XX Responses received.	Int64
winfo-subscription-3xxtx	Total number of “winfo” Subscription 3XX Responses transmitted.	Int64
winfo-subscription-4xxrx	Total number of “winfo” Subscription 4XX Responses received.	Int64
winfo-subscription-4xxtx	Total number of “winfo” Subscription 4XX Responses transmitted.	Int64
winfo-subscription-5xxrx	Total number of “winfo” Subscription 5XX Responses received.	Int64
winfo-subscription-5xxtx	Total number of “winfo” Subscription 5XX Responses transmitted.	Int64
winfo-subscription-6xxrx	Total number of “winfo” Subscription 6XX Responses received.	Int64
winfo-subscription-6xxtx	Total number of “winfo” Subscription 6XX Responses transmitted.	Int64
winfo-resubscription-attemptrx	Total number of “winfo” Refresh Subscription Attempts received.	Int64
winfo-resubscription-attempttx	Total number of “winfo” Refresh Subscription Attempts transmitted.	Int64
winfo-resubscription-successrx	Total number of “winfo” Refresh Subscription Successes received.	Int64
winfo-resubscription-successtx	Total number of “winfo” Refresh Subscription Successes transmitted.	Int64
winfo-resubscription-failurerx	Total number of “winfo” Refresh Subscription Failures received.	Int64
winfo-resubscription-failuretx	Total number of “winfo” Refresh Subscription Failures transmitted.	Int64
winfo-resubscription-200rx	Total number of “winfo” Refresh Subscription 200 Responses received.	Int64
winfo-resubscription-200tx	Total number of “winfo” Refresh Subscription 200 Responses transmitted.	Int64
winfo-resubscription-202rx	Total number of “winfo” Refresh Subscription 202 Responses received.	Int64
winfo-resubscription-202tx	Total number of “winfo” Refresh Subscription 202 Responses transmitted.	Int64
winfo-resubscription-400rx	Total number of “winfo” Refresh Subscription 400 Responses received.	Int64
winfo-resubscription-400tx	Total number of “winfo” Refresh Subscription 400 Responses transmitted.	Int64
winfo-resubscription-403rx	Total number of “winfo” Refresh Subscription 403 Responses received.	Int64
winfo-resubscription-403tx	Total number of “winfo” Refresh Subscription 403 Responses transmitted.	Int64
winfo-resubscription-481rx	Total number of “winfo” Refresh Subscription 481 Responses received.	Int64
winfo-resubscription-481tx	Total number of “winfo” Refresh Subscription 481 Responses transmitted.	Int64
winfo-resubscription-489rx	Total number of “winfo” Refresh Subscription 489 Responses received.	Int64
winfo-resubscription-489tx	Total number of “winfo” Refresh Subscription 489 Responses transmitted.	Int64
winfo-resubscription-500rx	Total number of “winfo” Refresh Subscription 500 Responses received.	Int64

Statistic	Description	Data Type
winfo-resubs-resp-500rx	Total number of "winfo" Refresh Subscription 500 Responses received.	Int64
winfo-resubs-resp-500tx	Total number of "winfo" Refresh Subscription 500 Responses transmitted.	Int64
winfo-resubs-resp-3xxrx	Total number of "winfo" Refresh Subscription 3XX Responses received.	Int64
winfo-resubs-resp-3xxtx	Total number of "winfo" Refresh Subscription 3XX Responses transmitted.	Int64
winfo-resubs-resp-4xxrx	Total number of "winfo" Refresh Subscription 4XX Responses received.	Int64
winfo-resubs-resp-4xxtx	Total number of "winfo" Refresh Subscription 4XX Responses transmitted.	Int64
winfo-resubs-resp-5xxrx	Total number of "winfo" Refresh Subscription 5XX Responses received.	Int64
winfo-resubs-resp-5xxtx	Total number of "winfo" Refresh Subscription 5XX Responses transmitted.	Int64
winfo-resubs-resp-6xxrx	Total number of "winfo" Refresh Subscription 6XX Responses received.	Int64
winfo-resubs-resp-6xxtx	Total number of "winfo" Refresh Subscription 6XX Responses transmitted.	Int64
winfo-unsubs-atrrx	Total number of "winfo" Un-Subscription Attempts received.	Int64
winfo-unsubs-atttx	Total number of "winfo" Un-Subscription Attempts transmitted.	Int64
winfo-unsubs-succrx	Total number of "winfo" Un-Subscription Successes received.	Int64
winfo-unsubs-succtx	Total number of "winfo" Un-Subscription Successes transmitted.	Int64
winfo-unsubs-failrx	Total number of "winfo" Un-Subscription Failures received.	Int64
winfo-unsubs-failtx	Total number of "winfo" Un-Subscription Failures transmitted.	Int64
winfo-unsubs-resp-200rx	Total number of "winfo" Un-Subscription 200 Responses received.	Int64
winfo-unsubs-resp-200tx	Total number of "winfo" Un-Subscription 200 Responses transmitted.	Int64
winfo-unsubs-resp-202rx	Total number of "winfo" Un-Subscription 202 Responses received.	Int64
winfo-unsubs-resp-202tx	Total number of "winfo" Un-Subscription 202 Responses transmitted.	Int64
winfo-unsubs-resp-400rx	Total number of "winfo" Un-Subscription 400 Responses received.	Int64
winfo-unsubs-resp-400tx	Total number of "winfo" Un-Subscription 400 Responses transmitted.	Int64
winfo-unsubs-resp-403rx	Total number of "winfo" Un-Subscription 403 Responses received.	Int64
winfo-unsubs-resp-403tx	Total number of "winfo" Un-Subscription 403 Responses transmitted.	Int64
winfo-unsubs-resp-481rx	Total number of "winfo" Un-Subscription 481 Responses received.	Int64
winfo-unsubs-resp-481tx	Total number of "winfo" Un-Subscription 481 Responses transmitted.	Int64
winfo-unsubs-resp-489rx	Total number of "winfo" Un-Subscription 489 Responses received.	Int64
winfo-unsubs-resp-489tx	Total number of "winfo" Un-Subscription 489 Responses transmitted.	Int64
winfo-unsubs-resp-500rx	Total number of "winfo" Un-Subscription 500 Responses received.	Int64
winfo-unsubs-resp-500tx	Total number of "winfo" Un-Subscription 500 Responses transmitted.	Int64
winfo-unsubs-resp-3xxrx	Total number of "winfo" Un-Subscription 3XX Responses received.	Int64
winfo-unsubs-resp-3xxtx	Total number of "winfo" Un-Subscription 3XX Responses transmitted.	Int64
winfo-unsubs-resp-4xxrx	Total number of "winfo" Un-Subscription 4XX Responses received.	Int64

Statistic	Description	Data Type
winfo-unsubs-resp-4xxtx	Total number of “winfo” Un-Subscription 4XX Responses transmitted.	Int64
winfo-unsubs-resp-5xxrx	Total number of “winfo” Un-Subscription 5XX Responses received.	Int64
winfo-unsubs-resp-5xxtx	Total number of “winfo” Un-Subscription 5XX Responses transmitted.	Int64
winfo-unsubs-resp-6xxrx	Total number of “winfo” Un-Subscription 6XX Responses received.	Int64
winfo-unsubs-resp-6xxtx	Total number of “winfo” Un-Subscription 6XX Responses transmitted.	Int64
winfo-notify-atrx	Total number of “winfo” Notify Attempts received.	Int64
winfo-notify-attx	Total number of “winfo” Notify Attempts transmitted.	Int64
winfo-notify-succrx	Total number of “winfo” Notify Successes received.	Int64
winfo-notify-succtx	Total number of “winfo” Notify Successes transmitted.	Int64
winfo-notify-failrx	Total number of “winfo” Notify Failures received.	Int64
winfo-notify-failtx	Total number of “winfo” Notify Failures transmitted.	Int64
winfo-notify-resp-3xxrx	Total number of “winfo” Notify 3XX Responses received.	Int64
winfo-notify-resp-3xxtx	Total number of “winfo” Notify 3XX Responses transmitted.	Int64
winfo-notify-resp-400rx	Total number of “winfo” Notify 400 Responses received.	Int64
winfo-notify-resp-400tx	Total number of “winfo” Notify 400 Responses transmitted.	Int64
winfo-notify-resp-481rx	Total number of “winfo” Notify 481 Responses received.	Int64
winfo-notify-resp-481tx	Total number of “winfo” Notify 481 Responses transmitted.	Int64
winfo-notify-resp-489rx	Total number of “winfo” Notify 489 Responses received.	Int64
winfo-notify-resp-489tx	Total number of “winfo” Notify 489 Responses transmitted.	Int64
winfo-notify-resp-4xxrx	Total number of “winfo” Notify 4XX Responses received.	Int64
winfo-notify-resp-4xxtx	Total number of “winfo” Notify 4XX Responses transmitted.	Int64
winfo-notify-resp-500rx	Total number of “winfo” Notify 500 Responses received.	Int64
winfo-notify-resp-500tx	Total number of “winfo” Notify 500 Responses transmitted.	Int64
winfo-notify-resp-5xxrx	Total number of “winfo” Notify 5XX Responses received.	Int64
winfo-notify-resp-5xxtx	Total number of “winfo” Notify 5XX Responses transmitted.	Int64
winfo-notify-resp-6xxrx	Total number of “winfo” Notify 6XX Responses received.	Int64
winfo-notify-resp-6xxtx	Total number of “winfo” Notify 6XX Responses transmitted.	Int64
winfo-pub-atrx	Total number of “winfo” Publish Attempts received.	Int64
winfo-pub-attx	Total number of “winfo” Publish Attempts transmitted.	Int64
winfo-pub-succrx	Total number of “winfo” Publish Successes received.	Int64
winfo-pub-succtx	Total number of “winfo” Publish Successes transmitted.	Int64
winfo-pub-failrx	Total number of “winfo” Publish Failures received.	Int64

Statistic	Description	Data Type
winfo-pub-failtx	Total number of “winfo” Publish Failures transmitted.	Int64
winfo-pub-resp-3xxrx	Total number of “winfo” Publish 3XX Responses received.	Int64
winfo-pub-resp-3xxtx	Total number of “winfo” Publish 3XX Responses transmitted.	Int64
winfo-pub-resp-400rx	Total number of “winfo” Publish 400 Responses received.	Int64
winfo-pub-resp-400tx	Total number of “winfo” Publish 400 Responses transmitted.	Int64
winfo-pub-resp-404rx	Total number of “winfo” Publish 404 Responses received.	Int64
winfo-pub-resp-404tx	Total number of “winfo” Publish 404 Responses transmitted.	Int64
winfo-pub-resp-412rx	Total number of “winfo” Publish 412 Responses received.	Int64
winfo-pub-resp-412tx	Total number of “winfo” Publish 412 Responses transmitted.	Int64
winfo-pub-resp-423rx	Total number of “winfo” Publish 423 Responses received.	Int64
winfo-pub-resp-423tx	Total number of “winfo” Publish 423 Responses transmitted.	Int64
winfo-pub-resp-489rx	Total number of “winfo” Publish 489 Responses received.	Int64
winfo-pub-resp-489tx	Total number of “winfo” Publish 489 Responses transmitted.	Int64
winfo-pub-resp-4xxrx	Total number of “winfo” Publish 4XX Responses received.	Int64
winfo-pub-resp-4xxtx	Total number of “winfo” Publish 4XX Responses transmitted.	Int64
winfo-pub-resp-500rx	Total number of “winfo” Publish 500 Responses received.	Int64
winfo-pub-resp-500tx	Total number of “winfo” Publish 500 Responses transmitted.	Int64
winfo-pub-resp-503rx	Total number of “winfo” Publish 503 Responses received.	Int64
winfo-pub-resp-503tx	Total number of “winfo” Publish 503 Responses transmitted.	Int64
winfo-pub-resp-5xxrx	Total number of “winfo” Publish 5XX Responses received.	Int64
winfo-pub-resp-5xxtx	Total number of “winfo” Publish 5XX Responses transmitted.	Int64
winfo-pub-resp-6xxrx	Total number of “winfo” Publish 6XX Responses received.	Int64
winfo-pub-resp-6xxtx	Total number of “winfo” Publish 6XX Responses transmitted.	Int64
winfo-unpub-attrx	Total number of “winfo” Un-Publish Attempts received.	Int64
winfo-unpub-atttx	Total number of “winfo” Un-Publish Attempts transmitted.	Int64
winfo-unpub-succrx	Total number of “winfo” Un-Publish Successes received.	Int64
winfo-unpub-succtx	Total number of “winfo” Un-Publish Successes transmitted.	Int64
winfo-unpub-failrx	Total number of “winfo” Un-Publish Failures received.	Int64
winfo-unpub-failtx	Total number of “winfo” Un-Publish Failures transmitted.	Int64
winfo-unpub-resp-3xxrx	Total number of “winfo” Un-Publish 3XX Responses received.	Int64
winfo-unpub-resp-3xxtx	Total number of “winfo” Un-Publish 3XX Responses transmitted.	Int64
winfo-unpub-resp-400rx	Total number of “winfo” Un-Publish 400 Responses received.	Int64

Statistic	Description	Data Type
winfo-unpub-resp-400tx	Total number of “winfo” Un-Publish 400 Responses transmitted.	Int64
winfo-unpub-resp-404rx	Total number of “winfo” Un-Publish 404 Responses received.	Int64
winfo-unpub-resp-404tx	Total number of “winfo” Un-Publish 404 Responses transmitted.	Int64
winfo-unpub-resp-412rx	Total number of “winfo” Un-Publish 412 Responses received.	Int64
winfo-unpub-resp-412tx	Total number of “winfo” Un-Publish 412 Responses transmitted.	Int64
winfo-unpub-resp-423rx	Total number of “winfo” Un-Publish 423 Responses received.	Int64
winfo-unpub-resp-423tx	Total number of “winfo” Un-Publish 423 Responses transmitted.	Int64
winfo-unpub-resp-489rx	Total number of “winfo” Un-Publish 489 Responses received.	Int64
winfo-unpub-resp-489tx	Total number of “winfo” Un-Publish 489 Responses transmitted.	Int64
winfo-unpub-resp-4xxrx	Total number of “winfo” Un-Publish 4XX Responses received.	Int64
winfo-unpub-resp-4xxtx	Total number of “winfo” Un-Publish 4XX Responses transmitted.	Int64
winfo-unpub-resp-500rx	Total number of “winfo” Un-Publish 500 Responses received.	Int64
winfo-unpub-resp-500tx	Total number of “winfo” Un-Publish 500 Responses transmitted.	Int64
winfo-unpub-resp-503rx	Total number of “winfo” Un-Publish 503 Responses received.	Int64
winfo-unpub-resp-503tx	Total number of “winfo” Un-Publish 503 Responses transmitted.	Int64
winfo-unpub-resp-5xxrx	Total number of “winfo” Un-Publish 5XX Responses received.	Int64
winfo-unpub-resp-5xxtx	Total number of “winfo” Un-Publish 5XX Responses transmitted.	Int64
winfo-unpub-resp-6xxrx	Total number of “winfo” Un-Publish 6XX Responses received.	Int64
winfo-unpub-resp-6xxtx	Total number of “winfo” Un-Publish 6XX Responses transmitted.	Int64
message-attrx	Total number of Message attempts received.	Int32
message-atttx	Total number of Message attempts transmitted.	Int32
message-succrx	Total number of Message success received.	Int32
message-succtx	Total number of Message success transmitted.	Int32
message-failrx	Total number of Message failures received.	Int32
message-failtx	Total number of Message failures transmitted.	Int32
message-3xx-rx	Total number of Message 3xx Responses received.	Int32
message-3xx-tx	Total number of Message 3xx Responses transmitted.	Int32
message-400-rx	Total number of Message 400 Responses received.	Int32
message-400-tx	Total number of Message 400 Responses transmitted.	Int32
message-403-rx	Total number of Message 403 Responses received.	Int32
message-403-tx	Total number of Message 403 Responses transmitted.	Int32
message-404-rx	Total number of Message 404 Responses received.	Int32

Statistic	Description	Data Type
message-404-tx	Total number of Message 404 Responses transmitted.	Int32
message-415-rx	Total number of Message 415 Responses received.	Int32
message-415-tx	Total number of Message 415 Responses transmitted.	Int32
message-416-rx	Total number of Message 416 Responses received.	Int32
message-416-tx	Total number of Message 416 Responses transmitted.	Int32
message-420-rx	Total number of Message 420 Responses received.	Int32
message-420-tx	Total number of Message 420 Responses transmitted.	Int32
message-421-rx	Total number of Message 421 Response received.	Int32
message-421-tx	Total number of Message 421 Responses transmitted.	Int32
message-480-rx	Total number of Message 480 Responses received.	Int32
message-480-tx	Total number of Message 480 Responses transmitted.	Int32
message-488-rx	Total number of Message 488 Responses received.	Int32
message-488-tx	Total number of Message 488 Responses transmitted.	Int32
message-4xx-rx	Total number of Message 4xx Responses received.	Int32
message-4xx-tx	Total number of Message 4xx Responses transmitted.	Int32
message-500-rx	Total number of Message 500 Responses received.	Int32
message-500-tx	Total number of Message 500 Responses transmitted.	Int32
message-513-rx	Total number of Message 513 Responses received.	Int32
message-513-tx	Total number of Message 513 Responses transmitted.	Int32
message-5xx-rx	Total number of Message 5xx Responses received.	Int32
message-5xx-tx	Total number of Message 5xx Responses transmitted.	Int32
message-6xx-rx	Total number of Message 6xx Responses received.	Int32
message-6xx-tx	Total number of Total Message 6xx Responses transmitted.	Int32
callrejpdf	Total number of Call Rejects from PDF.	Int64
callrejloc	Total number of Call Rejects from Proxy (local).	Int64
sesstimeexp	Total number of Session Timer Expires.	Int64
hssacc	Total number of HSS Accesses.	Int64
emergcalls	Total number of Emergency Calls.	Int64
tollfreecalls	Total number of Toll Free Calls.	Int64
premservcalls	Total number of Premium Service Calls.	Int64
internationalcalls	Total number of International Calls.	Int64
longDistancecalls	Total number of Long Distance Calls.	Int64

## Common Statistics

Statistic	Description	Data Type
opassistcalls	Total number of Operator Assisted Calls.	Int64
dirassistcalls	Total number of Directory Assisted Calls.	Int64
largerthansipmaxsize	Total number of Too Large SIP Messages.	Int64
rtp-sent	Total number of RTP packets sent.	Int64
rtp-recv	Total number of RTP packets received.	Int64
callrel-from-ue	Total number of Call Releases initiated by UE.	Int64
callrel-from-nw	Total number of Call Releases initiated by Network.	Int64
callrel-from-radioloss	Total number of Call Releases initiated by Radio Loss.	Int64
callrel-from-local	Total number of Call Releases initiated by CSCF (Local).	Int64
sigcomp-req-comp	Total number of Requests Compressed.	Int64
sigcomp-req-decomp	Total number of Requests Decompressed.	Int64
sigcomp-resp-comp	Total number of Responses Compressed.	Int64
sigcomp-resp-decomp	Total number of Responses Decompressed.	Int64
sigcomp-nack-rx	Total number of NACK Packets received.	Int64
sigcomp-nack-tx	Total number of NACK Packets transmitted.	Int64
sigcomp-comp-fail	Total number of Compression Failures.	Int64
sigcomp-decomp-fail	Total number of Decompression Failures.	Int64
sigcomp-bestout-compratio	Best Outgoing Message Compression Ratio	Float
sigcomp-worstout-compratio	Worst Outgoing Message Compression Ratio	Float
sigcomp-bestin-compratio	Best Incoming Message Compression Ratio	Float
sigcomp-worstin-compratio	Worst Incoming Message Compression Ratio	Float
sigcomp-averagein-compratio	Average Incoming Message Compression Ratio	Float
sigcomp-averageout-compratio	Average Outgoing Message Compression Ratio	Float
min-invite-proc-time	Minimum Invite Process Time	Int32
max-invite-proc-time	Maximum Invite Process Timer	Int32
min-first-resp-time	Minimum First Response Time	Int32
max-first-resp-time	Maximum First Response Time	Int32
min-post-dial-delay	Minimum Post-Dial Delay	Int32

Statistic	Description	Data Type
max-post-dial-delay	Maximum Post-Dial Delay	Int32
min-session-setup-delay	Minimum Session Setup Delay	Int32
max-session-setup-delay	Maximum Session Setup Delay	Int32
min-post-answer-delay	Minimum Post Answer Delay	Int32
max-post-answer-delay	Maximum Post Answer Delay	Int32
min-session-rel-delay	Minimum Session Release Delay	Int32
max-session-rel-delay	Maximum Session Release Delay	Int32
active-tcp-conn	Total number of Active TCP connections.	Int64
closed-tcp-conn	Total number of Closed TCP connections.	Int64
succ-tcp-conn-out	Total number of Successful Outgoing connections.	Int64
fail-tcp-conn-out	Total number of Failed Outgoing connections.	Int64
succ-tcp-conn-in	Total number of Successful Incoming connections.	Int64
fail-tcp-conn-in	Total number of Failed Incoming connections.	Int64
migrated-tcp-conn	Total number of TCP connections migrated from Cscfmgtr to Sessmgr for load balancing.	Int64
packet-tcp-rx	Total number of TCP/IP packets received by CSCF service.	Int64
packet-tcp-tx	Total number of TCP/IP packets transmitted by CSCF service.	Int64
bytes-tcp-rx	Total number of TCP/IP bytes received by CSCF service.	Int64
bytes-tcp-tx	Total number of TCP/IP bytes transmitted by CSCF service.	Int64
message-tcp-request-rx	Total number of TCP requests received over TCP.	Int64
message-tcp-request-tx	Total number of TCP requests transmitted over TCP.	Int64
message-tcp-response-rx	Total number of TCP responses received over TCP.	Int64
message-tcp-response-tx	Total number of TCP responses transmitted over TCP.	Int64
message-tcp-mtu-switch	Total number of times CSCF switched from UDP to TCP because of message size larger than MTU.	Int64
reg-rejdueto-secagree	Total number of Registration Rejects due to Security Agreement	Int64
reg-rejdueto- algomismatch	Total number of Registration Rejects due to Algorithm Mismatch	Int64
msg-drops-duetoerror	Total number of Message drops due to error.	Int64
sec-rereg	Total number of Secure re-registrations	Int64
sec-dereg	Total number of Secure de-registrations	Int64
msgs-withincorr-sec- verify	Total number of Messages with Incorrect security Verify	Int64

Statistic	Description	Data Type
sec-assoc-rejects	Total number of Security Associations rejected.	Int64
sub-with-sec-conn	Total number of Subscribers with secure connections.	Int32
sub-with-unsec-conn	Total number of Subscribers with unsecure connections.	Int32
ipsec-pktrx	Total number of IP-Sec Packets received.	Int64
ipsec-pkttx	Total number of IP-Sec Packets transmitted.	Int64
ipsec-octrx	Total number of IP-Sec Octets received.	Int64
ipsec-octtx	Total number of IP-Sec Octets transmitted.	Int64
active-ipsec-tcp-conn	Total number of Active IPSec TCP connections	Int64 Gauge
closed-ipsec-tcp-conn	Total number of Closed IPSec TCP connections	Int64
succ-ipsec-tcp-conn-out	Total number of Successful IPSec Outgoing connections	Int64
fail-ipsec-tcp-conn-out	Total number of Failed IPSec Outgoing connections	Int64
succ-ipsec-tcp-conn-in	Total number of Successful IPSec Incoming connections	Int64
fail-ipsec-tcp-conn-in	Total number of Failed IPSec Incoming connections	Int64
regreqrx	Total number of Register requests received.	Int64
regreqtx	Total number of Register requests transmitted.	Int64
invreqrx	Total number of Invite requests received.	Int64
invreqtx	Total number of Invite requests transmitted.	Int64
ackreqrx	Total number of ACK requests received.	Int64
ackreqtx	Total number of ACK requests transmitted.	Int64
byereqrx	Total number of Bye requests received.	Int64
byereqtx	Total number of Bye requests transmitted.	Int64
cancreqrx	Total number of Cancel requests received.	Int64
cancreqtx	Total number of Cancel requests transmitted.	Int64
optreqrx	Total number of Options requests received.	Int64
optreqtx	Total number of Options requests transmitted.	Int64
prackreqrx	Total number of PRACK requests received.	Int64
prackreqtx	Total number of PRACK requests transmitted.	Int64
subreqrx	Total number of Subscribe requests received.	Int64
subreqtx	Total number of Subscribe requests transmitted.	Int64
notreqrx	Total number of Notify requests received.	Int64
notreqtx	Total number of Notify requests transmitted.	Int64
refreqrx	Total number of Refer requests received.	Int64

Statistic	Description	Data Type
refreqtx	Total number of Refer requests transmitted.	Int64
infoeqrx	Total number of Info requests received.	Int64
infoeqtx	Total number of Info requests transmitted.	Int64
updregrx	Total number of Update requests received.	Int64
updreptx	Total number of Update requests transmitted.	Int64
msgreqrx	Total number of Message requests received.	Int64
msgreqtx	Total number of Message requests transmitted.	Int64
pubreqrx	Total number of Publish requests received.	Int64
pubreqtx	Total number of Publish requests transmitted.	Int64
trysprx	Total number of Trying responses received.	Int64
trysptx	Total number of Trying responses transmitted.	Int64
rngsprx	Total number of Ringing responses received.	Int64
rngsptx	Total number of Ringing responses transmitted.	Int64
fwdrsprx	Total number of Forwarded responses received.	Int64
fwdrsptx	Total number of Forwarded responses transmitted.	Int64
quersprx	Total number of Queued responses received.	Int64
quersptx	Total number of Queued responses transmitted.	Int64
prgrsprx	Total number of Progress responses received.	Int64
prgrsptx	Total number of Progress responses transmitted.	Int64
200-regrsprx	Total number of 200OK Register responses received.	Int64
200-regrsptx	Total number of 200OK Register responses transmitted.	Int64
200-invrspix	Total number of 200OK Invite responses received.	Int64
200-invrspix	Total number of 200OK Invite responses transmitted.	Int64
200-byersprx	Total number of 200OK Bye responses received.	Int64
200-byersptx	Total number of 200OK Bye responses transmitted.	Int64
200-cnlsprx	Total number of 200OK Cancel responses received.	Int64
200-cnlsptx	Total number of 200OK Cancel responses transmitted.	Int64
200-optrsprx	Total number of 200OK Options responses received.	Int64
200-optrsptx	Total number of 200OK Options responses transmitted.	Int64
200-prackrsprx	Total number of 200OK PRACK responses received.	Int64
200-prackrsptx	Total number of 200OK PRACK responses transmitted.	Int64
200-subrsprx	Total number of 200OK Subscribe responses received.	Int64

Statistic	Description	Data Type
200-subrsptx	Total number of 200OK Subscribe responses transmitted.	Int64
200-notrsprx	Total number of 200OK Notify responses received.	Int64
200-notrsptx	Total number of 200OK Notify responses transmitted.	Int64
200-infrsprx	Total number of 200OK Info responses received.	Int64
200-infrsptx	Total number of 200OK Info responses transmitted.	Int64
200-updrsprx	Total number of 200OK Update responses received.	Int64
200-updrsptx	Total number of 200OK Update responses transmitted.	Int64
200-pubrsprx	Total number of 200OK Publish responses received.	Int64
200-pubrsptx	Total number of 200OK Publish responses transmitted.	Int64
200-refrsprx	Total number of 200OK Refer responses received.	Int64
200-refrsptx	Total number of 200OK Refer responses transmitted.	Int64
200-msgrsprx	Total number of 200OK Message responses received.	Int64
200-msgrsptx	Total number of 200OK Message responses transmitted.	Int64
202-refrsprx	Total number of 202Accepted Refer responses received.	Int64
202-refrsptx	Total number of 202Accepted Refer responses transmitted.	Int64
202-subrsprx	Total number of 202Accepted Subscribe responses received.	Int64
202-subrsptx	Total number of 202Accepted Subscribe responses transmitted.	Int64
mchrsprx	Total number of Multiple Choices responses received.	Int64
mchrsptx	Total number of Multiple Choices responses transmitted.	Int64
mpersprx	Total number of Moved Permanently responses received.	Int64
mpersptx	Total number of Moved Permanently responses transmitted.	Int64
mtersprx	Total number of Moved Temporarily responses received.	Int64
mtersptx	Total number of Moved Temporarily responses transmitted.	Int64
upxrsprx	Total number of Use Proxy responses received.	Int64
upxrsptx	Total number of Use Proxy responses transmitted.	Int64
altrsprx	Total number of Alternative Service responses received.	Int64
altrsptx	Total number of Alternative Service responses transmitted.	Int64
brqerrrx	Total number of BadRequest errors received.	Int64
brqerrtx	Total number of BadRequest errors transmitted.	Int64
uauerrrx	Total number of Unauthorized errors received.	Int64
uauerrtx	Total number of Unauthorized errors transmitted.	Int64
prerrrx	Total number of Payment Required Errors received.	Int64

Statistic	Description	Data Type
prerrtx	Total number of Payment Required Errors transmitted.	Int64
forerrrx	Total number of Forbidden errors received.	Int64
forerrtx	Total number of Forbidden errors transmitted.	Int64
nfderrrx	Total number of NotFound errors received.	Int64
nfderrtx	Total number of NotFound errors transmitted.	Int64
mnaerrrx	Total number of MethodNotAllowed errors received.	Int64
mnaerrtx	Total number of MethodNotAllowed errors transmitted.	Int64
nac406errrx	Total number of NotAcceptable(406) errors received.	Int64
nac406errtx	Total number of NotAcceptable(406) errors transmitted.	Int64
parerrrx	Total number of ProxyAuthRequired errors received.	Int64
parerrtx	Total number of ProxyAuthRequired errors transmitted.	Int64
rtoerrrx	Total number of RequestTimeout errors received.	Int64
rtoerrtx	Total number of RequestTimeout errors transmitted.	Int64
conferrrx	Total number of Conflict Errors received.	Int64
conferrtx	Total number of Conflict Errors transmitted.	Int64
lrerrrx	Total number of Length Required Errors received.	Int64
lrerrtx	Total number of Length Required Errors transmitted.	Int64
gonerrrx	Total number of Gone errors received.	Int64
gonerrtx	Total number of Gone errors transmitted.	Int64
crferrrx	Total number of ConditionalRequestFail errors received.	Int64
crferrtx	Total number of ConditionalRequestFail errors transmitted.	Int64
relerrrx	Total number of RequestEntityTooLarge errors received.	Int64
relerrtx	Total number of RequestEntityTooLarge errors transmitted.	Int64
rulerrrx	Total number of RequestURITooLong errors received.	Int64
rulerrtx	Total number of RequestURITooLong errors transmitted.	Int64
umterrxx	Total number of UnsupportedMediaType errors received.	Int64
umterrxx	Total number of UnsupportedMediaType errors transmitted.	Int64
uuserrrx	Total number of Unsupported URI Scheme errors received.	Int64
uuserrrtx	Total number of Unsupported URI Scheme errors transmitted.	Int64
bexerrrx	Total number of BadExtension errors received.	Int64
bexerrtx	Total number of BadExtension errors transmitted.	Int64
exrerrrx	Total number of Extension Required errors received.	Int64

Statistic	Description	Data Type
exrerrtx	Total number of Extension Required errors transmitted.	Int64
sitserrrx	Total number of Session Interval Too Small errors received	Int64
sitserrtx	Total number of Session Interval Too Small errors transmitted	Int64
itberrrx	Total number of Interval Too Brief errors received.	Int64
itberrtx	Total number of Interval Too Brief errors transmitted.	Int64
blierrrx	Total number of Bad Location Information errors received.	Int64
blierrtx	Total number of Bad Location Information errors transmitted.	Int64
tnaerrrx	Total number of TempNotAvailable errors received.	Int64
tnaerrtx	Total number of TempNotAvailable errors transmitted.	Int64
tdnerrrx	Total number of Transaction Does Not Exist errors received.	Int64
tdnerrtx	Total number of Transaction Does Not Exist errors transmitted.	Int64
ldterrrx	Total number of LoopDetected errors received.	Int64
ldterrtx	Total number of LoopDetected errors transmitted.	Int64
tmherrrx	Total number of TooManyHops errors received.	Int64
tmherrtx	Total number of TooManyHops errors transmitted.	Int64
adierrrx	Total number of AddrIncomplete errors received.	Int64
adierrtx	Total number of AddrIncomplete errors transmitted.	Int64
amberrrx	Total number of Ambiguous errors received.	Int64
amberrtx	Total number of Ambiguous errors transmitted.	Int64
bhrerrrx	Total number of BusyHere errors received.	Int64
bhrerrtx	Total number of BusyHere errors transmitted.	Int64
rqcerrrx	Total number of RequestCancel errors received.	Int64
rqcerrtx	Total number of RequestCancel errors transmitted.	Int64
namerrrx	Total number of NotAcceptableMedia errors received.	Int64
namerrtx	Total number of NotAcceptableMedia errors transmitted.	Int64
beerrrx	Total number of Bad Event errors received.	Int64
beerrtx	Total number of Bad Event errors transmitted.	Int64
trperrrx	Total number of Request Pending errors received.	Int64
trperrtx	Total number of Request Pending errors transmitted.	Int64
udperrrx	Total number of Undecipherable errors received.	Int64
udperrtx	Total number of Undecipherable errors transmitted.	Int64
sarerrrx	Total number of sec-agree Required Errors received.	Int64

Statistic	Description	Data Type
sarerrtx	Total number of Sec-agree Required Errors transmitted.	Int64
ineerrrx	Total number of InternalError errors received.	Int64
ineerrtx	Total number of InternalError errors transmitted.	Int64
nimerrrx	Total number of NotImplemented errors received.	Int64
nimerrtx	Total number of NotImplemented errors transmitted.	Int64
bgterrrx	Total number of BadGateway errors received.	Int64
bgterrtx	Total number of BadGateway errors transmitted.	Int64
suaerrrx	Total number of ServiceUnavailable errors received.	Int64
suaerrtx	Total number of ServiceUnavailable errors transmitted.	Int64
gtterrrx	Total number of GatewayTimeout errors received.	Int64
gtterrtx	Total number of GatewayTimeout errors transmitted.	Int64
bsverrrx	Total number of BadSipVersion errors received.	Int64
bsverrtx	Total number of BadSipVersion errors transmitted.	Int64
mtlerrrx	Total number of Message Too Large errors received.	Int64
mtlerrtx	Total number of Message Too Large errors transmitted.	Int64
pcferrrx	Total number of Precondition Failure errors received.	Int64
pcferrtx	Total number of Precondition Failure errors transmitted.	Int64
bewerrrx	Total BusyEverywhere errors received. Total number of	Int64
bewerrtx	Total number of BusyEverywhere errors transmitted.	Int64
decerrrx	Total number of Decline errors received.	Int64
decerrtx	Total number of Decline errors transmitted.	Int64
neaerrrx	Total number of NotExistAnywhere errors received.	Int64
neaerrtx	Total number of NotExistAnywhere errors transmitted.	Int64
nac606errrx	Total number of NotAcceptable(606) errors received.	Int64
nac606errtx	Total number of NotAcceptable(606) errors transmitted.	Int64
callsetuptime	Sum of setup times – For calculating average call setup time.	Int64
callscounted	Total number of calls, for which setup time is added in setup times.	Int64
tot-sip-invalid-msgs-rx	Total number of SIP Invalid Messages received.	Int64
tot-sip-msgs-rx	Total number of SIP Messages received.	Int64
tot-sip-msgs-tx	Total number of SIP Messages transmitted.	Int64
tot-sip-msgs-proc	Total number of SIP Messages Processed.	Int64
regreqretx	Total number of REGISTER Requests Re-transmitted.	Int64

Statistic	Description	Data Type
invreqretx	Total number of INVITE Requests Re-transmitted.	Int64
byereqretx	Total number of BYE Requests Re-transmitted.	Int64
cancreqretx	Total number of CANCEL Requests Re-transmitted.	Int64
ackreqretx	Total number of ACK Requests Re-Transmitted	Int64
notifyreqretx	Total number of NOTIFY Requests Re-Transmitted	Int64
publishreqretx	Total number of PUBLISH Requests Re-Transmitted	Int64
referreqretx	Total number of REFER Requests Re-Transmitted	Int64
subscribereqretx	Total number of SUBSCRIBE Requests Re-Transmitted	Int64
req-retx	Total number of SIP Requests Re-transmitted.	Int64
resp-retx	Total number of SIP Responses Re-Transmitted.	Int64
reqresp-retx	Total number of SIP messages Re-transmitted.	Int64
subsetup<200ms	Total number of subscriptions setup in less than 200 milliseconds.	Int32
subsetup200-400ms	Total number of subscriptions setup in 200 to 400 milliseconds.	Int32
subsetup400-600ms	Total number of subscriptions setup in 400 to 600 milliseconds.	Int32
subsetup600-800ms	Total number of subscriptions setup in 600 to 800 milliseconds.	Int32
subsetup800-1000ms	Total number of subscriptions setup in 800 to 1000 milliseconds.	Int32
subsetup1000-1200ms	Total number of subscriptions setup in 1000 to 1200 milliseconds.	Int32
subsetup1200-1400ms	Total number of subscriptions setup in 1200 to 1400 milliseconds.	Int32
subsetup1400-1600ms	Total number of subscriptions setup in 1400 to 1600 milliseconds.	Int32
subsetup1600-1800ms	Total number of subscriptions setup in 1600 to 1800 milliseconds.	Int32
subsetup1800-2000ms	Total number of subscriptions setup in 1800 to 2000 milliseconds.	Int32
subsetup2000-2200ms	Total number of subscriptions setup in 2000 to 2200 milliseconds.	Int32
subsetup2200-2400ms	Total number of subscriptions setup in 2200 to 2400 milliseconds.	Int32
subsetup2400-2600ms	Total number of subscriptions setup in 2400 to 2600 milliseconds.	Int32
subsetup2600-2800ms	Total number of subscriptions setup in 2600 to 2800 milliseconds.	Int32
subsetup2800-3000ms	Total number of subscriptions setup in 2800 to 3000 milliseconds.	Int32
subsetup3-5sec	Total number of subscriptions setup in 3 to 5 seconds.	Int32
subsetup5-7sec	Total number of subscriptions setup in 5 to 7 seconds.	Int32
subsetup7-9sec	Total number of subscriptions setup in 7 to 9 seconds.	Int32
subsetup9-11sec	Total number of subscriptions setup in 9 to 11 seconds.	Int32
subsetup11-13sec	Total number of subscriptions setup in 11 to 13 seconds.	Int32
subsetup13-15sec	Total number of subscriptions setup in 13 to 15 seconds.	Int32

Statistic	Description	Data Type
subsetup15-17sec	Total number of subscriptions setup in 15 to 17 seconds.	Int32
subsetup17-19sec	Total number of subscriptions setup in 17 to 19 seconds.	Int32
subsetup19-21sec	Total number of subscriptions setup in 19 to 21 seconds.	Int32
subsetup>21sec	Total number of subscriptions setup in more than 21 seconds.	Int32
subdur<1hr	Total number of subscription duration less than 1 hour.	Int32
subdur1-2hr	Total number of subscription duration 1 to 2 hours.	Int32
subdur2-3hr	Total number of subscription duration 2 to 3 hours.	Int32
subdur3-4hr	Total number of subscription duration 3 to 4 hours.	Int32
subdur4-5hr	Total number of subscription duration 4 to 5 hours.	Int32
subdur5-6hr	Total number of subscription duration 5 to 6 hours.	Int32
subdur6-7hr	Total number of subscription duration 6 to 7 hours.	Int32
subdur7-8hr	Total number of subscription duration 7 to 8 hours.	Int32
subdur8-9hr	Total number of subscription duration 8 to 9 hours.	Int32
subdur9-10hr	Total number of subscription duration 9 to 10 hours.	Int32
subdur>10hr	Total number of subscription duration more than 10 hours.	Int32
curr-reg-subs	Total number of currently registered users.	Int64
active-reg-subs	Total number of active registered users.	Int64
curr-sigcomp-subs	Total number of currently registered SIGCOMP users.	Int64
active-sigcomp-subs	Total number of active registered SIGCOMP users.	Int64
curr-ipsec-subs	Total number of currently registered IPSEC users.	Int64
active-ipsec-subs	Total number of active registered IPSEC users.	Int64
active-voip-subs	Active registered VOIP users.	Int64
curr-presence-subs	Total number of currently registered PRESENCE users.	Int64
active-presence-subs	Total number of active registered PRESENCE users.	Int64
active-im-subs	Total number of active registered IM users.	Int64
dpeca-curr-sessions	The total number of DPECA sessions currently active.	Int32
dpeca-tot-sess-init	Total number of DPECA sessions initiated by sending AAR Initial Request message.	Int32
dpeca-tot-sess-terminated	Total number of terminated DPECA sessions.	Int32
dpeca-tot-sess-failovers	Total number of peer-switches attempted.	Int32
dpeca-tot-sess-failover-err	Total number of peer-switches failed.	Int32
dpeca-tot-msg-received	Total number of messages received.	Int32

Statistic	Description	Data Type
dpeca-tot-msg-sent	Total number of messages sent.	Int32
dpeca-tot-aar-sent	Total number of AAR request messages sent from DPECA module.	Int32
dpeca-tot-aaa-received	Total number of AAA answer messages received.	Int32
dpeca-tot-uncorr-aaa	Total number of Uncorrelated AAA messages.	Int32
dpeca-tot-uncorr-sta	Total number of Uncorrelated STA messages.	Int32
dpeca-tot-aari-sent	Total number of AAR Initial requests sent.	Int32
dpeca-tot-aaai-received	Total number of AAA answer messages received in response to the AAR-Initial requests.	Int32
dpeca-tot-aaai-accepted	Total number of AAA messages accepted as successful without any errors.	Int32
dpeca-tot-aaai-rejected	Total number of AAA messages rejected as erroneous.	Int32
dpeca-tot-aaai-timeout	Total number of AAA answers to Initial request timed out.	Int32
dpeca-tot-aaru-sent	Total number of AAR Update messages sent	Int32
dpeca-tot-aaau-received	Total number of AAA answer messages received in response to the AAR-Update requests.	Int32
dpeca-tot-aaau-timeout	Total number of AAA answers to Update request timed out.	Int32
dpeca-tot-str-sent	Total number of STR messages sent.	Int32
dpeca-tot-sta-received	Total number of STA messages received.	Int32
dpeca-tot-sta-timeout	Total number of STA answers timed out.	Int32
dpeca-tot-asr-received	Total number of ASR messages received.	Int32
dpeca-tot-asa-sent	Total number of ASA messages sent.	Int32
dpeca-tot-rar-received	Total number of RAR messages received.	Int32
dpeca-tot-raa-sent	Total number of RAA messages sent.	Int32
dpeca-tot-protocol-err	Total number of diameter protocol errors that were received from PCRF.	Int32
dpeca-tot-aaa-parse-err	Total number of AAA parse-errors.	Int32
dpeca-tot-unk-sess-req	Total number of unknown session requests.	Int32
dpeca-tot-unk-cmd-codes	Total number of unknown command codes (unsupported command codes).	Int32
dpeca-tc-logout	Total number of sessions terminated as the user logged out.	Int32
dpeca-tc-service-not-prov	Total number of sessions terminated as the requested service is not provided.	Int32
dpeca-tc-bad-ans	Total number of sessions terminated with a bad answer.	Int32
dpeca-tc-administrative	Total number of sessions terminated administratively.	Int32
dpeca-tc-link-broken	Total number of sessions terminated due to link broken.	Int32
dpeca-tc-auth-expired	Total number of sessions terminated due to auth-expiry.	Int32
dpeca-tc-user-moved	Total number of sessions terminated as the user-moved.	Int32

Statistic	Description	Data Type
dpeca-tc-session-timeout	Total number of sessions terminated due to session timeout.	Int32
dpeca-auth-rejected	Total number of authorization rejected errors.	Int32
dpeca-other-errors	Total number of other miscellaneous DPECA errors.	Int32
dpeca-exp-res-invalid-service-info	Total number of answer messages received with Experimental-Result-Code as 5061 - INVALID_SERVICE_INFORMATION.	Int32
dpeca-exp-res-filter-restrictions	Total number of answer messages received with Experimental-Result-Code as 5062 - FILTER_RESTRICTIONS.	Int32
dpeca-exp-res-req-service-not-authorized	Total number of answer messages received with Experimental-Result-Code as 5063 - REQUESTED_SERVICE_NOT_AUTHORIZED.	Int32
dpeca-exp-res-duplicated-af-session	Total number of answer messages received with Experimental-Result-Code as 5064 - DUPLICATED_AF_SESSION.	Int32
dpeca-exp-res-ipcan-session-not-avail	Total number of answer messages received with Experimental-Result-Code as 5065 - IP_CAN_SESSION_NOT_AVAILABLE	Int32
perf-att-init-reg	Total number of initial registrations received at CSCF. Applicable only for P-CSCF & S-CSCF.	Int64
perf-att-init-reg-3gpp-geran	Total number of initial registrations received at CSCF with access technology 3GPP-GERAN. Applicable only for P-CSCF.	Int64
perf-att-init-reg-3gpp-utran-fdd	Total number of initial registrations received at CSCF with access technology 3GPP-UTRAN-FDD. Applicable only for P-CSCF.	Int64
perf-att-init-reg-3gpp2-1x	Total number of initial registrations received at CSCF with access technology 3GPP2-1X. Applicable only for P-CSCF.	Int64
perf-att-init-reg-ieee-80211a	Total number of initial registrations received at CSCF with access technology IEEE-802.11a. Applicable only for P-CSCF.	Int64
perf-att-init-reg-ieee-80211b	Total number of initial registrations received at CSCF with access technology IEEE-802.11b. Applicable only for P-CSCF.	Int64
perf-att-init-reg-other-at	Total number of initial registrations received at CSCF for any other access technology. Applicable only for P-CSCF.	Int64
perf-succ-init-reg	Total number of success responses sent for initial registration. Applicable only for P-CSCF & S-CSCF.	Int64
perf-succ-init-reg-3gpp-geran	Total number of success responses sent for initial registration with access technology 3GPP-GERAN. Applicable only for P-CSCF.	Int64
perf-succ-init-reg-3gpp-utran-fdd	Total number of success responses sent for initial registration with access technology 3GPP-UTRAN-FDD. Applicable only for P-CSCF.	Int64
perf-succ-init-reg-3gpp2-1x	Total number of success responses sent for initial registration with access technology 3GPP2-1X. Applicable only for P-CSCF.	Int64
perf-succ-init-reg-ieee-80211a	Total number of success responses sent for initial registration with access technology IEEE-802.11a. Applicable only for P-CSCF.	Int64
perf-succ-init-reg-ieee-80211b	Total number of success responses sent for initial registration with access technology IEEE-802.11b. Applicable only for P-CSCF.	Int64

## Common Statistics

Statistic	Description	Data Type
perf-succ-init-reg-other	Total number of success responses sent for initial registration for any other access technologies. Applicable only for P-CSCF.	Int64
perf-fail-init-reg	Total number of failure responses sent for initial registration. Applicable only for P-CSCF & S-CSCF.	Int64
perf-fail-init-reg-401	Total number of (401 Unauthorized) failure responses sent for initial registration. Applicable only for P-CSCF & S-CSCF.	Int64
perf-fail-init-reg-403	Total number of (403 Forbidden) failure responses sent for initial registration. Applicable only for P-CSCF & S-CSCF.	Int64
perf-fail-init-reg-404	Total number of (404 Not Found) failure responses sent for initial registration. Applicable only for P-CSCF & S-CSCF.	Int64
perf-fail-init-reg-420	Total number of (420 Bad Extension) failure responses sent for initial registration. Applicable only for P-CSCF & S-CSCF.	Int64
perf-fail-init-reg-500	Total number of (500 Internal Error) failure responses sent for initial registration. Applicable only for P-CSCF & S-CSCF.	Int64
perf-fail-init-reg-other	Total number of other failure responses sent for initial registration. Applicable only for P-CSCF & S-CSCF.	Int64
perf-mean-init-reg-setup	Average time (in milliseconds) between the instance REGISTER is received by P-CSCF and 200 response is sent for the REGISTER. The average is reset every 10 minutes. Applicable only for P-CSCF.	Int32/Gauge
perf-att-rereg	Total number of refresh registrations received at CSCF. Applicable only for P-CSCF & S-CSCF.	Int64
perf-att-rereg-3gpp-geran	Total number of refresh registrations received at CSCF with access technology 3GPP-GERAN. Applicable only for P-CSCF.	Int64
perf-att-rereg-3gpp-utran-fdd	Total number of refresh registrations received at CSCF with access technology 3GPP-UTRAN-FDD. Applicable only for P-CSCF.	Int64
perf-att-rereg-3gpp2-1x	Total number of refresh registrations received at CSCF with access technology 3GPP2-1X. Applicable only for P-CSCF.	Int64
perf-att-rereg-ieee-80211a	Total number of refresh registrations received at CSCF with access technology IEEE-802.11a. Applicable only for P-CSCF.	Int64
perf-att-rereg-ieee-80211b	Total number of refresh registrations received at CSCF with access technology IEEE-802.11b. Applicable only for P-CSCF.	Int64
perf-att-rereg-other-at	Total number of refresh registrations received at CSCF for any other access technology. Applicable only for P-CSCF.	Int64
perf-succ-rereg	Total number of success responses sent for refresh registration. Applicable only for P-CSCF & S-CSCF.	Int64
perf-succ-rereg-3gpp-geran	Total number of success responses sent for refresh registration with access technology 3GPP-GERAN. Applicable only for P-CSCF.	Int64
perf-succ-rereg-3gpp-utran-fdd	Total number of success responses sent for refresh registration with access technology 3GPP-UTRAN-FDD. Applicable only for P-CSCF.	Int64

Statistic	Description	Data Type
perf-succ-rereg-3gpp2-1x	Total number of success responses sent for refresh registration with access technology 3GPP2-1X. Applicable only for P-CSCF.	Int64
perf-succ-rereg-ieee-80211a	Total number of success responses sent for refresh registration with access technology IEEE-802.11a. Applicable only for P-CSCF.	Int64
perf-succ-rereg-ieee-80211b	Total number of success responses sent for refresh registration with access technology IEEE-802.11b. Applicable only for P-CSCF.	Int64
perf-succ-rereg-other	Total number of success responses sent for refresh registration for any other access technology. Applicable only for P-CSCF.	Int64
perf-fail-rereg	Total number of failure responses sent for refresh registration. Applicable only for P-CSCF & S-CSCF	Int64
perf-fail-rereg-401	Total number of (401 Unauthorized) failure responses sent for refresh registration. Applicable only for P-CSCF & S-CSCF.	Int64
perf-fail-rereg-403	Total number of (403 Forbidden) failure responses sent for refresh registration. Applicable only for P-CSCF & S-CSCF.	Int64
perf-fail-rereg-404	Total number of (404 Not Found) failure responses sent for refresh registration. Applicable only for P-CSCF & S-CSCF.	Int64
perf-fail-rereg-420	Total number of (420 Bad Extension) failure responses sent for refresh registration. Applicable only for P-CSCF & S-CSCF.	Int64
perf-fail-rereg-500	Total number of (500 Internal Error) failure responses sent for refresh registration. Applicable only for P-CSCF & S-CSCF.	Int64
perf-fail-rereg-other	Total number of other failure responses sent for refresh registration. Applicable only for P-CSCF & S-CSCF.	Int64
perf-att-dereg-ue	Total number of de-registrations received from UE at CSCF. Applicable only for P-CSCF & S-CSCF.	Int64
perf-att-dereg-ue-3gpp-geran	Total number of de-registrations received from UE at CSCF with access technology 3GPP-GERAN. Applicable only for P-CSCF.	Int64
perf-att-dereg-ue-3gpp-utran-fdd	Total number of de-registrations received from UE at CSCF with access technology 3GPP-UTRAN-FDD. Applicable only for P-CSCF.	Int64
perf-att-dereg-ue-3gpp2-1x	Total number of de-registrations received from UE at CSCF with access technology 3GPP2-1X. Applicable only for P-CSCF.	Int64
perf-att-dereg-ue-ieee-80211a	Total number of de-registrations received from UE at CSCF with access technology IEEE-802.11a. Applicable only for P-CSCF.	Int64
perf-att-dereg-ue-ieee-80211b	Total number of de-registrations received from UE at CSCF with access technology IEEE-802.11b. Applicable only for P-CSCF.	Int64
perf-att-dereg-ue-other-at	Total number of de-registrations received from UE at CSCF for any other access technology. Applicable only for P-CSCF.	Int64
perf-succ-dereg-ue	Total number of success responses sent for de-registration. Applicable only for P-CSCF & S-CSCF.	Int64
perf-succ-dereg-ue-3gpp-geran	Total number of success responses sent for de-registration with access technology 3GPP-GERAN. Applicable only for P-CSCF.	Int64

Statistic	Description	Data Type
perf-succ-dereg-ue-3gpp- utran-fdd	Total number of success responses sent for de-registration with access technology 3GPP-UTRAN-FDD. Applicable only for P-CSCF.	Int64
perf-succ-dereg-ue- 3gpp2-1x	Total number of success responses sent for de-registration with access technology 3GPP2-1X. Applicable only for P-CSCF.	Int64
perf-succ-dereg-ue-ieee- 80211a	Total number of success responses sent for de-registration with access technology IEEE-802.11a. Applicable only for P-CSCF.	Int64
perf-succ-dereg-ue-ieee- 80211b	Total number of success responses sent for de-registration with access technology IEEE-802.11b. Applicable only for P-CSCF.	Int64
perf-succ-dereg-ue-other	Total number of success responses sent for de-registration for any other access technology. Applicable only for P-CSCF.	Int64
perf-fail-dereg-ue	Total number of failure responses sent for de-registration. Applicable only for P-CSCF & S-CSCF	Int64
perf-fail-dereg-ue-401	Total number of (401 Unauthorized) failure responses sent for de-registration. Applicable only for P-CSCF & S-CSCF.	Int64
perf-fail-dereg-ue-403	Total number of (403 Forbidden) failure responses sent for de-registration. Applicable only for P-CSCF & S-CSCF.	Int64
perf-fail-dereg-ue-404	Total number of (404 Not Found) failure responses sent for de-registration. Applicable only for P-CSCF & S-CSCF.	Int64
perf-fail-dereg-ue-420	Total number of (420 Bad Extension) failure responses sent for de-registration. Applicable only for P-CSCF & S-CSCF.	Int64
perf-fail-dereg-ue-500	Total number of (500 Internal Error) failure responses sent for de-registration. Applicable only for P-CSCF & S-CSCF.	Int64
perf-fail-dereg-ue-other	Total number of other failure responses sent for de-registration. Applicable only for P-CSCF & S-CSCF.	Int64
perf-att-dereg-hss	Total number of de-registrations initiated by HSS at S-CSCF. Applicable only for S-CSCF.	Int64
perf-succ-dereg-hss	Total number of success responses for de-registrations initiated by HSS at S-CSCF. Applicable only for S-CSCF.	Int64
perf-fail-dereg-hss	Total number of failure responses for de-registrations initiated by HSS at S-CSCF. Applicable only for S-CSCF.	Int64
perf-fail-dereg-hss-401	Total number of (401 Unauthorized) failure responses for de-registrations initiated by HSS at S-CSCF. Applicable only for S-CSCF.	Int64
perf-fail-dereg-hss-403	Total number of (403 Forbidden) failure responses for de-registrations initiated by HSS at S-CSCF. Applicable only for S-CSCF.	Int64
perf-fail-dereg-hss-404	Total number of (404 Not Found) failure responses for de-registrations initiated by HSS at S-CSCF. Applicable only for S-CSCF.	Int64
perf-fail-dereg-hss-420	Total number of (420 Bad Extension) failure responses for de-registrations initiated by HSS at S-CSCF. Applicable only for S-CSCF.	Int64
perf-fail-dereg-hss-500	Total number of (500 Internal Error) failure responses for de-registrations initiated by HSS at S-CSCF. Applicable only for S-CSCF.	Int64

Statistic	Description	Data Type
perf-fail-dereg-hss-other	Total number of other failure responses for de-registrations initiated by HSS at S-CSCF. Applicable only for S-CSCF.	Int64
perf-att-dereg-serv	Total number of de-registrations initiated by Service Platform at S-CSCF. Applicable only for S-CSCF.	Int64
perf-succ-dereg-serv	Total number of success responses for de-registrations initiated by Service Platform at S-CSCF. Applicable only for S-CSCF.	Int64
perf-fail-dereg-serv	Total number of failure responses for de-registrations initiated by Service Platform at S-CSCF. Applicable only for S-CSCF.	Int64
perf-fail-dereg-serv-401	Total number of (401 Unauthorized) failure responses for de-registrations initiated by Service Platform at S-CSCF. Applicable only for S-CSCF.	Int64
perf-fail-dereg-serv-403	Total number of (403 Forbidden) failure responses for de-registrations initiated by Service Platform at S-CSCF. Applicable only for S-CSCF.	Int64
perf-fail-dereg-serv-404	Total number of (404 Not Found) failure responses for de-registrations initiated by Service Platform at S-CSCF. Applicable only for S-CSCF.	Int64
perf-fail-dereg-serv-420	Total number of (420 Bad Extension) failure responses for de-registrations initiated by Service Platform at S-CSCF. Applicable only for S-CSCF.	Int64
perf-fail-dereg-serv-500	Total number of (500 Internal Error) failure responses for de-registrations initiated by Service Platform at S-CSCF. Applicable only for S-CSCF.	Int64
perf-fail-dereg-serv-other	Total number of other failure responses for de-registrations initiated by Service Platform at S-CSCF. Applicable only for S-CSCF.	Int64
perf-att-3rdparty-reg	Total number of 3rd Party registrations initiated by S-CSCF. Applicable only for S-CSCF.	Int64
perf-succ-3rdparty-reg	Total number of success responses for 3rd party registrations initiated by S-CSCF. Applicable only for S-CSCF.	Int64
perf-fail-3rdparty-reg	Total number of failure responses for 3rd party registrations initiated by S-CSCF. Applicable only for S-CSCF.	Int64
perf-fail-3rdparty-reg-401	Total number of (401 Unauthorized) failure responses for 3rd party registrations initiated by S-CSCF. Applicable only for S-CSCF.	Int64
perf-fail-3rdparty-reg-403	Total number of (403 Forbidden) failure responses for 3rd party registrations initiated by S-CSCF. Applicable only for S-CSCF.	Int64
perf-fail-3rdparty-reg-404	Total number of (404 Not Found) failure responses for 3rd party registrations initiated by S-CSCF. Applicable only for S-CSCF.	Int64
perf-fail-3rdparty-reg-420	Total number of (420 Bad Extension) failure responses for 3rd party registrations initiated by S-CSCF. Applicable only for S-CSCF.	Int64
perf-fail-3rdparty-reg-500	Total number of (500 Internal Error) failure responses for 3rd party registrations initiated by S-CSCF. Applicable only for S-CSCF.	Int64
perf-fail-3rdparty-reg-other	Total number of other failure responses for 3rd party registrations initiated by S-CSCF. Applicable only for S-CSCF.	Int64
perf-att-uar	Total number of user registration status query procedures attempted at I-CSCF. Applicable only for I-CSCF.	Int64

Statistic	Description	Data Type
perf-succ-uaa	Total number of success response for user registration status queries attempted at I-CSCF. Applicable only for I-CSCF.	Int64
perf-fail-uaa	Total number of failure response for user registration status queries attempted at I-CSCF. Applicable only for I-CSCF.	Int64
perf-att-sar	Total number of S-CSCF registration/de-registration notification procedures. Applicable only for S-CSCF.	Int64
perf-succ-saa	Total number of success responses for S-CSCF registration/de-registration notification procedures. Applicable only for S-CSCF.	Int64
perf-fail-saa	Total number of failure responses for S-CSCF registration/de-registration notification procedures. Applicable only for S-CSCF.	Int64
perf-att-session	Total number of attempted session establishments at CSCF.	Int64
perf-succ-session-180	Total number of 180 responses for successful session establishments at CSCF.	Int64
perf-succ-session-200	Total number of 200 responses (without 180 response) for successful session establishments at CSCF.	Int64
perf-ans-session	Total number of 200 responses for session establishments at CSCF.	Int64
perf-fail-session	Total number of failure responses for session establishments at CSCF.	Int64
perf-att-lir	Total number of user location query procedures attempted at I-CSCF. Applicable only for I-CSCF.	Int64
perf-succ-lia	Total number of success responses for user location queries attempted at I-CSCF. Applicable only for I-CSCF.	Int64
perf-fail-lia	Total number of failure responses for user location queries attempted at I-CSCF. Applicable only for I-CSCF.	Int64
perf-att-session-frm-oth-domain	Total number of session establishments from users of other domains. Applicable only for I-CSCF & S-CSCF.	Int64
perf-frbdn-session-frm-oth-domain	Total number of forbidden sessions for session establishments from users of other domains. Applicable only for I-CSCF & S-CSCF.	Int64
perf-att-session-to-oth-domain	Total number of session establishments to users of other domains. Applicable only for I-CSCF & S-CSCF.	
perf-frbdn-session-to-oth-domain	Total number of forbidden sessions for session establishments to users of other domains. Applicable only for I-CSCF & S-CSCF.	Int64
perf-att-init-reg-visited	Total number of initial registrations of visiting users from other IMS network domains. Applicable only for P-CSCF.	Int64
perf-frbdn-init-reg-visited	Total number of forbidden messages sent for the visiting users. Applicable only for P-CSCF.	Int64
perf-rmg-users-out	Total number of roaming users to other network domains. Applicable only for S-CSCF.	Int64
perf-att-mar	Total number of Multimedia-Authentication-Requests attempted. Applicable only for S-CSCF.	Int64

Statistic	Description	Data Type
perf-succ-maa	Total number of successful Multimedia-Authentication-Answers received. Applicable only for S-CSCF.	Int64
perf-fail-maa	Total number of failure Multimedia-Authentication-Answers received. Applicable only for S-CSCF.	Int64
perf-att-ppr	Total number of HSS-initiated user profile updates attempted. Applicable only for S-CSCF.	Int64
perf-succ-ppa	Total number of success responses for HSS-initiated user profile update. Applicable only for S-CSCF.	Int64
perf-fail-ppa	Total number of failure responses for HSS-initiated user profile update. Applicable only for S-CSCF.	Int64
perf-att-subscribe	Total number of subscription procedures attempted at S-CSCF. Applicable only for S-CSCF.	Int64
perf-succ-subscribe	Total number of success responses for subscriptions. Applicable only for S-CSCF.	Int64
perf-fail-subscribe	Total number of failure responses for subscriptions. Applicable only for S-CSCF.	Int64
perf-att-notify	Total number of notify procedures attempted at S-CSCF. Applicable only for S-CSCF.	Int64Int64
perf-succ-notify	Total number of success responses for notify. Applicable only for S-CSCF.	Int64
perf-fail-notify	Total number of failure responses for notify. Applicable only for S-CSCF.	Int64
de2a-session-init	Total number of DE2A sessions initiated by sending UDR message.	Int32
de2a-session-active	Total number of DE2A sessions currently active.	Int32
de2a-udr-sent	Total number UDR messages sent.	Int32
de2a-uda-received	Total number of UDA messages received	Int32
de2a-uda-err-3xxx	Total number of messages with protocol errors.	Int32
de2a-uda-parse-err	Total number of bad UDA messages received.	Int32
de2a-udr-err	Total number of UDR send errors.	Int32



**Important:** See *Bulk Statistics Overview* for statistics that are common to all schema.



# Chapter 11

## DCCA Schema Statistics

This chapter describes the Diameter Credit Control Application (DCCA) schema statistics.

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 **Important:** The DCCA schema is only available in StarOS 9.0 and later releases.

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The DCCA schema provides the following types of statistics:

- **Counter:** A counter records incremental data cumulatively and rolls over when the counter limit is reached. The limit depends upon the counter data type.
- **Gauge:** A gauge statistic indicates a single value representative of a single instance. This type is often used to track particular events in time.

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 **Important:** The format string syntax is described in the *Schema Format String Syntax* section of the *Bulk Statistics Overview* chapter.

 **Important:** Unless otherwise indicated, all statistics are counters. For statistics with the Int32 data type, the roll-over to zero limit is 4,294,967,295. For statistics with the Int64 data type, the roll-over to zero limit is 18,446,744,073,709,551,615. All counter statistics are cumulative and reset only by one of the following methods: roll-over (as described above), after a system restart, or after a clear command is performed. All statistics are considered standards-based unless otherwise noted.

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The following variables are supported:

**Table 11. DCCA Schema Statistics**

Statistic	Description	Data Type
vpnname	Name of the context facilitating the DCCA configuration.	String
vpnid	Identifier of the context currently facilitating the DCCA configuration. This is an internal reference number.	Int32
ipaddr	IP address of the server for which statistics are being collected.	String
port	The port being used for exchange of data.	Int32
ccr-inisent	Total number of Credit Control Request-Initial (CCR-Initial) messages sent.	Int32
cca-inirec	Total number of Credit Control Answer-Initial (CCA-Initial) messages received.	Int32

## ■ Common Statistics

Statistic	Description	Data Type
ccr-initimeout	Total number of CCR-Initial message timeouts.	Int32
ccr-updsent	Total number of CCR-Update messages sent.	Int32
cca-updrec	Total number of CCA-Update messages received.	Int32
ccr-updtimeout	Total number of CCR-Update message timeouts.	Int32
ccr-tersent	Total number of CCR-Terminate messages sent.	Int32
cca-terrec	Total number of CCA-Terminate messages received.	Int32
ccr-tertimeout	Total number of CCR-Terminate message timeouts.	Int32
reauth-anssent	Total number of Re-authorization answers sent.	Int32
reauth-reqrec	Total number of Re-authorization requests received.	Int32



**Important:** See *Bulk Statistics Overview* for statistics that are common to all schema.

# Chapter 12

## DPCA Schema Statistics

This chapter describes the Diameter Policy Control Application (DPCA) schema statistics.

 **Important:** The DPCA schema is only available in StarOS 9.0 and later releases.

The DPCA schema provides the following types of statistics:

- **Counter:** A counter records incremental data cumulatively and rolls over when the counter limit is reached. The limit depends upon the counter data type.
- **Gauge:** A gauge statistic indicates a single value representative of a single instance. This type is often used to track particular events in time.

 **Important:** The format string syntax is described in the *Schema Format String Syntax* section of the *Bulk Statistics Overview* chapter.

 **Important:** Unless otherwise indicated, all statistics are counters. For statistics with the Int32 data type, the roll-over to zero limit is 4,294,967,295. For statistics with the Int64 data type, the roll-over to zero limit is 18,446,744,073,709,551,615. All counter statistics are cumulative and reset only by one of the following methods: roll-over (as described above), after a system restart, or after a clear command is performed. All statistics are considered standards-based unless otherwise noted.

The following variables are supported:

**Table 12. DPCA Schema Statistics**

Statistic	Description	Data Type
vpnname	Name of the context facilitating the DPCA configuration.	String
vpnid	Identifier of the context currently facilitating the DPCA configuration. This is an internal reference number.	Int32
ipaddr	IP address of the server for which statistics are being collected.	String
port	The port being used for exchange of data.	Int32
ccr-inisent	Total number of Credit Control Request-Initial (CCR-Initial) messages sent.	Int32
cca-inirec	Total number of Credit Control Answer-Initial (CCA-Initial) messages received.	Int32

## ■ Common Statistics

Statistic	Description	Data Type
ccr-initimeout	Total number of CCR-Initial message timeouts.	Int32
ccr-updsent	Total number of CCR-Update messages sent.	Int32
cca-updrec	Total number of CCA-Update messages received.	Int32
ccr-updtimeout	Total number of CCR-Update message timeouts.	Int32
ccr-tersent	Total number of CCR-Terminate messages sent.	Int32
cca-terrec	Total number of CCA-Terminate messages received.	Int32
ccr-tertimeout	Total number of CCR-Terminate message timeouts.	Int32
reauth-anssent	Total number of Re-authorization answers sent.	Int32
reauth-reqrec	Total number of Re-authorization requests received.	Int32



**Important:** See *Bulk Statistics Overview* for statistics that are common to all schema.

# Chapter 13

## ECS Schema Statistics

The ECS schema provides the following types of statistics:

- **Counter:** A counter records incremental data cumulatively and rolls over when the counter limit is reached. The limit depends upon the counter data type.
- **Gauge:** A gauge statistic indicates a single value representative of a single instance. This type is often used to track particular events in time.

 **Important:** The format string syntax is described by Schema Format String Syntax in the Bulk Statistics Overview chapter.

 **Important:** Unless otherwise indicated, all statistics are counters. For statistics with the Int32 data type, the roll-over to zero limit is 4,294,967,295. For statistics with the Int64 data type, the roll-over to zero limit is 18,446,744,073,709,551,615. All counter statistics are cumulative and reset only by one of the following methods: roll-over (as described above), after a system restart, or after a clear command is performed. All statistics are considered standards-based unless otherwise noted.

The following variables are supported:

**Table 13. ECS Schema Statistics**

Statistic	Description	Data Type
General ECS Statistics		
ecs-subscribers	The combined total of the number of subscribers who have used the ECS service previously + other subscribers currently using the ECS service.	Int32
ecs-subscribers-cur	The number of subscribers currently using the ECS service.	Int32
gcdrs-generated	The total number of G-CDRs generated by ECS.	Int32
edrs-generated	The total number of EDRs generated by ECS.	Int32
udrs-generated	The total number of UDRs generated by ECS.	Int32
IP Analyzer Specific Statistics		
ip-flows	The combined total of the number of IP flows previously analyzed + IP flows currently being analyzed.	Int64

## ■ Common Statistics

Statistic	Description	Data Type
ip-flows-cur	The number of IP flows currently being analyzed.	Int64
ip-uplk-bytes	The total number of IP bytes detected in uplink direction (from the MS).	Int64
ip-dwnlk-bytes	The total number of IP bytes detected in downlink direction (to the MS).	Int64
ip-uplk-pkts	The total number of IP packets detected in uplink direction.	Int64
ip-dwnlk-pkts	The total number of IP packets detected in downlink direction.	Int64
ip-uplk-pkts-frag	The total number of fragmented IP packets detected in uplink direction.	Int32
ip-dwnlk-pkts-frag	The total number of fragmented IP packets detected in downlink direction.	Int32
ip-uplk-bytes-frag	The total number of fragmented IP bytes detected in uplink direction.	Int32
ip-dwnlk-bytes-frag	The total number of fragmented IP bytes detected in downlink direction.	Int32
UDP Analyzer Specific Statistics		
udp-flows	The combined total of the number of UDP flows previously analyzed + UDP flows currently being analyzed.	Int32
udp-flows-cur	The number of UDP flows currently being analyzed.	Int32
udp-uplk-bytes	The total number of UDP bytes detected in uplink direction (from the MS).	Int64
udp-dwnlk-bytes	The total number of UDP bytes detected in downlink direction (to the MS).	Int64
udp-uplk-pkts	The total number of UDP packets detected in uplink direction.	Int32
udp-dwnlk-pkts	The total number of UDP packets detected in downlink direction.	Int32
udp-inv-pkts	The total number of invalid UDP packets detected.	Int32
TCP Analyzer Specific Statistics		
tcp-flows	The combined total of the number of TCP flows previously analyzed + TCP flows currently being analyzed.	Int32
tcp-flows-cur	The number of TCP flows currently being analyzed.	Int32
tcp-uplk-bytes	The total number of TCP bytes detected in uplink direction (from the MS).	Int64
tcp-dwnlk-bytes	The total number of TCP bytes detected in downlink direction (to the MS).	Int64
tcp-uplk-pkts	The total number of TCP packets detected in uplink direction.	Int64
tcp-dwnlk-pkts	The total number of TCP packets detected in downlink direction.	Int64
tcp-uplk-bytes-retr	The total number of TCP bytes retransmitted in uplink direction.	Int32
tcp-dwnlk-bytes-retr	The total number of TCP bytes retransmitted in downlink direction.	Int32
tcp-uplk-pkts-retr	The total number of TCP packets retransmitted in uplink direction.	Int32
tcp-dwnlk-pkts-retr	The total number of TCP packets retransmitted in downlink direction.	Int32
tcp-uplk-pkts-ooo-analyzd	The total number of out-of-order TCP packets analyzed in uplink direction.	Int32

Statistic	Description	Data Type
tcp-dwnlk-pkts-ooo-analyzd	The total number of out-of-order TCP packets analyzed in downlink direction.	Int32
tcp-uplk-pkts-ooo-fail	The total number of failed out-of-order TCP packets detected in uplink direction.	Int32
tcp-dwnlk-pkts-ooo-fail	The total number of failed out-of-order TCP packets detected in downlink direction.	Int32
tcp-uplk-pkts-ooo-retr	The total number of out-of-order TCP packets retransmitted in uplink direction.	Int32
tcp-dwnlk-pkts-ooo-retr	The total number of out-of-order TCP packets retransmitted in downlink direction.	Int32
ICMP Analyzer Specific Statistics		
icmp-flows	The combined total of the number of ICMP flows previously analyzed + ICMP flows currently being analyzed.	Int32
icmp-flows-cur	The number of ICMP flows currently being analyzed.	Int32
icmp-uplk-bytes	The total number of ICMP bytes detected in uplink direction (from the MS).	Int32
icmp-dwnlk-bytes	The total number of ICMP bytes detected in downlink direction (to the MS).	Int32
icmp-uplk-pkts	The total number of ICMP packets detected in uplink direction.	Int32
icmp-dwnlk-pkts	The total number of ICMP packets detected in downlink direction.	Int32
icmp-ech-req	The total number of ICMP ECHO requests detected.	Int32
icmp-ech-rep	The total number of ICMP ECHO replies detected.	Int32
icmp-dst-unrch	The total number of ICMP Destination Unreachable messages detected.	Int32
icmp-redir	The total number of ICMP Redirect messages detected.	Int32
icmp-tm-excd	The total number of ICMP Time Exceeded messages detected.	Int32
icmp-trace-route	The total number of ICMP Trace Route messages detected.	Int32
icmp-oth	The total number of ICMP Other Messages detected.	Int32
icmp-inv-pkts	The total number of ICMP invalid packets detected.	Int32
HTTP Analyzer Specific Statistics		
http-flows	The combined total of the number of HTTP flows previously analyzed + HTTP flows currently being analyzed.	Int32
http-flows-cur	The number of HTTP flows currently being analyzed.	Int32
http-uplk-bytes	The total number of HTTP bytes detected in uplink direction (from the MS).	Int64
http-dwnlk-bytes	The total number of HTTP bytes detected in downlink direction (to the MS).	Int64
http-uplk-pkts	The total number of HTTP packets detected in uplink direction.	Int64
http-dwnlk-pkts	The total number of HTTP packets detected in downlink direction.	Int64
http-uplk-bytes-retr	The total number of HTTP bytes retransmitted in uplink direction.	Int32
http-dwnlk-bytes-retr	The total number of HTTP bytes retransmitted in downlink direction.	Int32

## Common Statistics

Statistic	Description	Data Type
http-uplk-pkts-retr	The total number of HTTP packets retransmitted in uplink direction.	Int32
http-dwnlk-pkts-retr	The total number of HTTP packets retransmitted in downlink direction.	Int32
http-req-succ	The total number of successful HTTP requests detected.	Int32
http-req-fail	The total number of failed HTTP requests detected.	Int32
http-get-req	The total number of HTTP GET requests detected.	Int32
http-post-req	The total number of HTTP POST requests detected.	Int32
http-connect-req	The total number of HTTP CONNECT requests detected.	Int32
http-inv-pkts	The total number of invalid HTTP packets detected.	Int32
HTTPS Analyzer Specific Statistics		
https-flows	The combined total of the number of HTTPS flows previously analyzed + HTTPS flows currently being analyzed.	Int32
https-flows-cur	The number of HTTPS flows currently being analyzed.	Int32
https-uplk-bytes	The total number of HTTPS bytes detected in uplink direction (from the MS).	Int64
https-dwnlk-bytes	The total number of HTTPS bytes detected in downlink direction (to the MS).	Int64
https-uplk-pkts	The total number of HTTPS packets detected in uplink direction.	Int64
https-dwnlk-pkts	The total number of HTTPS packets detected in downlink direction.	Int64
https-uplk-bytes-retr	The total number of HTTPS bytes retransmitted in uplink direction.	Int32
https-dwnlk-bytes-retr	The total number of HTTPS bytes retransmitted in downlink direction.	Int32
https-uplk-pkts-retr	The total number of HTTPS packets retransmitted in uplink direction.	Int32
https-dwnlk-pkts-retr	The total number of HTTPS packets retransmitted in downlink direction.	Int32
WTP Analyzer Specific Statistics		
wtp-trans	The total number of WTP transactions detected.	Int32
wtp-cls-zero	The total number of WTP Class 0 transactions detected.	Int32
wtp-cls-one	The total number of WTP Class 1 transactions detected.	Int32
wtp-cls-two	The total number of WTP Class 2 transactions detected.	Int32
wtp-uplk-bytes	The total number of WTP bytes detected in uplink direction (from the MS).	Int32
wtp-dwnlk-bytes	The total number of WTP bytes detected in downlink direction (to the MS).	Int32
wtp-uplk-pkts	The total number of WTP packets detected in uplink direction.	Int32
wtp-dwnlk-pkts	The total number of WTP packets detected in downlink direction.	Int32
wtp-uplk-bytes-retr	The total number of WTP bytes retransmitted in uplink direction.	Int32
wtp-dwnlk-bytes-retr	The total number of WTP bytes retransmitted in downlink direction.	Int32
wtp-uplk-pkts-retr	The total number of WTP packets retransmitted in uplink direction.	Int32

Statistic	Description	Data Type
wtp-dwnlk-pkts-retr	The total number of WTP packets retransmitted in downlink direction.	Int32
wtp-invk-pkts	The total number of WTP INVOKE packets detected.	Int32
wtp-invk-tcl-zero	The total number of WTP INVOKE TCL-0 packets detected.	Int32
wtp-invk-tcl-one	The total number of WTP INVOKE TCL-1 packets detected.	Int32
wtp-invk-tcl-two	The total number of WTP INVOKE TCL-2 packets detected.	Int32
wtp-invk-tid-new	The total number of WTP INVOKE with TID-new flag packets detected.	Int32
wtp-rslt-pkts	The total number of WTP RESULT packets detected.	Int32
wtp-ack-to-resp	The total number of WTP ACK from Initiator to Responder detected.	Int32
wtp-ack-to-init	The total number of WTP ACK from Responder to Initiator detected.	Int32
wtp-abrt-to-resp	The total number of WTP ABORT from Initiator to Responder detected.	Int32
wtp-abrt-to-init	The total number of WTP ABORT from Responder to Initiator detected.	Int32
wtp-seg-invk	The total number of WTP Segmented INVOKE packets detected.	Int32
wtp-seg-rslt	The total number of WTP Segmented RESULT packets detected.	Int32
wtp-neg-ack	The total number of WTP Negative ACK packets detected.	Int32
wtp-tid-vrf	The total number of WTP TID Verification packets detected.	Int32
wtp-noninit-invk	The total number of WTP Non-initial INVOKE packets detected.	Int32
wtp-unk-pdu	The total number of WTP unknown PDUs detected.	Int32
WSP Analyzer Specific Statistics		
wsp-flows	The combined total of the number of WSP flows previously analyzed + WSP flows currently being analyzed.	Int32
wsp-flows-cur	The number of WSP flows currently being analyzed.	Int32
wsp-co-conn	The total number of WSP connection-oriented connections detected.	Int32
wsp-cl-conn	The total number of WSP connection-less connections detected.	Int32
wsp-uplk-bytes	The total number of WSP bytes detected in uplink direction.	Int32
wsp-dwnlk-bytes	The total number of WSP bytes detected in downlink direction.	Int32
wsp-uplk-pkts	The total number of WSP packets detected in uplink direction.	Int32
wsp-dwnlk-pkts	The total number of WSP packets detected in downlink direction.	Int32
wsp-uplk-bytes-retr	The total number of WSP bytes retransmitted in uplink direction.	Int32
wsp-dwnlk-bytes-retr	The total number of WSP bytes retransmitted in downlink direction.	Int32
wsp-uplk-pkts-retr	The total number of WSP packets retransmitted in uplink direction.	Int32
wsp-dwnlk-pkts-retr	The total number of WSP packets retransmitted in downlink direction.	Int32
wsp-co-req-succ	The total number of WSP Connection Oriented Requests succeeded.	Int32

## ■ Common Statistics

Statistic	Description	Data Type
wsp-co-req-fail	The total number of WSP Connection Oriented Requests failed.	Int32
wsp-cl-req-succ	The total number of WSP Connection-less Requests succeeded.	Int32
wsp-cl-req-fail	The total number of WSP Connection-less Requests failed.	Int32
wsp-conn-pdu	The total number of WSP CONNECT PDU detected.	Int32
wsp-conn-rep	The total number of WSP CONNECT REPLY PDU detected.	Int32
wsp-redir	The total number of WSP REDIRECT PDU detected.	Int32
wsp-disc	The total number of WSP DISCONNECT PDU detected.	Int32
wsp-susp	The total number of WSP SUSPEND PDU detected.	Int32
wsp-resm	The total number of WSP RESUME PDU detected.	Int32
wsp-opt	The total number of WSP OPTIONS PDU detected.	Int32
wsp-head	The total number of WSP HEAD PDU detected.	Int32
wsp-del	The total number of WSP DELETE PDU detected.	Int32
wsp-trace	The total number of WSP TRACE PDU detected.	Int32
wsp-reply	The total number of WSP REPLY PDU detected.	Int32
wsp-put	The total number of WSP PUT PDU detected.	Int32
wsp-get	The total number of WSP GET PDU detected.	Int32
wsp-push	The total number of WSP PUSH PDU detected.	Int32
wsp-conf-push	The total number of WSP CONFIRMED-PUSH PDU detected.	Int32
wsp-post	The total number of WSP POST PDU detected.	Int32
wsp-data-frag	The total number of WSP DATA-FRAGMENT PDU detected.	Int32
wsp-rsrvd	The total number of WSP RESERVED PDU detected.	Int32
wsp-inv-pkts	The total number of invalid WSP packets detected.	Int32
MMS Analyzer Specific Statistics		
mms-send	The total number of MMS message send transactions detected.	Int32
mms-send-succ	The total number of successful MMS message send transactions detected.	Int32
mms-send-fail	The total number of failed MMS message send transactions detected.	Int32
mms-retrv	The total number of MMS message retrieve transactions detected.	Int32
mms-retrv-succ	The total number of MMS message retrieve transactions succeeded.	Int32
mms-retrv-fail	The total number of MMS message retrieve transactions failed.	Int32
mms-uplk-bytes	The total number of MMS bytes detected in uplink direction.	Int32
mms-dwnlk-bytes	The total number of MMS bytes detected in downlink direction.	Int32

Statistic	Description	Data Type
mms-uplk-pkts	The total number of MMS packets detected in uplink direction.	Int32
mms-dwnlk-pkts	The total number of MMS packets detected in downlink direction.	Int32
mms-uplk-bytes-retr	The total number of MMS bytes retransmitted in uplink direction.	Int32
mms-dwnlk-bytes-retr	The total number of MMS bytes retransmitted in downlink direction.	Int32
mms-uplk-pkts-retr	The total number of MMS packets retransmitted in uplink direction.	Int32
mms-dwnlk-pkts-retr	The total number of MMS packets retransmitted in downlink direction.	Int32
mms-snd-req	The total number of MMS SEND Requests detected.	Int32
mms-snd-conf	The total number of MMS SEND Confirms detected.	Int32
mms-ntf-ind	The total number of MMS Notification Indication detected.	Int32
mms-ntf-ind-imm	The total number of MMS Notification Indication Immediate detected.	Int32
mms-ntf-ind-del	The total number of MMS Notification Indication Delayed detected.	Int32
mms-ntf-rsp	The total number of MMS Notification Response detected.	Int32
mms-retrv-conf	The total number of MMS Retrieve Confirm detected.	Int32
mms-ack-ind	The total number of MMS ACK Indication detected.	Int32
mms-delvry-ind	The total number of MMS Delivery Indication detected.	Int32
mms-unk-pdu	The total number of MMS Unknown PDU Type detected.	Int32
mms-inv-pkts	The total number of invalid MMS packets detected.	Int32
SIP Analyzer Specific Statistics		
sip-flows	The combined total of the number of SIP flows previously analyzed + SIP flows currently being analyzed.	Int32
sip-flows-cur	The number of SIP flows currently being analyzed.	Int32
sip-calls	The total number of SIP calls detected.	Int32
sip-uplk-bytes	The total number of SIP bytes detected in uplink direction.	Int64
sip-dwnlk-bytes	The total number of SIP bytes detected in downlink direction.	Int64
sip-uplk-pkts	The total number of SIP packets detected in uplink direction.	Int32
sip-dwnlk-pkts	The total number of SIP packets detected in downlink direction.	Int32
sip-uplk-bytes-retr	The total number of SIP bytes retransmitted in uplink direction.	Int64
sip-dwnlk-bytes-retr	The total number of SIP bytes retransmitted in downlink direction.	Int64
sip-uplk-pkts-retr	The total number of SIP packets retransmitted in uplink direction.	Int32
sip-dwnlk-pkts-retr	The total number of SIP packets retransmitted in downlink direction.	Int32
sip-invite	The total number of SIP INVITE commands detected.	Int32
sip-bye	The total number of SIP BYE commands detected.	Int32

## ■ Common Statistics

Statistic	Description	Data Type
sip-ack	The total number of SIP ACK commands detected.	Int32
sip-cancel	The total number of SIP CANCEL commands detected.	Int32
sip-register	The total number of SIP REGISTER commands detected.	Int32
sip-inv-pkts	The total number of invalid SIP packets detected.	Int32
RTSP Analyzer Specific Statistics		
rtsp-flows	The combined total of the number of RTSP flows previously analyzed + RTSP flows currently being analyzed.	Int32
rtsp-flows-cur	The number of RTSP flows currently being analyzed.	Int32
rtsp-sess	The total number of RTSP sessions detected.	Int32
rtsp-uplk-bytes	The total number of RTSP bytes detected in uplink direction.	Int64
rtsp-dwnlk-bytes	The total number of RTSP bytes detected in downlink direction.	Int64
rtsp-uplk-pkts	The total number of RTSP packets detected in uplink direction.	Int32
rtsp-dwnlk-pkts	The total number of RTSP packets detected in downlink direction.	Int32
rtsp-uplk-bytes-retr	The total number of RTSP bytes retransmitted in uplink direction.	Int64
rtsp-dwnlk-bytes-retr	The total number of RTSP bytes retransmitted in downlink direction.	Int64
rtsp-uplk-pkts-retr	The total number of RTSP packets retransmitted in uplink direction.	Int32
rtsp-dwnlk-pkts-retr	The total number of RTSP packets retransmitted in downlink direction.	Int32
rtsp-play	The total number of RTSP PLAY commands detected.	Int32
rtsp-setup	The total number of RTSP SETUP commands detected.	Int32
rtsp-pause	The total number of RTSP PAUSE commands detected.	Int32
rtsp-record	The total number of RTSP RECORD commands detected.	Int32
rtsp-option	The total number of RTSP OPTION commands detected.	Int32
rtsp-redir	The total number of RTSP REDIRECT commands detected.	Int32
rtsp-desc	The total number of RTSP DESCRIBE commands detected.	Int32
rtsp-announ	The total number of RTSP ANNOUNCE commands detected.	Int32
rtsp-trdwn	The total number of RTSP TEARDOWN commands detected.	Int32
rtsp-get-param	The total number of RTSP GET PARAMETER commands detected.	Int32
rtsp-set-param	The total number of RTSP SET PARAMETER commands detected.	Int32
rtsp-inv-pkts	The total number of invalid RTSP packets detected.	Int32
RTP Analyzer Specific Statistics		
rtp-flows	The combined total of the number of RTP flows previously analyzed + RTP flows currently being analyzed.	Int32

Statistic	Description	Data Type
rtp-flows-cur	The number of RTP flows currently being analyzed.	Int32
rtp-uplk-bytes	The total number of RTP bytes detected in uplink direction.	Int64
rtp-dwnlk-bytes	The total number of RTP bytes detected in downlink direction.	Int64
rtp-uplk-pkts	The total number of RTP packets detected in uplink direction.	Int64
rtp-dwnlk-pkts	The total number of RTP packets detected in downlink direction.	Int64
FTP Analyzer Specific Statistics		
ftp-flows	The combined total of the number of FTP flows previously analyzed + FTP flows currently being analyzed.	Int32
ftp-flows-cur	The number of FTP flows currently being analyzed.	Int32
ftp-uplk-bytes	The total number of FTP bytes detected in uplink direction.	Int64
ftp-dwnlk-bytes	The total number of FTP bytes detected in downlink direction.	Int64
ftp-uplk-pkts	The total number of FTP packets detected in uplink direction.	Int64
ftp-dwnlk-pkts	The total number of FTP packets detected in downlink direction.	Int64
ftp-retr	The total number of FTP RETR commands detected.	Int32
ftp-stor	The total number of FTP STOR commands detected.	Int32
ftp-inv-pkts	The total number of invalid FTP packets detected.	Int32
SMTP Analyzer Specific Statistics		
smtp-flows	The combined total of the number of SMTP flows previously analyzed + SMTP flows currently being analyzed.	Int32
smtp-flows-cur	The number of SMTP flows currently being analyzed.	Int32
smtp-uplk-bytes	The total number of SMTP bytes detected in uplink direction.	Int64
smtp-dwnlk-bytes	The total number of SMTP bytes detected in downlink direction.	Int64
smtp-uplk-pkts	The total number of SMTP packets detected in uplink direction.	Int64
smtp-dwnlk-pkts	The total number of SMTP packets detected in downlink direction.	Int64
smtp-uplk-bytes-retr	The total number of SMTP bytes retransmitted in uplink direction.	Int32
smtp-dwnlk-bytes-retr	The total number of SMTP bytes retransmitted in downlink direction.	Int32
smtp-uplk-pkts-retr	The total number of SMTP packets retransmitted in uplink direction.	Int32
smtp-dwnlk-pkts-retr	The total number of SMTP packets retransmitted in downlink direction.	Int32
smtp-unk-cmd	The total number of SMTP Unknown commands detected.	Int32
smtp-unk-resp	The total number of SMTP Unknown responses detected.	Int32
smtp-req-succ	The total number of SMTP requests succeeded.	Int32
smtp-req-fail	The total number of failed SMTP requests.	Int32

## ■ Common Statistics

Statistic	Description	Data Type
smtp-helo	The total number of SMTP HELO commands detected.	Int32
smtp-ehlo	The total number of SMTP EHLO commands detected.	Int32
smtp-mail-frm	The total number of SMTP MAIL FROM commands detected.	Int32
smtp-rcpt-to	The total number of SMTP RCPT TO commands detected.	Int32
smtp-data	The total number of SMTP DATA commands detected.	Int32
smtp-bdat	The total number of SMTP BDAT commands detected.	Int32
smtp-vrfy	The total number of SMTP VERIFY commands detected.	Int32
smtp-expn	The total number of SMTP EXPN commands detected.	Int32
smtp-noop	The total number of SMTP NOOP commands detected.	Int32
smtp-rset	The total number of SMTP RSET commands detected.	Int32
smtp-quit	The total number of SMTP QUIT commands detected.	Int32
smtp-inv-pkts	The total number of invalid SMTP packets detected.	Int32
POP3 Analyzer Specific Statistics		
pop3-flows	The combined total of the number of POP3 flows previously analyzed + POP3 flows currently being analyzed.	Int32
pop3-flows-cur	The number of POP3 flows currently being analyzed.	Int32
pop3-uplk-bytes	The total number of POP3 bytes detected in uplink direction.	Int64
pop3-dwnlk-bytes	The total number of POP3 bytes detected in downlink direction.	Int64
pop3-uplk-pkts	The total number of POP3 packets detected in uplink direction.	Int64
pop3-dwnlk-pkts	The total number of POP3 packets detected in downlink direction.	Int64
pop3-uplk-bytes-retr	The total number of POP3 bytes retransmitted in uplink direction.	Int32
pop3-dwnlk-bytes-retr	The total number of POP3 bytes retransmitted in downlink direction.	Int32
pop3-uplk-pkts-retr	The total number of POP3 packets retransmitted in uplink direction.	Int32
pop3-dwnlk-pkts-retr	The total number of POP3 packets retransmitted in downlink direction.	Int32
pop3-retr	The total number of POP3 RETR commands detected.	Int32
pop3-retr-succ	The total number of POP3 RETR commands successful.	Int32
pop3-list	The total number of POP3 LIST commands detected.	Int32
pop3-list-succ	The total number of POP3 LIST commands successful.	Int32
pop3-inv-pkts	The total number of invalid POP3 packets detected.	Int32
IMAP Statistics		
imap-uplk-bytes	The total number of IMAP bytes detected in uplink direction.	Int64
imap-dwnlk-bytes	The total number of IMAP bytes detected in downlink direction.	Int64

Statistic	Description	Data Type
imap-uplk-pkts	The total number of IMAP packets detected in uplink direction.	Int32
imap-dwnlk-pkts	The total number of IMAP packets detected in downlink direction.	Int32
imap-uplk-bytes-retr	The total number of IMAP retry bytes detected in uplink direction.	Int64
imap-dwnlk-bytes-retr	The total number of IMAP retry bytes detected in downlink direction.	Int64
imap-uplk-pkts-retr	The total number of IMAP retry packets detected in uplink direction.	Int32
imap-dwnlk-pkts-retr	The total number of IMAP retry packets detected in downlink direction.	Int32
imap-req-succ	The total number of successful IMAP requests detected.	Int32
imap-req-fail	The total number of failed IMAP requests detected.	Int32
imap-reply-untag	The total number of untagged IMAP replies detected.	Int32
imap-reply-commcont	The total number of IMAP Command Cont replies detected.	Int32
imap-unk-command	The total number of unknown IMAP commands detected.	Int32
imap-unk-reply	The total number of unknown IMAP replies detected.	Int32
acf-req-created	Total number of ACF requests created.	Int64
acf-wr-req-succ	Total number of successful ACF WRITE requests.	Int64
acf-wr-req-failed	Total number of ACF WRITE requests failed.	Int64
acf-rd-rsp-succ	Total number of successful ACF READ responses.	Int64
acf-rd-rsp-failed	Total number of failed READ responses.	Int64
acf-http-permit	Total number of HTTP URLs permitted from ACF.	Int64
acf-http-deny	Total number of HTTP URLs denied from ACF.	Int64
acf-http-redirect	Total number of HTTP URLs redirected from ACF.	Int64
acf-wap-permit	Total number of WAP URLs permitted from ACF.	Int64
acf-wap-deny	Total number of WAP URLs denied from ACF.	Int64
acf-wap-redirect	Total number of WAP URLs redirected from ACF.	Int64
P2P Specific Statistics		
p2p-flows	This proprietary counter indicates the total number of P2P flows detected. Triggers: Increments when a flow is marked as P2P. Availability: Per Active Charging Service. Type: Counter	Int32
p2p-flows-cur	This proprietary counter indicates the number of currently active P2P flows. Triggers: Increments when a flow is marked as P2P. This is decremented when the flow state is cleaned up. Availability: Per Active Charging Service. Type: Counter	Int32

Statistic	Description	Data Type
p2p-subscribers	The total number of subscribers who had P2P flows. Triggers: Increments when Availability: Per Active Charging Service. Type: Counter	Int32
p2p-subscribers-cur	The current active subscribers who have P2P flows. Triggers: Increments when Availability: Per Active Charging Service. Type: Counter	Int32
p2p-skype-uplnk-bytes	This proprietary counter indicates the number of bytes of Skype traffic detected in uplink direction. Triggers: Increments when a packet of Skype traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-skype-dwlnk-bytes	This proprietary counter indicates the number of bytes of Skype traffic detected in downlink direction. Triggers: Increments when a packet of Skype traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-skype-uplnk-pkts	This proprietary counter indicates the number of packets of Skype traffic detected in uplink direction. Triggers: Increments when a packet of Skype traffic is detected by P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-skype-dwlnk-pkts	This proprietary counter indicates the number of packets of Skype traffic detected in downlink direction. Triggers: Increments when a packet of Skype traffic is detected by P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-skype-voice-uplnk-bytes	This proprietary counter indicates the number of bytes of Skype voice traffic detected in uplink direction. Triggers: Increments when a packet of Skype voice traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-skype-voice-dwlnk-bytes	This proprietary counter indicates the number of bytes of Skype voice traffic detected in downlink direction. Triggers: Increments when a packet of Skype voice traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-skype-voice-uplnk-pkts	This proprietary counter indicates the number of packets of Skype voice traffic detected in uplink direction. Triggers: Increments when a packet of Skype voice traffic is detected by P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64

Statistic	Description	Data Type
p2p-skype-voice-dwlnk-pkts	This proprietary counter indicates the number of packets of Skype voice traffic detected in downlink direction. Triggers: Increments when a packet of Skype voice traffic is detected by P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-skype-non-voice-uplnk-bytes	This proprietary counter indicates the number of bytes of Skype non-voice traffic detected in uplink direction. Triggers: Increments when a packet of Skype non-voice traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-skype-non-voice-dwlnk-bytes	This proprietary counter indicates the number of bytes of Skype non-voice traffic detected in downlink direction. Triggers: Increments when a packet of Skype non-voice traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-skype-non-voice-uplnk-pkts	This proprietary counter indicates the number of packets of Skype non-voice traffic detected in uplink direction. Triggers: Increments when a packet of Skype non-voice traffic is detected by P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-skype-non-voice-dwlnk-pkts	This proprietary counter indicates the number of packets of Skype non-voice traffic detected in downlink direction. Triggers: Increments when a packet of Skype non-voice traffic is detected by P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-bittorrent-uplnk-bytes	This proprietary counter indicates the number of bytes of BitTorrent traffic detected in uplink direction. Triggers: Increments when a packet of BitTorrent traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-bittorrent-dwlnk-bytes	This proprietary counter indicates the number of bytes of BitTorrent traffic detected in downlink direction. Triggers: Increments when a packet of BitTorrent traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-bittorrent-uplnk-pkts	This proprietary counter indicates the number of packets of BitTorrent traffic detected in uplink direction. Triggers: Increments when a packet of BitTorrent traffic is detected by P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64

Statistic	Description	Data Type
p2p-bittorrent-dwlnk-pkts	This proprietary counter indicates the number of packets of BitTorrent traffic detected in downlink direction. Triggers: Increments when a packet of BitTorrent traffic is detected by P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-edonkey-uplnk-bytes	This proprietary counter indicates the number of bytes of eDonkey traffic detected in uplink direction. Triggers: Increments when a packet of eDonkey traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-edonkey-dwlnk-bytes	This proprietary counter indicates the number of bytes of eDonkey traffic detected in downlink direction. Triggers: Increments when a packet of eDonkey traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-edonkey-uplnk-pkts	This proprietary counter indicates the number of packets of eDonkey traffic detected in uplink direction. Triggers: Increments when a packet of eDonkey traffic is detected by P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-edonkey-dwlnk-pkts	This proprietary counter indicates the number of packets of eDonkey traffic detected in downlink direction. Triggers: Increments when a packet of eDonkey traffic is detected by P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-msn-uplnk-bytes	This proprietary counter indicates the number of bytes of MSN traffic detected in uplink direction. Triggers: Increments when a packet of MSN traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-msn-dwlnk-bytes	This proprietary counter indicates the number of bytes of MSN traffic detected in downlink direction. Triggers: Increments when a packet of MSN traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-msn-uplnk-pkts	This proprietary counter indicates the number of packets of MSN traffic detected in uplink direction. Triggers: Increments when a packet of MSN traffic is detected by P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64

Statistic	Description	Data Type
p2p-msn-dwlnk-pkts	This proprietary counter indicates the number of packets of MSN traffic detected in downlink direction. Triggers: Increments when a packet of MSN traffic is detected by P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-msn-voice-uplnk-bytes	This proprietary counter indicates the number of bytes of MSN voice traffic detected in uplink direction. Triggers: Increments when a packet of MSN voice traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-msn-voice-dwlnk-bytes	This proprietary counter indicates the number of bytes of MSN voice traffic detected in downlink direction. Triggers: Increments when a packet of MSN voice traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-msn-voice-uplnk-pkts	This proprietary counter indicates the number of packets of MSN voice traffic detected in uplink direction. Triggers: Increments when a packet of MSN voice traffic is detected by P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-msn-voice-dwlnk-pkts	This proprietary counter indicates the number of packets of MSN voice traffic detected in downlink direction. Triggers: Increments when a packet of MSN voice traffic is detected by P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-msn-non-voice-uplnk-bytes	This proprietary counter indicates the number of bytes of MSN non-voice traffic detected in uplink direction. Triggers: Increments when a packet of MSN non-voice traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-msn-non-voice-dwlnk-bytes	This proprietary counter indicates the number of bytes of MSN non-voice traffic detected in downlink direction. Triggers: Increments when a packet of MSN non-voice traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-msn-non-voice-uplnk-pkts	This proprietary counter indicates the number of packets of MSN non-voice traffic detected in uplink direction. Triggers: Increments when a packet of MSN non-voice traffic is detected by P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64

Statistic	Description	Data Type
p2p-msn-non-voice-dwlnk-pkts	This proprietary counter indicates the number of packets of MSN non-voice traffic detected in downlink direction. Triggers: Increments when a packet of MSN non-voice traffic is detected by P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-yahoo-uplnk-bytes	This proprietary counter indicates the number of bytes of Yahoo traffic detected in uplink direction. Triggers: Increments when a packet of Yahoo traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-yahoo-dwlnk-bytes	This proprietary counter indicates the number of bytes of Yahoo traffic detected in downlink direction. Triggers: Increments when a packet of Yahoo traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-yahoo-uplnk-pkts	This proprietary counter indicates the number of packets of Yahoo traffic detected in uplink direction. Triggers: Increments when a packet of Yahoo traffic is detected by P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-yahoo-dwlnk-pkts	This proprietary counter indicates the number of packets of Yahoo traffic detected in downlink direction. Triggers: Increments when a packet of Yahoo traffic is detected by P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-yahoo-voice-uplnk-bytes	This proprietary counter indicates the number of bytes of Yahoo voice traffic detected in uplink direction. Triggers: Increments when a packet of Yahoo voice traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-yahoo-voice-dwlnk-bytes	This proprietary counter indicates the number of bytes of Yahoo voice traffic detected in downlink direction. Triggers: Increments when a packet of Yahoo voice traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-yahoo-voice-uplnk-pkts	This proprietary counter indicates the number of packets of Yahoo voice traffic detected in uplink direction. Triggers: Increments when a packet of Yahoo voice traffic is detected by P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64

Statistic	Description	Data Type
p2p-yahoo-voice-dwlnk-pkts	This proprietary counter indicates the number of packets of Yahoo voice traffic detected in downlink direction. Triggers: Increments when a packet of Yahoo voice traffic is detected by P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-yahoo-non-voice-uplnk-bytes	This proprietary counter indicates the number of bytes of Yahoo non-voice traffic detected in uplink direction. Triggers: Increments when a packet of Yahoo non-voice traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-yahoo-non-voice-dwlnk-bytes	This proprietary counter indicates the number of bytes of Yahoo non-voice traffic detected in downlink direction. Triggers: Increments when a packet of Yahoo non-voice traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-yahoo-non-voice-uplnk-pkts	This proprietary counter indicates the number of packets of Yahoo non-voice traffic detected in uplink direction. Triggers: Increments when a packet of Yahoo non-voice traffic is detected by P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-yahoo-non-voice-dwlnk-pkts	This proprietary counter indicates the number of packets of Yahoo non-voice traffic detected in downlink direction. Triggers: Increments when a packet of Yahoo non-voice traffic is detected by P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-orb-uplnk-bytes	This proprietary counter indicates the number of bytes of ORB traffic detected in uplink direction. Triggers: Increments when a packet of ORB traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-orb-dwlnk-bytes	This proprietary counter indicates the number of bytes of ORB traffic detected in downlink direction. Triggers: Increments when a packet of ORB traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-orb-uplnk-pkts	This proprietary counter indicates the number of packets of ORB traffic detected in uplink direction. Triggers: Increments when a packet of ORB traffic is detected by P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64

Statistic	Description	Data Type
p2p-orb-dwlnk-pkts	This proprietary counter indicates the number of packets of ORB traffic detected in downlink direction. Triggers: Increments when a packet of ORB traffic is detected by P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-winy-uplnk-bytes	This proprietary counter indicates the number of bytes of Winy traffic detected in uplink direction. Triggers: Increments when a packet of Winy traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-winy-dwlnk-bytes	This proprietary counter indicates the number of bytes of Winy traffic detected in downlink direction. Triggers: Increments when a packet of Winy traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-winy-uplnk-pkts	This proprietary counter indicates the number of packets of Winy traffic detected in uplink direction. Triggers: Increments when a packet of Winy traffic is detected by P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-winy-dwlnk-pkts	This proprietary counter indicates the number of packets of Winy traffic detected in downlink direction. Triggers: Increments when a packet of Winy traffic is detected by P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-slingbox-uplnk-bytes	This proprietary counter indicates the number of bytes of Slingbox traffic detected in uplink direction. Triggers: Increments when a packet of Slingbox traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-slingbox-dwlnk-bytes	This proprietary counter indicates the number of bytes of Slingbox traffic detected in downlink direction. Triggers: Increments when a packet of Slingbox traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-slingbox-uplnk-pkts	This proprietary counter indicates the number of packets of Slingbox traffic detected in uplink direction. Triggers: Increments when a packet of Slingbox traffic is detected by P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64

Statistic	Description	Data Type
p2p-slingbox-dwlnk-pkts	This proprietary counter indicates the number of packets of Slingbox traffic detected in downlink direction. Triggers: Increments when a packet of Slingbox traffic is detected by P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-fasttrack-uplnk-bytes	This proprietary counter indicates the number of bytes of FastTrack traffic detected in uplink direction. Triggers: Increments when a packet of FastTrack traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-fasttrack-dwlnk-bytes	This proprietary counter indicates the number of bytes of FastTrack traffic detected in downlink direction. Triggers: Increments when a packet of FastTrack traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-fasttrack-uplnk-pkts	This proprietary counter indicates the number of packets of FastTrack traffic detected in uplink direction. Triggers: Increments when a packet of FastTrack traffic is detected by P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-fasttrack-dwlnk-pkts	This proprietary counter indicates the number of packets of FastTrack traffic detected in downlink direction. Triggers: Increments when a packet of FastTrack traffic is detected by P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-gnutella-uplnk-bytes	This proprietary counter indicates the number of bytes of Gnutella traffic detected in uplink direction. Triggers: Increments when a packet of Gnutella traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-gnutella-dwlnk-bytes	This proprietary counter indicates the number of bytes of Gnutella traffic detected in downlink direction. Triggers: Increments when a packet of Gnutella traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-gnutella-uplnk-pkts	This proprietary counter indicates the number of packets of Gnutella traffic detected in uplink direction. Triggers: Increments when a packet of Gnutella traffic is detected by P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64

Statistic	Description	Data Type
p2p-gnutella-dwlnk-pkts	This proprietary counter indicates the number of packets of Gnutella traffic detected in downlink direction. Triggers: Increments when a packet of Gnutella traffic is detected by P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-jabber-uplnk-bytes	This proprietary counter indicates the number of bytes of Jabber traffic detected in uplink direction. Triggers: Increments when a packet of Jabber traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-jabber-dwlnk-bytes	This proprietary counter indicates the number of bytes of Jabber traffic detected in downlink direction. Triggers: Increments when a packet of Jabber traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-jabber-uplnk-pkts	This proprietary counter indicates the number of packets of Jabber traffic detected in uplink direction. Triggers: Increments when a packet of Jabber traffic is detected by P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-jabber-dwlnk-pkts	This proprietary counter indicates the number of packets of Jabber traffic detected in downlink direction. Triggers: Increments when a packet of Jabber traffic is detected by P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-manolito-uplnk-bytes	This proprietary counter indicates the number of bytes of manolito traffic detected in uplink direction. Triggers: Increments when a packet of manolito traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-manolito-dwlnk-bytes	This proprietary counter indicates the number of bytes of manolito traffic detected in downlink direction. Triggers: Increments when a packet of manolito traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-manolito-uplnk-pkts	This proprietary counter indicates the number of packets of manolito traffic detected in uplink direction. Triggers: Increments when a packet of manolito traffic is detected by P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64

Statistic	Description	Data Type
p2p-manolito-dwlnk-pkts	This proprietary counter indicates the number of packets of manolito traffic detected in downlink direction. Triggers: Increments when a packet of manolito traffic is detected by P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-pando-uplnk-bytes	This proprietary counter indicates the number of bytes of pando traffic detected in uplink direction. Triggers: Increments when a packet of pando traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-pando-dwlnk-bytes	This proprietary counter indicates the number of bytes of pando traffic detected in downlink direction. Triggers: Increments when a packet of pando traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-pando-uplnk-pkts	This proprietary counter indicates the number of packets of pando traffic detected in uplink direction. Triggers: Increments when a packet of pando traffic is detected by P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-pando-dwlnk-pkts	This proprietary counter indicates the number of packets of pando traffic detected in downlink direction. Triggers: Increments when a packet of pando traffic is detected by P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-filetopia-uplnk-bytes	This proprietary counter indicates the number of bytes of filetopia traffic detected in uplink direction. Triggers: Increments when a packet of filetopia traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-filetopia-dwlnk-bytes	This proprietary counter indicates the number of bytes of filetopia traffic detected in downlink direction. Triggers: Increments when a packet of filetopia traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-filetopia-uplnk-pkts	This proprietary counter indicates the number of packets of filetopia traffic detected in uplink direction. Triggers: Increments when a packet of filetopia traffic is detected by P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64

Statistic	Description	Data Type
p2p-filetopia-dwlnk-pkts	This proprietary counter indicates the number of packets of filetopia traffic detected in downlink direction. Triggers: Increments when a packet of filetopia traffic is detected by P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-soulseek-uplnk-bytes	This proprietary counter indicates the number of bytes of soulseek traffic detected in uplink direction. Triggers: Increments when a packet of soulseek traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-soulseek-dwlnk-bytes	This proprietary counter indicates the number of bytes of soulseek traffic detected in downlink direction. Triggers: Increments when a packet of soulseek traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-soulseek-uplnk-pkts	This proprietary counter indicates the number of packets of soulseek traffic detected in uplink direction. Triggers: Increments when a packet of soulseek traffic is detected by P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-soulseek-dwlnk-pkts	This proprietary counter indicates the number of packets of soulseek traffic detected in downlink direction. Triggers: Increments when a packet of soulseek traffic is detected by P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-ppstream-uplnk-bytes	This proprietary counter indicates the number of bytes of ppstream traffic detected in uplink direction. Triggers: Increments when a packet of ppstream traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-ppstream-dwlnk-bytes	This proprietary counter indicates the number of bytes of ppstream traffic detected in downlink direction. Triggers: Increments when a packet of ppstream traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-ppstream-uplnk-pkts	This proprietary counter indicates the number of packets of ppstream traffic detected in uplink direction. Triggers: Increments when a packet of ppstream traffic is detected by P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64

Statistic	Description	Data Type
p2p-ppstream-dwlnk-pkts	This proprietary counter indicates the number of packets of ppstream traffic detected in downlink direction. Triggers: Increments when a packet of ppstream traffic is detected by P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-qq-uplnk-bytes	This proprietary counter indicates the number of bytes of qq traffic detected in uplink direction. Triggers: Increments when a packet of qq traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-qq-dwlnk-bytes	This proprietary counter indicates the number of bytes of qq traffic detected in downlink direction. Triggers: Increments when a packet of qq traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-qq-uplnk-pkts	This proprietary counter indicates the number of packets of qq traffic detected in uplink direction. Triggers: Increments when a packet of qq traffic is detected by P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-qq-dwlnk-pkts	This proprietary counter indicates the number of packets of qq traffic detected in downlink direction. Triggers: Increments when a packet of qq traffic is detected by P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-qqlive-uplnk-bytes	This proprietary counter indicates the number of bytes of qqlive traffic detected in uplink direction. Triggers: Increments when a packet of qqlive traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-qqlive-dwlnk-bytes	This proprietary counter indicates the number of bytes of qqlive traffic detected in downlink direction. Triggers: Increments when a packet of qqlive traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-qqlive-uplnk-pkts	This proprietary counter indicates the number of packets of qqlive traffic detected in uplink direction. Triggers: Increments when a packet of qqlive traffic is detected by the P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64

Statistic	Description	Data Type
p2p-qqlive-dwlnk-pkts	This proprietary counter indicates the number of packets of qqlive traffic detected in downlink direction. Triggers: Increments when a packet of qqlive traffic is detected by the P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-mute-uplnk-bytes	This proprietary counter indicates the number of bytes of Mute traffic detected in uplink direction. Triggers: Increments when a packet of mute traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-mute-dwlnk-bytes	This proprietary counter indicates the number of bytes of Mute traffic detected in downlink direction. Triggers: Increments when a packet of mute traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-mute-uplnk-pkts	This proprietary counter indicates the number of packets of Mute traffic detected in uplink direction. Triggers: Increments when a packet of mute traffic is detected by the P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-mute-dwlnk-pkts	This proprietary counter indicates the number of packets of Mute traffic detected in downlink direction. Triggers: Increments when a packet of mute traffic is detected by the P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-gadugadu-uplnk-bytes	This proprietary counter indicates the number of bytes of gadugadu traffic detected in uplink direction. Triggers: Increments when a packet of gadugadu traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-gadugadu-dwlnk-bytes	This proprietary counter indicates the number of bytes of gadugadu traffic detected in downlink direction. Triggers: Increments when a packet of gadugadu traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-gadugadu-uplnk-pkts	This proprietary counter indicates the number of packets of gadugadu traffic detected in uplink direction. Triggers: Increments when a packet of gadugadu traffic is detected by the P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64

Statistic	Description	Data Type
p2p-gadugadu-dwlnk-pkts	This proprietary counter indicates the number of packets of gadugadu traffic detected in downlink direction. Triggers: Increments when a packet of gadugadu traffic is detected by the P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-feidian-uplnk-bytes	This proprietary counter indicates the number of bytes of feidian traffic detected in uplink direction. Triggers: Increments when a packet of feidian traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-feidian-dwlnk-bytes	This proprietary counter indicates the number of bytes of feidian traffic detected in downlink direction. Triggers: Increments when a packet of feidian traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-feidian-uplnk-pkts	This proprietary counter indicates the number of packets of feidian traffic detected in uplink direction. Triggers: Increments when a packet of feidian traffic is detected by the P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-feidian-dwlnk-pkts	This proprietary counter indicates the number of packets of feidian traffic detected in downlink direction. Triggers: Increments when a packet of feidian traffic is detected by the P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-applejuice-uplnk-bytes	This proprietary counter indicates the number of bytes of applejuice traffic detected in uplink direction. Triggers: Increments when a packet of applejuice traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-applejuice-dwlnk-bytes	This proprietary counter indicates the number of bytes of applejuice traffic detected in downlink direction. Triggers: Increments when a packet of applejuice traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-applejuice-uplnk-pkts	This proprietary counter indicates the number of packets of applejuice traffic detected in uplink direction. Triggers: Increments when a packet of applejuice traffic is detected by the P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64

Statistic	Description	Data Type
p2p-applejuice-dwlnk-pkts	This proprietary counter indicates the number of packets of applejuice traffic detected in downlink direction. Triggers: Increments when a packet of applejuice traffic is detected by the P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-zattoo-uplnk-bytes	This proprietary counter indicates the number of bytes of zattoo traffic detected in uplink direction. Triggers: Increments when a packet of zattoo traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-zattoo-dwlnk-bytes	This proprietary counter indicates the number of bytes of zattoo traffic detected in downlink direction. Triggers: Increments when a packet of zattoo traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-zattoo-uplnk-pkts	This proprietary counter indicates the number of packets of zattoo traffic detected in uplink direction. Triggers: Increments when a packet of zattoo traffic is detected by the P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-zattoo-dwlnk-pkts	This proprietary counter indicates the number of packets of zattoo traffic detected in downlink direction. Triggers: Increments when a packet of feidian traffic is detected by the P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-skinny-uplnk-bytes	This proprietary counter indicates the number of bytes of skinny traffic detected in uplink direction. Triggers: Increments when a packet of skinny traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-skinny-dwlnk-bytes	This proprietary counter indicates the number of bytes of skinny traffic detected in downlink direction. Triggers: Increments when a packet of skinny traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-skinny-uplnk-pkts	This proprietary counter indicates the number of packets of skinny traffic detected in uplink direction. Triggers: Increments when a packet of skinny traffic is detected by the P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64

Statistic	Description	Data Type
p2p-skinny-dwlnk-pkts	This proprietary counter indicates the number of packets of skinny traffic detected in downlink direction. Triggers: Increments when a packet of skinny traffic is detected by the P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-sopcast-uplnk-bytes	This proprietary counter indicates the number of bytes of sopcast traffic detected in uplink direction. Triggers: Increments when a packet of sopcast traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-sopcast-dwlnk-bytes	This proprietary counter indicates the number of bytes of sopcast traffic detected in downlink direction. Triggers: Increments when a packet of sopcast traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-sopcast-uplnk-pkts	This proprietary counter indicates the number of packets of sopcast traffic detected in uplink direction. Triggers: Increments when a packet of sopcast traffic is detected by the P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-sopcast-dwlnk-pkts	This proprietary counter indicates the number of packets of sopcast traffic detected in downlink direction. Triggers: Increments when a packet of sopcast traffic is detected by the P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-ares-uplnk-bytes	This proprietary counter indicates the number of bytes of ares traffic detected in uplink direction. Triggers: Increments when a packet of ares traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-ares-dwlnk-bytes	This proprietary counter indicates the number of bytes of ares traffic detected in downlink direction. Triggers: Increments when a packet of ares traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-ares-uplnk-pkts	This proprietary counter indicates the number of packets of ares traffic detected in uplink direction. Triggers: Increments when a packet of ares traffic is detected by the P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64

Statistic	Description	Data Type
p2p-ares-dwlnk-pkts	This proprietary counter indicates the number of packets of ares traffic detected in downlink direction. Triggers: Increments when a packet of ares traffic is detected by the P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-directconnect-uplnk-bytes	This proprietary counter indicates the number of bytes of directconnect traffic detected in uplink direction. Triggers: Increments when a packet of directconnect traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-directconnect-dwlnk-bytes	This proprietary counter indicates the number of bytes of directconnect traffic detected in downlink direction. Triggers: Increments when a packet of directconnect traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-directconnect-uplnk-pkts	This proprietary counter indicates the number of packets of directconnect traffic detected in uplink direction. Triggers: Increments when a packet of directconnect traffic is detected by the P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-directconnect-dwlnk-pkts	This proprietary counter indicates the number of packets of directconnect traffic detected in downlink direction. Triggers: Increments when a packet of directconnect traffic is detected by the P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-imesh-uplnk-bytes	This proprietary counter indicates the number of bytes of imesh traffic detected in uplink direction. Triggers: Increments when a packet of imesh traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-imesh-dwlnk-bytes	This proprietary counter indicates the number of bytes of imesh traffic detected in downlink direction. Triggers: Increments when a packet of imesh traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-imesh-uplnk-pkts	This proprietary counter indicates the number of packets of imesh traffic detected in uplink direction. Triggers: Increments when a packet of imesh traffic is detected by the P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64

Statistic	Description	Data Type
p2p-imesh-dwlnk-pkts	This proprietary counter indicates the number of packets of imesh traffic detected in downlink direction. Triggers: Increments when a packet of imesh traffic is detected by the P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-pplive-uplnk-bytes	This proprietary counter indicates the number of bytes of pplive traffic detected in uplink direction. Triggers: Increments when a packet of pplive traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-pplive-dwlnk-bytes	This proprietary counter indicates the number of bytes of pplive traffic detected in downlink direction. Triggers: Increments when a packet of pplive traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-pplive-uplnk-pkts	This proprietary counter indicates the number of packets of pplive traffic detected in uplink direction. Triggers: Increments when a packet of pplive traffic is detected by the P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-pplive-dwlnk-pkts	This proprietary counter indicates the number of packets of pplive traffic detected in downlink direction. Triggers: Increments when a packet of pplive traffic is detected by the P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-oscar-uplnk-bytes	This proprietary counter indicates the number of bytes of oscar traffic detected in uplink direction. Triggers: Increments when a packet of oscar traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-oscar-dwlnk-bytes	This proprietary counter indicates the number of bytes of oscar traffic detected in downlink direction. Triggers: Increments when a packet of oscar traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-oscar-uplnk-pkts	This proprietary counter indicates the number of packets of oscar traffic detected in uplink direction. Triggers: Increments when a packet of oscar traffic is detected by the P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64

Statistic	Description	Data Type
p2p-oscar-dwlnk-pkts	This proprietary counter indicates the number of packets of oscar traffic detected in downlink direction. Triggers: Increments when a packet of oscar traffic is detected by the P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-oscar-voice-uplnk-bytes	This proprietary counter indicates the number of bytes of oscar voice traffic detected in uplink direction. Triggers: Increments when a packet of oscar voice traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-oscar-voice-dwlnk-bytes	This proprietary counter indicates the number of bytes of oscar voice traffic detected in downlink direction. Triggers: Increments when a packet of oscar voice traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-oscar-voice-uplnk-pkts	This proprietary counter indicates the number of packets of oscar voice traffic detected in uplink direction. Triggers: Increments when a packet of oscar voice traffic is detected by the P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-oscar-voice-dwlnk-pkts	This proprietary counter indicates the number of packets of oscar voice traffic detected in downlink direction. Triggers: Increments when a packet of oscar voice traffic is detected by the P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-oscar-non-voice-uplnk-bytes	This proprietary counter indicates the number of bytes of oscar non-voice traffic detected in uplink direction. Triggers: Increments when a packet of oscar non-voice traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-oscar-non-voice-dwlnk-bytes	This proprietary counter indicates the number of bytes of oscar non-voice traffic detected in downlink direction. Triggers: Increments when a packet of oscar non-voice traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-oscar-non-voice-uplnk-pkts	This proprietary counter indicates the number of packets of oscar non-voice traffic detected in uplink direction. Triggers: Increments when a packet of oscar non-voice traffic is detected by the P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64

Statistic	Description	Data Type
p2p-oscar-non-voice-dwlnk-pkts	This proprietary counter indicates the number of packets of oscar non-voice traffic detected in downlink direction. Triggers: Increments when a packet of oscar non-voice traffic is detected by the P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-popo-uplnk-bytes	This proprietary counter indicates the number of bytes of popo traffic detected in uplink direction. Triggers: Increments when a packet of popo traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-popo-dwlnk-bytes	This proprietary counter indicates the number of bytes of popo traffic detected in downlink direction. Triggers: Increments when a packet of popo traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-popo-uplnk-pkts	This proprietary counter indicates the number of packets of popo traffic detected in uplink direction. Triggers: Increments when a packet of popo traffic is detected by the P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-popo-dwlnk-pkts	This proprietary counter indicates the number of packets of popo traffic detected in downlink direction. Triggers: Increments when a packet of popo traffic is detected by the P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-irc-uplnk-bytes	This proprietary counter indicates the number of bytes of IRC traffic detected in uplink direction. Triggers: Increments when a packet of IRC traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-irc-dwlnk-bytes	This proprietary counter indicates the number of bytes of IRC traffic detected in downlink direction. Triggers: Increments when a packet of IRC traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-irc-uplnk-pkts	This proprietary counter indicates the number of packets of IRC traffic detected in uplink direction. Triggers: Increments when a packet of IRC traffic is detected by the P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64

Statistic	Description	Data Type
p2p-irc-dwlnk-pkts	This proprietary counter indicates the number of packets of IRC traffic detected in downlink direction. Triggers: Increments when a packet of IRC traffic is detected by the P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-steam-uplnk-bytes	This proprietary counter indicates the number of bytes of steam traffic detected in uplink direction. Triggers: Increments when a packet of steam traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-steam-dwlnk-bytes	This proprietary counter indicates the number of bytes of steam traffic detected in downlink direction. Triggers: Increments when a packet of steam traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-steam-uplnk-pkts	This proprietary counter indicates the number of packets of steam traffic detected in uplink direction. Triggers: Increments when a packet of steam traffic is detected by the P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-steam-dwlnk-pkts	This proprietary counter indicates the number of packets of steam traffic detected in downlink direction. Triggers: Increments when a packet of steam traffic is detected by the P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-ddlink-uplnk-bytes	This proprietary counter indicates the number of bytes of ddlink traffic detected in uplink direction. Triggers: Increments when a packet of ddlink traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-ddlink-dwlnk-bytes	This proprietary counter indicates the number of bytes of ddlink traffic detected in downlink direction. Triggers: Increments when a packet of ddlink traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-ddlink-uplnk-pkts	This proprietary counter indicates the number of packets of ddlink traffic detected in uplink direction. Triggers: Increments when a packet of ddlink traffic is detected by the P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64

Statistic	Description	Data Type
p2p-ddlink-dwlnk-pkts	This proprietary counter indicates the number of packets of dmlink traffic detected in downlink direction. Triggers: Increments when a packet of dmlink traffic is detected by the P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-halflife2-uplnk-bytes	This proprietary counter indicates the number of bytes of halfife2 traffic detected in uplink direction. Triggers: Increments when a packet of halfife2 traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-halflife2-dwlnk-bytes	This proprietary counter indicates the number of bytes of halfife2 traffic detected in downlink direction. Triggers: Increments when a packet of halfife2 traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-halfife2-uplnk-pkts	This proprietary counter indicates the number of packets of halfife2 traffic detected in uplink direction. Triggers: Increments when a packet of halfife2 traffic is detected by the P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-halfife2-dwlnk-pkts	This proprietary counter indicates the number of packets of halfife2 traffic detected in downlink direction. Triggers: Increments when a packet of halfife2 traffic is detected by the P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-hamachivpn-uplnk-bytes	This proprietary counter indicates the number of bytes of hamachivpn traffic detected in uplink direction. Triggers: Increments when a packet of hamachivpn traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-hamachivpn-dwlnk-bytes	This proprietary counter indicates the number of bytes of hamachivpn traffic detected in downlink direction. Triggers: Increments when a packet of hamachivpn traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-hamachivpn-uplnk-pkts	This proprietary counter indicates the number of packets of hamachivpn traffic detected in uplink direction. Triggers: Increments when a packet of hamachivpn traffic is detected by the P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64

Statistic	Description	Data Type
p2p-hamachivpn-dwlnk-pkts	This proprietary counter indicates the number of packets of hamachivpn traffic detected in downlink direction. Triggers: Increments when a packet of hamachivpn traffic is detected by the P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-tvants-uplnk-bytes	This proprietary counter indicates the number of bytes of tvants traffic detected in uplink direction. Triggers: Increments when a packet of tvants traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-tvants-dwlnk-bytes	This proprietary counter indicates the number of bytes of tvants traffic detected in downlink direction. Triggers: Increments when a packet of tvants traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-tvants-uplnk-pkts	This proprietary counter indicates the number of packets of tvants traffic detected in uplink direction. Triggers: Increments when a packet of tvants traffic is detected by the P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-tvants-dwlnk-pkts	This proprietary counter indicates the number of packets of tvants traffic detected in downlink direction. Triggers: Increments when a packet of tvants traffic is detected by the P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-tvuplayer-uplnk-bytes	This proprietary counter indicates the number of bytes of tvuplayer traffic detected in uplink direction. Triggers: Increments when a packet of tvuplayer traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-tvuplayer-dwlnk-bytes	This proprietary counter indicates the number of bytes of tvuplayer traffic detected in downlink direction. Triggers: Increments when a packet of tvuplayer traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-tvuplayer-uplnk-pkts	This proprietary counter indicates the number of packets of tvuplayer traffic detected in uplink direction. Triggers: Increments when a packet of tvuplayer traffic is detected by the P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64

Statistic	Description	Data Type
p2p-tvuplayer-dwlnk-pkts	This proprietary counter indicates the number of packets of tvuplayer traffic detected in downlink direction. Triggers: Increments when a packet of tvuplayer traffic is detected by the P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-uusee-uplnk-bytes	This proprietary counter indicates the number of bytes of uusee traffic detected in uplink direction. Triggers: Increments when a packet of uusee traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-uusee-dwlnk-bytes	This proprietary counter indicates the number of bytes of uusee traffic detected in downlink direction. Triggers: Increments when a packet of uusee traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-uusee-uplnk-pkts	This proprietary counter indicates the number of packets of uusee traffic detected in uplink direction. Triggers: Increments when a packet of uusee traffic is detected by the P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-uusee-dwlnk-pkts	This proprietary counter indicates the number of packets of uusee traffic detected in downlink direction. Triggers: Increments when a packet of uusee traffic is detected by the P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-vpnx-uplnk-bytes	This proprietary counter indicates the number of bytes of vpnx traffic detected in uplink direction. Triggers: Increments when a packet of vpnx traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-vpnx-dwlnk-bytes	This proprietary counter indicates the number of bytes of vpnx traffic detected in downlink direction. Triggers: Increments when a packet of vpnx traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-vpnx-uplnk-pkts	This proprietary counter indicates the number of packets of vpnx traffic detected in uplink direction. Triggers: Increments when a packet of vpnx traffic is detected by the P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64

Statistic	Description	Data Type
p2p-vpnx-dwlnk-pkts	This proprietary counter indicates the number of packets of vpnx traffic detected in downlink direction. Triggers: Increments when a packet of vpnx traffic is detected by the P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-vtun-uplnk-bytes	This proprietary counter indicates the number of bytes of vtun traffic detected in uplink direction. Triggers: Increments when a packet of vtun traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-vtun-dwlnk-bytes	This proprietary counter indicates the number of bytes of vtun traffic detected in downlink direction. Triggers: Increments when a packet of vtun traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-vtun-uplnk-pkts	This proprietary counter indicates the number of packets of vtun traffic detected in uplink direction. Triggers: Increments when a packet of vtun traffic is detected by the P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-vtun-dwlnk-pkts	This proprietary counter indicates the number of packets of vtun traffic detected in downlink direction. Triggers: Increments when a packet of vtun traffic is detected by the P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-winx-uplnk-bytes	This proprietary counter indicates the number of bytes of winmx traffic detected in uplink direction. Triggers: Increments when a packet of winmx traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-winx-dwlnk-bytes	This proprietary counter indicates the number of bytes of winmx traffic detected in downlink direction. Triggers: Increments when a packet of winmx traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-winx-uplnk-pkts	This proprietary counter indicates the number of packets of winmx traffic detected in uplink direction. Triggers: Increments when a packet of winmx traffic is detected by the P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64

Statistic	Description	Data Type
p2p-winmx-dwlnk-pkts	This proprietary counter indicates the number of packets of winmx traffic detected in downlink direction. Triggers: Increments when a packet of winmx traffic is detected by the P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-wofwarcraft-uplnk-bytes	This proprietary counter indicates the number of bytes of wofwarcraft traffic detected in uplink direction. Triggers: Increments when a packet of wofwarcraft traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-wofwarcraft-dwlnk-bytes	This proprietary counter indicates the number of bytes of wofwarcraft traffic detected in downlink direction. Triggers: Increments when a packet of wofwarcraft traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-wofwarcraft-uplnk-pkts	This proprietary counter indicates the number of packets of wofwarcraft traffic detected in uplink direction. Triggers: Increments when a packet of wofwarcraft traffic is detected by the P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-wofwarcraft-dwlnk-pkts	This proprietary counter indicates the number of packets of wofwarcraft traffic detected in downlink direction. Triggers: Increments when a packet of wofwarcraft traffic is detected by the P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-xbox-uplnk-bytes	This proprietary counter indicates the number of bytes of xbox traffic detected in uplink direction. Triggers: Increments when a packet of xbox traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-xbox-dwlnk-bytes	This proprietary counter indicates the number of bytes of xbox traffic detected in downlink direction. Triggers: Increments when a packet of xbox traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-xbox-uplnk-pkts	This proprietary counter indicates the number of packets of xbox traffic detected in uplink direction. Triggers: Increments when a packet of xbox traffic is detected by P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64

Statistic	Description	Data Type
p2p-xbox-dwlnk-pkts	This proprietary counter indicates the number of packets of xbox traffic detected in downlink direction. Triggers: Increments when a packet of xbox traffic is detected by P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-fring-uplnk-bytes	This proprietary counter indicates the number of bytes of fring traffic detected in uplink direction. Triggers: Increments when a packet of fring traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-fring-dwlnk-bytes	This proprietary counter indicates the number of bytes of fring traffic detected in downlink direction. Triggers: Increments when a packet of fring traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-fring-uplnk-pkts	This proprietary counter indicates the number of packets of fring traffic detected in uplink direction. Triggers: Increments when a packet of fring traffic is detected by the P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-fring-dwlnk-pkts	This proprietary counter indicates the number of packets of fring traffic detected in downlink direction. Triggers: Increments when a packet of fring traffic is detected by the P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-iskoot-uplnk-bytes	This proprietary counter indicates the number of bytes of iskoot traffic detected in uplink direction. Triggers: Increments when a packet of iskoot traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-iskoot-dwlnk-bytes	This proprietary counter indicates the number of bytes of iskoot traffic detected in downlink direction. Triggers: Increments when a packet of iskoot traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-iskoot-uplnk-pkts	This proprietary counter indicates the number of packets of iskoot traffic detected in uplink direction. Triggers: Increments when a packet of iskoot traffic is detected by the P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64

Statistic	Description	Data Type
p2p-iskoot-dwlnk-pkts	This proprietary counter indicates the number of packets of iskoot traffic detected in downlink direction. Triggers: Increments when a packet of iskoot traffic is detected by the P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-oovoo-uplnk-bytes	This proprietary counter indicates the number of bytes of oovoo traffic detected in uplink direction. Triggers: Increments when a packet of oovoo traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-oovoo-dwlnk-bytes	This proprietary counter indicates the number of bytes of oovoo traffic detected in downlink direction. Triggers: Increments when a packet of oovoo traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-oovoo-uplnk-pkts	This proprietary counter indicates the number of packets of oovoo traffic detected in uplink direction. Triggers: Increments when a packet of oovoo traffic is detected by the P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-oovoo-dwlnk-pkts	This proprietary counter indicates the number of packets of oovoo traffic detected in downlink direction. Triggers: Increments when a packet of oovoo traffic is detected by the P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-gtalk-uplnk-bytes	This proprietary counter indicates the number of bytes of gtalk traffic detected in uplink direction. Triggers: Increments when a packet of gtalk traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-gtalk-dwlnk-bytes	This proprietary counter indicates the number of bytes of gtalk traffic detected in downlink direction. Triggers: Increments when a packet of gtalk traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-gtalk-uplnk-pkts	This proprietary counter indicates the number of packets of gtalk traffic detected in uplink direction. Triggers: Increments when a packet of gtalk traffic is detected by the P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64

Statistic	Description	Data Type
p2p-gtalk-dwlnk-pkts	This proprietary counter indicates the number of packets of gtalk traffic detected in downlink direction. Triggers: Increments when a packet of gtalk traffic is detected by the P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-gtalk-voice-uplnk-bytes	This proprietary counter indicates the number of bytes of gtalk voice traffic detected in uplink direction. Triggers: Increments when a packet of gtalk voice traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-gtalk-voice-dwlnk-bytes	This proprietary counter indicates the number of bytes of gtalk voice traffic detected in downlink direction. Triggers: Increments when a packet of gtalk voice traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-gtalk-voice-uplnk-pkts	This proprietary counter indicates the number of packets of gtalk voice traffic detected in uplink direction. Triggers: Increments when a packet of gtalk voice traffic is detected by the P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-gtalk-voice-dwlnk-pkts	This proprietary counter indicates the number of packets of gtalk voice traffic detected in downlink direction. Triggers: Increments when a packet of gtalk voice traffic is detected by the P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-gtalk-non-voice-uplnk-bytes	This proprietary counter indicates the number of bytes of gtalk non-voice traffic detected in uplink direction. Triggers: Increments when a packet of gtalk non-voice traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-gtalk-non-voice-dwlnk-bytes	This proprietary counter indicates the number of bytes of gtalk non-voice traffic detected in downlink direction. Triggers: Increments when a packet of gtalk non-voice traffic is detected by the P2P analyzer; payload length is added to this counter. Availability: Per Active Charging Service. Type: Counter	Int64
p2p-gtalk-non-voice-uplnk-pkts	This proprietary counter indicates the number of packets of gtalk non-voice traffic detected in uplink direction. Triggers: Increments when a packet of gtalk non-voice traffic is detected by the P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64

Statistic	Description	Data Type
p2p-gtalk-non-voice-dwnlk-pkts	This proprietary counter indicates the number of packets of gtalk non-voice traffic detected in downlink direction. Triggers: Increments when a packet of gtalk non-voice traffic is detected by the P2P analyzer. Availability: Per Active Charging Service. Type: Counter	Int64
DNS Stats		
dns-flows	The combined total of the number of DNS flows previously analyzed + DNS flows currently being analyzed.	Int32
dns-flows-cur	The number of DNS flows currently being analyzed.	Int32
dns-uplk-bytes	The total number of DNS bytes detected in uplink direction.	Int64
dns-dwnlk-bytes	The total number of DNS bytes detected in downlink direction.	Int64
dns-uplk-pkts	The total number of DNS packets detected in uplink direction.	Int64
dns-dwnlk-pkts	The total number of DNS packets detected in downlink direction.	Int64
dns-unk-opcode	The total number of DNS packets with an unknown operational code.	Int32
dns-inv-pkts	The total number of invalid DNS packets detected.	Int32
dns-over-tcp-uplk-bytes	The total number of DNS uplink bytes that were detected over TCP.	Int64
dns-over-tcp-dwnlk-bytes	The total number of DNS downlink bytes that were detected over TCP.	Int64
dns-over-tcp-uplk-pkts	The total number of DNS uplink packets that were detected over TCP.	Int64
dns-over-tcp-dwnlk-pkts	The total number of DNS downlink packets that were detected over TCP.	Int64
dns-req-a-query	The total number of DNS requests received for queries.	Int64
dns-req-cname-query	The total number of DNS requests received for cname queries.	Int64
dns-req-ns-query	The total number of DNS requests received for ns queries.	Int64
dns-req-ptr-query	The total number of DNS requests received for ptr queries.	Int64
dns-req-aaaa-query	The total number of DNS requests received for AAAA queries.	Int64
dns-req-unknown-query	The total number of DNS requests received for unknown queries.	Int64
dns-rsp-a-query	The total number of DNS responses received for queries.	Int64
dns-rsp-cname-query	The total number of DNS responses received for cname queries.	Int64
dns-rsp-ns-query	The total number of DNS responses received for ns queries.	Int64
dns-rsp-ptr-query	The total number of DNS responses received for ptr queries.	Int64
dns-rsp-aaaa-query	The total number of DNS responses received for AAAA queries.	Int64
dns-rsp-unknown-query	The total number of DNS responses received for unknown queries.	Int64
Historical ECS Statistics		
ecs-ttlsuccess	The total number of successful ECS sessions.	Int32

Statistic	Description	Data Type
ecs-ttlfail	The total number of failed ECS sessions.	Int32
ecs-curactive	The number of currently active ECS sessions.	Int32
ecs-15peak-curactive	The peak number of active ECS sessions in 15 one-minute intervals over the last 15 minutes. ecs-15peak-curactive is computed from ecs-curactive gathered every minute over the last 15 minutes.	Int32
ecs-ruleshit	The total number of rules hit.	Int32
ecs-ppruleshit	The total number of post-processing rules hit.	Int32
ecs-ttldlinkbytes	The total number of downlink bytes detected for ECS sessions.	Int64
ecs-ttlulinkbytes	The total number of uplink bytes detected for ECS sessions.	Int64
ecs-ttldlinkpackets	The total number of downlink packets detected for ECS sessions.	Int64
ecs-ttlulinkpackets	The total number of uplink packets detected for ECS sessions.	Int64
ecs-ttlflowconn	The total number of flows established by ECS sessions.	Int32
ecs-ttlflowdisc	The total number of flows disconnected for ECS sessions.	Int32
ecs-curflow	The number of currently active ECS flows.	Int32
ecs-15peak-curflow	The peak number of active ECS flows in 15 one-minute intervals over the last 15 minutes. ecs-15peak-curflow is computed from ecs-curflow gathered every minute over the last 15 minutes.	Int32
ecs-15min-usage-flowall	The total number of active ECS flows detected in the last 15 minutes.	Int32

 **Important:** See *Bulk Statistics Overview* for statistics that are common to all schema.

# Chapter 14

## FA Schema Statistics

This schema provides the following type of statistics:

- **Counter:** A counter records incremental data cumulatively and rolls over when the counter limit is reached. The limit depends upon the counter data type.
- **Gauge:** A gauge statistic indicates a single value representative of a single instance. This type is often used to track particular events in time.

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 **Important:** The format string syntax is described by Schema Format String Syntax in the Bulk Statistics Overview chapter.

 **Important:** Unless otherwise indicated, all statistics are counters. For statistics with the Int32 data type, the roll-over to zero limit is 4,294,967,295. For statistics with the Int64 data type, the roll-over to zero limit is 18,446,744,073,709,551,615. All counter statistics are cumulative and reset only by one of the following methods: roll-over (as described above), after a system restart, or after a clear command is performed. All statistics are considered standards-based unless otherwise noted.

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The following variables are supported:

**Table 14. FA Service Schema Statistics**

Statistic	Description	Data Type
vpnname	The name of the context configured on the system that is currently facilitating the FA service.	String
vpnid	The identification number of the context configured on the system that is currently facilitating the FA service. This is an internal reference number.	Int32
servname	The name of the FA service for which the statistics are displayed.	String
advert-send	The total number of agent advertisement messages sent to the subscriber's mobile node.	Int32
disc-expiry	The total number of sessions that were disconnected due to the expiration of their lifetime setting.	Int32
disc-dereg	The total number of sessions that were disconnected due to de-registrations.	Int32
disc-admin	The total number of sessions that were disconnected due to an administrative clearing of calls (i.e. executing the <code>clear subscriber</code> command).	Int32
auth-attempt	The total number of AAA authentication attempts that were facilitated.	Int32

Statistic	Description	Data Type
auth-success	The total number of successful AAA authentication attempts that were facilitate.	Int32
auth-failure	The total number of failed AAA authentication attempts that were facilitated.	Int32
recv-total	The total number of registration requests received.	Int32
recv-initial	The total number of initial registration requests received.	Int32
recv-renewal	The total number of renewal registration requests received.	Int32
recv-dereg	The total number of requests for de-registration received.	Int32
accept-total	The total number of registration requests accepted.	Int32
accept-initial	The total number of initial registration requests accepted.	Int32
accept-renewal	The total number of renewal registration requests accepted.	Int32
accept-dereg	The total number of requests for de-registration accepted.	Int32
denied-total	The total number of registration requests denied.	Int32
denied-initial	The total number of initial registration requests denied.	Int32
denied-renewal	The total number of renewal registration requests denied.	Int32
denied-dereg	The total number of requests for de-registration denied.	Int32
discard-total	The total number of registration requests that were discarded.	Int32
discard-initial	The total number of initial registration requests discarded.	Int32
discard-renewal	The total number of renewal registration requests discarded.	Int32
discard-dereg	The total number of requests for de-registration discarded.	Int32
relayed-total	The total number of registration requests that have been relayed.	Int32
relayed-initial	The total number of initial registration requests relayed.	Int32
relayed-renewal	The total number of renewal registration requests relayed.	Int32
relayed-dereg	The total number of requests for de-registration relayed.	Int32
authfail-total	The total number of registration requests that failed authentication.	Int32
authfail-initial	The total number of initial registration requests that failed authentication.	Int32
authfail-renewal	The total number of renewal registration requests that failed authentication.	Int32
authfail-dereg	The total number of requests for de-registration that failed authentication.	Int32
denied-pdsn-total	The total number of registration requests that have been denied by the Packet Data Service Node/Foreign Agent (PDSNFA). Reasons for a PDSN/FA denial are described later in this table.	Int32
denied-pdsn-initial	The total number of initial registration requests that were denied by the PDSN/FA. Reasons for a PDSN/FA denial are described later in this table.	Int32
denied-pdsn-renewal	The total number of renewal registration requests denied by the PDSN/FA. Reasons for a PDSN/FA denial are described later in this table.	Int32

Statistic	Description	Data Type
denied-pdsn-dereg	The total number of requests for de-registration that were denied by the PDSN/FA. Reasons for a PDSN/FA denial are described later in this table.	Int32
denied-ha-total	The total number of registration requests that have been denied by the Home Agent (HA). Reasons for a HA denial are described later in this table.	Int32
denied-ha-initial	The total number of initial registration requests denied by the HA. Reasons for a HA denial are described later in this table.	Int32
denied-ha-renewal	The total number of renewal registration requests denied by the HA. Reasons for a HA denial are described later in this table.	Int32
denied-ha-dereg	The total number of requests for de-registration that were denied by the HA. Reasons for a HA denial are described later in this table.	Int32
denied-pdsn-unspec	The total number of registration requests for which an FA reply code of 40H (Registration Denied - reason unspecified) was sent.	Int32
denied-pdsn-timeout	The total number of registration requests for which a FA reply code of 4EH (Registration Denied - registration timeout) was sent.	Int32
denied-pdsn-admin	The total number of registration requests for which a FA reply code of 41H (Registration Denied- administratively prohibited) was sent.	Int32
denied-pdsn-resource	The total number of registration requests for which a FA reply code of 42H (Registration Denied - insufficient resources) was sent.	Int32
denied-pdsn-mnauth	The total number of registration requests for which a FA reply code of 43H (Registration Denied - mobile node failed authentication) was sent.	Int32
denied-pdsn-haauth	The total number of registration requests for which a FA reply code of 44H (Registration Denied - home agent authentication failure) was sent.	Int32
denied-pdsn-lifetoolong	The total number of registration requests for which a FA reply code of 45H (Registration Denied - requested lifetime too long) was sent.	Int32
denied-pdsn-badreq	The total number of registration requests for which a FA reply code of 46H (Registration Denied- administratively prohibited) was sent.	Int32
denied-pdsn-badreply	The total number of registration requests for which a FA reply code of 47H (Registration Denied - poorly formed reply) was sent.	Int32
denied-pdsn-missnai	The total number of registration requests for which a FA reply code of 61H (Registration Denied - missing NAI) was sent.	Int32
denied-pdsn-misshomeagent	The total number of registration requests for which a FA reply code of 62H (Registration Denied - missing home agent) was sent.	Int32
denied-pdsn-misshomeaddr	The total number of registration requests for which a FA reply code of 60H (Registration Denied - missing home address) was sent.	Int32
denied-pdsn-unkchallenge	The total number of registration requests for which a FA reply code of 68H (Registration Denied - unknown challenge) was sent.	Int32
denied-pdsn-misschallenge	The total number of registration requests for which a FA reply code of 69H (Registration Denied - missing challenge) was sent.	Int32

Statistic	Description	Data Type
denied-pdsn-stalechallenge	The total number of registration requests for which a FA reply code of 6AH (Registration Denied - stale challenge) was sent.	Int32
denied-pdsn-mntoodistant	The total number of registration requests for which a FA reply code of 4CH (Registration Denied - reverse tunneling mobile node too distant) was sent.	Int32
denied-pdsn-styleunavail	The total number of registration requests for which a FA reply code of 4FH (Registration Denied - reverse tunneling delivery style unavailable) was sent.	Int32
denied-pdsn-hanetunreach	The total number of registration requests for which a FA reply code of 50H (Registration Denied - home network unreachable (ICMP error received) ) was sent.	Int32
denied-pdsn-hahostunreach	The total number of registration requests for which a FA reply code of 51H (Registration Denied - home agent host unreachable (ICMP error received) ) was sent.	Int32
denied-pdsn-haportunreach	The total number of registration requests for which a FA reply code of 52H (Registration Denied - home agent port unreachable (ICMP error received) ) was sent.	Int32
denied-pdsn-haunreach	The total number of registration requests for which a FA reply code of 58H (Registration Denied - home agent unreachable (other ICMP error received) ) was sent.	Int32
denied-pdsn-invcoa	The total number of registration requests for which a FA reply code of 4DH (Registration Denied - invalid care-of address) was sent.	Int32
denied-pdsn-encapunavail	The total number of registration requests for which a FA reply code of 48H (Registration Denied - requested encapsulation unavailable) was sent.	Int32
denied-pdsn-revtununavail	The total number of registration requests for which a FA reply code of 4AH (Registration Denied - requested reverse tunnel unavailable) was sent.	Int32
denied-pdsn-revtunmand	The total number of registration requests for which a FA reply code of 4BH (Registration Denied - reverse tunnel is mandatory and 'T' bit not set) was sent.	Int32
denied-pdsn-unknowncvse	The total number of registration requests for which a PDSN reply code of 8DH (Registration Denied - unsupported vendor ID or unable to interpret data in the CVSE) was received.	Int32
denied-ha-faauth	The total number of registration requests for which a HA reply code of 84H (Registration Denied - foreign agent failed authentication) was received.	Int32
denied-ha-badreq	The total number of registration requests for which a HA reply code of 86H (Registration Denied - poorly formed request) was received.	Int32
denied-ha-mismatchid	The total number of registration requests for which a HA reply code of 85H (Registration Denied - registration Identification mismatch) was received.	Int32
denied-ha-simulbind	The total number of registration requests for which a HA reply code of 87H (Registration Denied - too many simultaneous mobility bindings) was received.	Int32
denied-ha-unknownha	The total number of registration requests for which a HA reply code of 88H (Registration Denied - unknown home agent address) was received.	Int32
denied-ha-revtununavail	The total number of registration requests for which a HA reply code of 89H (Registration Denied - reverse tunneling unavailable) was received.	Int32
replyrcv-total	The total number of registration replies received. This total includes initial, renewal and de-registration registration replies.	Int32

Statistic	Description	Data Type
replyrcv-totalrelayed	The total number of registration replies relayed. This total includes initial, renewal and de-registration registration replies.	Int32
replyrcv-errors	The total number of registration replies that contained errors.	Int32
replyrcv-initial	The total number of initial registration replies received.	Int32
replyrcv-initialrelayed	The total number of initial registration replies relayed.	Int32
replyrcv-renewal	The total number of renewal registration replies received.	Int32
replyrcv-renewalrelayed	The total number of renewal registration replies relayed.	Int32
replyrcv-dereg	The total number of replies for de-registration received.	Int32
replyrcv-deregrelayed	The total number of replies for de-registration relayed.	Int32
reqsent-initial	The total number of initial FA registration requests sent.	Int32
reqsent-initial-resend	The total number of initial FA registration requests re-sent.	Int32
reqsent-initial-noresend	The total number of initial FA registration requests that were not re-sent.	Int32
reqsent-renew	The total number of FA registration renewal requests that were sent.	Int32
reqsent-renew-resend	The total number of FA registration renewal requests that were re-sent.	Int32
reqsent-renew-noresend	The total number of FA registration renewal requests that were not re-sent.	Int32
reqsent-dereg	The total number of FA de-registration requests that were sent.	Int32
reqsent-dereg-resend	The total number of FA de-registration requests that were re-sent.	Int32
reqsent-dereg-noresend	The total number of FA de-registration requests that were not re-sent.	Int32
replysent-total	The total number of registration replies sent.	Int32
replysent-acceptreg	The total number of successful registration replies sent.	Int32
replysent-acceptdereg	The total number of successful de-registration replies sent.	Int32
replysent-badreq	The total number of registration replies that were sent with a reply code of 46H (Registration Denied - poorly formed reply).	Int32
replysent-badreply	The total number of registration replies that were sent with a reply code of 47H (Registration Denied - poorly formed reply).	Int32
replysent-unspecified	The total number of registration replies that were sent with a reply code of 40H (Registration Denied - reason unspecified).	Int32
replysent-adminprohib	The total number of registration replies that were sent with a reply code of 41H (Registration Denied - administratively prohibited).	Int32
replysent-noresources	The total number of registration replies that were sent with a reply code of 42H (Registration Denied - insufficient resources).	Int32

Statistic	Description	Data Type
repliesent-mnauthfail	The total number of registration replies that were sent with a reply code of 43H (Registration Denied - mobile node failed authentication).	Int32
repliesent-haauthfail	The total number of registration replies that were sent with a reply code of 44H (Registration Denied - home agent failed authentication).	Int32
repliesent-lifetoolong	The total number of registration replies that were sent with a reply code of 45H (Registration Denied - requested lifetime too long).	Int32
repliesent-revtununavail	The total number of registration replies that were sent with a reply code of 4AH (Registration Denied - reverse tunneling unavailable).	Int32
repliesent-revtunmand	The total number of registration replies that were sent with a reply code of 4BH (Registration Denied - reverse tunneling mandatory).	Int32
repliesent-delstyleunavail	The total number of registration replies that were sent with a reply code of 4FH (Registration Denied - reverse tunneling delivery style unavailable).	Int32
repliesent-mntoodistant	The total number of registration replies sent with a reply code of 4CH (Registration Denied - reverse tunneling mobile node too distant).	Int32
repliesent-invcoa	The total number of registration replies sent with a reply code of 4DH (Registration Denied - invalid care-of address).	Int32
repliesent-regtimeout	The total number of registration replies sent with a reply code of 4EH (Registration Denied - registration timeout).	Int32
repliesent-hanetunreach	The total number of registration requests sent with an FA reply code of 50H (Registration Denied - home network unreachable (ICMP error received)).	init32
repliesent-hahostunreach	The total number of registration requests sent with an FA reply code of 51H (Registration Denied - home agent host unreachable (ICMP error received)).	init32
repliesent-haportunreach	The total number of registration requests sent with an FA reply code of 52H (Registration Denied - home agent port unreachable (ICMP error received)).	Int32
repliesent-haunreach	The total number of registration requests sent with an FA reply code of 58H (Registration Denied - home agent unreachable (other ICMP error received)).	init32
repliesent-missnai	The total number of registration replies sent with a reply code of 61H (Registration Denied - missing NAI).	Int32
repliesent-misshomeagent	The total number of registration replies sent with a reply code of 62H (Registration Denied - missing home agent).	Int32
repliesent-misshomeaddr	The total number of registration replies sent with a reply code of 60H (Registration Denied - missing home address).	Int32
repliesent-unkchallenge	The total number of registration replies sent with a reply code of 68H (Registration Denied - unknown challenge).	Int32
repliesent-misschallenge	The total number of registration replies sent with a reply code of 69H (Registration Denied - missing challenge).	Int32
repliesent-stalechallenge	The total number of registration replies sent with a reply code of 6AH (Registration Denied - challenge).	Int32
repliesent-senderrors	The total number of errors that occurred while sending replies.	Int32

Statistic	Description	Data Type
ttlprepaid	The total number of Prepaid calls facilitated by the service.	Int32
curprepaid	The total number of Prepaid calls currently being facilitated by the service.	Int32
ttlonlineauthsucc	The total number of successful Online Authentications for the service.	Int32
ttlonlineauthfail	TThe total number of successful Online Authentications for the service.	Int32
revoc-sent	The total number of FA registration revocations sent.	Int32
revoc-retry-sent	The total number of FA registration revocation messages the system attempted to re-send.	Int32
revoc-ack-recv	The total number of FA registration revocation acknowledgement messages received.	Int32
revoc-timeout	The total number of timeouts that occurred during FA registration revocations.	Int32
revoc-recv	The total number of FA registration revocations received	Int32
revoc-ack-sent	The total number of The total number of FA registration revocation acknowledgement messages sent.	Int32



**Important:** See Bulk Statistics Overview for statistics that are common to all schema.



# Chapter 15

## GPRS Schema Statistics

The GPRS schema provides the following types of statistics:

- **Counter:** A counter records incremental data cumulatively and rolls over when the counter limit is reached. The limit depends upon the counter data type.
- **Gauge:** A gauge statistic indicates a single value representative of a single instance. This type is often used to track particular events in time.

 **Important:** The format string syntax is described by Schema Format String Syntax in the Bulk Statistics Overview chapter.

 **Important:** Unless otherwise indicated, all statistics are counters. For statistics with the Int32 data type, the roll-over to zero limit is 4,294,967,295. For statistics with the Int64 data type, the roll-over to zero limit is 18,446,744,073,709,551,615. All counter statistics are cumulative and reset only by one of the following methods: roll-over (as described above), after a system restart, or after a clear command is performed. All statistics are considered standards-based unless otherwise noted. All Data Type values with an \* have had values increased from Int32 to Int64 in releases 9.0 and higher.

The following variables are supported:

**Table 15. GPRS Service Schema Statistics**

Statistic	Description	Data Type
vpnname	The name of the context configured on the system that is currently facilitating the GPRS service. This is a stat key variable.	String
vpnid	The identification number of the context configured on the system that is currently facilitating the GPRS service. This is an internal reference number. This is a stat key variable.	Int32
servname	The name of the GPRS service configured on the system for which the statistics are displayed. This is a stat key variable.	String
nse-id	The network service entity identifier in this GPRS service. This is a stat key variable.	Int32
ns-num-bytes-rvcd	This statistics has been obsoleted.	Int32
ns-num-bytes-sent	This statistics has been obsoleted.	Int32
ns-num-nsvc-failed	This statistics has been obsoleted.	Int32

## ■ Common Statistics

Statistic	Description	Data Type
ns-num-nsvc-congest	This statistics has been obsoleted.	Int32
ns-num-unit-data-msg-rcvd	This statistics has been obsoleted.	Int32
ns-num-unit-data-msg-sent	This statistics has been obsoleted.	Int32
ns-num-alive-pdu-rcvd	This statistics has been obsoleted.	Int32
ns-num-alive-pdu-sent	This statistics has been obsoleted.	Int32
ns-num-alive-ack-pdu-rcvd	This statistics has been obsoleted.	Int32
ns-num-alive-ack-pdu-sent	This statistics has been obsoleted.	Int32
ns-num-block-pdu-rcvd	This statistics has been obsoleted.	Int32
ns-num-block-pdu-sent	This statistics has been obsoleted.	Int32
ns-num-block-ack-pdu-rcvd	This statistics has been obsoleted.	Int32
ns-num-block-ack-pdu-sent	This statistics has been obsoleted.	Int32
ns-num-unblock-pdu-rcvd	This statistics has been obsoleted.	Int32
ns-num-unblock-pdu-sent	This statistics has been obsoleted.	Int32
ns-num-unblock-ack-pdu-rcvd	This statistics has been obsoleted.	Int32
ns-num-unblock-ack-pdu-sent	This statistics has been obsoleted.	Int32
ns-num-reset-pdu-rcvd	This statistics has been obsoleted.	Int32
ns-num-reset-pdu-sent	This statistics has been obsoleted.	Int32
ns-num-reset-ack-pdu-rcvd	This statistics has been obsoleted.	Int32
ns-num-reset-ack-pdu-sent	This statistics has been obsoleted.	Int32
ns-num-status-pdu-rcvd	This statistics has been obsoleted.	Int32
ns-num-status-pdu-sent	This statistics has been obsoleted.	Int32

Statistic	Description	Data Type
num-sns-size-rcvd	Total number of sequence number space (SNS) size messages received by the network service entity.	Int32
num-sns-size-ack-sent	Total number of ACK messages sent for sequence number space (SNS) size by the network service entity.	Int32
num-sns-size-fail-rcvd-unknown-nse	Total number of SNS size messages failed due to unknown network service entity.	Int32
num-sns-config-rcvd	Total number of sequence number space (SNS) configuration messages received by the network service entity.	Int32
num-sns-config-sent	Total number of sequence number space (SNS) configuration messages sent by the network service entity.	Int32
num-sns-config-ack-sent	Total number of sequence number space (SNS) configuration ACK messages sent by the network service entity.	Int32
num-sns-config-ack-rcvd	Total number of sequence number space (SNS) configuration ACK messages received by the network service entity.	Int32
sns-config-fail-rcv-pdu-not-compat-state	Total number of sequence number space (SNS) configuration messages failed as received packet data unit was not compatible with the message state in network service entity.	Int32
sns-config-fail-sent-pdu-not-compat-state	Total number of sequence number space (SNS) configuration messages failed as sent packet data unit was not compatible with the message state in network service entity.	Int32
sns-config-fail-rcv-inval-ipv4-endpt	Total number of sequence number space (SNS) configuration messages failed due to invalid IPv4 address of endpoint in received message.	Int32
sns-config-fail-sent-inval-ipv4-endpt	Total number of sequence number space (SNS) configuration messages failed due to invalid IPv4 address of endpoint in sent message.	Int32
sns-config-fail-rcv-inval-ipv6-endpt	Total number of sequence number space (SNS) configuration messages failed due to invalid IPv6 address of endpoint in received message.	Int32
sns-config-fail-sent-inval-ipv6-endpt	Total number of sequence number space (SNS) configuration messages failed due to invalid IPv6 address of endpoint in sent message.	Int32
sns-config-fail-rcv-prot-err-unspec	Total number of sequence number space (SNS) configuration messages failed due to unspecified protocol error in received message.	Int32
sns-config-fail-sent-prot-err-unspec	Total number of sequence number space (SNS) configuration messages failed due to unspecified protocol error in sent message.	Int32
sns-config-fail-rcv-inval-essential-param	Total number of sequence number space (SNS) configuration messages failed due to invalid mandatory parameters in received message.	Int32
sns-config-fail-sent-inval-essential-param	Total number of sequence number space (SNS) configuration messages failed due to invalid mandatory parameters in sent message.	Int32
sns-config-fail-rcv-internal-err	Total number of sequence number space (SNS) configuration messages failed due to internal error in received message.	Int32
sns-config-fail-sent-internal-err	Total number of sequence number space (SNS) configuration messages failed due to internal error in sent message.	Int32

Statistic	Description	Data Type
sns-config-fail-rcv- inval-weight	Total number of sequence number space (SNS) configuration messages failed due to invalid weight bit in received message.	Int32
sns-config-fail-sent- inval-weight	Total number of sequence number space (SNS) configuration messages failed due to invalid weight bit in sent message.	Int32
sns-config-fail-sent- no-rsp-from-peer	Total number of sequence number space (SNS) configuration message failed due to no response from peer.	Int32
num-sns-add-rcvd	Total number of SNS-ADD messages received.	Int32
num-sns-add-sent	Total number of SNS-ADD messages sent.	Int32
sns-add-fail-rcv-pdu- not-compat-state	Total number of ADD SNS messages failed as received packet data unit was not compatible with the message state in network service entity.	Int32
sns-add-fail-sent-pdu- not-compat-state	Total number of ADD SNS messages failed as sent packet data unit was not compatible with the message state in network service entity.	Int32
sns-add-fail-rcv-inval- ipv4-endpt	Total number of ADD SNS messages failed due to invalid IPv4 address of endpoint in received message.	Int32
sns-add-fail-sent- inval-ipv4-endpt	Total number of ADD SNS messages failed due to invalid IPv4 address of endpoint in sent message.	Int32
sns-add-fail-rcv-inval- ipv6-endpt	Total number of ADD SNS messages failed due to invalid IPv6 address of endpoint in received message.	Int32
sns-add-fail-sent- inval-ipv6-endpt	Total number of ADD SNS messages failed due to invalid IPv6 address of endpoint in sent message.	Int32
sns-add-fail-rcv-prot- err-unspec	Total number of ADD SNS messages failed due to unspecified protocol error in received message.	Int32
sns-add-fail-sent-prot- err-unspec	Total number of ADD SNS messages failed due to unspecified protocol error in sent message.	Int32
sns-add-fail-rcv-inval- essential-param	Total number of ADD SNS messages failed due to invalid mandatory parameters in received message.	Int32
sns-add-fail-sent- inval-essential-param	Total number of ADD SNS messages failed due to invalid mandatory parameters in sent message.	Int32
sns-add-fail-rcv- internal-err	Total number of ADD SNS messages failed due to internal error in received message.	Int32
sns-add-fail-sent- internal-err	Total number of ADD SNS messages failed due to internal error in sent message.	Int32
sns-add-fail-rcv-inval- weight	Total number of ADD SNS messages failed due to invalid weight bit in received message.	Int32
sns-add-fail-sent- inval-weight	Total number of ADD SNS messages failed due to invalid weight bit in sent message.	Int32
sns-add-fail-sent-no- rsp-from-peer	Total number of ADD SNS messages failed due to no response from peer.	Int32
num-sns-delete-rcvd	Total number of DELETE SNS messages received.	Int32

Statistic	Description	Data Type
num-sns-delete-sent	Total number of DELETE SNS messages sent.	Int32
sns-delete-fail-rcv-pdu-not-compat-state	Total number of DELETE SNS messages failed as received packet data unit was not compatible with the message state in network service entity.	Int32
sns-delete-fail-sent-pdu-not-compat-state	Total number of DELETE SNS messages failed as sent packet data unit was not compatible with the message state in network service entity.	Int32
sns-delete-fail-rcv-unknown-ip-endpt	Total number of DELETE SNS messages failed due to unknown IP endpoint in received message.	Int32
sns-delete-fail-sent-unknown-ip-endpt	Total number of DELETE SNS messages failed due to unknown IP address in the sent message.	Int32
sns-delete-fail-rcv-unknown-ip-address	Total number of DELETE SNS messages failed due to invalid IP address of endpoint in received message.	Int32
sns-delete-fail-sent-unknown-ip-address	Total number of DELETE SNS messages failed due to invalid IP address of endpoint in sent message.	Int32
sns-delete-fail-rcv-prot-err-unspec	Total number of DELETE SNS messages failed due to unspecified protocol error in received message.	Int32
sns-delete-fail-sent-prot-err-unspec	Total number of DELETE SNS messages failed due to unspecified protocol error in sent message.	Int32
sns-delete-fail-rcv-inval-essential-param	Total number of DELETE SNS messages failed due to invalid mandatory parameters in received message.	Int32
sns-delete-fail-sent-inval-essential-param	Total number of DELETE SNS messages failed due to invalid mandatory parameters in sent message.	Int32
sns-delete-fail-rcv-internal-err	Total number of DELETE SNS messages failed due to internal error in received message.	Int32
sns-delete-fail-sent-internal-err	Total number of DELETE SNS messages failed due to internal error in sent message.	Int32
sns-delete-fail-sent-no-rsp-from-peer	Total number of DELETE SNS messages failed due to no response from peer.	Int32
num-sns-cw-rcvd	Total number of SNS congestion window size messages received.	Int32
num-sns-cw-sent	Total number of SNS congestion window size messages sent.	Int32
sns-cw-fail-rcv-pdu-not-compat-state	Total number of SNS messages with congestion window size failed as received packet data unit was not compatible with the message state.	Int32
sns-cw-fail-sent-pdu-not-compat-state	Total number of SNS messages with congestion window size failed as sent packet data unit was not compatible with the message state.	Int32
sns-cw-fail-rcv-inval-weight	Total number of SNS messages with congestion window size failed due to invalid weight bit in received message.	Int32
sns-cw-fail-sent-inval-weight	Total number of SNS messages with congestion window size failed due to invalid weight bit in sent message.	Int32
sns-cw-fail-rcv-unknown-ip-endpt	Total number of SNS messages with congestion window size failed due to unknown IP endpoint in received message.	Int32

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Statistic	Description	Data Type
sns-cw-fail-sent-unknown-ip-endpt	Total number of SNS messages with congestion window size failed due to unknown IP endpoint in sent message.	Int32
sns-cw-fail-rcv-unknown-ip-addr	Total number of SNS messages with congestion window size failed due to unknown IP address in received message.	Int32
sns-cw-fail-sent-unknown-ip-addr	Total number of SNS messages with congestion window size failed due to unknown IP address in sent message.	Int32
sns-cw-fail-rcv-prot-err-unspec	Total number of SNS messages with congestion window size failed due to unspecified protocol error in received message.	Int32
sns-cw-fail-sent-prot-err-unspec	Total number of SNS messages with congestion window size failed due to unspecified protocol error in sent message.	Int32
sns-cw-fail-rcv-invalid-essential-param	Total number of SNS messages with congestion window size failed due to invalid mandatory parameters in received message.	Int32
sns-cw-fail-sent-invalid-essential-param	Total number of SNS messages with congestion window size failed due to invalid mandatory parameters in sent message.	Int32
sns-cw-fail-rcv-internal-err	Total number of SNS messages with congestion window size failed due to internal error in received message.	Int32
sns-cw-fail-sent-internal-err	Total number of SNS messages with congestion window size failed due to internal error in sent message.	Int32
sns-cw-fail-sent-no-rsp-from-peer	Total number of SNS messages with congestion window size failed due to no response from peer.	Int32
sns-num-ack-rcvd	Total number of SNS ACK messages received.	Int32
sns-num-ack-sent	Total number of SNS ACK messages sent.	Int32
sns-num-unknown-msg	Total number of unknown messages received.	Int32
sns-num-status-pdu-sent	Total number of SNS ACK messages sent.	Int32
bssgp-total-usr-req-drop	Total number of user requests to drop base station sub-system GPRS Protocol (BSSGP) in GPRS service.	Int32
bssgp-usr-req-drop-unknown-bvci	Total number of BSSGP user requests dropped due to unknown BSSGP virtual connection identifier (BVCI).	Int32
bssgp-usr-req-drop-blocked-bvc	Total number of BSSGP user requests due to blocked BVC.	Int32
bssgp-usr-req-drop-encoding-fail	Total number of BSSGP user requests dropped due to failure in encoding.	Int32
bssgp-usr-req-drop-bvc-flow-ctrl-rvcd	Total number of BSSGP user requests dropped due to BVC flow control messages received.	Int32
bssgp-usr-req-drop-bvc-flow-ctrl-ack-sent	Total number of BSSGP user requests dropped due to flow control ack messages sent.	Int32

Statistic	Description	Data Type
bssgp-usr-req-drop-block-rcvd	Total number of BSSGP user requests dropped due to blocked BVC BLOCK messages received.	Int32
bssgp-usr-req-drop-block-ack-sent	Total number of BSSGP user requests dropped due to blocked BVC BLOCK ACK messages sent.	Int32
bssgp-usr-req-drop-unblock-rcvd	Total number of BSSGP user requests dropped due to blocked BVC UNBLOCK messages received.	Int32
bssgp-usr-req-drop-unblock-ack-sent	Total number of BSSGP user requests dropped due to blocked BVC UNBLOCK ACK messages sent.	Int32
bssgp-usr-req-drop-bvc-reset-sent	Total number of BSSGP user requests dropped due to BVC RESET sent.	Int32
bssgp-usr-req-drop-bvc-reset-rcvd	Total number of BSSGP user requests dropped due to BVC RESET received.	Int32
bssgp-usr-req-drop-bvc-reset-ack-sent	Total number of BSSGP user requests dropped due to BVC RESET ACK messages sent.	Int32
bssgp-usr-req-drop-bvc-reset-ack-rcvd	Total number of BSSGP user requests dropped due to BVC RESET ACK messages received.	Int32
bssgp-bvc-status-msg-sent	Total number of BVC status messages sent.	Int32
bssgp-bvc-status-msg-rcvd	Total number of BVC status messages received.	Int32
bssgp-flush-llc-msg-sent	Total number of BSSGP FLUSH LL (Logical Link) messages sent. This is a counter type of statistic.	Int32
bssgp-flush-llc-ack-msg-rcvd	Total number of BSSGP FLUSH LL (Logical Link) ACK messages received. This is a counter type of statistic.	Int32
bssgp-cs-paging-msg-sent	Total number of BSSGP circuit switched (CS) paging messages sent.	Int32
bssgp-ps-paging-msg-sent	Total number of BSSGP packet switched (PS) paging messages sent.	Int32
bssgp-ra-cap-update-msg-rcvd	Total number of BSSGP routing area (RA) capability update messages received.	Int32
bssgp-ra-cap-update-ack-msg-sent	Total number of BSSGP routing area (RA) capability update messages sent.	Int32
bssgp-radio-status-msg-sent	This statistic has been obsoleted.	Int32
bssgp-radio-status-msg-rcvd	Total number of BSSGP radio status messages received.	Int32
bssgp-suspend-msg-rcvd	Total number of BSSGP SUSPEND messages received.	Int32

## Common Statistics

Statistic	Description	Data Type
bssgp-suspend-ack-msg-sent	Total number of BSSGP SUSPEND Acks sent.	Int32
bssgp-suspend-nack-msg-sent	Total number of BSSGP SUSPEND NACKs sent.	Int32
bssgp-resume-msg-rcvd	Total number of BSSGP RESUME messages received.	Int32
bssgp-resume-ack-msg-sent	Total number of BSSGP RESUME Acks sent.	Int32
bssgp-resume-nack-msg-sent	Total number of BSSGP RESUME NACKs sent.	Int32
bssgp-downlink-unitdata-sent	Total number of BSSGP unit data sent in downlink direction (towards MS).	Int32
bssgp-uplink-unitdata-rcvd	Total number of BSSGP unit data received in uplink direction (towards network).	Int32
bssgp-llc-pdu-discard-msg-rcvd	Total number of LLC PDU discard messages received.	Int32
bssgp-pkt-drop-flow-ctrl-queue-full	Total number of BSSGP packets dropped due to flow control buffer was full. This is a counter type of statistic.	Int32
bssgp-downlink-pkt-drop	Total number of BSSGP packets dropped in downlink direction. This is a counter type of statistic.	Int32
bssgp-ms-flow-ctrl-msg-rcvd	Total number of MS flow control messages received.	Int32
bssgp-ms-flow-ctrl-ack-msg-sent	Total number of MS flow control ack messages sent.	Int32
bssgp-bvc-unknown-ms-status-msg-rcvd	Total number of BSSGP virtual connection (BVC) messages received with unknown MS status. This is a counter type of statistic.	Int32
bssgp-bvc-unknown-ms-status-msg-sent	Total number of BSSGP virtual connection (BVC) messages sent for unknown MS status. This is a counter type of statistic.	Int32
sndcp-xid-req-ms-init	Total number of MS initiated eXchange Identification (XID) indicators received. This is a counter type of statistic.	Int64*
sndcp-xid-ind-sgsn-init	Total number of SGSN initiated eXchange Identification (XID) indicators sent. This is a counter type of statistic.	Int64*
sndcp-npdus-ack-rcvd-ms	Total number of SNDCP network PDUs in Ack mode received from MS. This is a counter type of statistic.	Int64*
sndcp-npdus-ack-sent-ms	Total number of SNDCP network PDUs in Ack mode sent to MS. This is a counter type of statistic.	Int64*
sndcp-npdus-uack-rcvd-ms	Total number of SNDCP network PDUs in UnAck mode received from MS. This is a counter type of statistic.	Int64*

Statistic	Description	Data Type
sndcp-npdus-uack-sent-ms	Total number of SNDCP network PDUs in UnAck mode sent to MS. This is a counter type of statistic.	Int64*
sndcp-bytes-ack-rcvd-ms	<b>Description:</b> Total number of SNDCP bytes received from MS for all subscribers at SNDCP layer using LLC Acknowledged mode of LLC operation. <b>Triggers:</b> Increments after the uplink data packet has passed SNDCP validations as mentioned in sections 6.7 and 6.9 of SNDCP TS 44.065. <b>Availability:</b> per GPRS service, per Routing Area <b>Type:</b> Counter	Int64*
sndcp-bytes-ack-sent-ms	<b>Description:</b> Total number of SNDCP bytes sent to MS for all subscribers at SNDCP layer using LLC Acknowledged mode of LLC operation. <b>Triggers:</b> Increments after the uplink data packet has passed SNDCP validations as mentioned in sections 6.7 and 6.9 of SNDCP TS 44.065. <b>Availability:</b> per GPRS service, per Routing Area <b>Type:</b> Counter	Int64*
sndcp-bytes-uack-rcvd-ms	<b>Description:</b> Total number of SNDCP bytes received from MS for all subscribers at SNDCP layer using LLC Un-acknowledged mode of LLC operation. <b>Triggers:</b> Increments after the uplink data packet has passed SNDCP validations as mentioned in sections 6.7 and 6.9 of SNDCP TS 44.065. <b>Availability:</b> per GPRS service, per Routing Area <b>Type:</b> Counter	Int64*
sndcp-bytes-uack-sent-ms	<b>Description:</b> Total number of SNDCP bytes sent to MS for all subscribers at SNDCP layer using LLC Un-acknowledged mode of LLC operation. <b>Triggers:</b> Increments after the uplink data packet has passed SNDCP validations as mentioned in sections 6.7 and 6.9 of SNDCP TS 44.065. <b>Availability:</b> per GPRS service, per Routing Area <b>Type:</b> Counter	Int64*
sndcp-pdu-drop-rcvd-from-llc	Total number of SNDCP PDUs dropped when received from LLC due to invalid parameter or state.	Int64*
sndcp-inval-ref-num-rcvd-from-llc	Total number of SNDCP PDUs dropped due to invalid reference number received from LLC.	Int64*
sndcp-npdu-sent-sgsn-irau	Total number of SNDCP network PDUs sent/transferred to other SGSNs during inter-SGSN routing area update (RAU).	Int64*
sndcp-npdu-rcvd-sgsn-irau	Total number of SNDCP network PDUs received from other SGSNs during inter-SGSN routing area update (RAU).	Int64*
llc-data-req-rx	Total number of LLC data requests received from the MS.	Int64*
llc-data-cfm-tx	Total number of LLC data requests confirmation sent to the MS.	Int64*
llc-data-ind-tx	Total number of LLC data indications sent to the MS.	Int64*
llc-data-sent-ind-tx	Total number of LLC data sent indications sent to the MS.	Int64*
llc-unit-data-req-rx	Total number of LLC unit data requests received from the MS.	Int64*
llc-unit-data-ind-tx	Total number of LLC unit data indications sent to the MS.	Int64*
llc-discarded-frames-rx	Total number of LLC discarded frames received from the MS.	Int64*

Statistic	Description	Data Type
llc-discarded-frames-tx	Total number of LLC discarded frames sent to MS.	Int64*
llc-error-frames-rx	Total number of LLC error frames received from the MS.	Int64*
llc-unrecog-frames-rx	Total number of LLC unrecognized frames received from the MS.	Int64*
llc-xid-collisions	Total number of LLC exchange identifier (XID) request collisions.	Int64*
llc-ciphering-errors	Total number of LLC ciphering errors.	Int64*
llc-fcs-errors	Total number of LLC frame check sequence errors.	Int64*
llc-frame-stats-octets-rcvd	<p><b>Description:</b> This proprietary statistic indicates the total number of bytes of LLC frames received from an MS. This value includes all LLC messages (data + gmm messages + other LLC messages). This stat value be compared with similar counts for other layers to check if any packets have been dropped.</p> <p><b>Triggers:</b> Increments when the LLC layer receives a packet (can be UI frame, U frame, S frame or U frame) from lower BSSGP layer.</p> <p><b>Availability:</b> per GPRS service</p> <p><b>Type:</b> Counter</p>	Int64*
llc-frame-stats-octets-sent	<p><b>Description:</b> This proprietary statistic indicates the total number of bytes sent from the LLC layer to an MS from the SGSN. This value includes all LLC messages (data + gmm messages + other LLC messages). This stat value be compared with similar counts for other layers to check if any packets have been dropped.</p> <p><b>Triggers:</b> Increments when the LLC layer sends a packet (can be UI frame, U frame, S frame or U frame) to the lower BSSGP layer.</p> <p><b>Availability:</b> per GPRS service</p> <p><b>Type:</b> Counter</p>	Int64*
llc-frame-stats-unack-frames-rcvd	<p><b>Description:</b> This proprietary statistic indicates the total number of unacknowledged UI frames received at the LLC layer from an MS. This value be compared with the packet count in gmm and sndcp to check if there are any packets dropped in the LLC layer.</p> <p><b>Triggers:</b> Increments when the LLC layer receives a UI frame in unacknowledged mode from the lower BSSGP layer.</p> <p><b>Availability:</b> per GPRS service</p> <p><b>Type:</b> Counter</p>	Int64*
llc-frame-stats-unack-frames-sent	<p><b>Description:</b> This proprietary statistic indicates the total number of unacknowledged UI frames sent from the LLC to an MS. This value can be compared with the packet count in gmm and sndcp to check if there are any packets dropped in the LLC layer.</p> <p><b>Triggers:</b> Increments when the LLC layer sends a UI frame in unacknowledged mode to the lower BSSGP layer.</p> <p><b>Availability:</b> per GPRS service</p> <p><b>Type:</b> Counter</p>	Int64*
llc-frame-stats-ui-rx	Total number of LLC frames with unnumbered information received from the MS.	Int64*
llc-frame-stats-ui-tx	Total number of LLC frames with unnumbered information sent to the MS. This is a counter type of statistic.	Int64*

Statistic	Description	Data Type
llc-frame-stats-ui-ciph-rx	Total number of LLC frames with ciphered unnumbered information received from the MS. This is a counter type of statistic.	Int64*
llc-frame-stats-ui-ciph-tx	<b>Description:</b> Total number of LLC frames with ciphered unnumbered information sent to the MS. <b>Availability:</b> per GPRS service. <b>Type:</b> Counter	Int64*
llc-frame-stats-ui-gea1-ciph-data-frames-rx	<b>Description:</b> Indicates the total number of GEA1 ciphered data frames received at LLC layer; where the data frames include SNDCP sapi i.e 3,5,9 or 11). <b>Triggers:</b> Increments when receiving data frame ciphered with the GPRS GEA1 ciphering algorithm. <b>Availability:</b> per GPRS service. <b>Type:</b> Counter	Int64*
llc-frame-stats-ui-gea1-ciph-data-frames-tx	<b>Description:</b> Indicates the total number of GEA1 ciphered data frames transmitted from the LLC layer; where the data frames include SNDCP sapi i.e 3,5,9 or 11). <b>Triggers:</b> Increments when transmitting data frame ciphered with the GPRS GEA1 ciphering algorithm. <b>Availability:</b> per GPRS service. <b>Type:</b> Counter	Int64*
llc-frame-stats-ui-gea1-ciph-data-octets-rx	<b>Description:</b> Indicates the total number of GEA1 ciphered data bytes received at the LLC layer. <b>Triggers:</b> Increments when receiving a data octet ciphered with GPRS GEA1 ciphering algorithm. <b>Availability:</b> per GPRS service. <b>Type:</b> Counter	Int64*
llc-frame-stats-ui-gea1-ciph-data-octets-tx	<b>Description:</b> Indicates the total number of GEA1 ciphered data bytes transmitted from the LLC layer. <b>Triggers:</b> Increments when transmitting a data octet ciphered with GPRS GEA1 ciphering algorithm. <b>Availability:</b> per GPRS service. <b>Type:</b> Counter	Int64*
llc-frame-stats-ui-gea2-ciph-data-frames-rx	<b>Description:</b> Indicates the total number of GEA2 ciphered data frames received at LLC layer; where the data frames include SNDCP sapi i.e 3,5,9 or 11). <b>Triggers:</b> Increments when receiving data frame ciphered with the GPRS GEA2 ciphering algorithm. <b>Availability:</b> per GPRS service. <b>Type:</b> Counter	Int64*
llc-frame-stats-ui-gea2-ciph-data-frames-tx	<b>Description:</b> Indicates the total number of GEA2 ciphered data frames trasmitted from the LLC layer; where the data frames include SNDCP sapi i.e 3,5,9 or 11). <b>Triggers:</b> Increments when transmitting data frame ciphered with the GPRS GEA2 ciphering algorithm. <b>Availability:</b> per GPRS service. <b>Type:</b> Counter	Int64*

Statistic	Description	Data Type
llc-frame-stats-ui-gea2-ciph-data-octets-rx	<p><b>Description:</b> Indicates the total number of GEA2 ciphered data bytes received at the LLC layer.</p> <p><b>Triggers:</b> Increments when receiving a data octet ciphered with GPRS GEA2 ciphering algorithm.</p> <p><b>Availability:</b> per GPRS service.</p> <p><b>Type:</b> Counter</p>	Int64*
llc-frame-stats-ui-gea2-ciph-data-octets-tx	<p><b>Description:</b> Indicates the total number of GEA2 ciphered data bytes transmitted from the LLC layer.</p> <p><b>Triggers:</b> Increments when transmitting a data octet ciphered with GPRS GEA2 ciphering algorithm.</p> <p><b>Availability:</b> per GPRS service.</p> <p><b>Type:</b> Counter</p>	Int64*
llc-frame-stats-ui-gea3-ciph-data-frames-rx	<p><b>Description:</b> Indicates the total number of GEA3 ciphered data frames received at LLC layer; where the data frames include SNDCP sapi i.e 3,5,9 or 11).</p> <p><b>Triggers:</b> Increments when receiving data frame ciphered with the GPRS GEA3 ciphering algorithm.</p> <p><b>Availability:</b> per GPRS service.</p> <p><b>Type:</b> Counter</p>	Int64*
llc-frame-stats-ui-gea3-ciph-data-frames-tx	<p><b>Description:</b> Indicates the total number of GEA3 ciphered data frames transmitted from the LLC layer; where the data frames include SNDCP sapi i.e 3,5,9 or 11).</p> <p><b>Triggers:</b> Increments when transmitting data frame ciphered with the GPRS GEA3 ciphering algorithm.</p> <p><b>Availability:</b> per GPRS service.</p> <p><b>Type:</b> Counter</p>	Int64*
llc-frame-stats-ui-gea3-ciph-data-octets-rx	<p><b>Description:</b> Indicates the total number of GEA3 ciphered data bytes received at the LLC layer.</p> <p><b>Triggers:</b> Increments when receiving a data octet ciphered with GPRS GEA3 ciphering algorithm.</p> <p><b>Availability:</b> per GPRS service.</p> <p><b>Type:</b> Counter</p>	Int64*
llc-frame-stats-ui-gea3-ciph-data-octets-tx	<p><b>Description:</b> Indicates the total number of GEA3 ciphered data bytes transmitted from the LLC layer.</p> <p><b>Triggers:</b> Increments when transmitting a data octet ciphered with GPRS GEA3 ciphering algorithm.</p> <p><b>Availability:</b> per GPRS service.</p> <p><b>Type:</b> Counter</p>	Int64*
llc-frame-stats-ui-unciph-rx	<p><b>Description:</b> Total number of unciphered frames received at the LLC layer.</p> <p><b>Triggers:</b> Increments when the incoming frame is unciphered.</p> <p><b>Availability:</b> per GPRS service.</p> <p><b>Type:</b> Counter</p>	Int64*
llc-frame-stats-ui-unciph-tx	<p><b>Description:</b> Total number of unciphered frames transmitted from the LLC layer.</p> <p><b>Triggers:</b> Increments when the outgoing frame is unciphered.</p> <p><b>Availability:</b> per GPRS service.</p> <p><b>Type:</b> Counter</p>	Int64*

Statistic	Description	Data Type
llc-frame-stats-ui-unciph-data-frames-rx	<p><b>Description:</b> Total number of unciphered data frames received at the LLC layer, where the data frames include SNDCP sapi i.e 3,5,9 or 11).</p> <p><b>Triggers:</b> Increments when the incoming data frame is unciphered.</p> <p><b>Availability:</b> per GPRS service.</p> <p><b>Type:</b> Counter</p>	Int64*
llc-frame-stats-ui-unciph-data-frames-tx	<p><b>Description:</b> Total number of unciphered data frames transmitted at the LLC layer, where the data frames include SNDCP sapi i.e 3,5,9 or 11).</p> <p><b>Triggers:</b> Increments when the outgoing data frame is unciphered.</p> <p><b>Availability:</b> per GPRS service.</p> <p><b>Type:</b> Counter</p>	Int64*
llc-frame-stats-ui-unciph-data-octets-rx	<p><b>Description:</b> Total number of unciphered data bytes received at the LLC layer.</p> <p><b>Triggers:</b> Increments when receiving an unciphered data octet.</p> <p><b>Availability:</b> per GPRS service.</p> <p><b>Type:</b> Counter</p>	Int64*
llc-frame-stats-ui-unciph-data-octets-tx	<p><b>Description:</b> Total number of unciphered data bytes transmitted from the LLC layer.</p> <p><b>Triggers:</b> Increments when transmitting an unciphered data octet.</p> <p><b>Availability:</b> per GPRS service.</p> <p><b>Type:</b> Counter</p>	Int64*
llc-frame-stats-xid-rcvd	<p><b>Description:</b> This proprietary statistic indicates the total number of XID-reset messages received from the MS.</p> <p><b>Triggers:</b> Increments when the LLC layer receives an XID request from the lower BSSGP layer.</p> <p><b>Availability:</b> per GPRS service.</p> <p><b>Type:</b> Counter</p>	Int64*
llc-frame-stats-xid-sent	<p><b>Description:</b> This proprietary statistic indicates the total number of XID-reset messages sent to the MS. This includes responses to XIDs sent by the SGSN and SID command from the MS. This stat value can be compared with the stat value for llc-frame-stats-xid-rcvd to determine XID failures.</p> <p><b>Triggers:</b> Increments when the LLC layer sends an XID request to the lower BSSGP layer.</p> <p><b>Availability:</b> per GPRS service.</p> <p><b>Type:</b> Counter</p>	Int64*
bytes-sent-to-bsc	<p><b>Description:</b> Stat collected on the Gb interface provides the total number of bytes of data sent by a SGSN to a specific BSC (NSEI).</p> <p><b>Triggers:</b> Increments by the number of bytes of data in the data packet whenever a data packet is sent in the downlink direction from the SGSN to a subscriber served by the particular BSC (NSEI).</p> <p><b>Availability:</b> per NSEI</p> <p><b>Type:</b> Counter</p>	Int64
packets-sent-to-bsc	<p><b>Description:</b> Stat collected on the Gb interface provides the total number of data packets a SGSN sent to a specific BSC (NSEI).</p> <p><b>Triggers:</b> Increments whenever a data packet is sent in the downlink direction from the GGSN to a subscriber served by the particular BSC.</p> <p><b>Availability:</b> per NSEI</p> <p><b>Type:</b> Counter</p>	Int64

Statistic	Description	Data Type
bytes-rcvd-from-bsc	<p><b>Description:</b> Stat collected on the Gb interface provides the total number of bytes of data received by a SGSN from a specific BSC (NSEI).</p> <p><b>Triggers:</b> Increments by the number of bytes of data in the data packet whenever a data packet is sent in the uplink direction to the SGSN from a subscriber served by the particular BSC (NSEI).</p> <p><b>Availability:</b> per BSC</p> <p><b>Type:</b> Counter</p>	Int64
packets-rcvd-from-bsc	<p><b>Description:</b> Stat collected on the Gb interface provides the total number of data packets the SGSN received from a specific BSC (NSEI).</p> <p><b>Triggers:</b> Increments whenever a data packet is sent in the uplink direction to the SGSN from a subscriber served by the particular BSC (NSEI).</p> <p><b>Availability:</b> per NSEI</p> <p><b>Type:</b> Counter</p>	Int64
gprs-num-subscribers-gea0-capable	<p><b>Description:</b> This proprietary statistic indicates the total number of currently attached GPRS subscribers whose MS network capability supports GEA0 (no ciphering).</p> <p><b>Availability:</b> per GPRS Service</p> <p><b>Type:</b> Gauge</p>	Int32
gprs-num-subscribers-gea1-capable	<p><b>Description:</b> This proprietary statistic indicates the total number of currently attached GPRS subscribers whose MS network capability supports GEA1 encryption.</p> <p><b>Availability:</b> per GPRS Service</p> <p><b>Type:</b> Gauge</p>	Int32
gprs-num-subscribers-gea2-capable	<p><b>Description:</b> This proprietary statistic indicates the total number of currently attached GPRS subscribers whose MS network capability supports GEA2 encryption.</p> <p><b>Availability:</b> per GPRS Service</p> <p><b>Type:</b> Gauge</p>	Int32
gprs-num-subscribers-gea3-capable	<p><b>Description:</b> This proprietary statistic indicates the total number of currently attached GPRS subscribers whose MS network capability supports GEA3 encryption.</p> <p><b>Availability:</b> per GPRS Service</p> <p><b>Type:</b> Gauge</p>	Int32
gprs-num-subscribers-gea0-negotiated	<p><b>Description:</b> This proprietary statistic indicates the total number of currently attached GPRS subscribers who have negotiated, with the SGSN during authentication and ciphering request, to use GEA0 (no ciphering).</p> <p><b>Availability:</b> per GPRS Service</p> <p><b>Type:</b> Gauge</p>	Int32
gprs-num-subscribers-gea1-negotiated	<p><b>Description:</b> This proprietary statistic indicates the total number of currently attached GPRS subscribers who have negotiated, with the SGSN during authentication and ciphering request, to use GEA1 encryption.</p> <p><b>Availability:</b> per GPRS Service</p> <p><b>Type:</b> Gauge</p>	Int32
gprs-num-subscribers-gea2-negotiated	<p><b>Description:</b> This proprietary statistic indicates the total number of currently attached GPRS subscribers who have negotiated, with the SGSN during authentication and ciphering request, to use GEA2 encryption.</p> <p><b>Availability:</b> per GPRS Service</p> <p><b>Type:</b> Gauge</p>	Int32

Statistic	Description	Data Type
gprs-num-sub-gea3-negotiated	<b>Description:</b> This proprietary statistic indicates the total number of currently attached GPRS subscribers who have negotiated, with the SGSN during authentication and ciphering request, to use GEA3 encryption. <b>Availability:</b> per GPRS Service <b>Type:</b> Gauge	Int32



**Important:** See Bulk Statistics Overview for statistics that are common to all schema.



# Chapter 16

## GTPC Schema Statistics

The GTPC schema provides the following types of statistics:

- **Counter:** A counter records incremental data cumulatively and rolls over when the counter limit is reached. The limit depends upon the counter data type.
- **Gauge:** A gauge statistic indicates a single value representative of a single instance. This type is often used to track particular events in time.

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 **Important:** The format string syntax is described by Schema Format String Syntax in the Bulk Statistics Overview chapter.

 **Important:** Unless otherwise indicated, all statistics are counters. For statistics with the Int32 data type, the roll-over to zero limit is 4,294,967,295. For statistics with the Int64 data type, the roll-over to zero limit is 18,446,744,073,709,551,615. All counter statistics are cumulative and reset only by one of the following methods: roll-over (as described above), after a system restart, or after a clear command is performed. All statistics are considered standards-based unless otherwise noted.

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The following variables are supported:

**Table 16. GTPC Schema Statistics**

Statistic	Description	Data Type
vpnname	The name of the context configured on the system that is currently facilitating the GGSN service.	String
vpnid	The identification number of the context configured on the system that is currently facilitating the GGSN service. This is an internal reference number.	Int32
servname	The name of the GGSN service for which the statistics are displayed.	String
setup-current	The total number of current sessions setup	Int32
current-ip	The total number of current IPv4 Sessions	Int32
current-ppp	The total number of current PPP sessions	Int32
current-ipv6	The total number of current IPv6 Sessions	Int32
current-ntwkinitd	The total number of current Network initiated Sessions	Int32
setup-total	The total number of PDP contexts setup.	Int32

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Statistic	Description	Data Type
setup-ip	The total number of IP PDP contexts setup.	Int32
setup-ppp	The total number of PPP PDP contexts setup.	Int32
setup-ipv6	The total number of IPv6 sessions	Int32
setup-sgsn	The total number of SGSN initiated sessions	Int32
setup-ggsn	The total number of GGSN initiated sessions	Int32
released-total	The total number of PDP contexts released.	Int32
dyn-ipv4-attempt	The total number of IPv4 PDP contexts requesting dynamically assigned IP addresses that were attempted.	Int32
dyn-ipv6-attempt	The total number of IPv6 PDP contexts requesting dynamically assigned IP addresses that were attempted.	Int32
dyn-ipv4-success	The total number of IPv4 PDP contexts requesting dynamically assigned IP addresses that were successfully setup.	Int32
dyn-ipv6-success	The total number of IPv6 PDP contexts requesting dynamically assigned IP addresses that were successfully setup.	Int32
dyn_ppp_attempt	The total number of requests to create PPP context dynamically attempted.	Int32
dyn_ppp_success	The total number of requests to create PPP context dynamically attempted and setup successfully.	Int32
echo-req-rx	The total number of GTPC echo requests received.	Int32
echo-req-tx	The total number of GTPC echo requests transmitted.	Int32
gtpu-echo-req-rx	The total number of GTPU echo requests received.	Int32
gtpu-echo-req-tx	The total number of GTPU echo requests transmitted.	Int32
echo-rsp-tx	The total number of GTPC echo responses transmitted.	Int32
echo-rsp-rx	The total number of GTPC echo responses received.	Int32
gtpu-echo-rsp-tx	The total number of GTPU echo responses transmitted.	Int32
gtpu-echo-rsp-rx	The total number of GTPU echo responses received.	Int32
cpc-total	The total number of Create PDP Context Request messages received. This is the sum of GTPC v0 and GTP v1 messages.	Int32
cpc-v0	The total number of Create PDP Context Request messages received that used GTPC version 0.	Int32
cpc-v1	The total number of Create PDP Context Request messages received that used GTPC version 1.	Int32
cpc-sec	The total number of Activate Secondary PDP Context Request received.	Int32
cpc-retrans	The total number of re-transmitted Create PDP Context Request messages received from the SGSN for either the primary or secondary PDP contexts.	Int32

Statistic	Description	Data Type
cpc-accept	The total number of Create PDP Context Response messages transmitted containing a cause value of 128 (80H, Request accepted).	Int32
cpc-deny	The total number of “reject” Create PDP Context Response messages transmitted.	Int32
cpc-discard	The total number of Create PDP Context Request messages received from the SGSN(s) that were discarded.	Int32
upc-rx	The total number of Update PDP Context Request messages received from the SGSN(s).	Int32
upc-rx-accept	The total number of Update PDP Context Response messages transmitted to the SGSN(s) containing a cause value of 128 (80H, Request accepted).	Int32
upc-rx-deny	The total number of “reject” Update PDP Context Response messages transmitted to the SGSN(s).	Int32
upc-rx-discard	The total number of Update PDP Context Request messages received from SGSN(s) that were discarded	Int32
upc-tx	The total number of Update PDP Context Request messages transmitted to the SGSN(s).	Int32
upc-tx-accept	The total number of Update PDP Context Response messages sent to the SGSN(s) containing a cause value of 128 (80H, Request accepted).	Int32
upc-tx-deny	The total number of “reject” Update PDP Context Response messages sent to the SGSN(s).	Int32
upc-tx-dt-upd	The total number of Update PDP Context Response messages sent to SGSN(s) for direct tunnel update.	Int32
dpc-rx	The total number of Delete PDP Context Request messages received from the SGSN(s).	Int32
dpc-rx-accept	The total number of Delete PDP Context Response messages transmitted containing a cause value of 128 (80H, Request accepted).	Int32
dpc-rx-deny	The total number of “reject” Delete PDP Context Response messages transmitted.	Int32
dpc-rx-discard	The total number of Delete PDP Context Request messages received from the SGSN(s) that were discarded	Int32
dpc-tx	The total number of Delete PDP Context Request messages transmitted to the SGSN(s).	Int32
dpc-tx-accept	The total number of Delete PDP Context Response messages received from the SGSN(s) containing a cause value of 128 (80H, Request accepted).	Int32
dpc-tx-deny	The total number of “reject” Delete PDP Context Response messages received from the SGSN(s).	Int32
cpc-aa	The total number of Create AA (anonymous access) PDP Context Request messages received.	Int32
cpc-aa-accept	The total number of Create AA PDP Context Response messages transmitted to the SGSN with a cause code of 128 (80H, Request accepted).	Int32
cpc-aa-deny	The total number of “reject” Create AA PDP Context Response messages transmitted to the SGSN(s).	Int32
cpc-aa-discard	The total number of Create AA PDP Context Request messages received that were discarded without transmitting a response to the SGSN(s).	Int32

## Common Statistics

Statistic	Description	Data Type
dpc-aa-rx	The total number of Delete AA PDP Context Request messages received from the SGSN(s).	Int32
dpc-aa-rx-accept	The total number of Delete AA PDP Context Response messages transmitted containing a cause value of 128 (80H, Request accepted).	Int32
dpc-aa-rx-deny	The total number of “reject” Delete AA PDP Context Response messages transmitted to the SGSN(s).	Int32
dpc-aa-rx-discard	The total number of Delete PDP AA Context Request messages received from the SGSN(s) that were discarded	Int32
dpc-aa-tx	The total number of Delete AA PDP Context Request messages transmitted to the SGSN(s).	Int32
dpc-aa-tx-accept	The total number of Delete AA PDP Context Response messages received from the SGSN(s) containing a cause value of 128 (80H, Request accepted).	Int32
dpc-aa-tx-deny	The total number of “reject” Delete AA PDP Context Response messages received from the SGSN(s).	Int32
err-ind-rx	The total number of error indication messages received from the SGSN(s).	Int32
err-ind-tx	The total number of error indication messages transmitted to the SGSN(s).	Int32
err-ind-rx-discard	The total number of error indication messages received and discarded at the SGSN(s).	Int32
cpc-noresource	The total number of “reject” Create PDP Context Response messages transmitted to the SGSN(s) sent with a cause code of 199 (C7H, No resources available).	Int32
cpc-addr-occupied	The total number of “reject” Create PDP Context Response messages transmitted to the SGSN(s) sent with a cause code of 211 (D3H, All dynamic PDP addresses are occupied).	Int32
cpc-nomem	The total number of “reject” Create PDP Context Response messages transmitted to the SGSN(s) sent with a cause code of 212 (D4H, No memory is available).	Int32
cpc-missing-apn	The total number of “reject” Create PDP Context Response messages transmitted to the SGSN(s) sent with a cause code of 219 (DBH, Missing or unknown APN).	Int32
cpc-unknown-pdp	The total number of “reject” Create PDP Context Response messages transmitted to the SGSN(s) sent with a cause code of 220 (DCH, Unknown PDP address or PDP type).	Int32
cpc-no-apn-subscription	The total number of “reject” Create PDP Context Response messages transmitted to the SGSN(s) sent because there was no apn subscription.	Int32
cpc-auth-fail	The total number of “reject” Create PDP Context Response messages transmitted to the SGSN(s) sent with a cause code of 201.	Int32
cpc-sys-fail	The total number of “reject” Create PDP Context Response messages transmitted to the SGSN(s) sent with a cause code of 204 (CCH, System failure).	Int32
cpc-sem-tft	The total number of “reject” Create PDP Context Response messages transmitted to the SGSN(s) sent with a cause code of 215 (D7H, Semantic error in the TFT operation).	Int32
cpc-syn-tft	The total number of “reject” Create PDP Context Response messages transmitted to the SGSN(s) sent with a cause code of 216 (D8H, Syntactic error in the TFT operation).	Int32
cpc-sem-pktfilter	The total number of “reject” Create PDP Context Response messages transmitted to the SGSN(s) sent with a cause code of 217 (D9H, Semantic error in packet filter(s)).	Int32

Statistic	Description	Data Type
cpc-syn-pktfilter	The total number of “reject” Create PDP Context Response messages transmitted to the SGSN(s) sent with a cause code of 218 (DAH, Syntactic error in packet filter(s)).	Int32
cpc-ie-err	The total number of “reject” Create PDP Context Response messages transmitted to the SGSN(s) sent with a cause code of 201 (C9H, Mandatory IE incorrect).	Int32
cpc-ie-missing	The total number of “reject” Create PDP Context Response messages transmitted to the SGSN(s) sent with a cause code of 202 (CAH, Mandatory IE missing).	Int32
cpc-opt-ie-err	The total number of “reject” Create PDP Context Response messages transmitted to the SGSN(s) sent with a cause code of 203 (CBH, Optional IE incorrect).	Int32
cpc-malformed	The total number of “reject” Create PDP Context Response messages transmitted to the SGSN(s) sent with a cause code of 193 (C1H, Invalid message format).	Int32
cpc-version	The total number of “reject” Create PDP Context Response messages transmitted to the SGSN(s) sent with a cause code of 198 (C6H, version not supported).	Int32
cpc-srv-not-supp	The total number of “reject” Create PDP Context Response messages transmitted to the SGSN(s) sent with a cause code of 200 (C8H, service not Supported).	Int32
disc-sgsn	The total number of sessions released by SGSN(s).	Int32
disc-path-fail	The total number of session releases that occurred due to path failure.	Int32
disc-smgr-dead	The total number of sessions released due to the termination of the session manager that was facilitating them.	Int32
disc-admin	The total number of sessions administratively released.	Int32
disc-other	The total number of sessions released due to other reasons.	Int32
disc-teardown	The total number of sessions disconnected normally.	Int32
disc-idle	The total number of sessions released due to the expiration of the idle timeout period as specified in the APN configuration.	Int32
disc-absolute	The total number of sessions released due to the expiration of the absolute timeout period as specified in the APN configuration.	Int32
disc-src-addr	The total number of sessions released due to source address violations.	Int32
disc-flow-add	The total number of sessions released reason due to flow addition failures.	Int32
disc-dhcp-renew-fail	The total number of sessions released due to failed DHCP lease renewal.	Int32
disc-long-durn	The total number of sessions released due to the expiration of the long duration timeout period.	Int32
disc-aborted	The total number of sessions released due to miscellaneous call abort conditions.	Int32
disc-apn-rmvd	The total number of sessions released due to the removal of an APN’s configuration.	Int32
pdu-notif	The total number of PDU Notification Request messages transmitted to the SGSN(s).	Int32
pdu-notif-accept	The total number of PDU Notification Response messages received from the SGSN(s) containing a cause value of 128 (80H, Request accepted).	Int32
pdu-notif-deny	The total number of “deny” PDU Notification Response messages received from the SGSN(s).	Int32

## ■ Common Statistics

Statistic	Description	Data Type
pdu-notif-rej	The total number of PDU Notification Reject Request messages received from the SGSN(s).	Int32
pdu-notif-rej-accept	The total number of PDU Notification Reject Response messages transmitted to the SGSN(s) containing a cause value of 128 (80H, Request accepted).	Int32
pdu-notif-rej-deny	The total number of “deny” PDU Notification Reject Response messages transmitted to the SGSN(s).	Int32
pdu-notif-rej-discard	The total number of PDU Notification Reject Request messages discarded by the GGSN without any response transmitted to the SGSN(s).	Int32
num-dt-established	The total number of direct tunnels established between SGSN and GGSN.	Int32
num-dt-torn-by-sgsn	The total number of established direct tunnels between SGSN and GGSN torn by SGSN.	Int32
num-dt-recv-err-ind	The total number of direct tunnels requests received from SGSN with error indication.	Int32
sri-req	The total number of Send Routing Information (SRI) for GPRS messages transmitted to the HLR(s).	Int32
sri-accept	The total number of Send Routing Info for GPRS Ack messages received from the HLR(s) containing a cause value of 128 (80H, Request accepted).	Int32
sri-deny	The total number of “deny” Send Routing Info for GPRS Ack messages received from the HLR(s).	Int32
fail-rep	The total number of Failure reports transmitted to the HLR(s).	Int32
fail-rep-accept	The total number of Failure reports received from the HLR(s) containing a cause value of 128 (80H, Request accepted).	Int32
fail-rep-deny	The total number of “deny” Failure reports received from the HLR(s).	Int32
note-ms-gprs	The total number of Note MS GPRS Present messages received from the HLR(s).	Int32
note-ms-gprs-accept	The total number of Note MS GPRS Present Response messages transmitted to the HLR(s) containing a cause value of 128 (80H, Request accepted).	Int32
note-ms-gprs-deny	The total number of “deny” Note MS GPRS Present Response messages transmitted to the HLR(s).	Int32
note-ms-gprs-discard	The total number of Note MS GPRS Present messages discarded with no response transmitted to the HLR(s).	Int32
qosconv-bytes-in	The total number of Conversational Uplink Bytes Sent	Int64
qosconv-pkts-in	The total number of Conversational Uplink Pkts Sent	Int64
qosconv-bytes-out	The total number of Conversational Downlink Bytes Rcvd	Int64
qosconv-pkts-out	The total number of Conversational Downlink Pkts Rcvd	Int64
qosstrm-bytes-in	The total number of Streaming Uplink Bytes Sent	Int64
qosstrm-pkts-in	The total number of Streaming Uplink Pkts Sent	Int64
qosstrm-bytes-out	The total number of Streaming Downlink Bytes Rcvd	Int64
qosstrm-pkts-out	The total number of Streaming Downlink Pkts Rcvd	Int64

Statistic	Description	Data Type
qosint1-bytes-in	The total number of Interactive 1 Uplink Bytes Sent	Int64
qosint1-pkts-in	The total number of Interactive 1 Uplink Pkts Sent	Int64
qosint1-bytes-out	The total number of Interactive 1 Downlink Bytes Rcvd	Int64
qosint1-pkts-out	The total number of Interactive 1 Downlink Pkts Rcvd	Int64
qosint2-bytes-in	The total number of Interactive 2 Uplink Bytes Sent	Int64
qosint2-pkts-in	The total number of Interactive 2 Uplink Pkts Sent	Int64
qosint2-bytes-out	The total number of Interactive 2 Downlink Bytes Rcvd	Int64
qosint2-pkts-out	The total number of Interactive 2 Downlink Pkts Rcvd	Int64
qosint3-bytes-in	The total number of Interactive 3 Uplink Bytes Sent	Int64
qosint3-pkts-in	The total number of Interactive 3 Uplink Pkts Sent	Int64
qosint3-bytes-out	The total number of Interactive 3 Downlink Bytes Rcvd	Int64
qosint3-pkts-out	The total number of Interactive 3 Downlink Pkts Rcvd	Int64
qosint-bytes-in	The total number of Interactive 1+2+3 Uplink Bytes Sent	Int64
qosint-pkts-in	The total number of Interactive 1+2+3 Uplink Pkts Sent	Int64
qosint-bytes-out	The total number of Interactive 1+2+3 Downlink Bytes Rcvd	Int64
qosint-pkts-out	The total number of Interactive 1+2+3 Downlink Pkts Rcvd	Int64
qosback-bytes-in	The total number of Background Uplink Bytes Sent	Int64
qosback-pkts-in	The total number of Background Uplink Pkts Sent	Int64
qosback-bytes-out	The total number of Background Downlink Bytes Rcvd	Int64
qosback-pkts-out	The total number of Background Downlink Pkts Rcvd	Int64
ctrl-num-bytes-in	The total number of bytes for control packets received on the GN and/or Gp interface.	Int64
ctrl-num-pkts-in	The total number of control packets received on the GN and/or Gp interface.	Int64
ctrl-num-bytes-out	The total number of bytes from control packets transmitted on the GN and/or Gp interface.	Int64
ctrl-num-pkts-out	The total number of control packets transmitted on the GN and/or Gp interface.	Int64
num-bytes-in	The total number of bytes received on the GN and/or Gp interface.	Int64
num-pkts-in	The total number of packets received on the GN and/or Gp interface.	Int64
num-bytes-out	The total number of bytes transmitted on the GN and/or Gp interface.	Int64
num-pkts-out	The total number of packets transmitted on the GN and/or Gp interface.	Int64
current-mbms-ue	The total number of current MBMS UE sessions.	Int32
current-mbms-mcast	The total number of current MBMS Multicast sessions.	Int32
current-mbms-bcast	The total number of current MBMS Broadcast sessions.	Int32

## Common Statistics

Statistic	Description	Data Type
setup-mbms-ue	The total number of MBMS UE Sessions setup.	Int32
setup-mbms-mcast	The total number of MBMS Multicast Sessions setup.	Int32
setup-mbms-bcast	The total number of MBMS Broadcast Sessions setup	Int32
chap-auth-attempt	The total number of CHAP Auth sessions attempted.	Int32
chap-auth-success	The total number of CHAP Auth sessions successful	Int32
chap-auth-failure	The total number of CHAP Auth sessions failed	Int32
pap-auth-attempt	The total number of PAP Auth sessions attempted	Int32
pap-auth-success	The total number of PAP Auth sessions successful	Int32
pap-auth-failure	The total number of PAP Auth sessions failed	Int32
no-auth	The total number of No-Auth sessions.	Int32
err-ind	Total sessions released on Error Indication	Int32
ctxt-replace	Total sessions released due to context replacement.	Int32
purge-audit	Total sessions purged due to audit failure	Int32
update-handoff-rej	Total sessions released due to handoff reject in UPC	Int32
total-handoff-fail	Total path failure due to handoff	Int32
sgsn-restart-cpc-req	Total path failure due to SGSN restart detected via CPC	Int32
sgsn-restart-upc-req	Total path failure due to SGSN restart detected via UPC	Int32
sgsn-restart-echo-rsp	Total path failure due to SGSN restart detected via Echo Rsp	Int32
gtpc-echo-timeout	Total path failure due to SGSN restart detected via GTPC echo	Int32
gtpu-echo-timeout	Total path failure due to SGSN restart detected via GTPU echo	Int32
ggsn-req-timeout	Total path failure due to GGSN request timeout.	Int32
version-not-sup-rx	Version not supported received	Int32
version-not-sup-tx	Version not supported transmitted	Int32
sup-ext-header-rx	Extension header supported received	Int32
sup-ext-header-tx	Extension header supported transmitted	Int32
cmc-total	The total number of Create MBMS Context request messages received.	Int32
cmc-initial	The total number of initial Create MBMS Context request messages received.	Int32
cmc-retrans	The total number of retransmitted Create MBMS Context request messages received.	Int32
cmc-accept	The total number of Create MBMS Context request messages accepted by the GGSN.	Int32
cmc-deny	The total number of Create MBMS Context request messages denied by the GGSN.	Int32
cmc-discard	The total number of Create MBMS Context request messages discarded by the GGSN.	Int32

Statistic	Description	Data Type
umc-rx	The total number of Update MBMS Context request messages received.	Int32
umc-rx-accept	The total number of Update MBMS Context request messages accepted by the GGSN.	Int32
umc-rx-deny	The total number of Update MBMS Context request messages denied by the GGSN.	Int32
umc-rx-discard	The total number of Update MBMS Context request messages discarded by the GGSN.	Int32
dmc-rx	The total number of Delete MBMS Context request messages received.	Int32
dmc-rx-accept	The total number of Delete MBMS Context request messages accepted by the GGSN.	Int32
dmc-rx-deny	The total number of Delete MBMS Context request messages denied by the GGSN.	Int32
dmc-rx-discard	The total number of Delete MBMS Context request messages discarded by the GGSN.	Int32
dmc-tx	The total number of Delete MBMS Context request messages transmitted.	Int32
dmc-tx-accept	The total number of Delete MBMS Context request messages accepted by the SGSN.	Int32
dmc-tx-deny	The total number of Delete MBMS Context request messages denied by the SGSN.	Int32
mbms-reg-req-total	The total number of MBMS Registration Request messages received.	Int32
mbms-reg-req-initial	The total number of initial MBMS Registration Request messages received.	Int32
mbms-reg-req-retrans	The total number of retransmitted MBMS Registration Request messages received.	Int32
mbms-reg-req-accept	The total number of MBMS Registration Request messages accepted by the GGSN.	Int32
mbms-reg-req-deny	The total number of MBMS Registration Request messages denied by the GGSN.	Int32
mbms-reg-req-discard	The total number of MBMS Registration Request messages discarded by the GGSN.	Int32
mbms-ses-start-tx	The total number of MBMS Session Start Request messages transmitted.	Int32
mbms-ses-start-tx-accept	The total number of MBMS Session Start Request messages accepted by the SGSN.	Int32
mbms-ses-start-tx-deny	The total number of MBMS Session Start Request messages denied by the SGSN.	Int32
mbms-ses-stop-tx	The total number of MBMS Session Stop Request messages transmitted.	Int32
mbms-ses-stop-tx-accept	The total number of MBMS Session Stop Request messages accepted by the SGSN.	Int32
mbms-ses-stop-tx-deny	The total number of MBMS Session Stop Request messages denied by the SGSN.	Int32
mbms-dereg-rx	The total number of MBMS De-Registration Request messages received.	Int32
mbms-dereg-rx-accept	The total number of MBMS De-Registration Request messages accepted by the GGSN.	Int32
mbms-dereg-rx-deny	The total number of MBMS De-Registration Request messages denied by the GGSN.	Int32
mbms-dereg-rx-discard	mbms-dereg-rx-discard	Int32
mbms-dereg-tx	The total number of MBMS De-Registration Request messages transmitted.	Int32
mbms-dereg-tx-accept	The total number of MBMS De-Registration Request messages accepted by the SGSN.	Int32
mbms-dereg-tx-deny	The total number of MBMS De-Registration Request messages denied by the SGSN.	Int32
sess-in-preservation-mode	The total number of sessions in Preservation-Mode. This is a customer specific support only.	Int32

Statistic	Description	Data Type
transition-to-preservation-mode	The total number of sessions in transition from Non-Preservation mode (normal mode) to Preservation-Mode. This is a customer specific support only.	Int32
transition-to-non-preservation-mode	The total number of sessions in transition from Preservation Mode to normal mode. This is a customer specific support only.	Int32
sess-in-lorc	Indicates the number of GGSN session are in LORC state and subscriber is in out of radio coverage area. This counter is applicable when GGSN is enabled for overcharging protection for subscriber due to loss of radio coverage and SGSN notifies Update PDP Contexts for QOS change with GTP-C extension for LORC.	Int32
transition-to-lorc	Indicates total number sessions in transitions state for overcharging protection support mode. This counter is applicable when GGSN is enabled for overcharging protection for subscriber due to loss of radio coverage and SGSN notifies Update PDP Contexts for QOS change with GTP-C extension for LORC.	Int32
sess-in-focs	Total number of session Free of charge service.	Int32
cnt-of-release-due-to-other	Total number of session release due to reasons other than listed in this table.	Int32
cnt-of-release-due-to-violation	Total number of session release due to service violation.	Int32
sess-in-odb	Indicates the total number of sessions with Operator Determined Barring enabled status.	Int32
cnt-of-release-due-to-violation-odb	Indicates the statistics for sessions, with Operator Determined Barring enabled status, released due to violation of ODB conditions.	Int32
cnt-of-release-due-to-other-odb	Indicates the total number of sessions, with Operator Determined Barring enabled status, released due to reasons not specified in this table.	Int32
ipca-pdp-context-tx	Total number of PDP context activation requests sent for IPComp Association (IPCA).	Int32
ipca-pdp-context-tx-accepted	Total number of PDP context activation requests sent and accepted for IPComp Association (IPCA).	Int32
ipca-pdp-context-tx-denied	Total number of PDP context activation requests denied for IPComp Association (IPCA).	Int32
ipca-reject-rx-no-resources	Total number of IPComp Association (IPCA) reject messages received due to no resource available on remote node.	Int32
ipca-reject-rx-no-mem-avail	Total number of IPComp Association (IPCA) reject messages received due to no memory available on remote node.	Int32
ipca-reject-rx-sys-failure	Total number of IPComp Association (IPCA) reject messages received due to system failure on remote node.	Int32
ipca-reject-rx-non-existent	Total number of IPComp Association (IPCA) reject messages received due to non-existent session/subscriber on remote node.	Int32
ipca-reject-rx-unsupported-service	Total number of IPComp Association (IPCA) reject messages received as service is not supported on on remote node.	Int32

Statistic	Description	Data Type
ipca-reject-rx-invalid-msg-format	Total number of IPComp Association (IPCA) reject messages received due to invalid message format.	Int32
ipca-reject-rx-semantic-err-in-tft	Total number of IPComp Association (IPCA) reject messages received due to semantic error in Traffic Flow Template (TFT).	Int32
ipca-reject-rx-syntactic-err-in-tft	Total number of IPComp Association (IPCA) reject messages received due to syntactic error in Traffic Flow Template (TFT)	Int32
ipca-reject-rx-man-ie-incorrect	Total number of IPComp Association (IPCA) reject messages received due to incorrect information in mandatory information elements (IEs).	Int32
ipca-reject-rx-semantic-err-in-pac-filter	Total number of IPComp Association (IPCA) reject messages received due to semantic error in PAC filter.	Int32
ipca-reject-rx-man-ie-missing	Total number of IPComp Association (IPCA) reject messages received as mandatory information element (IE) is missing.	Int32
ipca-reject-rx-optional-ie-incorrect	Total number of IPComp Association (IPCA) reject messages received due to incorrect information in optional information elements (IEs).	Int32
ipca-reject-rx-syntactic-err-in-pac-filter	Total number of IPComp Association (IPCA) reject messages received due to syntactic error in PAC filter.	Int32
ipca-reject-rx-ue-not-gprs-rsp	Total number of IPComp Association (IPCA) reject messages received as UE is not capable or subscribed to GPRS service.	Int32
ipca-reject-rx-ue-refuses	Total number of IPComp Association (IPCA) reject messages received due to refusal from UE.	Int32
ipca-reject-rx-invalid-correlation-id	Total number of IPComp Association (IPCA) reject messages received due to invalid correlation identifier.	Int32



**Important:** See Bulk Statistics Overview for statistics that are common to all schema.



# Chapter 17

## GTPP Schema Statistics

The GTPP schema provides the following types of statistics:

- **Counter:** A counter records incremental data cumulatively and rolls over when the counter limit is reached. The limit depends upon the counter data type.
- **Gauge:** A gauge statistic indicates a single value representative of a single instance. This type is often used to track particular events in time.

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 **Important:** The format string syntax is described by Schema Format String Syntax in the Bulk Statistics Overview chapter.

 **Important:** Unless otherwise indicated, all statistics are counters. For statistics with the Int32 data type, the roll-over to zero limit is 4,294,967,295. For statistics with the Int64 data type, the roll-over to zero limit is 18,446,744,073,709,551,615. All counter statistics are cumulative and reset only by one of the following methods: roll-over (as described above), after a system restart, or after a clear command is performed. All statistics are considered standards-based unless otherwise noted.

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The following variables are supported:

**Table 17. GTPP Schema Statistics**

Statistic	Description	Data Type
vpnname	The name of the context configured on the system that is currently facilitating the GTPP configuration.	String
vpnid	The identification number of the context configured on the system that is currently facilitating the GTPP configuration. This is an internal reference number.	Int32
echo-req-rx	The total number of Echo Request messages received.	Int32
echo-req-tx	The total number of Echo Request messages transmitted.	Int32
echo-rsp-rx	The total number of Echo Response messages received.	Int32
echo-rsp-tx	The total number of Echo Response messages transmitted.	Int32
redir-rcvd	The total number of Redirection Request messages received.	Int32
redir-rsp	The total number of Redirection Response messages transmitted.	Int32
node-alive	The total number of Node Alive Request messages received.	Int32

Statistic	Description	Data Type
node-alive-rsp	The total number of Node Alive Response messages transmitted.	Int32
data-rec-trans	The total number of Data Record Transfer Request messages transmitted to the CGF(s).	Int32
dup-data-rec-trans	The total number of data records transmitted marked as potential duplicates.	Int32
send-data-rec	The total number of Data Record Transfer Request messages transmitted containing a Packet Transfer Command information element of 1 (Send Data Record Packet).	Int32
rel-data-rec	The total number of Data Record Transfer Request messages transmitted containing a Packet Transfer Command information element of 4 (Release Data Record Packet).	Int32
cancel-data-rec	The total number of Data Record Transfer Request messages transmitted containing a Packet Transfer Command information element of 3 (Cancel Data Record Packet).	Int32
data-rec-trans-rsp	The total number of Data Record Transfer Response messages received from the CGF(s).	Int32
delete-node	The total number of Delete Node Address Request messages sent to the CGF(s).	Int32
node-addr	The total number of Set Node Address Request messages sent to the CGF(s).	Int32
req-accept	The total number of Data Record Transfer Response messages received from the CGF(s) containing a cause information element of 128 (80H, Request accepted).	Int32
req-not-fulfil	The total number of Data Record Transfer Response messages received from the CGF(s) containing a cause information element of 255 (FFH, Request not fulfilled).	Int32
req-malform	The total number of Data Record Transfer Response messages received from the CGF(s) containing a cause information element of 193 (C1H, Invalid message format).	Int32
version-not-sup	The total number of Data Record Transfer Response messages received from the CGF(s) containing a cause information element of 198 (C6, Version not supported).	Int32
serv-not-sup	The total number of Data Record Transfer Response messages received from the CGF(s) containing a cause information element of 200 (C8H, Service not supported).	Int32
mand-ie-err	The total number of Data Record Transfer Response messages received from the CGF(s) containing a cause information element of 201 (C9H, Mandatory IE incorrect).	Int32
mand-ie-miss	The total number of Data Record Transfer Response messages received from the CGF(s) containing a cause information element of 202 (CAH, Mandatory IE missing).	Int32
opt-ie-err	The total number of Data Record Transfer Response messages received from the CGF(s) containing a cause information element of 203 (CBH, Optional IE incorrect).	Int32
dup-already-fulfil	The total number of Data Record Transfer Response messages received from the CGF(s) containing a cause information element of 252 (FCH, Request related to possibly duplicated packets already fulfilled).	Int32
already-fulfil	The total number of Data Record Transfer Response messages received from the CGF(s) containing a cause information element of 253 (FDH, Request already fulfilled).	Int32
no-resource	The total number of Data Record Transfer Response messages received from the CGF(s) containing a cause information element of 199 (C7H, No resources available).	Int32
sys-fail	The total number of Data Record Transfer Response messages received from the CGF(s) containing a cause information element of 204 (CCH, System failure).	Int32

Statistic	Description	Data Type
cdr-dec-error	The total number of Data Record Transfer Response messages received from the CGF(s) containing a cause information element of 177 (B1H, CDR Decoding Error).	Int32
seq-no-incorrect	The total number of Data Record Transfer Response messages received from the CGF(s) containing a cause information element of 254 (FEH, Incorrect Seq No).	Int32
unknown-cause	The total number of Data Record Transfer Response messages received from the CGF with Unknown Cause Code.	Int32
normal-close	The total number of CDRs sent containing a Cause for Record Closing information element of 0 (normal release).	Int32
abnormal-close	The total number of CDRs sent containing a Cause for Record Closing information element of 4 (abnormal termination).	Int32
vol-limit-close	The total number of CDRs sent containing a Cause for Record Closing information element of 16 (10H, volume limit).	Int32
time-limit-close	The total number of CDRs sent containing a Cause for Record Closing information element of 17 (11H, time limit).	Int32
open-req	The total number of Start-Accounting Request messages received.	Int32
aaa-acct-arch	The total number of requests currently archived by the system's AAA subsystem.	Int32
rdir-sys-fail	The total number of Redirection Request messages received from the CGF(s) containing a cause information element of 59 (3BH, System failure).	Int32
rdir-txbuf-full	The total number of Redirection Request messages received from the CGF(s) containing a cause information element of 60 (3CH, The transmit buffers are becoming full).	Int32
rdir-rxbuf-full	The total number of Redirection Request messages received from the CGF(s) containing a cause information element of 61 (3DH, The receive buffers are becoming full).	Int32
other-node-dn	The total number of Redirection Request messages received from the CGF(s) containing a cause information element of 62 (3EH, Another node is about to go down).	Int32
self-node-dn	The total number of Redirection Request messages received from the CGF(s) containing a cause information element of 63 (3FH, This node is about to go down).	Int32
rdir-no-res	The total number of Redirection Response messages transmitted to the CGF(s) containing a cause information element of 199 (C7H, No resources available).	Int32
rdir-serv-no	The total number of Redirection Response messages transmitted to the CGF(s) containing a cause information element of 200 (C8H, Service not supported).	Int32
rdir-version-not-supp	The total number of Redirection Response messages transmitted to the CGF(s) containing a cause information element of 198 (C6H, Version not supported).	Int32
rdir-mand-ie-miss	The total number of Redirection Response messages transmitted to the CGF(s) containing a cause information element of 202 (CAH, Mandatory IE missing).	Int32
rdir-mand-ie-err	The total number of Redirection Response messages transmitted to the CGF(s) containing a cause information element of 201 (C9H, Mandatory IE incorrect).	Int32
rdir-opt-ie-err	The total number of Redirection Response messages transmitted to the CGF(s) containing a cause information element of 203 (CBH, Optional IE incorrect).	Int32

Statistic	Description	Data Type
rdir-malformed	The total number of Redirection Response messages transmitted to the CGF(s) containing a cause information element of 193 (C1H, Invalid message format).	Int32
rdir-rsp-sys-fail	The total number of Redirection Response messages transmitted to the CGF(s) containing a cause information element of 204 (CCH, System failure).	Int32
mgmt-int-close	indicates that the CDR is generated with cause for record closing as management intervention. e.g when the user does the "clear sub" or "gtp interm now".	Int32
sgsn-chng-close	This stat is used to indicate that the CDR is generated at the OLD sgsn with "causeForRecClosing" as SGSN change. This will happen during ISRAU (Inter SGSN Routing Area Update) scenario wherein the call in old SGSN is transferred to new SGSN and the CDR is generated at the old SGSN indicating that MM context/PDP context is released with causeForRecClosing as SGSN Change. This is applicable only for SGSN.	Int32
max-chng-close	This indicates that the CDR is released because the container changes are more than the configured value. For example, in SGSN for QOS or tariff time changes a container is added. By default, <b>max change</b> is set to 4. If 4 containers are added then the CDR is released with causeForRecClosing as max change condition.	Int32
rat-chng-close	This indicates that the partial CDR is released at the GGSN due to the RAT (Radio Access Technology) change. This will happen whenever the user moves from GPRS to UMTS and vice versa. This is applicable only for G-CDR.	Int32
ms-tz-chng-close	This indicates that the partial CDR is released at the GGSN due to the MS Time zone change. This is applicable only for G-CDR.	Int32
list-down-stream-chng-close	The total number of CDRs sent containing a Cause for Record Closing information element of 59 (List Of Downstream Node Change).	Int32
focs-close	Indicates the total number of FOCS enabled sessions closed due to ACL rule violation received for FOCS and/or ODB.	Int32
inactivity-close	Indicates the total number of FOCS enabled sessions closed due to inactivity timeout.	Int32
total-gcdr-xmit	This indicates the total number of G-CDRs transmitted to the mediation system.	Int32
total-scdr-xmit	This indicates the total number of S-CDRs transmitted to the mediation system.	Int32
total-mcdr-xmit	This indicates the total number of M-CDRs transmitted to the mediation system.	Int32
total-smbsmcd-r-xmit	The total number of S-MB-CDR transmitted between SGSN and MBMS service.	Int32
total-gmbcd-r-xmit	The total number of G-MB-CDR transmitted between GGSN and MBMS service.	Int32
total-gcdr-rexmit	This indicates the total number of G-CDRs re-transmitted to the mediation system. This will happen whenever SGSN/GGSN is not getting the response from the mediation server in a stipulated period of time.	Int32

Statistic	Description	Data Type
total-scdr-rexmit	This indicates the total number of S-CDRs re-transmitted to the mediation system. This will happen whenever SGSN/GGSN is not getting the response from the mediation server in a stipulated period of time.	Int32
total-mcdr-rexmit	This indicates the total number of M-CDRs re-transmitted to the mediation system. This will happen whenever SGSN/GGSN is not getting the response from the mediation server in a stipulated period of time.	Int32
total-smbmscdr-rexmit	The total number of S-MB-CDR retransmitted between SGSN and MBMS service.	Int32
total-gmbcdr-rexmit	The total number of G-MB-CDRs retransmitted between GGSN and MBMS service.	Int32
total-gcdr-accept	This indicates the total number of G-CDRs successfully sent to the mediation server for which the SGSN/GGSN received the positive response.	Int32
total-scdr-accept	This indicates the total number of S-CDRs successfully sent to the mediation server for which the SGSN/GGSN received the positive response.	Int32
total-mcdr-accept	This indicates the total number of M-CDRs successfully sent to the mediation server for which the SGSN/GGSN received the positive response.	Int32
total-gmbcdr-accept	The total number of G-MB-CDR accepted between GGSN and MBMS service.	Int32
total-gcdr-fail	This indicates the total number of G-CDRs transmission failures.	Int32
total-scdr-fail	This indicates the total number of S-CDRs transmission failures.	Int32
total-mcdr-fail	This indicates the total number of M-CDRs transmission failures.	Int32
total-gmbcdr-fail	The total number of G-MB-CDR failed between GGSN and MBMS service.	Int32
cc-char-hot	This indicates the CDR released with charging characteristics set as Hot Billing.	Int32
cc-char-normal	This indicates the CDR released with charging characteristics set as Normal Billing.	Int32
cc-char-prepaid	This indicates the CDR released with charging characteristics set as Prepaid Billing.	Int32
cc-char-flat	This indicates the CDR released with charging characteristics set as Flat Billing.	Int32
cc-char-unknown	This indicates the CDR released with charging characteristics set as Unknown charging characteristics.	Int32
data-rec-ret-send	The total number of Data Record Transfer Request messages retried containing a Packet Transfer Command information element of 1 (Send Data Record Packet).	Int32
data-rec-ret-poss-dup	The total number of data records retried marked as potential duplicates with IE of 2. (Send Possibly Duplicate Data Record)	Int32
data-rec-ret-cancel	The total number of Data Record Transfer Request messages retried containing a Packet Transfer Command information element of 3 (Cancel Data Record Packet).	Int32

## Common Statistics

Statistic	Description	Data Type
data-rec-ret-rel	The total number of Data Record Transfer Request messages retried containing a Packet Transfer Command information element of 4 (Release Data Record Packet).	Int32
data-rec-ret-emp	The total number of empty Data Record Transfer Request messages retried containing a Packet Transfer Command information element of 1 (Send Data Record Packet).	Int32
data-rec-success-send	The total number of successful Data Record Transfer Response messages for Send Data Record Packet Transfer command.	Int32
data-rec-success-poss-dup	The total number of Successful Data Record Transfer Response messages for Send Poss Dup Data Record Packet Transfer command.	Int32
data-rec-success-cancel	The total number of Successful Data Record Transfer Response messages for Cancel Data Record Packet Transfer command.	Int32
data-rec-success-rel	The total number of Successful Data Record Transfer Response messages for Release Data Record Packet Transfer command.	Int32
data-rec-success-emp	The total number of Successful Data Record Transfer Response messages for Empty Send Data Record Packet Transfer command.	Int32
invalid-msg-seq-num	The total number of requests with invalid sequence number.	Int32
invalid-msg-unknown-cgf	The total number of requests with an unknown CGF.	Int32
invalid-msg-unknown-msg	The total number of requests with an unknown message.	Int32
gss-echo-req	The total echo request from GSS.	Int32
gss-echo-rsp	The total echo request response to GSS.	Int32
gss-gtpp-req	The total GTPP request sent to GSS.	Int32
gss-gtpp-req-ret	The total GTPP request retried to GSS.	Int32
gss-gtpp-rsp	The total successful GTPP request response.	Int32
gss-gtpp-rsp-failed	The total GTPP request response failed.	Int32
gss-gcdr-req	The total GCDR request sent.	Int32
gss-gcdr-req-ret	The total GCDR request retried.	Int32
gss-gcdr-rsp	The total successful GCDR request response.	Int32
gss-gcdr-rsp-failed	The total GCDR request response failed.	Int32
gss-aaaproxy-rec-req	The total AAA proxy recover request sent.	Int32

Statistic	Description	Data Type
gss-aaaproxy-rec-ret	The total AAA proxy recover request retried.	Int32
gss-aaaproxy-rec-rsp	The total successful AAA proxy recover request response.	Int32
gss-aaaproxy-rec-rsp-failed	The total AAA proxy recover request response failed.	Int32
gss-aaamgr-rec-req	The total AAA MGR recover request sent.	Int32
gss-aaamgr-rec-ret	The total AAA MGR recover request retried.	Int32
gss-aaamgr-rec-rsp	The total successful AAA MGR recover request response.	Int32
gss-aaamgr-rec-rsp-failed	The total AAA MGR recover request response failed.	Int32
gss-update-cgf-req	The total CGF update request sent.	Int32
gss-update-cgf-req-ret	The total CGF update request retried.	Int32
gss-update-cgf-rsp	The total successful CGF update request response.	Int32
gss-update-cgf-rsp-failed	The total CGF update request response failed.	Int32
gss-clear-db-req	The total database clear request sent.	Int32
gss-clear-db-req-ret	The total database clear request retried.	Int32
gss-clear-db-rsp	The total successful database clear request response.	Int32
gss-clear-db-rsp-failed	The total database clear request response failed.	Int32
gss-update-req	The total update request received.	Int32
gss-invalid-req-rcvd	The total invalid request received from.	Int32
gss-cdr-loss	The total number of CDRs lost due to failure of remote CDR file streaming.	Int32
gss-cdr-loss-traps	The total number of traps generaed for loss of CDRs due to failure of remote CDR file streaming.	Int32

## ■ Common Statistics

Statistic	Description	Data Type
 <b>Important:</b> See Bulk Statistics Overview for statistics that are common to all schema.		

# Chapter 18

## HA Schema Statistics

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This schema provides the following type of statistics:

- **Counter:** A counter records incremental data cumulatively and rolls over when the counter limit is reached. The limit depends upon the counter data type.
- **Gauge:** A gauge statistic indicates a single value representative of a single instance. This type is often used to track particular events in time.

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 **Important:** Unless otherwise indicated, all statistics are counters. For statistics with the Int32 data type, the roll-over to zero limit is 4,294,967,295. For statistics with the Int64 data type, the roll-over to zero limit is 18,446,744,073,709,551,615. All counter statistics are cumulative and reset only by one of the following methods: roll-over (as described above), after a system restart, or after a clear command is performed. All statistics are considered standards-based unless otherwise noted.

 **Important:** The format string syntax is described by Schema Format String Syntax in the Bulk Statistics Overview chapter.

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The following variables are supported:

**Table 18. HA Service Schema Statistics**

Statistic	Description	Data Type
vpnname	The name of the context configured on the system that is currently facilitating the HA service.	String
vpnid	The identification number of the context configured on the system that is currently facilitating the HA service. This is an internal reference number.	Int32
servname	Displays the name of the HA service for which the statistics are displayed.	String
disconnects	The total number of sessions that were disconnected.	Int32
num-sessions	The current total number of Mobile IP HA sessions.	Int32
revoc-sent	The total number of HA registration revocations sent.	Int32
revoc-retry-sent	The total number of HA registration revocation messages the system attempted to re-send.	Int32
revoc-ack-recv	The total number of HA registration revocation acknowledgement messages received.	Int32
revoc-timeout	The total number of timeouts that occurred during HA registration revocations.	Int32

Statistic	Description	Data Type
revoc-recv	The total number of HA registration revocations received	Int32
revoc-ack-sent	The total number of The total number of HA registration revocation acknowledgement messages sent.	Int32
expiry	The total number of sessions that were disconnected due to the expiration of their lifetime setting.	Int32
dereg	The total number of sessions that were disconnected due to de-registrations.	Int32
admindrop	The total number of sessions that were disconnected due to an administrative clearing of calls (i.e. executing the <b>clear subscriber</b> command).	Int32
miscerror	The total number of sessions that were disconnected due to miscellaneous errors.	Int32
farevocation	The total number of FA revocations that occurred.	Int32
auth-attempt	The total number of authentication attempts made.	Int32
auth-failure	The total number of authentication attempts that were unsuccessful.	Int32
auth-success	The total number of authentication attempts that were successful.	Int32
auth-real-failure	The total number of authentication attempts that were unsuccessful due to the receipt of an access reject message from the AAA server.	Int32
auth-misc-failure	The total number of authentication attempts that were unsuccessful due to occurrences other than the receipt of an access reject messages (i.e. AAA server timeout or internal errors).	Int32
recv-total	The total number of registration requests received.	Int32
recv-initial	The total number of initial registration requests received.	Int32
recv-renew	The total number of renewal registration requests received.	Int32
recv-dereg	The total number of requests for de-registration received.	Int32
recv-ho	The total number of handoff requests received	Int32
recv-ho-3g3g	3GPP2 to 3GPP2 Handoff Requests received	Int32
recv-ho-3gwi	3GPP2 to WiMax Handoff Requests received	Int32
recv-ho-wi3g	Wimax to 3GPP2 Handoff Requests Received	Int32
recv-ho-wiwi	Wimax to Wimax Handoff Requests Received	Int32
accept-total	The total number of registration requests accepted.	Int32
accept-reg	The total number of initial registration requests accepted.	Int32
accept-renew	The total number of renewal registration requests accepted.	Int32
accept-dereg	The total number of requests for de-registration accepted.	Int32
accept-ho	The total number of handoff registration requests accepted.	Int32
accept-ho-3g3g	3GPP2 to 3GPP2 Handoff Requests accepted	Int32
accept-ho-3gwi	3GPP2 to WiMax Handoff Requests accepted	Int32

Statistic	Description	Data Type
accept-ho-wi3g	Wimax to 3GPP2 Handoff Requests accepted	Int32
accept-ho-wiwi	Wimax to Wimax Handoff Requests accepted	Int32
denied-total	The total number of registration requests that were denied.	Int32
denied-initial	The total number of initial registration requests denied.	Int32
denied-renew	The total number of renewal registration requests denied.	Int32
denied-dereg	The total number of requests for de-registration denied.	Int32
denied-ho	The total number of handoff registration requests denied.	Int32
denied-ho-3g3g	3GPP2 to 3GPP2 Handoff Requests denied	Int32
denied-ho-3gwi	3GPP2 to WiMax Handoff Requests denied	Int32
denied-ho-wi3g	Wimax to 3GPP2 Handoff Requests denied	Int32
denied-ho-wiwi	Wimax to Wimax Handoff Requests denied	Int32
discard-total	The total number of registration requests that were discarded.	Int32
reply-total	The total number of registration replies sent.	Int32
reply-acceptreg	The total number of successful registration replies sent.	Int32
reply-acceptdereg	The total number of successful de-registration replies sent.	Int32
reply-denied	The total number of denied registration replies sent.	Int32
reply-badreq	The total number of denied registration replies that were sent with a reply code of 86H (Registration Denied - poorly formed request).	Int32
reply-mismatchid	The total number of denied registration replies that were sent with a reply code of 85H (Registration Denied - registration identification mismatch).	Int32
reply-adminprohib	The total number of denied registration replies that were sent with a reply code of 81H (Registration Denied - administratively prohibited).	Int32
reply-unspecerr	The total number of denied registration replies that were sent with a reply code of 80H (Registration Denied - reason unspecified).	Int32
reply-noresource	The total number of denied registration replies that were sent with a reply code of 82H (Registration Denied - insufficient resources).	Int32
reply-mnauthfail	The total number of denied registration replies that were sent with a reply code of 83H (Registration Denied - mobile node failed authentication).	Int32
reply-faauthfail	The total number of denied registration replies that were sent with a reply code of 84H (Registration Denied - home agent failed authentication).	Int32
reply-simulbind	The total number of denied registration replies that were sent with a reply code of 87H (Registration Denied - too many simultaneous mobility bindings).	Int32
reply-unknownha	The total number of denied registration replies that were sent with a reply code of 88H (Registration Denied - unknown home agent address).	Int32

Statistic	Description	Data Type
reply-revtununavail	The total number of denied registration replies that were sent with a reply code of 89H (Registration Denied - reverse tunneling unavailable).	Int32
reply-revtunmand	The total number of denied registration replies that were sent with a reply code of 8AH (Registration Denied - reverse tunneling mandatory).	Int32
reply-encapunavail	The total number of denied registration replies that were sent with a reply code of 8BH (Registration Denied - reverse tunneling encapsulation style unavailable).	Int32
reply-senderror	The total number of errors that occurred while sending replies.	Int32
reply-unknowncvse	The total number of denied registration replies that were sent with a reply code of 8DH (Registration Denied - unsupported Vendor-ID or unable to interpret Vendor-CVSE-Type.).	Int32
reply-udp-encapunavail	The total number of denied registration replies that were sent with a reply code of 8EH (Registration Denied - ERROR_HA_UDP-ENCAP_UNAVAIL).	Int32
reply-error	The total number of reply errors that occurred.	Int32
reply-cong-drop	The total number of registration replies discarded due to congestion. Refer to the Configuring Congestion Control chapter of this guide for additional information.	Int32
reply-cong-adminprohib	The total number of denied registration replies that were sent with a reply code of 81H (Registration Denied - administratively prohibited) due to congestion. Refer to the Configuring Congestion Control chapter of this guide for additional information.	Int32
reply-cong-unknownha	The total number of denied registration replies that were sent with a reply code of 88H (Registration Denied - unknown home agent address) due to congestion. Refer to the Configuring Congestion Control chapter of this guide for additional information.	Int32
ttlprepaid	The total number of Prepaid calls facilitated by the service.	Int32
curprepaid	The total number of Prepaid calls currently being facilitated by the service.	Int32
ttlonlineauthsucc	The total number of successful Online Authentications for the service.	Int32
ttlonlineauthfail	The total number of successful Online Authentications for the service.	Int32
paaa-query-total	The total number of Binding Context requests received from the proxy-AAA server.	Ctr32
paaa-query-accept	The total number of Binding Context requests received from the proxy-AAA server that were accepted.	Ctr32
paaa-query-denied	The total number of Binding Context requests from the proxy-AAA server that were denied.	Ctr32
paaa-resp-sent	The total number of Binding Context responses that were sent to the proxy-AAA server.	Ctr32
paaa-resp-found	The total number of Binding Context responses that were sent to the proxy-AAA server that indicated that the requested binding context was found.	Ctr32
paaa-resp-notfound	The total number of Binding Context responses that were sent to the proxy-AAA server that indicated that the requested binding context was not found.	Ctr32
paaa-resp-poolover	The total number of Binding Context responses that were sent to the proxy-AAA server that indicated that there is an IP Pool overflow condition for the requested binding context.	Ctr32
paaa-resp-misc	The total number of Binding Context responses that were sent to the proxy-AAA server that indicated other miscellaneous errors for the requested binding context.	Ctr32

Statistic	Description	Data Type
ipsec-esp-txpackets	The total number of ESP Encode packets transmitted over IPsec.	Int64
ipsec-esp-txbytes	The total number of ESP Encode Bytes transmitted over IPsec.	Int64
ipsec-ah-txpackets	The total number of AH Encode packets transmitted over IPsec.	Int64
ipsec-ah-txbytes	The total number of AH Encode Bytes transmitted over IPsec.	Int64
ipsec-error-txpackets	The total number of Encode Error packets transmitted over IPsec.	Int64
ipsec-error-txbytes	The total number of Transmit Encode Error Bytes transmitted over IPsec.	Int64
ipsec-esp-rxpackets	The total number of ESP Decode packets received over IPsec.	Int64
ipsec-esp-rxbytes	The total number of ESP Decode Bytes received over IPsec.	Int64
ipsec-ah-rxpackets	The total number of AH Decode packets received over IPsec.	Int64
ipsec-ah-rxbytes	The total number of AH Decode Bytes received over IPsec.	Int64
ipsec-error-packets	The total number of Error packets received over IPsec.	Int64
ipsec-error-bytes	The total number of Error Bytes received over IPsec.	Int64
ipsec-replay-packets	The total number of Error Replay packets received over IPsec.	Int64
ipsec-replay-bytes	The total number of Error Replay Bytes received over IPsec.	Int64
ipsec-decode-packets	The total number of Error Decode packets received over IPsec.	Int64
ipsec-decode-bytes	The total number of Error Decode Bytes received over IPsec.	Int64
ipsec-auth-packets	The total number of Error Authentication packets received over IPsec.	Int64
ipsec-auth-bytes	The total number of Error Authentication Bytes received over IPsec.	Int64
ipsec-tooshort-packets	The total number of Error Too Short packets received over IPsec.	Int64
ipsec-tooshort-bytes	The total number of Receive Error Too Short Bytes received over IPsec.	Int64
ipsec-dpdreq-sent	The total number of DPD requests sent	Int32
ipsec-dpdreq-recv	The total number of DPD requests received	Int32
ipsec-dpdreply-sent	The total number of DPD replies sent	Int32
ipsec-dpdreply-recv	The total number of DPD replies received	Int32
ipsec-dpdtimeout	The total number of DPD timeouts (retransmissions)	Int32
ipsec-dpddisconn	The total number of DPD disconnects	Int32
ipsec-dpdrekey	The total number of DPD phase1 rekeys	Int32
ipsec-nattkeepalive-sent	The total number of NATT keepalives sent	Int32
ipsec-nattkeepalive-recv	The total number of NATT keepalives received	Int32

Statistic	Description	Data Type
ipsec-ike-udpflows	The total number of current IKE UDP flows	Int32
ipsec-ike-cookieflows	The total number of current IKE cookie flows	Int32
ipsec-ike-txpackets	The total number of IKE packets transmitted	Int64
ipsec-ike-rxpackets	The total number of IKE packets received	Int64
ipsec-ike-reqrecv	The total number of IKE requests received	Int64
ipsec-ike-udpflowpackets	The total number of IKE UDP flow packets received	Int64
ipsec-ike-cookieflowpackets	The total number of IKE cookie flow packets received	Int64
ipsec-cur-tun	The total current number of IPSEC tunnels	Int32
ipsec-cur-tunestablished	The total number of currently established IPSEC tunnels	Int32
ipsec-ike-fails	The total number of IKE failures	Int32
ipsec-ttl-tun	The total number of tunnels setup	Int32
ipsec-ttl-tunestablished	The total number of tunnels that were established	Int32
ipsec-call-req-rej	The total number of call requests that were rejected	Int32



**Important:** See Bulk Statistics Overview for statistics that are common to all schema.

# Chapter 19

## IMSA Schema Statistics

The IMSA schema provides the following types of statistics:

- **Counter:** A counter records incremental data cumulatively and rolls over when the counter limit is reached. The limit depends upon the counter data type.
- **Gauge:** A gauge statistic indicates a single value representative of a single instance. This type is often used to track particular events in time.

 **Important:** The format string syntax is described by Schema Format String Syntax in the Bulk Statistics Overview chapter.

 **Important:** Unless otherwise indicated, all statistics are counters. For statistics with the Int32 data type, the roll-over to zero limit is 4,294,967,295. For statistics with the Int64 data type, the roll-over to zero limit is 18,446,744,073,709,551,615. All counter statistics are cumulative and reset only by one of the following methods: roll-over (as described above), after a system restart, or after a clear command is performed. All statistics are considered standards-based unless otherwise noted.

The following variables are supported:

**Table 19. IMSA Schema Statistics**

Statistic	Description	Data Type
vpnname	The name of the context configured on the system that is currently facilitating the IMS Authorization service.	String / Static
vpnid	The identification number of the context configured on the system that is currently facilitating the IMS Authorization service. This is an internal reference number.	Gauge / Int32
servname	Displays the name of the IMS Authorization service for which the statistics are displayed.	String / Static
servid	The identification number of the service configured on the system that is currently facilitating the IMS Authorization service. This is an internal reference number.	Gauge / Int32
dpca-cursess	The total number of DPCA sessions currently active on this system.	Counter / Int32
dpca-imsaadd	The total number of DPCA session IP Multimedia Subsystem applications added to IMS Authorization services on this system.	Counter / Int32

Statistic	Description	Data Type
dpca-start	The total number of application starts for DPCA sessions on this system.	Counter / Int32
dpca-seccreate	The total number of secondary contexts created for DPCA sessions on this system.	Counter / Int32
dpca-secterm	The total number of secondary contexts deleted for DPCA sessions on this system.	Counter / Int32
dpca-sessupd	The total number of updates to DPCA sessions on this system.	Counter / Int32
dpca-term	The total number of DPCA sessions terminated.	Counter / Int32
dpca-sessfail	The total number of DPCA session failovers on this system.	Counter / Int32
dpca-msg-recv	The total number of DPCA messages received by IMS authorization services configured on this system.	Counter / Int32
dpca-msg-sent	The total number of DPCA messages sent by IMS authorization services configured on this system.	Counter / Int32
dpca-msg-ccr	The total number of DPCA credit control request messages received by IMS authorization services configured on this system.	Counter / Int32
dpca-msg-cca	The total number of DPCA credit control answer messages sent by IMS authorization services on this system.	Counter / Int32
dpca-msg-ccrinit	The total number of initial DPCA credit control request messages received by IMS authorization services configured on this system.	Counter / Int32
dpca-msg-ccainit	The total number of initial DPCA credit control accept messages sent by IMS authorization services configured on this system.	Counter / Int32
dpca-msg-ccainitacc	The total number of initial DPCA credit control accept messages accepted in response to initial credit control request messages sent by IMS authorization services configured on this system.	Counter / Int32
dpca-msg-ccainitrej	The total number of initial DPCA credit control accept messages rejected in response to initial credit control request messages sent by IMS authorization services configured on this system.	Counter / Int32
dpca-msg-ccrupd	The total number of initial DPCA credit control accept messages that have timed out before responding to initial credit control request messages sent by IMS authorization services configured on this system.	Counter / Int32
dpca-msg-ccaupd	The total number of DPCA credit control accept messages received in response to credit control request update messages sent by IMS authorization services configured on this system.	Counter / Int32
dpca-msg-ccaupderro	The total number of DPCA credit control accept messages received in response to credit control request update error messages sent by IMS authorization services configured on this system.	Counter / Int32
dpca-msg-crcfin	The total number of CCR Terminate messages.	Counter / Int32
dpca-msg-ccafin	The total number of final DPCA credit control accept messages received in response to final credit control request messages sent by IMS authorization services configured on this system.	Counter / Int32

Statistic	Description	Data Type
dpca-msg-ccafinerror	The total number of final DPCA credit control accept messages received in response to final credit control request error messages sent by IMS authorization services configured on this system.	Counter / Int32
dpca-msg-asr	The total number of DPCA Abort-Session-Request messages received by IMS Authorization services configured on this system.	Counter / Int32
dpca-msg-asa	The total number of DPCA Abort-Session-Accept messages sent in response to Abort-Session-Request messages received by IMS Authorization services configured on this system.	Counter / Int32
dpca-msg-rar	The total number of Re-Auth-Request messages received by IMS Authorization services configured on this system.	Counter / Int32
dpca-msg-raa	The total number of DPCA Re-Auth-Accept messages sent in response to Re-Auth-Request messages received by IMS Authorization services configured on this system.	Counter / Int32
dpca-msgerr-proto	The total number of Diameter protocol error messages received by IMS Authorization services configured on this system.	Counter / Int32
dpca-msgerr-badans	The total number of bad response/answer error messages received by IMS Authorization services configured on this system.	Counter / Int32
dpca-msgerr-unksessreq	The total number of error messages related to unknown session requests received by IMS Authorization services configured on this system.	Counter / Int32
dpca-msgerr-unkcomm	The total number of error messages related to unknown command codes received by IMS Authorization services configured on this system.	Counter / Int32
dpca-msgerr-unsupcomm	The total number of error messages related to unknown failure handling received by IMS Authorization services configured on this system.	Counter / Int32
dpca-term-diamlogout	The total number of DPCA session terminations due to Diameter logouts.	Counter / Int32
dpca-term-servnotprov	The total number of DPCA session terminations due to unavailability of service.	Counter / Int32
dpca-term-badans	The total number of DPCA session terminations due to bad responses/answers.	Counter / Int32
dpca-term-admin	The total number of DPCA session terminations due to administrative reasons.	Counter / Int32
dpca-term-linkbroken	The total number of DPCA session terminations due to a broken link.	Counter / Int32
dpca-term-authexp	The total number of DPCA session terminations due to expired authorization.	Counter / Int32
dpca-term-usermoved	The total number of DPCA session terminations due to the subscriber moving to an unknown or non-serviceable area.	Counter / Int32
dpca-term-sesstmo	The total number of DPCA session terminations due to sessions timing out.	Counter / Int32
dpca-term-authrej	The total number of DPCA session terminations due to the authorization being rejected.	Counter / Int32

Statistic	Description	Data Type
dpca-term-other	The total number of DPCA session terminations due to unknown reasons or reasons not listed above.	Counter / Int32
dpca-express-errinitparam	The number of times DIAMETER_ERROR_INITIAL_PARAMETERS (5140) Experimental-Result-Code value was received in the Diameter CCA.	Counter / Int32
dpca-express-errtrigevt	The number of times DIAMETER_ERROR_TRIGGER_EVENT (5141) Experimental-Result-Code value was received in the Diameter CCA.	Counter / Int32
dpca-express-bearnauth	The number of times DIAMETER_ERROR_BEARER_NOT_AUTHORIZED (5143) Experimental-Result-Code value was received in the Diameter CCA.	Counter / Int32
dpca-express-trafmaprej	The number of times DIAMETER_ERROR_TRAFFIC_MAPPING_INFO_REJECTED (5144) Experimental-Result-Code value was received in the Diameter CCA.	Counter / Int32
dpca-express-pccruleevt	The number of times DIAMETER_PCC_RULE_EVENT (5142) Experimental-Result-Code value was sent in the Diameter Re-Auth-Request (RAR).	Counter / Int32
dpca-express-conflictingreq	The number of Gx Experimental Result code. DIAMETER_ERROR_CONFLICTING_REQUEST (5147) error is used when the PCRF cannot accept the UE-initiated resource request as a network-initiated resource allocation is already in progress that has packet filters that cover the packet filters in the received UE-initiated resource request. The PCEF rejects the attempt for UE-initiated resource request.	Counter / Int32
dpca-express-bearerevt	Tracks the number of Gx Experimental Transient Failures. DIAMETER_PCC_BEARER_EVENT (4141) error is used when for some reason a PCC rule cannot be enforced or modified successfully in a network initiated procedure. Affected PCC-Rules will be provided in the Charging-Rule-Report AVP including the reason and status. This is a Transient Failure.	Counter / Int32
dpca-express-badrcode	The number of times an unknown Experimental-Result-Code value (apart from the ones recognized in CCA that are listed above PCC Rule Event) was received in the Diameter CCA.	Counter / Int32
dpca-peer-switch	Total number of peer switches attempted.	Counter / Int32
dpca-peer-switch-done	Total number of peer switches successful.	Counter / Int32
dpca-ccai-timeout	Total number of CCA-I message timeouts.	Counter / Int32
dpca-ccri-send-error	Total number of CCR-I message send errors (DIABASE ERRORS), since the TCP connection to the peer is no longer available.	Counter / Int32
dpca-ccai-unh-unk-rcode	Total number of CCA-I messages received with unknown or unhandled result codes which have initiated the failure handling procedure configured for the any-error scenario.	Counter / Int32
dpca-ccai-err-rcode	Total number of CCA-I messages received with error result codes which have initiated the failure handling procedure configured for a particular or range of result codes.	Counter / Int32
dpca-ccau-timeout	Total number of CCA-U message timeouts.	Counter / Int32
dpca-ccru-send-error	Total number of CCR-U message send errors (DIABASE ERRORS), since the TCP connection to the peer is no longer available.	Counter / Int32

Statistic	Description	Data Type
dpca-ccau-unh-unk-rcode	Total number of CCA-U messages received with unknown or unhandled result codes which have initiated the failure handling procedure configured for the any-error scenario.	Counter / Int32
dpca-ccau-err-rcode	Total number of CCA-U messages received with error result codes which have initiated the failure handling procedure configured for a particular or range of result codes.	Counter / Int32
dpca-ccat-timeout	Total number of CCA-T message timeouts.	Counter / Int32
dpca-ccrt-send-error	Total number of CCR-T message send errors (DIABASE ERRORS), since the TCP connection to the peer is no longer available.	Counter / Int32
dpca-ccat-unh-unk-rcode	Total number of CCA-T messages received with unknown or unhandled result codes which have initiated the failure handling procedure configured for the any-error scenario.	Counter / Int32
dpca-ccat-err-rcode	Total number of CCA-T messages received with error result codes which have initiated the failure handling procedure configured for a particular or range of result codes.	Counter / Int32
dpca-ccfh-continue	Total number of times the failure handling action continue has been undertaken.	Counter / Int32
dpca-ccfh-retry-and-term	Total number of times the failure handling action retry-and-terminate has been undertaken.	Counter / Int32
dpca-ccfh-terminate	Total number of times the failure handling action terminate has been undertaken.	Counter / Int32
dpca-unknown-reason	The total number of sessions released due to unspecified reasons.	Counter / Int32
dpca-ue-subscription-chngd	The total number of sessions released due to a change in the UE subscription.	Counter / Int32
dpca-insuffcnt-srvr-resrce	The total number of sessions released due to insufficient server resources.	Counter / Int32

 **Important:** See Bulk Statistics Overview for statistics that are common to all schema.



# Chapter 20

## IP Pool Schema Statistics

The IP Pool schema provides the following types of statistics:

- **Counter:** A counter records incremental data cumulatively and rolls over when the counter limit is reached. The limit depends upon the counter data type.
- **Gauge:** A gauge statistic indicates a single value representative of a single instance. This type is often used to track particular events in time.

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 **Important:** The format string syntax is described by Schema Format String Syntax in the Bulk Statistics Overview chapter.

 **Important:** Unless otherwise indicated, all statistics are counters. For statistics with the Int32 data type, the roll-over to zero limit is 4,294,967,295. For statistics with the Int64 data type, the roll-over to zero limit is 18,446,744,073,709,551,615. All counter statistics are cumulative and reset only by one of the following methods: roll-over (as described above), after a system restart, or after a clear command is performed. All statistics are considered standards-based unless otherwise noted.

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The following variables are supported:

**Table 20. IP Pool schema Command Format Variables**

Statistic	Description	Data Type
vpnid	The identification number of the context configured on the system where the IP pool is configured.	Int32
vpnname	The name of the context configured on the system where the IP pool is configured.	String
addr-type	The IPV6 pool address type.	String
type	The type of IP pool. Output for this variable is one of three characters; P, R, or S: <ul style="list-style-type: none"><li>• P = Public</li><li>• R = Private</li><li>• S = Static</li></ul>	String
state	The IP pool state. Output for this variable is one of three characters; G, D, or R: G = Good D = Pending Delete R = Resizing	String
priority	The priority setting for the IP pool.	Int32

Statistic	Description	Data Type
name	The name of the IP pool.	String
used	The number of IP addresses that have been assigned from the IP pool.	Int32
hold	The number of IP addresses in the IP pool that are in a hold state.	Int32
release	The number of IP addresses in the IP pool that are in a release state.	Int32
free	The number of IP addresses in the IP pool that are available for use.	Int32
startaddr	The starting address of the IP pool.	String
groupname	The name of the pool group to which the IP pool belongs.	String



**Important:** See Bulk Statistics Overview for statistics that are common to all schema.

# Chapter 21

## IPSG Schema Statistics

The IPSG schema provides the following types of statistics:

- **Counter:** A counter records incremental data cumulatively and rolls over when the counter limit is reached. The limit depends upon the counter data type.
- **Gauge:** A gauge statistic indicates a single value representative of a single instance. This type is often used to track particular events in time.

 **Important:** The format string syntax is described by *Schema Format String Syntax* in the *Bulk Statistics Overview* chapter.

 **Important:** Unless otherwise indicated, all statistics are counters. For statistics with the Int32 data type, the roll-over to zero limit is 4,294,967,295. For statistics with the Int64 data type, the roll-over to zero limit is 18,446,744,073,709,551,615. All counter statistics are cumulative and reset only by one of the following methods: roll-over (as described above), after a system restart, or after a clear command is performed. All statistics are considered standards-based unless otherwise noted.

The following variables are supported:

**Table 21. IPSG Schema Statistics**

Statistic	Description	Data Type
vpnname	The name of the VPN context where the IPSG service resides.	String
vpnid	The identification number of the VPN context where the IPSG service resides.	Int32
servname	The name of the IPSG service.	String
servid	The identification number of the IPSG service.	Int32
total-start-req-rcv	The total number of start requests received by the service.	Int32
total-start-req-retrans-rcv	The total number of start request retransmissions received by the service.	Int32
total-start-rsp-sent	The total number of start responses sent.	Int32
total-interim-update-req-rcv	The total number of interim update requests received by the service.	Int32

Statistic	Description	Data Type
total-stop-req-rcv	The total number of stop requests received by the service.	Int32
total-unknown-req-rcv	The total number of unknown requests received by the service.	Int32
total-rsp-sent	The total number of responses sent by the service.	Int32
total-discard-msgs-unknown-clnt	The total number of discarded messages from an unknown client.	Int32
total-discard-msgs-ignore-interim	The total number of RADIUS-Accounting-Interim messages ignored by the IPSG since they were received for non-existing sessions.	Int32
total-discard-msgs-ignore-stop	The total number of RADIUS-Accounting-Stop messages ignored by the IPSG since they were received for non-existing sessions.	Int32
total-discard-msgs-incorrect-secret	The total number of messages discarded due to an incorrect secret.	Int32
total-discard-msgs-attr-missing	The total number of discarded messages due to a missing attribute.	Int32
rad-servaddr	The RADIUS server IP address supporting the service.	String
rad-servport	The RADIUS server port.	Int32



**Important:** See *Bulk Statistics Overview* for statistics that are common to all schema.

# Chapter 22

## LAC Schema Statistics

The LAC schema provides the following types of statistics:

- **Counter:** A counter records incremental data cumulatively and rolls over when the counter limit is reached. The limit depends upon the counter data type.
- **Gauge:** A gauge statistic indicates a single value representative of a single instance. This type is often used to track particular events in time.

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 **Important:** The format string syntax is described by Schema Format String Syntax in the Bulk Statistics Overview chapter.

 **Important:** Unless otherwise indicated, all statistics are counters. For statistics with the Int32 data type, the roll-over to zero limit is 4,294,967,295. For statistics with the Int64 data type, the roll-over to zero limit is 18,446,744,073,709,551,615. All counter statistics are cumulative and reset only by one of the following methods: roll-over (as described above), after a system restart, or after a clear command is performed. All statistics are considered standards-based unless otherwise noted.

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The following variables are supported:

**Table 22. LAC Service Schema Statistics**

Statistic	Description	Data Type
vpnname	The name of the context configured on the system that is currently facilitating the LAC service.	String
vpnid	The identification number of the context configured on the system that is currently facilitating the LAC service. This is an internal reference number.	Int32
servname	Displays the name of the LAC service for which the statistics are displayed.	String
tun-conn-attempt	The total number of tunnel connection attempts.	Int32
tun-conn-success	The total number of successful tunnel connections.	Int32
tun-conn-fail	The total number of failed tunnel connections.	Int32
tun-conn-curactive	The total number of currently active tunnel connections.	Int32
sess-attempts	The total number of session connection attempts.	Int32
sess-successful	The total number of successful session connections.	Int32

## Common Statistics

Statistic	Description	Data Type
sess-failed	The total number of failed session connections.	Int32
sess-curactive	The total number of currently active session connections.	Int32
sess-intrapdsnho-attempt	The total number of Intra-PDSN Hand-Offs connection attempts.	Int32
sess-intrapdsnho-success	The total number of successful Intra-PDSN Hand-Offs connections.	Int32
sess-intrapdsnho-failed	The total number of failed Intra-PDSN Hand-Offs connections.	Int32
sess-interpdsnho-attempt	The total number of Inter-PDSN Hand-Offs connection attempts.	Int32
recv-err-malformed	The total number of Tunnel Receive Control Packet errors experienced due to malformed packets .	Int32
recv-err-ctrlfield	The total number of Tunnel Receive Control Packet errors experienced due to control field errors.	Int32
recv-err-pktlen	The total number of Tunnel Receive Control Packet errors experienced due to packet length errors.	Int32
recv-err-avplen	The total number of Tunnel Receive Control Packet errors experienced due to AVP length errors.	Int32
recv-err-protover	The total number of Tunnel Receive Control Packet errors experienced due to protocol version errors.	Int32
recv-err-md5	The total number of Tunnel Receive Control Packet errors experienced due to MD5 errors.	Int32
recv-err-invattr	The total number of Tunnel Receive Control Packet errors experienced due to invalid attribute errors.	Int32
recv-err-unkattr	The total number of Tunnel Receive Control Packet errors experienced due to unknown attribute errors.	Int32
recv-err-invsessid	The total number of Tunnel Receive Control Packet errors experienced due to invalid session ID errors.	Int32
recv-err-invstate	The total number of Tunnel Receive Control Packet errors experienced due to invalid state errors.	Int32
recv-err-unkmsg	The total number of Tunnel Receive Control Packet errors experienced due to unknown message errors.	Int32
recv-err-unmatchpktlen	The total number of Tunnel Receive Control Packet errors experienced due to unmatched packet length errors.	Int32
recv-err-invtunid	The total number of Tunnel Receive Control Packet errors experienced due to invalid tunnel length errors.	Int32
tun-genclear	The total number of tunnels cleared normally.	Int32
tun-ctrlconnexists	The total number of tunnel disconnects/failures experienced due to a pre-existing control connection.	Int32

Statistic	Description	Data Type
tun-unauth	The total number of tunnel disconnects/failures experienced due to unauthorized errors.	Int32
tun-badproto	The total number of tunnel disconnects/failures experienced due to bad protocol errors.	Int32
tun-reqshUTDOWN	The total number of tunnel disconnects experienced due to requester shutdown.	Int32
tun-statemacherr	The total number of tunnel disconnects/failures experienced due to state machine errors.	Int32
tun-badlen	The total number of tunnel disconnects/failures experienced due to wrong length errors.	Int32
tun-oor	The total number of tunnel disconnects/failures experienced due to out-of-range errors.	Int32
tun-noresource	The total number of tunnel disconnects/failures experienced due to insufficient resources.	Int32
tun-vendspec	The total number of tunnel disconnects/failures experienced due to vendor-specific errors.	Int32
tun-tryanotherlns	The total number of tunnel disconnects/failures experienced resulting in "Try Another LNS" message generation.	Int32
tun-unkavp	The total number of tunnel disconnects/failures experienced due to unknown AVP with M-bit errors.	Int32
tun-ipsecdisc	The total number of tunnel disconnects experienced due to IPSEC.	Int32
tun-ipsecfail	The total number of tunnel failures experienced due to IPSEC.	Int32
tun-license	The total number of tunnel disconnects/failures experienced due to license exceeded errors.	Int32
tun-newcallpoldisc	The total number of tunnel disconnects experienced due to new call policies.	Int32
tun-maxretry	The total number of tunnel disconnects/failures experienced due to the maximum number of retries being exceeded.	Int32
tun-syslimit	The total number of tunnel disconnects/failures experienced due to reaching the system tunnel limit.	Int32
tun-miscerr	The total number of tunnel disconnects/failures experienced due to miscellaneous errors.	Int32
sess-nogeneral	The total number of sessions for which there were no general errors experienced.	Int32
sess-admin	The total number of session disconnects/failures experienced due to administrative reasons.	Int32
sess-lossofcarr	The total number of session disconnects/failures experienced due to loss of carrier.	Int32
sess-remoteadmin	The total number of session disconnects/failures experienced due to remote administrative reasons.	Int32
sess-nofactemp	The total number of session disconnects/failures experienced due to temporary no facility available errors.	Int32
sess-nofacperm	The total number of session disconnects/failures experienced due to permanent no facility available errors.	Int32
sess-invdest	The total number of session disconnects/failures experienced due to invalid destination errors.	Int32
sess-nocarrier	The total number of session disconnects/failures experienced due no carrier being detected.	Int32
sess-busysig	The total number of session disconnects/failures experienced due to receipt of a busy signal.	Int32
sess-nodialtime	The total number of session disconnects/failures experienced due to receipt of no dial tone.	Int32

Statistic	Description	Data Type
sess-lactimeout	The total number of session disconnects/failures experienced due to LAC timeout.	Int32
sess-noframing	The total number of session disconnects/failures experienced due to no appropriate framing.	Int32
sess-noctrlconn	The total number of session disconnects/failures experienced due to no control connection existing.	Int32
sess-badlen	The total number of session disconnects/failures experienced due to wrong length errors.	Int32
sess-oor	The total number of session disconnects/failures experienced due to out-of-range errors.	Int32
sess-noresource	The total number of session disconnects/failures experienced due to insufficient resources.	Int32
sess-invsessid	The total number of session disconnects/failures experienced due to an invalid session ID.	Int32
sess-vendspec	The total number of session disconnects/failures experienced due to vendor specific errors.	Int32
sess-tryanotherlns	The total number of session disconnects/failures experienced resulting in “Try Another LNS” message generation.	Int32
sess-unkavp	The total number of session disconnects/failures experienced due to unknown AVP with M-bit errors.	Int32
sess-maxtunnel	The total number of session disconnects/failures experienced due to reaching the maximum tunnel limit.	Int32
sess-ipsecfail	The total number of session failures experienced due to IPSEC.	Int32
sess-ipsecdisc	The total number of session disconnects experienced due to IPSEC.	Int32
sess-newcallpoldisc	The total number of session disconnects experienced due to new call policies.	Int32
sess-license	The total number of session disconnects/failures experienced due to license exceeded errors.	Int32
sess-servmismatch	The total number of session disconnects/failures experienced due to service mismatch errors.	Int32
sess-miscerr	The total number of session disconnects/failures experienced due to miscellaneous errors.	Int32

 **Important:** See Bulk Statistics Overview for statistics that are common to all schema.

# Chapter 23

## LMA Schema Statistics

This schema provides the following type of statistics:

- **Counter:** A counter records incremental data cumulatively and rolls over when the counter limit is reached. The limit depends upon the counter data type.
- **Gauge:** A gauge statistic indicates a single value representative of a single instance. This type is often used to track particular events in time.

 **Important:** The format string syntax is described by Schema Format String Syntax in the Bulk Statistics Overview chapter.

 **Important:** Unless otherwise indicated, all statistics are counters. For statistics with the Int32 data type, the roll-over to zero limit is 4,294,967,295. For statistics with the Int64 data type, the roll-over to zero limit is 18,446,744,073,709,551,615. All statistics are cumulative and reset only by one of the following methods: roll-over (as described above), after a system restart, or after a clear command is performed. All statistics are considered standards-based unless otherwise described.

The bulk statistics in the following table are accumulated per LMA service configured on this system.

**Table 23. LMA Service Schema Statistics**

Statistic	Description	Data Type
vpnname	The name of the context configured on the system that is currently facilitating the LMA service.	String / Static
vpnid	The identification number of the context configured on the system that is currently facilitating the LMA service. This is an internal reference number.	Gauge / Int32
servname	Displays the name of the LMA service for which the statistics are displayed.	String / Static
servid	The identification number of the service configured on the system that is currently facilitating the LMA service. This is an internal reference number.	Gauge / Int32
sess-cur	The total number of sessions currently established on this system.	Counter / Int32
mipaaaauth-attempts	The total number of mobile IP AAA authentication attempts made by this service.	Counter / Int32

## ■ Common Statistics

Statistic	Description	Data Type
mipaaaauth-success	The total number of successful mobile IP AAA authentication attempts made by this service.	Counter / Int32
mipaaaauth-totalfailures	The total number of failed mobile IP AAA authentication attempts received by this service.	Counter / Int32
mipaaaauth-actuaauthfailures	The total number of mobile IP AAA authentication failures received by this service.	Counter / Int32
mipaaaauth-miscauthfailures	The total number of miscellaneous mobile IP AAA authentication failures received by this service.	Counter / Int32
bindupd	The total number of all binding updates received by this system.	Counter / Int32
bindupd-accept	The total number of all binding updates received and accepted by this system.	Counter / Int32
bindupd-denied	The total number of all binding updates received and denied by this system.	Counter / Int32
bindupd-discard	The total number of all binding updates received and discarded by this system.	Counter / Int32
bindupd-initial	The total number of all initial binding updates received by this system.	Counter / Int32
bindupd-initialaccept	The total number of initial binding updates received and accepted by this system.	Counter / Int32
bindupd-initialdenied	The total number of initial binding updates received and denied by this system.	Counter / Int32
bindupd-refresh	The total number of all refresh binding update requests received by this system.	Counter / Int32
bindupd-refreshaccept	The total number of refresh binding update requests received and accepted by this system.	Counter / Int32
bindupd-refreshdenied	The total number of refresh binding update requests received and denied by this system.	Counter / Int32
bindupd-dereg	The total number of all deregistration request binding updates received by this system.	Counter / Int32
bindupd-deregaccept	The total number of deregistration request binding updates received and accepted by this system.	Counter / Int32
bindupd-deregdenied	The total number of deregistration request binding updates received and denied by this system.	Counter / Int32
bindupd-handoff	The total number of all handoff request binding updates received by this system.	Counter / Int32
bindupd-handoffaccept	The total number of handoff request binding updates received and accepted by this system.	Counter / Int32
bindupd-handoffdenied	The total number of handoff request binding updates received and denied by this system.	Counter / Int32

Statistic	Description	Data Type
bindupd-ack	The total number of all binding update acknowledgements sent by this system.	Counter / Int32
bindupd-ackacceptreg	The total number of accepted registration binding update acknowledgements sent by this system.	Counter / Int32
bindupd-ackacceptdereg	The total number of accepted deregistration binding update acknowledgements sent by this system.	Counter / Int32
bindupd-ackdenied	The total number of denied binding update acknowledgements sent by this system.	Counter / Int32
bindupd-acksenderror	The total number of send error binding update acknowledgements sent by this system.	Counter / Int32
bindupd-denynoresource	The total number of binding update deny messages, due to insufficient resources, sent by this system.	Counter / Int32
bindupd-denymisid	The total number of binding update deny messages, due to mismatched IDs, sent by this system.	Counter / Int32
bindupd-denymnauthfailure	The total number of binding update deny messages, due to a mobile node authentication failure condition, sent by this system.	Counter / Int32
bindupd-denyadmin	The total number of binding update deny messages, due to an admin prohibited condition, sent by this system.	Counter / Int32
bindupd-denymsgidreq	The total number of binding update deny messages, due to requiring a message ID, sent by this system.	Counter / Int32
bindupd-denydadfailed	The total number of binding update deny messages, due to DAD failure, sent by this system.	Counter / Int32
bindupd-denynothomesub	The total number of binding update deny messages, due to an incorrect home subnet, sent by this system.	Counter / Int32
bindupd-denyseqoow	The total number of binding update deny messages, due to sequence out of window, sent by this system.	Counter / Int32
bindupd-denytypchdis	The total number of binding update deny messages, due to a disallowed registration type change, sent by this system.	Counter / Int32
bindupd-denyunspec	The total number of binding update deny messages, due to an unspecified reason, sent by this system.	Counter / Int32
bindupd-denyservauthfailed	The total number of binding update deny messages, due to a service authorization failure, sent by this system.	Counter / Int32
bindupd-denyproxyreg	The total number of binding update deny messages, due to a proxy registration not enabled error, sent by this system.	Counter / Int32
bindupd-denytimestamp	The total number of binding update deny messages, due to a timestamp mismatch error, sent by this system.	Counter / Int32
bindupd-denytimestamplower	The total number of binding update deny messages, due to a timestamp lower than expected reason, sent by this system.	Counter / Int32
bindupd-denymismnid	The total number of binding update deny messages, due to a missing MN-ID option, sent by this system.	Counter / Int32

## ■ Common Statistics

Statistic	Description	Data Type
bindupd-denymishnp	The total number of binding update deny messages, due to a missing HNP option, sent by this system.	Counter / Int32
bindupd-denymisacesstech	The total number of binding update deny messages, due to a missing access technology option, sent by this system.	Counter / Int32
bindupd-denymishandoffind	The total number of binding update deny messages, due to a missing handoff indicator option, sent by this system.	Counter / Int32
bindupd-denynotauthhnp	The total number of binding update deny messages, due to a not authorized for HNP reason, sent by this system.	Counter / Int32
bindupd-denynotmobile	The total number of binding update deny messages, due to a missing LMA for the MN reason, sent by this system.	Counter / Int32
bindupd-denynotauthproxyreg	The total number of binding update deny messages, due to a not authorized for proxy registration reason, sent by this system.	Counter / Int32
bindupd-denybceprefix	The total number of binding update deny messages, due to a BCE prefix not matching, sent by this system.	Counter / Int32
bindupd-denynoresourcesmgr	The total number of binding update deny messages, due to insufficient resources - no session manager, sent by this system.	Counter / Int32
bindupd-denynoresourcememory	The total number of binding update deny messages, due to insufficient resources - no memory, sent by this system.	Counter / Int32
bindupd-denynoresourcereject	The total number of binding update deny messages, due to insufficient resources - session manager rejected, sent by this system.	Counter / Int32
bindupd-denynoresourceinputq	The total number of binding update deny messages, due to insufficient resources - input queue exceeded, sent by this system.	Counter / Int32
bindupd-denynoresourcesimulbind	The total number of binding update deny messages, due to insufficient resources - simultaneous bindings exceeded, sent by this system.	Counter / Int32
bindupd-denynoresourceaddallocfail	The total number of binding update deny messages, due to insufficient resources - address allocation failed, sent by this system.	Counter / Int32
bindupd-denysadminprohmnaaaauth	The total number of binding update deny messages, due to an administrator prohibited - MN-AAA auth option missing condition, sent by this system.	Counter / Int32
bindupd-denysadminprohhbit	The total number of binding update deny messages, due to an administrator prohibited - H-bit not set condition, sent by this system.	Counter / Int32
bindupd-denysadminprohmnaaspi	The total number of binding update deny messages, due to an administrator prohibited - invalid MN-AAA option SPI condition, sent by this system.	Counter / Int32
bindupd-denysadminprohmhaspi	The total number of binding update deny messages, due to an administrator prohibited - invalid MN-HA option SPI condition, sent by this system.	Counter / Int32
bindupd-denysadmincong	The total number of binding update deny messages, due to an administrator prohibited - congestion control condition, sent by this system.	Counter / Int32
bindupd-denysadminpolrej	The total number of binding update deny messages, due to an administrator prohibited - policy rejected condition, sent by this system.	Counter / Int32
bindupd-denysadminhoa	The total number of binding update deny messages, due to an administrator prohibited - HoA not authorized condition, sent by this system.	Counter / Int32

Statistic	Description	Data Type
bindupd-denyadminperm	The total number of binding update deny messages, due to an administrator prohibited - no permission condition, sent by this system.	Counter / Int32
bindupd-denyadminbadreq	The total number of binding update deny messages, due to an administrator prohibited - bad request condition, sent by this system.	Counter / Int32
bindupd-discardcong	The total number of binding update discarded messages, due to congestion, sent by this system.	Counter / Int32
bindupd-discardchecksum	The total number of binding update discarded messages, due to checksum error(s), sent by this system.	Counter / Int32
bindupd-discardauthpending	The total number of binding update discarded messages, due to an initial authentication pending condition, sent by this system.	Counter / Int32
bindupd-discardsessnotfound	The total number of binding update discarded messages, due to a session not found condition, sent by this system.	Counter / Int32
bindupd-discardhamgrnotready	The total number of binding update discarded messages, due to an HA manager not found condition, sent by this system.	Counter / Int32
bindupd-discarddecodefail	The total number of binding update discarded messages, due to a decode failure, sent by this system.	Counter / Int32
bindupd-discardinbuflen	The total number of binding update discarded messages, due to an invalid buffer length, sent by this system.	Counter / Int32
bindrev-sent	The total number of binding revocations sent by this system.	Counter / Int32
bindrev-retriessent	The total number of binding revocation retries sent by this system.	Counter / Int32
bindrev-ackrcvd	The total number of binding revocation acknowledgements received by this system.	Counter / Int32
bindrev-notacked	The total number of binding revocations sent, but not acknowledged, by this system.	Counter / Int32
bindrev-rcvd	The total number of binding revocations received by this system.	Counter / Int32
bindrev-acksent	The total number of binding revocation acknowledgements sent by this system.	Counter / Int32
bindrev	The total number of binding revocation acknowledgements received and discarded by this system.	Counter / Int32
bindrev-discardsessnotfound	The total number of binding revocation acknowledgements received and discarded, due to a session not found condition, by this system.	Counter / Int32
bindrev-discardbadreq	The total number of binding revocation acknowledgements received and discarded, due to a badly formed request condition, by this system.	Counter / Int32
bindrev-discarddecodeerror	The total number of binding revocation acknowledgements received and discarded, due to a decode error condition, by this system.	Counter / Int32
bindrev-discardchecksumerror	The total number of binding revocation acknowledgements received and discarded, due to a checksum error condition, by this system.	Counter / Int32

## ■ Common Statistics

Statistic	Description	Data Type
bindrev-discardinvalidsmsgtype	The total number of binding revocation acknowledgements received and discarded, due to a invalid memory type condition, by this system.	Counter / Int32
bindrev-discardhamgrnotready	The total number of binding revocation acknowledgements received and discarded, due to a HAMGR not ready condition, by this system.	Counter / Int32
bindrev-discardmatchreqnotfound	The total number of binding revocation acknowledgements received and discarded, due to a matching request not found condition, by this system.	Counter / Int32
bindrev-discardinvalidbuflen	The total number of binding revocation acknowledgements received and discarded, due to a invalid buffer length condition, by this system.	Counter / Int32
rxpackets	The total number of packets received by this system.	Counter / Int32
rxpackets-6in6	The total number of IPv6-in-IPv6 tunnel packets received by this system.	Counter / Int32
rxpackets-4in6	The total number of IPv4-in-IPv6 tunnel packets received by this system.	Counter / Int32
rxpackets-ipv6greipv4	The total number of IPv4-in-IPv6 GRE tunnel packets received by this system.	Counter / Int32
rxpackets-ipv6greipv6	The total number of IPv6-in-IPv6 GRE tunnel packets received by this system.	Counter / Int32
rxoctets	The total number of octets received by this system.	Counter / Int32
rxoctets-6in6	The total number of IPv6-in-IPv6 tunnel octets received by this system.	Counter / Int32
rxoctets-4in6	The total number of IPv4-in-IPv6 tunnel octets received by this system.	Counter / Int32
rxoctets-ipv6greipv4	The total number of IPv4-in-IPv6 GRE tunnel octets received by this system.	Counter / Int32
rxoctets-ipv6greipv6	The total number of IPv6-in-IPv6 GRE tunnel octets received by this system.	Counter / Int32
dataerror	The total number of data errors received by this system.	Counter / Int32
dataerror-proto	The total number of protocol type data errors received by this system.	Counter / Int32
dataerror-invpktlen	The total number of invalid packet length data errors received by this system.	Counter / Int32
dataerror-nosess	The total number of no session found data errors received by this system.	Counter / Int32
txpackets	The total number of packets sent by this system.	Counter / Int32
txpackets-6in6	The total number of IPv6-in-IPv6 tunnel packets sent by this system.	Counter / Int32

Statistic	Description	Data Type
txpackets-4in6	The total number of IPv4-in-IPv6 tunnel packets sent by this system.	Counter / Int32
txpackets-ipv6greipv4	The total number of IPv4-in-IPv6 GRE tunnel packets sent by this system.	Counter / Int32
txpackets-ipv6greipv6	The total number of IPv6-in-IPv6 GRE tunnel packets sent by this system.	Counter / Int32
txoctets	The total number of octets sent by this system.	Counter / Int32
txoctets-6in6	The total number of IPv6-in-IPv6 tunnel octets sent by this system.	Counter / Int32
txoctets-4in6	The total number of IPv4-in-IPv6 tunnel octets sent by this system.	Counter / Int32
txoctets-ipv6greipv4	The total number of IPv4-in-IPv6 GRE tunnel octets sent by this system.	Counter / Int32
txoctets-ipv6greipv6	The total number of IPv6-in-IPv6 GRE tunnel octets sent by this system.	Counter / Int32
icmpv6-pktoobigrecv	The total number of tunnel ICMP packets - too big received by this system.	Counter / Int32
icmpv6-pktoobigdrop	The total number of tunnel ICMP packets - too big dropped by this system.	Counter / Int32
icmpv6-pktoobigrelay	The total number of tunnel ICMP packets - too big relayed by this system.	Counter / Int32
disc	The total number of disconnects initiated by this system.	Counter / Int32
disclifetime	The total number of disconnects due to lifetime expiry initiated by this system.	Counter / Int32
discdereg	The total number of disconnects due to deregistrations initiated by this system.	Counter / Int32
discadmin	The total number of disconnects due to admin drops initiated by this system.	Counter / Int32
discother	The total number of disconnects due to “other reasons” initiated by this system.	Counter / Int32



**Important:** See Bulk Statistics Overview for statistics that are common to all schema.



# Chapter 24

## MAG Schema Statistics

This schema provides the following type of statistics:

- **Counter:** A counter records incremental data cumulatively and rolls over when the counter limit is reached. The limit depends upon the counter data type.
- **Gauge:** A gauge statistic indicates a single value representative of a single instance. This type is often used to track particular events in time.

 **Important:** The format string syntax is described by Schema Format String Syntax in the Bulk Statistics Overview chapter.

 **Important:** Unless otherwise indicated, all statistics are counters. For statistics with the Int32 data type, the roll-over to zero limit is 4,294,967,295. For statistics with the Int64 data type, the roll-over to zero limit is 18,446,744,073,709,551,615. All statistics are cumulative and reset only by one of the following methods: roll-over (as described above), after a system restart, or after a clear command is performed. All statistics are considered standards-based unless otherwise described.

The following variables are supported:

**Table 24. MAG Service Schema Statistics**

Statistic	Description	Data Type
vpnname	The name of the context configured on the system that is currently facilitating the MAG service.	String / Static
vpnid	The identification number of the context configured on the system that is currently facilitating the MAG service. This is an internal reference number.	Gauge / Int32
servname	Displays the name of the MAG service for which the statistics are displayed.	String / Static
servid	The identification number of the service configured on the system that is currently facilitating the MAG service. This is an internal reference number.	Gauge / Int32
sess-cur	The total number of sessions currently established on this system.	Counter / Int32
bindupd	The total number of all binding updates sent by this system.	Counter / Int32

Statistic	Description	Data Type
bindupd-init	The total number of initial request transmit binding updates sent by this system.	Counter / Int32
bindupd-initretrans	The total number of initial request retransmit binding updates sent by this system.	Counter / Int32
bindupd-renew	The total number of renew request transmit binding updates sent by this system.	Counter / Int32
bindupd-renewretrans	The total number of renew request retransmit binding updates sent by this system.	Counter / Int32
bindupd-dereg	The total number of deregistration request transmit binding updates sent by this system.	Counter / Int32
bindupd-deregretans	The total number of deregistration request retransmit binding updates sent by this system.	Counter / Int32
bindack	The total number of all binding acknowledgements received by this system.	Counter / Int32
bindack-error	The total number of all binding acknowledgements, with errors, received by this system.	Counter / Int32
bindack-accept	The total number of all binding acknowledgements received, and accepted by this system or the specified service.	Counter / Int32
bindack-denied	The total number of all binding acknowledgements received, but denied by this system or the specified service.	Counter / Int32
bindack-init	The total number of all binding acknowledgements - initial reply received by this system.	Counter / Int32
bindack-renew	The total number of all binding acknowledgements - renew reply received by this system.	Counter / Int32
bindack-dereg	The total number of all binding acknowledgements - deregistration reply received by this system.	Counter / Int32
deniedlma-noresource	The total number of binding updates sent by this system or the specified service but denied by the LMA due to insufficient resources.	Counter / Int32
deniedlma-mismatchid	The total number of binding updates sent by this system or the specified service but denied by the LMA due to mismatched IDs.	Counter / Int32
deniedlma-mnauthfail	The total number of binding updates sent by this system or the specified service but denied by the LMA due to mobile node authorization failures.	Counter / Int32
deniedlma-adminproh	The total number of binding updates sent by this system or the specified service but denied by the LMA due to admin prohibited conditions.	Counter / Int32
deniedlma-msgidrqd	The total number of binding updates sent by this system or the specified service but denied by the LMA due to missing message IDs.	Counter / Int32
deniedlma-dadfailed	The total number of binding updates sent by this system or the specified service but denied by the LMA due to DAD failures.	Counter / Int32
deniedlma-homesubnet	The total number of binding updates sent by this system or the specified service but denied by the LMA due to incorrect home subnet.	Counter / Int32

Statistic	Description	Data Type
deniedlma-seqoow	The total number of binding updates sent by this system or the specified service but denied by the LMA due to sequence out of window conditions.	Counter / Int32
deniedlma-typchgdis	The total number of binding updates sent by this system or the specified service but denied by the LMA due to registration type change disallowed.	Counter / Int32
deniedlma-unspec	The total number of binding updates sent by this system or the specified service but denied by the LMA due to unspecified reasons.	Counter / Int32
deniedlma-servauthfailed	The total number of binding updates sent by this system or the specified service but denied by the LMA due to failed service authorizations.	Counter / Int32
deniedlma-proxyreg	The total number of binding updates sent by this system or the specified service but denied by the LMA due to proxy registration not being enabled.	Counter / Int32
deniedlma-timestamp	The total number of binding updates sent by this system or the specified service but denied by the LMA due to timestamp mismatches.	Counter / Int32
deniedlma-timestamplower	The total number of binding updates sent by this system or the specified service but denied by the LMA due to lower than expected timestamps.	Counter / Int32
deniedlma-mismnid	The total number of binding updates sent by this system or the specified service but denied by the LMA due to missing mobile node ID options.	Counter / Int32
deniedlma-mishnp	The total number of binding updates sent by this system or the specified service but denied by the LMA due to missing HNP options.	Counter / Int32
deniedlma-misacesstech	The total number of binding updates sent by this system or the specified service but denied by the LMA due to missing access technology options.	Counter / Int32
deniedlma-mishandoffind	The total number of binding updates sent by this system or the specified service but denied by the LMA due to missing handoff indication options.	Counter / Int32
deniedlma-notauthhnp	The total number of binding updates sent by this system or the specified service but denied by the LMA due to not being authorized for HNP.	Counter / Int32
deniedlma-notlmamobile	The total number of binding updates sent by this system or the specified service but denied by the LMA due incorrect LMA for mobility.	Counter / Int32
deniedlma-notauthproxyreg	The total number of binding updates sent by this system or the specified service but denied by the LMA due to not being authorized for proxy registration.	Counter / Int32
deniedlma-bceprefix	The total number of binding updates sent by this system or the specified service but denied by the LMA due to BCE prefix mismatches.	Counter / Int32
bindack-errormishnp	The total number of binding acknowledgements with missing HNP errors received by this system or the specified service.	Counter / Int32
bindack-errornai	The total number of binding acknowledgements with missing NAI errors received by this system or the specified service.	Counter / Int32
bindack-errorhomeaddconf	The total number of binding acknowledgements with home address conflict errors received by this system or the specified service.	Counter / Int32
bindack-errormatchreq	The total number of binding acknowledgements with matching requests not found errors received by this system or the specified service.	Counter / Int32
bindack-errorbadlyformed	The total number of binding acknowledgements with badly formed message errors received by this system or the specified service.	Counter / Int32

Statistic	Description	Data Type
bindack-errorchecksum	The total number of binding acknowledgements with checksum errors received by this system or the specified service.	Counter / Int32
bindack-errrorsessnotfound	The total number of binding acknowledgements with session not found errors received by this system or the specified service.	Counter / Int32
bindrev-sent	The total number of binding revocations sent by this system or the specified service.	Counter / Int32
bindrev-retriessent	The total number of binding revocation retries sent by this system or the specified service.	Counter / Int32
bindrev-ackrcvd	The total number of binding revocation acknowledgements received by this system or the specified service.	Counter / Int32
bindrev-notacked	The total number of binding revocations sent, but not acknowledged, by this system or the specified service.	Counter / Int32
bindrev-rcvd	The total number of binding revocations received by this system or the specified service.	Counter / Int32
bindrev-acksent	The total number of binding revocation acknowledgements sent by this system or the specified service.	Counter / Int32
bindrev-discardtotal	The total number of binding revocation acknowledgements received and discarded by this system or the specified service.	Counter / Int32
bindrev-discardsessnotfound	The total number of binding revocation acknowledgements received and discarded, due to a session not found condition, by this system or the specified service.	Counter / Int32
bindrev-discardbadreq	The total number of binding revocation acknowledgements received and discarded, due to a badly formed request condition, by this system or the specified service.	Counter / Int32
bindrev-discarddecode	The total number of binding revocation acknowledgements received and discarded, due to a decode error condition, by this system or the specified service.	Counter / Int32
bindrev-discardchecksum	The total number of binding revocation acknowledgements received and discarded, due to a checksum error condition, by this system or the specified service.	Counter / Int32
bindrev-discardmsgtype	The total number of binding revocation acknowledgements received and discarded, due to an invalid memory type condition, by this system or the specified service.	Counter / Int32
bindrev-discardmemory	The total number of binding revocation acknowledgements received and discarded, due to insufficient memory, by this system or the specified service.	Counter / Int32
rxpackets	The total number of packets received by this system.	Counter / Int32
rxpackets-6in6	The total number of IPv6-in-IPv6 tunnel packets received by this system.	Counter / Int32
rxpackets-4in6	The total number of IPv4-in-IPv6 tunnel packets received by this system or the specified service.	Counter / Int32
rxpackets-ipv6greipv4	The total number of IPv4-in-IPv6 GRE tunnel packets received by this system or the specified service.	Counter / Int32
rxpackets-ipv6greipv6	The total number of IPv6-in-IPv6 GRE tunnel packets received by this system or the specified service.	Counter / Int32

Statistic	Description	Data Type
rxoctets	The total number of octets received by this system.	Counter / Int32
rxoctets-6in6	The total number of IPv6-in-IPv6 tunnel octets received by this system.	Counter / Int32
rxoctets-4in6	The total number of IPv4-in-IPv6 tunnel octets received by this system or the specified service.	Counter / Int32
rxoctets-ipv6greipv4	The total number of IPv4-in-IPv6 GRE tunnel octets received by this system or the specified service.	Counter / Int32
rxoctets-ipv6greipv6	The total number of IPv6-in-IPv6 GRE tunnel octets received by this system or the specified service.	Counter / Int32
dataerror	The total number of data errors received by this system.	Counter / Int32
dataerror-proto	The total number of protocol type data errors received by this system.	Counter / Int32
dataerror-invpklen	The total number of invalid packet length data errors received by this system.	Counter / Int32
dataerror-nosess	The total number of no session found data errors received by this system.	Counter / Int32
txpackets	The total number of packets sent by this system.	Counter / Int32
txpackets-6in6	The total number of IPv6-in-IPv6 tunnel packets sent by this system.	Counter / Int32
txpackets-4in6	The total number of IPv4-in-IPv6 tunnel packets sent by this system or the specified service.	Counter / Int32
txpackets-ipv6greipv4	The total number of IPv4-in-IPv6 GRE tunnel packets sent by this system or the specified service.	Counter / Int32
txpackets-ipv6greipv6	The total number of IPv6-in-IPv6 GRE tunnel packets sent by this system or the specified service.	Counter / Int32
txoctets	The total number of octets sent by this system.	Counter / Int32
txoctets-6in6	The total number of IPv6-in-IPv6 tunnel octets sent by this system.	Counter / Int32
txoctets-4in6	The total number of IPv4-in-IPv6 tunnel octets sent by this system or the specified service.	Counter / Int32
txoctets-ipv6greipv4	The total number of IPv4-in-IPv6 GRE tunnel octets sent by this system or the specified service.	Counter / Int32
txoctets-ipv6greipv6	The total number of IPv6-in-IPv6 GRE tunnel octets sent by this system or the specified service.	Counter / Int32
disc	The total number of disconnects initiated by this system.	Counter / Int32

## ■ Common Statistics

Statistic	Description	Data Type
disclifetime	The total number of disconnects due to lifetime expiry initiated by this system.	Counter / Int32
discaccessinit	The total number of disconnects due to de-registrations initiated by this system or the specified service.	Counter / Int32
discadmin	The total number of disconnects due to admin drops initiated by this system.	Counter / Int32
discother	The total number of disconnects due to “other reasons” initiated by this system.	Counter / Int32
disclmarevoc	The total number of disconnects due to LMA revocations received by this system or the specified service.	Counter / Int32



**Important:** See Bulk Statistics Overview for statistics that are common to all schema.

# Chapter 25

## MIPv6HA Schema Statistics

The MIPv6HA schema provides the following types of statistics:

- **Counter:** A counter records incremental data cumulatively and rolls over when the counter limit is reached. The limit depends upon the counter data type.
- **Gauge:** A gauge statistic indicates a single value representative of a single instance. This type is often used to track particular events in time.

 **Important:** The format string syntax is described by Schema Format String Syntax in the Bulk Statistics Overview chapter.

 **Important:** Unless otherwise indicated, all statistics are counters. For statistics with the Int32 data type, the roll-over to zero limit is 4,294,967,295. For statistics with the Int64 data type, the roll-over to zero limit is 18,446,744,073,709,551,615. All counter statistics are cumulative and reset only by one of the following methods: roll-over (as described above), after a system restart, or after a clear command is performed. All statistics are considered standards-based unless otherwise noted.

The following variables are supported:

**Table 25. MIPv6 HA Schema Statistics**

Statistic	Description	Data Type
vpnname	The name of the context configured on the system that is currently facilitating the LAC service.	String
vpnid	The identification number of the context configured on the system that is currently facilitating the LAC service. This is an internal reference number.	Int32
servname	Displays the name of the LAC service for which the statistics are displayed.	String
servid	The identification number of the MIPv6 HA service for which the statistics are displayed.	Int32
num-subscriber	The current total number of MIPv6 HA sessions.	Int32
aaa-attempt	The number of authentication requests attempted on receiving a bind update request.	Ctr32
aaa-success	The number of successful authorization attempts.	Ctr32
aaa-totfail	The number of failed authorization attempts.	Ctr32
aaa-actauthfail	The authorization attempt failure count due to access rejects from AAA.	Ctr32

Statistic	Description	Data Type
aaa-misauthfail	The authorization attempt failures due to other reasons like internal error or AAA response timeout.	Ctr32
bindupdrec-totrec	The total number of MIPv6 bind update requests received.	Ctr32
bindupdrec-totacc	The total number of MIPv6 bind update requests accepted.	Ctr32
bindupdrec-totdeny	The total number of MIPv6 bind update requests denied.	Ctr32
bindupdrec-totdisc	The total number of MIPv6 bind update requests discarded.	Ctr32
bindupdrec-totcongdiscreq	The total number of MIPv6 bind update requests discarded because of congestion.	Ctr32
ibindupdreq-receive	The total number of initial bind update requests received.	Ctr32
ibindupdreq-accept	The total number of initial bind update requests accepted.	Ctr32
ibindupdreq-deny	The total number of initial bind update requests denied.	Ctr32
rbindupdreq-receive	The total number of renew bind update requests received.	Ctr32
rbindupdreq-accept	The total number of renew bind update requests accepted.	Ctr32
rbindupdreq-deny	The total number of renew bind update requests denied.	Ctr32
deregreq-receive	The total number of dereg bind update requests received.	Ctr32
deregreq-accept	The total number of dereg bind update requests accepted.	Ctr32
deregreq-deny	The total number of dereg bind update requests denied.	Ctr32
horeq-receive	The total number of handoff bind update requests received. A handoff bind update request is a bind update request received for the same session (NAI/HA/HoA) with a new CoA.	Ctr32
horeq-accept	The total number of handoff requests accepted.	Ctr32
horeq-deny	The total number of handoff requests denied.	Ctr32
bindacksent-total	The total number of MIPv6 binding acknowledgement messages sent.	Ctr32
bindacksent-acceptreg	The total number of MIPv6 binding acknowledgement replies sent.	Ctr32
bindacksent-acceptdereg	The total number of MIPv6 dereg replies sent (bind acknowledgement with a lifetime of zero).	Ctr32
bindacksent-deny	The total number of denied bind acknowledgement replies sent.	Ctr32
denyreason-badreq	The total number of bind updates denied with status code 81H due to poorly formed bind update request.	Ctr32
denyreason-mismatchid	The total number of bind update denied with status code 90H (mismatched id).	Ctr32
denyreason-mnauthfail	The total number of bind update denied with status code 92H (mobile auth failure).	Ctr32
denyreason-admprohibit	The total number of bind update denied with status code 81H (Admin prohibited).	Ctr32
denyreason-noresource	The total number of bind update denied with status code 82H (Insufficient resources).	Ctr32

Statistic	Description	Data Type
denyreason-simbindexceed	The total number of bind update denied with status code 82H because simultaneous binding limit is exceeded.	Ctr32
denyreason-unsperereason	The total number of bind update denied with status code 80H (Reason Unspecified).	Ctr32
denyreason-msgidrequire	The total number of bind update denied with status code 91H (Msg-Id-Required).	Ctr32
denyreason-dadfail	The total number of bind update denied with status code 86H (Duplicate Address Detection failed).	Ctr32
denyreason-nothomesubnet	The total number of bind update denied with status code 84H (Not Home Subnet).	Ctr32
denyreason-seqoutwindow	The total number of bind update denied with status code 87H (Sequence number Out of Window).	Ctr32
denyreason-regchadisallow	The total number of bind update denied with status code 8BH (Registration Type change disallowed).	Ctr32
datareceive-totpkt	The total number of tunneled data packets received.	Ctr32
datareceive-totpkt6in6	The total number of ipv6-ipv6 tunneled data packets received.	Ctr32
datareceive-totbyte	The total byte count of the tunnel data received	Ctr32
datareceive-totbyte6in6	The total byte count of ipv6-ipv6 tunneled data received	Ctr32
datareceive-errorprotocol	The total number of packets received with protocol type error.	Ctr32
datareceive-errorinvpkt	The total number of invalid data packets received	Ctr32
datareceive-errornosess	The total number of data packets received for which session was not found.	Ctr32
datasent- totpkt	The total number of tunnel data packet sent	Ctr32
datasent- totpkt6in6	The total number of ipv6-ipv6 tunneled data packets sent	Ctr32
datasent-totbyte	The total byte count of tunneled data sent	Ctr32
datasent- totbyte6in6	The total byte count for ipv6-ipv6 tunneled data sent	Ctr32
disconnect-lifetimeexp	The total number of session disconnected due to lifetime expiry	Ctr32
disconnect-deregistration	The total number of disconnects due to deregistration from MN.	Ctr32
disconnect-admdrop	The total number of sessions disconnected administratively.	Ctr32
disconnect-othreason	The total number of sessions disconnects due to other reasons.	Ctr32
icmpv6-toobigreceive	The total number of ICMPv6 Packet too big received for tunneled packets originating within tunnel.	Ctr32
icmpv6-toobigforward	The total number of ICMPv6 packet too big forwarded messages	Ctr32

## Common Statistics

Statistic	Description	Data Type
total-subscriber		Ctr32
admprohreason-badreq	Number of updates denied for an Admin prohibited reason: bad request	Ctr32
insufresource-badreq	Number of binding updates denied	Ctr32
bindacksent-senderror	The total number of binding acknowledgements sent with a send error	Ctr32
admprohreason-congcondenied	Number of updates denied for an Admin prohibited reason: congestion control denied	Ctr32
icmpv6-toobigdrop	Number of ICMPv6 packets dropped because they are too big and need to be fragmented.	Ctr32
bindupddiscard-congdisc	Number of binding updates discarded because HAMGR is configured to drop packets on congestion	Ctr32
bindupddiscard-chkerror	Number of bind updates discarded because of a checksum error on binding update.	Ctr32
bindupddiscard-inauthpend	Number of bind updates discarded because initialization authorization is pending when retry binding updates are received	Ctr32
bindupddiscard-sessnotfound	Number of bind updates discarded because hamgr forwards RRQ for existing session but session not found in Sessmgr	Ctr32
bindupddiscard-hamgrnotrea	Number of bind updates discarded because HAMGR is not yet ready and packet buffering limit is exceeded	Ctr32
bindupddiscard-decfail	Number of binding updates discarded because the binding update packet decoding has failed in HAMGR.	Ctr32
bindupddiscard-invbuflen	Number of bind updates discarded because there is mismatch in the binding update packet buffer length and expected length.	Ctr32
admprohreason-authoptmiss	Number of bind updates denied because there are Admin Prohibited Reasons-MN-AAA Auth Option Missing.	String
admprohreason-hbitnotset	Number of bind updates denied because there are Admin Prohibited Reasons-H-bit Not Set.	String
admprohreason-invaaaspi	Number of bind updates denied because there are Admin Prohibited Reasons-Invalid MN-AAA Option SPI.	String
admprohreason-invhaspi	Number of bind updates denied because there are Admin Prohibited Reasons-Invalid MN-HA Option SPI.	String
admprohreason-polrej	Number of bind updates denied because there are Admin Prohibited Reasons-Policy Rejected.	String
admprohreason-notauth	Number of bind updates denied because there are Admin Prohibited Reasons-HoA Not Authorized.	String
admprohreason-noperm	Number of bind updates denied because there are Admin Prohibited Reasons-No Permission.	String
insufresource-nosessmgr	Number of bind updates denied because there are Insufficient Resource Reasons-No Session Manager.	String
insufresource-nomem	Number of bind updates denied because there are Insufficient Resource Reasons-No Memory.	String

Statistic	Description	Data Type
insufresource-sessmgrrej	Number of bind updates denied because there are Insufficient Resource Reasons-Session Manager Rejected.	String
insufresource-ipqexc	Number of bind updates denied because there are Insufficient Resource Reasons-Input-Q Exceeded.	String
insufresource-simbindexc	Number of bind updates denied because there are Insufficient Resource Reasons-Simul Bindings Exceeded.	String
tun-conn-attempt	The total number of tunnel connection attempts.	Int32
tun-conn-success	The total number of successful tunnel connections.	Int32
tun-conn-fail	The total number of failed tunnel connections.	Int32
tun-conn-curactive	The total number of currently active tunnel connections.	Int32
sess-attempts	The total number of session connection attempts.	Int32
sess-successful	The total number of successful session connections.	Int32
sess-failed	The total number of failed session connections.	Int32
sess-curactive	The total number of currently active session connections.	Int32
sess-intrapdsnho-attempt	The total number of Intra-PDSN Hand-Offs connection attempts.	Int32
sess-intrapdsnho-success	The total number of successful Intra-PDSN Hand-Offs connections.	Int32
sess-intrapdsnho-failed	The total number of failed Intra-PDSN Hand-Offs connections.	Int32
sess-interpdsnho-attempt	The total number of Inter-PDSN Hand-Offs connection attempts.	Int32
recv-err-malformed	The total number of Tunnel Receive Control Packet errors experienced due to malformed packets .	Int32
recv-err-ctrlfield	The total number of Tunnel Receive Control Packet errors experienced due to control field errors.	Int32
recv-err-pkflen	The total number of Tunnel Receive Control Packet errors experienced due to packet length errors.	Int32
recv-err-avplen	The total number of Tunnel Receive Control Packet errors experienced due to AVP length errors.	Int32
recv-err-protover	The total number of Tunnel Receive Control Packet errors experienced due to protocol version errors.	Int32
recv-err-md5	The total number of Tunnel Receive Control Packet errors experienced due to MD5 errors.	Int32
recv-err-invattr	The total number of Tunnel Receive Control Packet errors experienced due to invalid attribute errors.	Int32
recv-err-unkattr	The total number of Tunnel Receive Control Packet errors experienced due to unknown attribute errors.	Int32

## Common Statistics

Statistic	Description	Data Type
recv-err-InvSessionID	The total number of Tunnel Receive Control Packet errors experienced due to invalid session ID errors.	Int32
recv-err-InvState	The total number of Tunnel Receive Control Packet errors experienced due to invalid state errors.	Int32
recv-err-UnkMsg	The total number of Tunnel Receive Control Packet errors experienced due to unknown message errors.	Int32
recv-err-UnmatchPktLen	The total number of Tunnel Receive Control Packet errors experienced due to unmatched packet length errors.	Int32
recv-err-InvTunID	The total number of Tunnel Receive Control Packet errors experienced due to invalid tunnel length errors.	Int32
tun-genClear	The total number of tunnels cleared normally.	Int32
tun-ctrlConnExists	The total number of tunnel disconnects/failures experienced due to a pre-existing control connection.	Int32
tun-unauth	The total number of tunnel disconnects/failures experienced due to unauthorized errors.	Int32
tun-badProto	The total number of tunnel disconnects/failures experienced due to bad protocol errors.	Int32
tun-reqShutdown	The total number of tunnel disconnects experienced due to requester shutdown.	Int32
tun-stateMachErr	The total number of tunnel disconnects/failures experienced due to state machine errors.	Int32
tun-badLen	The total number of tunnel disconnects/failures experienced due to wrong length errors.	Int32
tun-oor	The total number of tunnel disconnects/failures experienced due to out-of-range errors.	Int32
tun-noResource	The total number of tunnel disconnects/failures experienced due to insufficient resources.	Int32
tun-vendSpec	The total number of tunnel disconnects/failures experienced due to vendor-specific errors.	Int32
tun-tryAnotherLns	The total number of tunnel disconnects/failures experienced resulting in "Try Another LNS" message generation.	Int32
tun-unkAvp	The total number of tunnel disconnects/failures experienced due to unknown AVP with M-bit errors.	Int32
tun-ipsecDisc	The total number of tunnel disconnects experienced due to IPSEC.	Int32
tun-ipsecFail	The total number of tunnel failures experienced due to IPSEC.	Int32
tun-license	The total number of tunnel disconnects/failures experienced due to license exceeded errors.	Int32
tun-newCallPoldisc	The total number of tunnel disconnects experienced due to new call policies.	Int32
tun-maxRetry	The total number of tunnel disconnects/failures experienced due to the maximum number of retries being exceeded.	Int32
tun-sysLimit	The total number of tunnel disconnects/failures experienced due to reaching the system tunnel limit.	Int32
tun-miscErr	The total number of tunnel disconnects/failures experienced due to miscellaneous errors.	Int32
sess-noGeneral	The total number of sessions for which there were no general errors experienced.	Int32

Statistic	Description	Data Type
sess-admin	The total number of session disconnects/failures experienced due to administrative reasons.	Int32
sess-lossofcarr	The total number of session disconnects/failures experienced due to loss of carrier.	Int32
sess-remoteadmin	The total number of session disconnects/failures experienced due to remote administrative reasons.	Int32
sess-nofactemp	The total number of session disconnects/failures experienced due to temporary no facility available errors.	Int32
sess-nofacperm	The total number of session disconnects/failures experienced due to permanent no facility available errors.	Int32
sess-invdest	The total number of session disconnects/failures experienced due to invalid destination errors.	Int32
sess-nocarrier	The total number of session disconnects/failures experienced due no carrier being detected.	Int32
sess-busysig	The total number of session disconnects/failures experienced due to receipt of a busy signal.	Int32
sess-nodialtime	The total number of session disconnects/failures experienced due to receipt of no dial tone.	Int32
sess-lactimeout	The total number of session disconnects/failures experienced due to LAC timeout.	Int32
sess-noframing	The total number of session disconnects/failures experienced due to no appropriate framing.	Int32
sess-noctrlconn	The total number of session disconnects/failures experienced due to no control connection existing.	Int32
sess-badlen	The total number of session disconnects/failures experienced due to wrong length errors.	Int32
sess-oor	The total number of session disconnects/failures experienced due to out-of-range errors.	Int32
sess-noresource	The total number of session disconnects/failures experienced due to insufficient resources.	Int32
sess-invsessid	The total number of session disconnects/failures experienced due to an invalid session ID.	Int32
sess-vendspec	The total number of session disconnects/failures experienced due to vendor specific errors.	Int32
sess-tryanotherlns	The total number of session disconnects/failures experienced resulting in “Try Another LNS” message generation.	Int32
sess-unkavp	The total number of session disconnects/failures experienced due to unknown AVP with M-bit errors.	Int32
sess-maxtunnel	The total number of session disconnects/failures experienced due to reaching the maximum tunnel limit.	Int32
sess-ipsecfail	The total number of session failures experienced due to IPSEC.	Int32
sess-ipsecdisc	The total number of session disconnects experienced due to IPSEC.	Int32
sess-newcallpoldisc	The total number of session disconnects experienced due to new call policies.	Int32
sess-license	The total number of session disconnects/failures experienced due to license exceeded errors.	Int32
sess-servmismatch	The total number of session disconnects/failures experienced due to service mismatch errors.	Int32
sess-miscerr	The total number of session disconnects/failures experienced due to miscellaneous errors.	Int32

Statistic	Description	Data Type
 <b>Important:</b> See Bulk Statistics Overview for statistics that are common to all schema.		

# Chapter 26

## NAT Realm Schema Statistics

The NAT Realm schema provides the following types of statistics:

 **Important:** The NAT Realm schema is only available in StarOS 8.3 and later.

- **Counter:** A counter records incremental data cumulatively and rolls over when the counter limit is reached. The limit depends upon the counter data type.
- **Gauge:** A gauge statistic indicates a single value representative of a single instance. This type is often used to track particular events in time.

 **Important:** The format string syntax is described by Schema Format String Syntax in the Bulk Statistics Overview chapter.

 **Important:** Unless otherwise indicated, all statistics are counters. For statistics with the Int32 data type, the roll-over to zero limit is 4,294,967,295. For statistics with the Int64 data type, the roll-over to zero limit is 18,446,744,073,709,551,615. All counter statistics are cumulative, unless otherwise noted, and reset only by one of the following methods: roll-over (as described above), after a system restart, or after a clear command is performed.

The following variables are supported:

**Table 26. NAT Realm Statistics**

Statistic	Description	Data Type
vpnname	Name of the VPN context.	String
realmname	Name of the realm. Collected per context per realm.	String
nat-bind-updates	Total binding updates sent to AAA. Collected per context per realm.	Int32
nat-rlm-bytes-tx	Total bytes transferred by realm. Collected per context per realm.	Int32
nat-rlm-flows	Total flows used by realm. Collected per context per realm.	Int32
nat-rlm-ip-denied	Total flows denied IP. Collected per context per realm.	Int32
nat-rlm-port-denied	Total flows denied ports. Collected per context per realm.	Int32
nat-rlm-ttl-ips	Total NAT public IP addresses. Collected per context per realm.	Int32

## ■ Common Statistics

Statistic	Description	Data Type
nat-rlm-ips-in-use	Total NAT public IP addresses currently in use.	Int32
nat-rlm-current-users	Total number of current users using a NAT realm.	Int32
nat-rlm-ttl-port-chunks	Total port chunks. Collected per context per realm.	Int32
nat-rlm-chunks-in-use	Total port chunks currently in use. Collected per context per realm.	Int32



**Important:** See *Bulk Statistics Overview* for statistics that are common to all schema.

# Chapter 27

## PDG Schema Statistics

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The PDG schema provides the following types of PDG/TTG statistics:

- **Counter:** A counter records incremental data cumulatively and rolls over when the counter limit is reached. The limit depends upon the counter data type.
- **Gauge:** A gauge statistic indicates a single value representative of a single instance. This type is often used to track particular events in time.

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 **Important:** The format string syntax is described by Schema Format String Syntax in the Bulk Statistics Overview chapter.

 **Important:** Unless otherwise indicated, all statistics are counters. For statistics with the Int32 data type, the roll-over to zero limit is 4,294,967,295. For statistics with the Int64 data type, the roll-over to zero limit is 18,446,744,073,709,551,615. All counter statistics are cumulative and reset only by one of the following methods: roll-over (as described above), after a system restart, or after a clear command is performed. All statistics are considered standards-based unless otherwise noted.

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The following variables are supported:

**Table 27. PDG Schema Statistics**

Statistic	Description	Data Type
vpnname	The name of the context currently facilitating the service processing the subscriber session.	String
vpnid	The identification number of the context currently facilitating the service processing the subscriber session. This is an internal reference number.	Int32
svcname	The service name for which PDG statistics are being displayed.	String
svcid	The service ID for which PDG statistics are being displayed.	Int32
bindaddress	The bind IP address for this PDG service.	String

Statistic	Description	Data Type
state	System-wide PDG state identified by the following codes: <ul style="list-style-type: none"> <li>unknown(0)</li> <li>noservice(1): Chassis is not configured/licensed for PDG service.</li> <li>active(2): At least one PDG service is available.</li> <li>temporary(3): PDG service is running in a temporary capacity.</li> <li>outofservice(4): No PDG service is currently active, but one or more PDG services are configured.</li> </ul>	Int32
sess-ttlcursess	Number of total current sessions.	Int32
sess-curact	Number of currently active PDG sessions.	Int32
sess-curdorm	Number of currently dormant PDG sessions.	Int32
sess-curactipv4	Number of currently active IPv4 sessions.	Int32
sess-curdormipv4	Number of currently dormant IPv4 sessions.	Int32
sess-curactipv6	Number of currently active IPv6 sessions.	Int32
sess-curdormipv6	Number of currently dormant IPv6 sessions.	Int32
sess-curdiripv4	Number of current direct IP IPv4 sessions.	Int32
sess-curttgv4	Number of current TTG IPv4 sessions.	Int32
sess-tldiripv4	Total number of direct IP IPv4 sessions.	Int32
sess-tlttgv4	Total number of TTG IPv4 sessions.	Int32
sess-diripv4succ	Number of direct IP IPv4 successful sessions.	Int32
sess-diripv4attempt	Number of direct IP IPv4 attempted sessions.	Int32
sess-diripv4attemptfail	Number of direct IP IPv4 attempted sessions that failed.	Int32
sess-tgv4succ	Number of direct TTG IPv4 successful sessions.	Int32
sess-tgv4attempt	Number of direct TTG IPv4 attempted sessions.	Int32
sess-tgv4attemptfail	Number of direct TTG IPv4 attempted sessions that failed.	Int32
sess-tlsetup	Total number of sessions set up.	Int32
sess-tlattempt	Total number of session attempted.	Int32
sess-tlattemptfail	Total number of session attempts failed.	Int32
sess-tldisc	Total number of sessions disconnected.	Int32
sess-tldisclocal	Total number of sessions disconnected locally.	Int32
sess-tldiscremote	Total number of sessions disconnected remotely.	Int32
sess-discbeforeconn	Sessions remotely disconnected before connected.	Int32
sess-tlfastreauthsucc	Total fast re-authentication successes.	Int32

Statistic	Description	Data Type
sess-ttlfastreauthattempt	Total fast re-authentication attempts.	Int32
sess-ttlfastreauthattemptfail	Total fast re-authentication attempts that failed.	Int32
sess-discipsec	Number of sessions terminated because of IPsec.	Int32
sess-discadmin	Number of sessions terminated because of admin release.	Int32
sess-discidletimeout	Number of sessions terminated because of idle timer timeout.	Int32
sess-discabstimeout	Number of sessions terminated because of absolute timeout.	Int32
sess-disclongdur	Number of sessions terminated because of long duration timer timeout.	Int32
sess-discsesssetuptimeout	Number of sessions terminated because of Session Manager session setup timeout.	Int32
sess-discnonexistpcrf	Number of sessions terminated because of non-existence of PCRF.	Int32
sess-discnoresource	Number of sessions terminated because of no resources.	Int32
sess-discauthfail	Number of sessions terminated because of AAA authentication failure.	Int32
sess-discflowaddfail	Number of sessions terminated because of flow add failure.	Int32
sess-discinvdestctx	Number of sessions terminated because of invalid destination context.	Int32
sess-discsourceviol	Number of sessions terminated because of source IP address violation.	Int32
sess-discgtp	Number of sessions terminated because of GTP.	Int32
sess-discdupreq	Number of sessions terminated because of duplicate requests.	Int32
sess-discaddrfail	Number of sessions terminated because of an address assignment failure.	Int32
sess-discmisc	Number of sessions terminated because of miscellaneous reasons.	Int32
sess-ttlbytessent	Total number of bytes sent.	Int32
sess-ttlbytesrcvd	Total number of bytes received.	Int32
sess-ttlpktsent	Total number of packets sent.	Int32
sess-ttlpktrcvd	total number of packets received.	Int32
eap-rxttlsvrvassthru	Total number of EAP messages received from the EAP server in pass-through mode.	Int32
eap-rxsucssvrvassthru	Total number of EAP-Success messages received from the EAP server in pass-through mode.	Int32
eap-rxfailsvrvassthru	Total number of EAP-Failure messages received from the EAP server in pass-through mode.	Int32
eap-rxchalsvrvassthru	Total number of EAP challenge messages sent to the EAP server in pass-through mode.	Int32
eap-txttlsvr	Total number of EAP messages transmitted to the EAP server.	Int32
eap-txinitrequest	Total number of EAP request messages forwarded to the EAP server for initial request.	Int32

Statistic	Description	Data Type
eap-txreqfwd	Total number of EAP messages transmitted to the EAP server for forward request.	Int32
eap-rxmobilepassthru	Total number of EAP messages transmitted to the EAP server in pass-through mode for mobile node.	Int32
mt-txdatabyteuplink	SSL micro-tunneling: Uplink data bytes sent. This is a customer-specific statistic.	Int64
mt-databyteuplinkdropped	SSL micro-tunneling: Uplink data bytes dropped. This is a customer-specific statistic.	Int64
mt-uldroppedd-nonconnectedstate	SSL micro-tunneling: Uplink data bytes dropped due to non-connected state. This is a customer-specific statistic.	Int64
mt-uldroppedd-transstackbufferoverflow	SSL micro-tunneling: Uplink data bytes dropped due to transport stack buffer over flow. This is a customer-specific statistic.	Int64
mt-uldroppedd-incorrectdestip	SSL micro-tunneling: Uplink data bytes dropped due to incorrect destination IP address. This is a customer-specific statistic.	Int64
mt-uldroppedd-transtackfailed	SSL micro-tunneling: Uplink data bytes dropped due to transport stack failed to send. This is a customer-specific statistic.	Int64
mt-uldroppedd-sessnotfoundforsockid	SSL micro-tunneling: Uplink data bytes dropped due to session not found for sock-id. This is a customer-specific statistic.	Int64
mt-txdatabytedownlink	SSL micro-tunneling: Downlink data bytes sent. This is a customer-specific statistic.	Int64
mt-rxttlopenreq	SSL micro-tunneling: Total OPEN requests received. This is a customer-specific statistic.	Int32
mt-rxopenreqprocessed	SSL micro-tunneling: OPEN requests processed. This is a customer-specific statistic.	Int32
mt-rxopenreqdropped	SSL micro-tunneling: OPEN requests dropped. This is a customer-specific statistic.	Int32
mt-txttlopenresp	SSL micro-tunneling: Total OPEN responses sent. This is a customer-specific statistic.	Int32
mt-txopenrespaccept	SSL micro-tunneling: OPEN responses accepted. This is a customer-specific statistic.	Int32
mt-txopenresprej	SSL micro-tunneling: OPEN responses rejected. This is a customer-specific statistic.	Int32
mt-rxopenresp	SSL micro-tunneling: OPEN responses received. This is a customer-specific statistic.	Int32
mt-rxttlnamreq	SSL micro-tunneling: Total NAM requests received. This is a customer-specific statistic.	Int32

Statistic	Description	Data Type
mt-rxnamreqprocessed	SSL micro-tunneling: NAM requests processed. This is a customer-specific statistic.	Int32
mt-rxnamreqdropped	SSL micro-tunneling: NAM requests dropped. This is a customer-specific statistic.	Int32
mt-txttlnamresp	SSL micro-tunneling: Total NAM responses sent. This is a customer-specific statistic.	Int32
mt-txnamrespaccept	SSL micro-tunneling: NAM responses accepted. This is a customer-specific statistic.	Int32
mt-txnamresprej	SSL micro-tunneling: NAM responses rejected. This is a customer-specific statistic.	Int32
mt-rxnamresp	SSL micro-tunneling: NAM responses received. This is a customer-specific statistic.	Int32
mt-rxttlauthreq	SSL micro-tunneling: Total AUTH requests received. This is a customer-specific statistic.	Int32
mt-rxauthreqprocessed	SSL micro-tunneling: AUTH requests processed. This is a customer-specific statistic.	Int32
mt-rxauthreqdropped	SSL micro-tunneling: AUTH requests dropped. This is a customer-specific statistic.	Int32
mt-txttlauthresp	SSL micro-tunneling: Total AUTH responses sent. This is a customer-specific statistic.	Int32
mt-txauthrespaccept	SSL micro-tunneling: AUTH responses accepted. This is a customer-specific statistic.	Int32
mt-txauthresprej	SSL micro-tunneling: AUTH responses rejected. This is a customer-specific statistic.	Int32
mt-rxauthresp	SSL micro-tunneling: AUTH responses received. This is a customer-specific statistic.	Int32
mt-rxttlrecvreq	SSL micro-tunneling: Total RECV requests received. This is a customer-specific statistic.	Int32
mt-rxrecvreqprocessed	SSL micro-tunneling: RECV requests processed. This is a customer-specific statistic.	Int32
mt-rxrecvreqdropped	SSL micro-tunneling: RECV requests dropped. This is a customer-specific statistic.	Int32
mt-txttlrecvresp	SSL micro-tunneling: Total RECV responses sent. This is a customer-specific statistic.	Int32
mt-txrecvrespaccept	SSL micro-tunneling: RECV responses accepted. This is a customer-specific statistic.	Int32
mt-txrecvresprej	SSL micro-tunneling: RECV responses rejected. This is a customer-specific statistic.	Int32

## ■ Common Statistics

Statistic	Description	Data Type
mt-rxrecvresp	SSL micro-tunneling: RECV responses received. This is a customer-specific statistic.	Int32
mt-rxttlclosereq	SSL micro-tunneling: Total CLOSE requests received. This is a customer-specific statistic.	Int32
mt-rxclosereqprocessed	SSL micro-tunneling: CLOSE requests processed. This is a customer-specific statistic.	Int32
mt-rxclosereqdropped	SSL micro-tunneling: CLOSE requests dropped. This is a customer-specific statistic.	Int32
mt-txttlclosereq	SSL micro-tunneling: Total CLOSE requests sent. This is a customer-specific statistic.	Int32
mt-txclosereqdispatch	SSL micro-tunneling: CLOSE requests dispatched. This is a customer-specific statistic.	Int32
mt-rxttlcloseresp	SSL micro-tunneling: Total CLOSE responses received. This is a customer-specific statistic.	Int32
mt-rxcloserespaccept	SSL micro-tunneling: CLOSE responses accepted. This is a customer-specific statistic.	Int32
mt-rxcloseresprej	SSL micro-tunneling: CLOSE responses rejected. This is a customer-specific statistic.	Int32
mt-rxcloserespdropped	SSL micro-tunneling: CLOSE responses dropped. This is a customer-specific statistic.	Int32
mt-txttlcloseresp	SSL micro-tunneling: Total CLOSE responses sent. This is a customer-specific statistic.	Int32
mt-txcloserespaccept	SSL micro-tunneling: CLOSE responses accepted. This is a customer-specific statistic.	Int32
mt-txcloseresprej	SSL micro-tunneling: CLOSE responses rejected. This is a customer-specific statistic.	Int32
mt-rxttlsendreq	SSL micro-tunneling: Total SEND requests received. This is a customer-specific statistic.	Int32
mt-rxsendreqprocessed	SSL micro-tunneling: SEND requests processed. This is a customer-specific statistic.	Int32
mt-rxsendreqdropped	SSL micro-tunneling: SEND requests dropped. This is a customer-specific statistic.	Int32
mt-txttlsendreq	SSL micro-tunneling: Total SEND requests sent. This is a customer-specific statistic.	Int32
mt-txsendreqdispatch	SSL micro-tunneling: SEND requests dispatched. This is a customer-specific statistic.	Int32
mt-rxttlsendresp	SSL micro-tunneling: Total SEND responses received. This is a customer-specific statistic.	Int32

Statistic	Description	Data Type
mt-rxsendrespacept	SSL micro-tunneling: SEND responses accepted. This is a customer-specific statistic.	Int32
mt-rxsendresprej	SSL micro-tunneling: SEND responses rejected. This is a customer-specific statistic.	Int32
mt-rxsendrespdropped	SSL micro-tunneling: SEND responses dropped. This is a customer-specific statistic.	Int32
mt-txttlsendresp	SSL micro-tunneling: Total SEND responses sent. This is a customer-specific statistic.	Int32
mt-txsendrespacept	SSL micro-tunneling: SEND responses accepted. This is a customer-specific statistic.	Int32
mt-txsendresprej	SSL micro-tunneling: SEND responses rejected. This is a customer-specific statistic.	Int32
mt-openrejtx-cannotcreatconn	SSL micro-tunneling: OPEN Reject sent: cannot create connection. This is a customer-specific statistic.	Int32
mt-openrejtx-protonotsupported	SSL micro-tunneling: OPEN Reject sent: protocol not supported. This is a customer-specific statistic.	Int32
mt-openrejtx-permdenied	SSL micro-tunneling: OPEN Reject sent: permission denied. This is a customer-specific statistic.	Int32
mt-openrejtx-cannotcreatesockid	SSL micro-tunneling: OPEN Reject sent: cannot create sock-id. This is a customer-specific statistic.	Int32
mt-openrejtx-badparam	SSL micro-tunneling: OPEN Reject sent: bad parameters. This is a customer-specific statistic.	Int32
mt-openrejtx-addrport-alreadyused	SSL micro-tunneling: OPEN Reject sent: address or port already used. This is a customer-specific statistic.	Int32
mt-openrejtx-cannotconnectserver	SSL micro-tunneling: OPEN Reject sent: cannot connect the server. This is a customer-specific statistic.	Int32
mt-openrejtx-hostnameunknown	SSL micro-tunneling: OPEN Reject sent: hostname is unknown. This is a customer-specific statistic.	Int32
mt-openrejtx-authrequired	SSL micro-tunneling: OPEN Reject sent: authentication required. This is a customer-specific statistic.	Int32
mt-openrejtx-undefined	SSL micro-tunneling: OPEN Reject sent: undefined. This is a customer-specific statistic.	Int32
mt-openrejtx-reserved	SSL micro-tunneling: OPEN Reject sent: reserved. This is a customer-specific statistic.	Int32
mt-namrejtx-versionnotsupported	SSL micro-tunneling: OPEN Reject sent: version not supported. This is a customer-specific statistic.	Int32
mt-namrejtx-servercannotcreateauth	SSL micro-tunneling: OPEN Reject sent: server cannot create an authentication process. This is a customer-specific statistic.	Int32

## Common Statistics

Statistic	Description	Data Type
mt-namrejtx-undefined	SSL micro-tunneling: NAM Reject sent: undefined. This is a customer-specific statistic.	Int32
mt-namrejtx-reserved	SSL micro-tunneling: NAM Reject sent: reserved. This is a customer-specific statistic.	Int32
mt-authrejtx-authidunknown	SSL micro-tunneling: AUTH Reject sent: the auth-id is unknown. This is a customer-specific statistic.	Int32
mt-authrejtx-cannotconntoauthserver	SSL micro-tunneling: AUTH Reject sent: cannot connect to authentication server. This is a customer-specific statistic.	Int32
mt-authrejtx-badparam	SSL micro-tunneling: AUTH Reject sent: bad parameters. This is a customer-specific statistic.	Int32
mt-authrejtx-undefined	SSL micro-tunneling: AUTH Reject sent: undefined. This is a customer-specific statistic.	Int32
mt-authrejtx-reserved	SSL micro-tunneling: AUTH Reject sent: reserved. This is a customer-specific statistic.	Int32
mt-recvrejtx-sockidunknown	SSL micro-tunneling: RECV Reject sent: the sock-id is unknown. This is a customer-specific statistic.	Int32
mt-recvrejtx-connlost	SSL micro-tunneling: RECV Reject sent: the connection is lost. This is a customer-specific statistic.	Int32
mt-recvrejtx-permissiondenied	SSL micro-tunneling: RECV Reject sent: permission denied. This is a customer-specific statistic.	Int32
mt-recvrejtx-undefined	SSL micro-tunneling: RECV Reject sent: undefined. This is a customer-specific statistic.	Int32
mt-recvrejtx-ureserved	SSL micro-tunneling: RECV Reject sent: reserved. This is a customer-specific statistic.	Int32
mt-closerejtx-sockidunknown	SSL micro-tunneling: RECV Reject sent: the sock-id is unknown. This is a customer-specific statistic.	Int32
mt-closerejtx-connlost	SSL micro-tunneling: CLOSE Reject sent: the connection is lost. This is a customer-specific statistic.	Int32
mt-closerejtx-undefined	SSL micro-tunneling: CLOSE Reject sent: undefined. This is a customer-specific statistic.	Int32
mt-closerejtx-ureserved	SSL micro-tunneling: CLOSE Reject sent: reserved. This is a customer-specific statistic.	Int32
mt-closerejrx-sockidunknown	SSL micro-tunneling: CLOSE Reject received: sock-id unknown. This is a customer-specific statistic.	Int32
mt-closerejrx-connlost	SSL micro-tunneling: CLOSE Reject received: the connection is lost. This is a customer-specific statistic.	Int32
mt-closerejrx-undefined	SSL micro-tunneling: CLOSE Reject received: undefined. This is a customer-specific statistic.	Int32

Statistic	Description	Data Type
mt-closerejrx-ureserved	SSL micro-tunneling: CLOSE Reject received: reserved. This is a customer-specific statistic.	Int32
mt-sendrejtx-sockidunknown	SSL micro-tunneling: SEND Reject sent: sock-id unknown. This is a customer-specific statistic.	Int32
mt-sendrejtx-connlost	SSL micro-tunneling: SEND Reject sent: the connection is lost. This is a customer-specific statistic.	Int32
mt-sendrejtx-permissiondenied	SSL micro-tunneling: SEND Reject sent: permission denied. This is a customer-specific statistic.	Int32
mt-sendrejtx-badparam	SSL micro-tunneling: SEND Reject sent: bad parameters. This is a customer-specific statistic.	Int32
mt-sendrejtx-undefined	SSL micro-tunneling: SEND Reject sent: undefined. This is a customer-specific statistic.	Int32
mt-sendrejtx-reserved	SSL micro-tunneling: SEND Reject sent: reserved. This is a customer-specific statistic.	Int32
mt-sendrejrx-sockidunknown	SSL micro-tunneling: SEND Reject received: sock-id unknown. This is a customer-specific statistic.	Int32
mt-sendrejrx-connlost	SSL micro-tunneling: SEND Reject received: connection is lost. This is a customer-specific statistic.	Int32
mt-sendrejrx-permissiondenied	SSL micro-tunneling: SEND Reject received: permission denied. This is a customer-specific statistic.	Int32
mt-sendrejrx-badparam	SSL micro-tunneling: SEND Reject received: bad parameters. This is a customer-specific statistic.	Int32
mt-sendrejrx-undefined	SSL micro-tunneling: SEND Reject received: undefined. This is a customer-specific statistic.	Int32
mt-sendrejrx-reserved	SSL micro-tunneling: SEND Reject received: reserved. This is a customer-specific statistic.	Int32
mt-pktdiscardstat-unknownversion	SSL micro-tunneling: Packets discarded statistics: unknown version. This is a customer-specific statistic.	Int32
mt-pktdiscardstat-unknownmsgtype	SSL micro-tunneling: Packets discarded statistics: unknown message type. This is a customer-specific statistic.	Int32
mt-msgdenied-open-decodefaildropped	SSL micro-tunneling: Packets discarded statistics: decoding failed, dropped. This is a customer-specific statistic.	Int32
mt-msgdenied-open-decodefailrej	SSL micro-tunneling: Packets discarded statistics: decoding failed, rejected. This is a customer-specific statistic.	Int32
mt-msgdenied-open-unknownctxdropped	SSL micro-tunneling: Messages denied statistics: OPEN: decoding failed, dropped. This is a customer-specific statistic.	Int32
mt-msgdenied-open-unknownctxrej	SSL micro-tunneling: Messages denied statistics: OPEN: decoding failed, rejected. This is a customer-specific statistic.	Int32

Statistic	Description	Data Type
mt-msgdenied-respopen-decodefaildropped	SSL micro-tunneling: Messages denied statistics: RESP OPEN: decoding failed, dropped. This is a customer-specific statistic.	Int32
mt-msgdenied-respopen-unknownctxtdropped	SSL micro-tunneling: Messages denied statistics: RESP OPEN: unknown context, dropped. This is a customer-specific statistic.	Int32
mt-msgdenied-close-decodefaildropped	SSL micro-tunneling: Messages denied statistics: CLOSE: decoding failed, dropped. This is a customer-specific statistic.	Int32
mt-msgdenied-close-decodefailrej	SSL micro-tunneling: Messages denied statistics: CLOSE: decoding failed, rejected. This is a customer-specific statistic.	Int32
mt-msgdenied-close-unknownctxtdropped	SSL micro-tunneling: Messages denied statistics: CLOSE: unknown context, dropped. This is a customer-specific statistic.	Int32
mt-msgdenied-close-unknownctxtrej	SSL micro-tunneling: Messages denied statistics: CLOSE: unknown context, rejected. This is a customer-specific statistic.	Int32
mt-msgdenied-respclose-decodefaildropped	SSL micro-tunneling: Messages denied statistics: RESP CLOSE: decoding failed, dropped. This is a customer-specific statistic.	Int32
mt-msgdenied-respclose-unknownctxtdropped	SSL micro-tunneling: Messages denied statistics: RESP CLOSE: unknown context, dropped. This is a customer-specific statistic.	Int32
mt-msgdenied-nam-decodefaildropped	SSL micro-tunneling: Messages denied statistics: NAM: decoding failed, dropped. This is a customer-specific statistic.	Int32
mt-msgdenied-nam-decodefailrej	SSL micro-tunneling: Messages denied statistics: NAM: decoding failed, rejected. This is a customer-specific statistic.	Int32
mt-msgdenied-nam-unknownctxtdropped	SSL micro-tunneling: Messages denied statistics: NAM: unknown context, dropped. This is a customer-specific statistic.	Int32
mt-msgdenied-nam-unknownctxtrej	SSL micro-tunneling: Messages denied statistics: NAM: unknown context, rejected. This is a customer-specific statistic.	Int32
mt-msgdenied-respnam-decodefaildropped	SSL micro-tunneling: Messages denied statistics: RESP NAM: decoding failed, dropped. This is a customer-specific statistic.	Int32
mt-msgdenied-respnam-unknownctxtdropped	SSL micro-tunneling: Messages denied statistics: RESP NAM: unknown context, dropped. This is a customer-specific statistic.	Int32

Statistic	Description	Data Type
mt-msgdenied-auth-decodefaildropped	SSL micro-tunneling: Messages denied statistics: AUTH: decoding failed, dropped. This is a customer-specific statistic.	Int32
mt-msgdenied-auth-decodefailrej	SSL micro-tunneling: Messages denied statistics: AUTH: decoding failed, rejected. This is a customer-specific statistic.	Int32
mt-msgdenied-auth-unknownctxtdropped	SSL micro-tunneling: Messages denied statistics: AUTH: unknown context, dropped. This is a customer-specific statistic.	Int32
mt-msgdenied-auth-unknownctxtrej	SSL micro-tunneling: Messages denied statistics: AUTH: unknown context, rejected. This is a customer-specific statistic.	Int32
mt-msgdenied-respauth-decodefaildropped	SSL micro-tunneling: Messages denied statistics: RESP AUTH: decoding failed, dropped. This is a customer-specific statistic.	Int32
mt-msgdenied-respauth-unknownctxtdropped	SSL micro-tunneling: Messages denied statistics: RESP AUTH: unknown context, dropped. This is a customer-specific statistic.	Int32
mt-msgdenied-recv-decodefaildropped	SSL micro-tunneling: Messages denied statistics: RECV: decoding failed, dropped. This is a customer-specific statistic.	Int32
mt-msgdenied-recv-decodefailrej	SSL micro-tunneling: Messages denied statistics: RECV: decoding failed, rejected. This is a customer-specific statistic.	Int32
mt-msgdenied-recv-unknownctxtdropped	SSL micro-tunneling: Messages denied statistics: RECV: unknown context, dropped. This is a customer-specific statistic.	Int32
mt-msgdenied-recv-unknownctxtrej	SSL micro-tunneling: Messages denied statistics: RECV: unknown context, rejected. This is a customer-specific statistic.	Int32
mt-msgdenied-resprecv-decodefaildropped	SSL micro-tunneling: Messages denied statistics: RESP RECV: decoding failed, dropped. This is a customer-specific statistic.	Int32
mt-msgdenied-resprecv-unknownctxtdropped	SSL micro-tunneling: Messages denied statistics: RESP RECV: unknown context, dropped. This is a customer-specific statistic.	Int32
mt-msgdenied-send-decodefaildropped	SSL micro-tunneling: Messages denied statistics: SEND: decoding failed, dropped. This is a customer-specific statistic.	Int32
mt-msgdenied-send-decodefailrej	SSL micro-tunneling: Messages denied statistics: SEND: decoding failed, rejected. This is a customer-specific statistic.	Int32

## ■ Common Statistics

Statistic	Description	Data Type
mt-msgdenied-send-unknownctxdropped	SSL micro-tunneling: Messages denied statistics: SEND: unknown context, dropped. This is a customer-specific statistic.	Int32
mt-msgdenied-send-unknownctxrej	SSL micro-tunneling: Messages denied statistics: SEND: unknown context, rejected. This is a customer-specific statistic.	Int32
mt-msgdenied-respsend-decodefaildropped	SSL micro-tunneling: Messages denied statistics: RESP SEND: decoding failed, dropped. This is a customer-specific statistic.	Int32
mt-msgdenied-respsend-unknownctxdropped	SSL micro-tunneling: Messages denied statistics: RESP SEND: unknown context, dropped. This is a customer-specific statistic.	Int32
mt-msgdenied-respunknowncommdropped	SSL micro-tunneling: Messages denied statistics: RESP to unknown command dropped. This is a customer-specific statistic.	Int32



**Important:** See the “Bulk Statistics Overview” chapter in the Statistics and Counters Reference for statistics that are common to all schema.

# Chapter 28

## PDIF Schema Statistics

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The PDIF schema provides the following types of statistics:

- **Counter:** A counter records incremental data cumulatively and rolls over when the counter limit is reached. The limit depends upon the counter data type.
- **Gauge:** A gauge statistic indicates a single value representative of a single instance. This type is often used to track particular events in time.

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 **Important:** The format string syntax is described by Schema Format String Syntax in the Bulk Statistics Overview chapter.

 **Important:** Unless otherwise indicated, all statistics are counters. For statistics with the Int32 data type, the roll-over to zero limit is 4,294,967,295. For statistics with the Int64 data type, the roll-over to zero limit is 18,446,744,073,709,551,615. All counter statistics are cumulative and reset only by one of the following methods: roll-over (as described above), after a system restart, or after a clear command is performed. All statistics are considered standards-based unless otherwise noted.

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The following variables are supported:

**Table 28. PDIF Schema Statistics**

Statistic	Description	Data Type
vpnname	The name of the context currently facilitating the service processing the subscriber session.	String
vpnid	The identification number of the context currently facilitating the service processing the subscriber session. This is an internal reference number.	Int32
svcname	The service name for which PDIF statistics are being displayed.	String
svcid	The service ID for which PDIF statistics are being displayed.	Int32
bindaddress	The bind IP address for this PDIF service.	String

Statistic	Description	Data Type
state	System-wide PDIF state identified by the following codes: <ul style="list-style-type: none"> <li>unknown(0)</li> <li>noservice(1): Chassis is not configured/licensed for PDIF service.</li> <li>active(2): At least one PDIF service is available.</li> <li>temporary(3): PDIF service is running in a temporary capacity.</li> <li>outofservice(4): No PDIF service is currently active, but one or more PDIF services are configured.</li> </ul>	Int32
sess-curinprog	Number of PDIF service sessions in progress (including transient ones).	Int32
sess-curact	Number of currently active PDIF sessions.	Int32
sess-curdorm	Number of currently dormant PDIF sessions.	Int32
sess-curactipv4	Number of currently active IPV4 sessions.	Int32
sess-cursip	Number of current simple IP sessions.	Int32
sess-curmip	Number of current mobile IP sessions.	Int32
sess-curpmip	Number of current proxy mobile IP sessions.	Int32
sess-sipattempt	Number of attempted simple IP sessions.	Int32
sess-sipsuccess	Number of successful simple IP sessions.	Int32
sess-sipfail	Number of failed simple IP sessions.	Int32
sess-mipattempt	Number of attempted mobile IP sessions.	Int32
sess-mipsuccess	Number of successful mobile IP sessions.	Int32
sess-mipfail	Number of failed mobile IP sessions.	Int32
sess-pmipattempt	Number of attempted proxy mobile IP sessions.	Int32
sess-pmipsuccess	Number of successful proxy mobile IP sessions completed.	Int32
sess-pmipfail	Number of failed proxy mobile IP sessions.	Int32
sess-sipfbksucc	Number of successful simple IP fallback sessions.	Int32
sess-sipfbknotdone	Number of sessions where simple IP fallback was not done.	Int32
sess-sipfbknorrq	Number of simple IP fallback sessions with no rrq request.	Int32
sess-sipfbknotallw	Number of simple IP fallback sessions that were not allowed.	Int32
sess-sipfbktagaddr	Number of simple IP fallback sessions that failed because of no tagged pool address.	Int32
sess-sipfbkmisc	Number of simple IP fallback sessions that failed because of miscellaneous reasons.	Int32
sess-ttlsetup	Total number of session setups.	Int32
sess-ttlattempt	Total number of session attempts.	Int32
sess-ttlattemptfail	Total number of session attempts that failed.	Int32
sess-ttlrel	Total number of sessions released.	Int32

Statistic	Description	Data Type
sess-ttlrellocal	Total number of sessions released locally.	Int32
sess-ttlrelremote	Total number of sessions released remotely.	Int32
sess-ttlsip	Total Number of simple IP sessions.	Int32
sess-ttlmip	Total number of mobile IP sessions.	Int32
sess-ttl-pmip	Total number of proxy mobile IP sessions.	Int32
sess-discbeforeconn	Number of sessions disconnected by remote node before being connected.	Int32
sess-discipsec	Number of sessions terminated because of IPsec.	Int32
discadmin	Number of sessions terminated because of admin release.	Int32
sess-discidletimeout	Number of sessions terminated because of idle timer timeout.	Int32
sess-discabstimeout	Number of sessions terminated because of absolute timeout.	Int32
sess-disclongdur	Number of sessions terminated because of long duration timer timeout.	Int32
sess-discmmdtimeout	Number of sessions terminated because of multimedia domain service timer expiry.	Int32
sess-distyssetuptimeout	Number of sessions terminated because of TY interface setup timeout.	Int32
sess-discsesssetuptimeout	Number of sessions terminated because of Session Manager session setup timeout.	Int32
sess-discnonexistpcrf	Number of sessions terminated because of non-existence of PCRF.	Int32
sess-discnoresource	Number of sessions terminated because of no resources.	Int32
sess-discauthfail	Number of sessions terminated because of AAA authentication failure.	Int32
sess-discflowaddfail	Number of sessions terminated because of flow add failure.	Int32
sess-discinvdestctx	Number of sessions terminated because of invalid destination context.	Int32
sess-discsourceviol	Number of sessions terminated because of source IP address violation.	Int32
sess-discmipremote	Number of sessions terminated because of remote mobile IP.	Int32
sess-discmiplocal	Number of sessions terminated because of local mobile IP.	Int32
sess-discdupreq	Number of sessions terminated because of a duplicated request.	Int32
sess-discmacfail	Number of sessions terminated because of a MAC address failure.	Int32
sess-discaddrfail	Number of sessions terminated because of an address failure.	Int32
sess-discmisc	Number of sessions terminated for miscellaneous reasons.	Int32
sess-remaining	Number of available sessions remaining.	Int32
sess-limit	Session limit reached.	Int32
mac-authreq	Number of MAC address authentication requests.	Int32
mac-authreqvalid	Number of valid MAC address authentication requests.	Int32
mac-authreqinv	Number of invalid MAC address authentication requests.	Int32

## Common Statistics

Statistic	Description	Data Type
mac-authsucc	Number of MAC address validation successes.	Int32
mac-authsuccmatch	Number of successful MAC address matches.	Int32
mac-authsucchssfail	Number of HSS server authentication failures.	Int32
mac-authfail	Number of MAC address authentication failures because of an unauthorized MAC address.	Int32
mac-authfaildiam	Number of MAC address authentication failures because of a Diameter error.	Int32
mac-authfailuserunk	Number of MAC address authentication failures because of an unknown user.	Int32
mac-authfailmacnotfound	Number of MAC address authentication failures because the MAC address was not found.	Int32
mac-authfailmacmissing	Number of MAC address authentication failures because the MAC address was missing.	Int32
mac-authfailmacmalformed	Number of MAC address authentication failures because the MAC address was malformed.	Int32
mac-authfailnosh	Number of MAC address authentication failures because the Sh interface is down.	Int32
mac-authfailother	Number of MAC address authentication failures because of another reason.	Int32
eap-rxttlsrvrpass thru	Total number of EAP messages received from the EAP server in pass-through mode.	Int32
eap-rxchalsrvrpass thru	Total number of EAP challenge messages sent to the EAP server in pass-through mode.	Int32
eap-rxsucssrvrpass thru	Total number of EAP-Success messages received from the EAP server in pass-through mode.	Int32
eap-rxfailsrvrpass thru	Total number of EAP-Failure messages received from the EAP server in pass-through mode.	Int32
eap-rxmobilepass thru	Total number of EAP messages received from mobile clients in pass-through mode.	Int32
eap-txttlsrvrpass thru	Total number of EAP messages transmitted to the EAP server in pass-through mode.	Int32
eap-txinitreqsrvrpass thru	Total number of EAP messages transmitted to the EAP server in pass-through mode for initial request.	Int32
eap-txfwdreqsrvrpass thru	Total number of EAP messages transmitted to the EAP server in pass-through mode for forward request.	Int32
ipsec-txpacket	Number of IPsec packets transmitted.	Int64
ipsec-txoctet	Number of IPsec bytes transmitted.	Int64
ipsec-rxpacket	Number of IPsec packets received.	Int64
ipsec-rxoctet	Number of IPsec bytes received.	Int64
ipsec-violpacket	Number of data packets that do not match any of the configured traffic selectors.	Counter32



**Important:** See Bulk Statistics Overview for statistics that are common to all schema. 





# Chapter 29

## P-GW Node Level Schema Statistics

This schema provides the following type of statistics:

- **Counter:** A counter records incremental data cumulatively and rolls over when the counter limit is reached. The limit depends upon the counter data type.
- **Gauge:** A gauge statistic indicates a single value representative of a single instance. This type is often used to track particular events in time.

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 **Important:** The format string syntax is described by Schema Format String Syntax in the Bulk Statistics Overview chapter.

 **Important:** Unless otherwise indicated, all statistics are counters. For statistics with the Int32 data type, the roll-over to zero limit is 4,294,967,295. For statistics with the Int64 data type, the roll-over to zero limit is 18,446,744,073,709,551,615. All statistics are cumulative and reset only by one of the following methods: roll-over (as described above), after a system restart, or after a clear command is performed. All statistics are considered standards-based unless otherwise described.

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The following variables are supported:

**Table 29. P-GW Service Schema Statistics**

Statistic	Description	Data Type
vpnname	The name of the context configured on the system that is currently facilitating the P-GW service.	String / Static
vpnid	The identification number of the context configured on the system that is currently facilitating the P-GW service. This is an internal reference number.	Gauge / Int32
servname	Displays the name of the P-GW service for which the statistics are displayed.	String / Static
servid	The identification number of the service configured on the system that is currently facilitating the P-GW service. This is an internal reference number.	Gauge / Int32
sess-cur	The total number of sessions currently established on this system.	Counter / Int32
sessstat-bearact-def	Session Statistics - Total default bearers active	Counter / Int32

## ■ Common Statistics

Statistic	Description	Data Type
sessstat-bearact-ded	Session Statistics - Total dedicated bearers active	Counter / Int32
sessstat-bearact-ue-init-ded	Session Statistics - Total bearers active - UE-initiated	Counter / Int32
sessstat-bearact-nw-init-ded	Session Statistics - Total bearers active - Network-initiated	Counter / Int32
sessstat-bearsetup-def	Session Statistics - Total default bearers setup	Counter / Int32
sessstat-bearsetup-ded	Session Statistics - Total dedicated bearers setup	Counter / Int32
sessstat-bearsetup-ue-init-ded	Session Statistics - Total bearers rejected - Network-req reject - No Resource	Counter / Int32
sessstat-bearsetup-nw-init-ded	Session Statistics - Total bearers setup - Dedicated bearers - Network-initiated	Counter / Int32
sessstat-bearrel-def	Session Statistics - Total default bearers released	Counter / Int32
sessstat-bearrel-ded	Session Statistics - Total dedicated bearers released	Counter / Int32
sessstat-bearrel-nwdefadmin	Session Statistics - Total bearers released - Network Default Admin disconnect	Counter / Int32
sessstat-bearrel-nwdefgtp	Session Statistics - Total bearers released - Network Default GTP-U error ind	Counter / Int32
sessstat-bearrel-nwdefsgw	Session Statistics - Total bearers released - Network Default SGW Path failure	Counter / Int32
sessstat-bearrel-nwdefmme	Session Statistics - Total bearers released - Network Default MME initiated release	Counter / Int32
sessstat-bearrel-nwdedadmin	Session Statistics - Total bearers released - Network Dedicated Admin disconnect	Counter / Int32
sessstat-bearrel-nwdedgtp	Session Statistics - Total bearers released - Network Dedicated GTP-U error ind	Counter / Int32
sessstat-bearrel-nwdedmme	Session Statistics - Total bearers released - Network Dedicated MME initiated release	Counter / Int32
sessstat-bearrel-nwdeddefbear	Session Statistics - Total bearers released - Network Dedicated Default bearer release	Counter / Int32
sessstat-bearrel-nwdedgxdisc	Session Statistics - Total bearers released - Network Dedicated GX Disconnect	Counter / Int32
sessstat-bearrelfail-def	Session Statistics - Total bearers release failure - Default bearers	Counter / Int32
sessstat-bearrelfail-ded	Session Statistics - Total bearers release failure - Dedicated bearers	Counter / Int32

Statistic	Description	Data Type
sessstat-bearrej-def	Session Statistics - Total bearers rejected - Default bearers	Counter / Int32
sessstat-bearrej-ded	Session Statistics - Total bearers rejected - Dedicated bearers	Counter / Int32
sessstat-bearrej-nores	Session Statistics - Total bearers rejected - No Resource	Counter / Int32
sessstat-bearrej-uereq	Session Statistics - Total bearers rejected - UE-req reject	Counter / Int32
sessstat-bearrej-uereq-nores	Session Statistics - Total bearers rejected - UE-req reject - No Resource	Counter / Int32
sessstat-bearrej-misapn	Session Statistics - Total bearers rejected - Missing or unknown APN	Counter / Int32
sessstat-bearrej-nwreq	Session Statistics - Total bearers rejected - Network-req reject	Counter / Int32
sessstat-bearrej-nwreq-nores	Session Statistics - Total bearers rejected - Network-req reject - No Resource	Counter / Int32
sessstat-bearrej-nwreq-nomem	Session Statistics - Total bearers rejected - Network-req reject - No memory available	Counter / Int32
sessstat-bearrej-nwreq-sysfail	Session Statistics - Total bearers rejected - Network-req reject - System failure	Counter / Int32
sessstat-bearrej-apnmode	Session Statistics - Total bearers rejected - APN selection -Mode mismatch	Counter / Int32
sessstat-bearrej-pdn	Session Statistics - Total bearers rejected - Pref PDN -Type not supported	Counter / Int32
sessstat-bearrej-apnrestr	Session Statistics - Total bearers rejected - APN restr violation	Counter / Int32
sessstat-bearrej-subauth	Session Statistics - Total bearers rejected - Subs auth failed	Counter / Int32
sessstat-bearrej-subaddrnotallow	Session Statistics - Total bearers rejected - Subscriber's static address not allowed	Counter / Int32
sessstat-bearrej-subaddrnotalloc	Session Statistics - Total bearers rejected - Subscriber's static address not allocated	Counter / Int32
sessstat-bearrej-dynaddrnotalloc	Session Statistics - Total bearers rejected - Dynamic address not allocated	Counter / Int32
sessstat-bearrej-subaddrnotpres	Session Statistics - Total bearers rejected - Subscriber's static address not present	Counter / Int32
sessstat-bearmod-ueinit	Session Statistics - Total bearers modified - UE-initiated modification	Counter / Int32
sessstat-bearmod-nwinit	Session Statistics - Total bearers modified - Network-initiated modification	Counter / Int32

## ■ Common Statistics

Statistic	Description	Data Type
sesssstat-bearmod-ueqos	Session Statistics - Total bearers modified - UE-initiated QoS modification	Counter / Int32
sesssstat-bearmod-uetft	Session Statistics - Total bearers modified - UE-initiated TFT modification	Counter / Int32
sesssstat-bearmod-nwqos	Session Statistics - Total bearers modified - Network-initiated QoS modification	Counter / Int32
sesssstat-bearmod-nwtft	Session Statistics - Total bearers modified - Network-initiated TFT modification	Counter / Int32
sesssstat-bearmodfail-ueinit	Session Statistics - Total bearers modification failure - UE-initiated modification failed	Counter / Int32
sesssstat-bearmodfail-nwinit	Session Statistics - Total bearers modification failure - Network-initiated modification failed	Counter / Int32
sesssstat-bearmodfail-uenores	Session Statistics - Total bearers modification failure - UE-initiated No res available	Counter / Int32
sesssstat-bearmodfail-uesemtft	Session Statistics - Total bearers modification failure - UE-initiated Semantic error in TFT oper	Counter / Int32
sesssstat-bearmodfail-uesyntft	Session Statistics - Total bearers modification failure - UE-initiated Syntax error in TFT oper	Counter / Int32
sesssstat-bearmodfail-uesempkt	Session Statistics - Total bearers modification failure - UE-initiated Semantic error in packet filter	Counter / Int32
sesssstat-bearmodfail-uesynpkt	Session Statistics - Total bearers modification failure - UE-initiated syntax error in packet filter	Counter / Int32
sesssstat-bearmodfail-nwnores	Session Statistics - Total bearers modification failure - Network-initiated - No res available	Counter / Int32
sesssstat-bearmodfail-nwnomem	Session Statistics - Total bearers modification failure - Network-initiated - No memory available	Counter / Int32
sesssstat-bearmodfail-nwsysfail	Session Statistics - Total bearers modification failure - Network-initiated - System failure	Counter / Int32
sesssstat-bearmodfail-nwsemftft	Session Statistics - Total bearers modification failure - Network-initiated Semantic error in TFT oper	Counter / Int32
sesssstat-bearmodfail-nwsyntft	Session Statistics - Total bearers modification failure - Network-initiated syntax error in TFT oper	Counter / Int32
sesssstat-bearmodfail-nwsempkt	Session Statistics - Total bearers modification failure - Network-initiated Semantic error in packet filter	Counter / Int32
sesssstat-bearmodfail-nwsynpkt	Session Statistics - Total bearers modification failure - Network-initiated syntax error in packet filter	Counter / Int32
sesssstat-pdn-ipv4active	Session Statistics - Total PDN-Type stats - IPv4 Active	Counter / Int32
sesssstat-pdn-ipv4setup	Session Statistics - Total PDN-Type stats - IPv4 Setup	Counter / Int32

Statistic	Description	Data Type
sessstat-pdn-ipv4rel	Session Statistics - Total PDN-Type stats - IPv4 Released	Counter / Int32
sessstat-pdn-ipv6active	Session Statistics - Total PDN-Type stats - IPv6 Active	Counter / Int32
sessstat-pdn-ipv6setup	Session Statistics - Total PDN-Type stats - IPv6 Setup	Counter / Int32
sessstat-pdn-ipv6rel	Session Statistics - Total PDN-Type stats - IPv6 Released	Counter / Int32
sessstat-pdn-ipv4v6active	Session Statistics - Total PDN-Type stats - IPv4v6 Active	Counter / Int32
sessstat-pdn-ipv4v6setup	Session Statistics - Total PDN-Type stats - IPv4v6 Setup	Counter / Int32
sessstat-pdn-ipv4v6rel	Session Statistics - Total PDN-Type stats - IPv4v6 Released	Counter / Int32
sessstat-ipv4addaloc	Session Statistics - IPv4 address allocation	Counter / Int32
sessstat-ipaddaloc-ipv4loacalpool	Session Statistics - IP address allocation stats - IPv4 Local pool address assign	Counter / Int32
sessstat-ipaddaloc-ipv4staticaddr	Session Statistics - IP address allocation stats - IPv4 Static address assign	Counter / Int32
sessstat-ipaddaloc-ipv4radaddr	Session Statistics - IP address allocation stats - IPv4 Radius provided address assign	Counter / Int32
sessstat-ipv6addaloc	Session Statistics - IPv6 address allocation	Counter / Int32
sessstat-ipaddaloc-ipv6auto	Session Statistics - IP address allocation stats - IPv6 Stateless auto config	Counter / Int32
subplmnstat-homesubact	Subscriber PLMN Statistics - Home subscribers sessions active	Counter / Int32
subplmnstat-homesubsetup	Subscriber PLMN Statistics - Home subscribers sessions setup	Counter / Int32
subplmnstat-homesubrel	Subscriber PLMN Statistics - Home subscribers sessions released	Counter / Int32
subplmnstat-roamsubact	Subscriber PLMN Statistics - Roaming subscribers sessions active	Counter / Int32
subplmnstat-roamsubsetup	Subscriber PLMN Statistics - Roaming subscribers sessions setup	Counter / Int32
subplmnstat-roamsubrel	Subscriber PLMN Statistics - Roaming subscribers sessions released	Counter / Int32
subplmnstat-visitsubact	Subscriber PLMN Statistics - Visiting subscribers sessions active	Counter / Int32

## Common Statistics

Statistic	Description	Data Type
subplmnstat-visitsubsetup	Subscriber PLMN Statistics - Visiting subscribers sessions setup	Counter / Int32
subplmnstat-visitsubrel	Subscriber PLMN Statistics - Visiting subscribers sessions released	Counter / Int32
sgitunstat-ipv4sessact	SGi tunneling Statistics - IPv4 IP-in-IP tunnel sessions active	Counter / Int32
sgitunstat-ipv4sesssetup	SGi tunneling Statistics - IPv4 IP-in-IP tunnel sessions setup	Counter / Int32
sgitunstat-ipv4sessrel	SGi tunneling Statistics - IPv4 IP-in-IP tunnel sessions released	Counter / Int32
sgitunstat-ipv4gresessact	SGi tunneling Statistics - IPv4 GRE tunnel sessions active	Counter / Int32
sgitunstat-ipv4gresesssetup	SGi tunneling Statistics - IPv4 GRE tunnel sessions setup	Counter / Int32
sgitunstat-ipv4gresessrel	SGi tunneling Statistics - IPv4 GRE tunnel sessions released	Counter / Int32
sgitunstat-ipv6sessact	SGi tunneling Statistics - IPv6 6to4 tunnel sessions active	Counter / Int32
sgitunstat-ipv6sesssetup	SGi tunneling Statistics - IPv6 6to4 tunnel sessions setup	Counter / Int32
sgitunstat-ipv6sessrel	SGi tunneling Statistics - IPv6 6to4 tunnel sessions released	Counter / Int32
subqosstat-bearact-qci1	Subscriber QoS Statistics - Total bearers active - QCI 1	Counter / Int32
subqosstat-bearact-qci2	Subscriber QoS Statistics - Total bearers active - QCI 2	Counter / Int32
subqosstat-bearact-qci3	Subscriber QoS Statistics - Total bearers active - QCI 3	Counter / Int32
subqosstat-bearact-qci4	Subscriber QoS Statistics - Total bearers active - QCI 4	Counter / Int32
subqosstat-bearact-qci5	Subscriber QoS Statistics - Total bearers active - QCI 5	Counter / Int32
subqosstat-bearact-qci6	Subscriber QoS Statistics - Total bearers active - QCI 6	Counter / Int32
subqosstat-bearact-qci7	Subscriber QoS Statistics - Total bearers active - QCI 7	Counter / Int32
subqosstat-bearact-qci8	Subscriber QoS Statistics - Total bearers active - QCI 8	Counter / Int32
subqosstat-bearact-qci9	Subscriber QoS Statistics - Total bearers active - QCI 9	Counter / Int32

Statistic	Description	Data Type
subqosstat-bearact-qcinongbr	Subscriber QoS Statistics - Total bearers active - Non-Standard QCI (Non-GBR)	Counter / Int32
subqosstat-bearact-qcigr	Subscriber QoS Statistics - Total bearers active - Non-Standard QCI (GBR)	Counter / Int32
subqosstat-bearsetup-qci1	Subscriber QoS Statistics - Total bearers setup - QCI 1	Counter / Int32
subqosstat-bearsetup-qci2	Subscriber QoS Statistics - Total bearers setup - QCI 2	Counter / Int32
subqosstat-bearsetup-qci3	Subscriber QoS Statistics - Total bearers setup - QCI 3	Counter / Int32
subqosstat-bearsetup-qci4	Subscriber QoS Statistics - Total bearers setup - QCI 4	Counter / Int32
subqosstat-bearsetup-qci5	Subscriber QoS Statistics - Total bearers setup - QCI 5	Counter / Int32
subqosstat-bearsetup-qci6	Subscriber QoS Statistics - Total bearers setup - QCI 6	Counter / Int32
subqosstat-bearsetup-qci7	Subscriber QoS Statistics - Total bearers setup - QCI 7	Counter / Int32
subqosstat-bearsetup-qci8	Subscriber QoS Statistics - Total bearers setup - QCI 8	Counter / Int32
subqosstat-bearsetup-qci9	Subscriber QoS Statistics - Total bearers setup - QCI 9	Counter / Int32
subqosstat-bearsetup-qcinongbr	Subscriber QoS Statistics - Total bearers setup - Non-Standard QCI (Non-GBR)	Counter / Int32
subqosstat-bearsetup-qcigr	Subscriber QoS Statistics - Total bearers setup - Non-Standard QCI (GBR)	Counter / Int32
subqosstat-bearrel-qci1	Subscriber QoS Statistics - Total bearers released - QCI 1	Counter / Int32
subqosstat-bearrel-qci2	Subscriber QoS Statistics - Total bearers released - QCI 2	Counter / Int32
subqosstat-bearrel-qci3	Subscriber QoS Statistics - Total bearers released - QCI 3	Counter / Int32
subqosstat-bearrel-qci4	Subscriber QoS Statistics - Total bearers released - QCI 4	Counter / Int32
subqosstat-bearrel-qci5	Subscriber QoS Statistics - Total bearers released - QCI 5	Counter / Int32
subqosstat-bearrel-qci6	Subscriber QoS Statistics - Total bearers released - QCI 6	Counter / Int32
subqosstat-bearrel-qci7	Subscriber QoS Statistics - Total bearers released - QCI 7	Counter / Int32

## Common Statistics

Statistic	Description	Data Type
subqosstat-bearrel-qci8	Subscriber QoS Statistics - Total bearers released - QCI 8	Counter / Int32
subqosstat-bearrel-qci9	Subscriber QoS Statistics - Total bearers released - QCI 9	Counter / Int32
subqosstat-bearrel-qcinongbr	Subscriber QoS Statistics - Total bearers released - Non-Standard QCI (Non-GBR)	Counter / Int32
subqosstat-bearrel-qcigr	Subscriber QoS Statistics - Total bearers released - Non-Standard QCI (GBR)	Counter / Int32
subdatastat-totuppktfwd	Subscriber Data Statistics - Total Uplink packets forwarded	Counter / Int32
subdatastat-uppktfwd-qci1	Subscriber Data Statistics -Uplink packets forwarded - QCI 1	Counter / Int32
subdatastat-uppktfwd-qci2	Subscriber Data Statistics -Uplink packets forwarded - QCI 2	Counter / Int32
subdatastat-uppktfwd-qci3	Subscriber Data Statistics -Uplink packets forwarded - QCI 3	Counter / Int32
subdatastat-uppktfwd-qci4	Subscriber Data Statistics -Uplink packets forwarded - QCI 4	Counter / Int32
subdatastat-uppktfwd-qci5	Subscriber Data Statistics -Uplink packets forwarded - QCI 5	Counter / Int32
subdatastat-uppktfwd-qci6	Subscriber Data Statistics -Uplink packets forwarded - QCI 6	Counter / Int32
subdatastat-uppktfwd-qci7	Subscriber Data Statistics -Uplink packets forwarded - QCI 7	Counter / Int32
subdatastat-uppktfwd-qci8	Subscriber Data Statistics -Uplink packets forwarded - QCI 8	Counter / Int32
subdatastat-uppktfwd-qci9	Subscriber Data Statistics -Uplink packets forwarded - QCI 9	Counter / Int32
subdatastat-uppktfwd-stdqcinongbr	Subscriber Data Statistics - Uplink packets forwarded - Standard QCI (Non-GBR)	Counter / Int32
subdatastat-uppktfwd-stdqcigr	Subscriber Data Statistics - Uplink packets forwarded - Standard QCI (GBR)	Counter / Int32
subdatastat-uppktfwd-qcinongbr	Subscriber Data Statistics - Uplink packets forwarded - Non-Standard QCI (Non-GBR)	Counter / Int32
subdatastat-uppktfwd-qcigr	Subscriber Data Statistics - Uplink packets forwarded - Non-Standard QCI (GBR)	Counter / Int32
subdatastat-uppktfwd-totgbr	Subscriber Data Statistics - Uplink packets forwarded - Total GBR	Counter / Int32
subdatastat-uppktfwd-totnongbr	Subscriber Data Statistics - Uplink packets forwarded - Total NON-GBR	Counter / Int32

Statistic	Description	Data Type
subdatastat-totupbytefwd	Subscriber Data Statistics - Total Uplink bytes forwarded	Counter / Int64
subdatastat-upbytefwd-qci1	Subscriber Data Statistics - Uplink bytes forwarded - QCI 1	Counter / Int64
subdatastat-upbytefwd-qci2	Subscriber Data Statistics - Uplink bytes forwarded - QCI 2	Counter / Int64
subdatastat-upbytefwd-qci3	Subscriber Data Statistics - Uplink bytes forwarded - QCI 3	Counter / Int64
subdatastat-upbytefwd-qci4	Subscriber Data Statistics - Uplink bytes forwarded - QCI 4	Counter / Int64
subdatastat-upbytefwd-qci5	Subscriber Data Statistics - Uplink bytes forwarded - QCI 5	Counter / Int64
subdatastat-upbytefwd-qci6	Subscriber Data Statistics - Uplink bytes forwarded - QCI 6	Counter / Int64
subdatastat-upbytefwd-qci7	Subscriber Data Statistics - Uplink bytes forwarded - QCI 7	Counter / Int64
subdatastat-upbytefwd-qci8	Subscriber Data Statistics - Uplink bytes forwarded - QCI 8	Counter / Int64
subdatastat-upbytefwd-qci9	Subscriber Data Statistics - Uplink bytes forwarded - QCI 9	Counter / Int64
subdatastat-upbytefwd-stdqcinqbr	Subscriber Data Statistics - Uplink bytes forwarded - Standard QCI (Non-GBR)	Counter / Int64
subdatastat-upbytefwd-stdqcigr	Subscriber Data Statistics - Uplink bytes forwarded - Standard QCI (GBR)	Counter / Int64
subdatastat-upbytefwd-qcinongbr	Subscriber Data Statistics - Uplink bytes forwarded - Non-Standard QCI (Non-GBR)	Counter / Int64
subdatastat-upbytefwd-qcigr	Subscriber Data Statistics - Uplink bytes forwarded - Non-Standard QCI (GBR)	Counter / Int64
subdatastat-upbytefwd-totgbr	Subscriber Data Statistics - Uplink bytes forwarded - Total GBR	Counter / Int64
subdatastat-upbytefwd-totnongbr	Subscriber Data Statistics - Uplink bytes forwarded - Total NON-GBR	Counter / Int64
subdatastat-totdownpktfwd	Subscriber Data Statistics - Total Downlink packets forwarded	Counter / Int64
subdatastat-downpktfwd-qci1	Subscriber Data Statistics - Downlink packets forwarded - QCI 1	Counter / Int32
subdatastat-downpktfwd-qci2	Subscriber Data Statistics - Downlink packets forwarded - QCI 2	Counter / Int32
subdatastat-downpktfwd-qci3	Subscriber Data Statistics - Downlink packets forwarded - QCI 3	Counter / Int32

## Common Statistics

Statistic	Description	Data Type
subdatastat-downpktfwd-qci4	Subscriber Data Statistics - Downlink packets forwarded - QCI 4	Counter / Int32
subdatastat-downpktfwd-qci5	Subscriber Data Statistics - Downlink packets forwarded - QCI 5	Counter / Int32
subdatastat-downpktfwd-qci6	Subscriber Data Statistics - Downlink packets forwarded - QCI 6	Counter / Int32
subdatastat-downpktfwd-qci7	Subscriber Data Statistics - Downlink packets forwarded - QCI 7	Counter / Int32
subdatastat-downpktfwd-qci8	Subscriber Data Statistics - Downlink packets forwarded - QCI 8	Counter / Int32
subdatastat-downpktfwd-qci9	Subscriber Data Statistics - Downlink packets forwarded - QCI 9	Counter / Int32
subdatastat-downpktfwd-stdqcinongbr	Subscriber Data Statistics - Downlink packets forwarded - Standard QCI (Non-GBR)	Counter / Int32
subdatastat-downpktfwd-stdqcigbr	Subscriber Data Statistics - Downlink packets forwarded - Standard QCI (GBR)	Counter / Int32
subdatastat-downpktfwd-qcinongbr	Subscriber Data Statistics - Downlink packets forwarded - Non-Standard QCI (Non-GBR)	Counter / Int32
subdatastat-downpktfwd-qcigbr	Subscriber Data Statistics - Downlink packets forwarded - Non-Standard QCI (GBR)	Counter / Int32
subdatastat-downpktfwd-totgbr	Subscriber Data Statistics - Downlink packets forwarded - Total GBR	Counter / Int32
subdatastat-downpktfwd-totnongbr	Subscriber Data Statistics - Downlink packets forwarded - Total NON-GBR	Counter / Int32
subdatastat-totdownbytefwd	Subscriber Data Statistics - Total Downlink bytes forwarded	Counter / Int64
subdatastat-downbytefwd-qci1	Subscriber Data Statistics - Downlink bytes forwarded - QCI 1	Counter / Int64
subdatastat-downbytefwd-qci2	Subscriber Data Statistics - Downlink bytes forwarded - QCI 2	Counter / Int64
subdatastat-downbytefwd-qci3	Subscriber Data Statistics - Downlink bytes forwarded - QCI 3	Counter / Int64
subdatastat-downbytefwd-qci4	Subscriber Data Statistics - Downlink bytes forwarded - QCI 4	Counter / Int64
subdatastat-downbytefwd-qci5	Subscriber Data Statistics - Downlink bytes forwarded - QCI 5	Counter / Int64
subdatastat-downbytefwd-qci6	Subscriber Data Statistics - Downlink bytes forwarded - QCI 6	Counter / Int64
subdatastat-downbytefwd-qci7	Subscriber Data Statistics - Downlink bytes forwarded - QCI 7	Counter / Int64

Statistic	Description	Data Type
subdatastat-downbytefwd-qci8	Subscriber Data Statistics - Downlink bytes forwarded - QCI 8	Counter / Int64
subdatastat-downbytefwd-qci9	Subscriber Data Statistics - Downlink bytes forwarded - QCI 9	Counter / Int64
subdatastat-downbytefwd-stdqcinongbr	Subscriber Data Statistics - Downlink bytes forwarded - Standard QCI (Non-GBR)	Counter / Int64
subdatastat-downbytefwd-stdqcigr	Subscriber Data Statistics - Downlink bytes forwarded - Standard QCI (GBR)	Counter / Int64
subdatastat-downbytefwd-qcinongbr	Subscriber Data Statistics - Downlink bytes forwarded - Non-Standard QCI (Non-GBR)	Counter / Int64
subdatastat-downbytefwd-qcigr	Subscriber Data Statistics - Downlink bytes forwarded - Non-Standard QCI (GBR)	Counter / Int64
subdatastat-downbytefwd-totgbr	Subscriber Data Statistics - Downlink bytes forwarded - Total GBR	Counter / Int64
subdatastat-downbytefwd-totnongbr	Subscriber Data Statistics - Downlink bytes forwarded - Total NON-GBR	Counter / Int64
subdatastat-totuppktdrop	Subscriber Data Statistics - Total Uplink packets dropped	Counter / Int32
subdatastat-uppktdrop-qci1	Subscriber Data Statistics -Uplink packets dropped - QCI 1	Counter / Int32
subdatastat-uppktdrop-qci2	Subscriber Data Statistics -Uplink packets dropped - QCI 2	Counter / Int32
subdatastat-uppktdrop-qci3	Subscriber Data Statistics -Uplink packets dropped - QCI 3	Counter / Int32
subdatastat-uppktdrop-qci4	Subscriber Data Statistics -Uplink packets dropped - QCI 4	Counter / Int32
subdatastat-uppktdrop-qci5	Subscriber Data Statistics -Uplink packets dropped - QCI 5	Counter / Int32
subdatastat-uppktdrop-qci6	Subscriber Data Statistics -Uplink packets dropped - QCI 6	Counter / Int32
subdatastat-uppktdrop-qci7	Subscriber Data Statistics -Uplink packets dropped - QCI 7	Counter / Int32
subdatastat-uppktdrop-qci8	Subscriber Data Statistics -Uplink packets dropped - QCI 8	Counter / Int32
subdatastat-uppktdrop-qci9	Subscriber Data Statistics -Uplink packets dropped - QCI 9	Counter / Int32
subdatastat-uppktdrop-stdqcinongbr	Subscriber Data Statistics - Uplink packets dropped - Standard QCI (Non-GBR)	Counter / Int32
subdatastat-uppktdrop-stdqcigr	Subscriber Data Statistics - Uplink packets dropped - Standard QCI (GBR)	Counter / Int32

## ■ Common Statistics

Statistic	Description	Data Type
subdatastat-uppktdrop-qcinongbr	Subscriber Data Statistics - Uplink packets dropped - Non-Standard QCI (Non-GBR)	Counter / Int32
subdatastat-uppktdrop-qcigr	Subscriber Data Statistics - Uplink packets dropped - Non-Standard QCI (GBR)	Counter / Int32
subdatastat-uppktdrop-totgbr	Subscriber Data Statistics - Uplink packets dropped - Total GBR	Counter / Int32
subdatastat-uppktdrop-totnongbr	Subscriber Data Statistics - Uplink packets dropped - Total NON-GBR	Counter / Int32
subdatastat-totupbytedrop	Subscriber Data Statistics - Total Uplink bytes dropped	Counter / Int64
subdatastat-upbytedrop-qci1	Subscriber Data Statistics - Uplink bytes dropped - QCI 1	Counter / Int64
subdatastat-upbytedrop-qci2	Subscriber Data Statistics - Uplink bytes dropped - QCI 2	Counter / Int64
subdatastat-upbytedrop-qci3	Subscriber Data Statistics - Uplink bytes dropped - QCI 3	Counter / Int64
subdatastat-upbytedrop-qci4	Subscriber Data Statistics - Uplink bytes dropped - QCI 4	Counter / Int64
subdatastat-upbytedrop-qci5	Subscriber Data Statistics - Uplink bytes dropped - QCI 5	Counter / Int64
subdatastat-upbytedrop-qci6	Subscriber Data Statistics - Uplink bytes dropped - QCI 6	Counter / Int64
subdatastat-upbytedrop-qci7	Subscriber Data Statistics - Uplink bytes dropped - QCI 7	Counter / Int64
subdatastat-upbytedrop-qci8	Subscriber Data Statistics - Uplink bytes dropped - QCI 8	Counter / Int64
subdatastat-upbytedrop-qci9	Subscriber Data Statistics - Uplink bytes dropped - QCI 9	Counter / Int64
subdatastat-upbytedrop-stdqcinongbr	Subscriber Data Statistics - Uplink bytes dropped - Standard QCI (Non-GBR)	Counter / Int64
subdatastat-upbytedrop-stdqcigr	Subscriber Data Statistics - Uplink bytes dropped - Standard QCI (GBR)	Counter / Int64
subdatastat-upbytedrop-qcinongbr	Subscriber Data Statistics - Uplink bytes dropped - Non-Standard QCI (Non-GBR)	Counter / Int64
subdatastat-upbytedrop-qcigr	Subscriber Data Statistics - Uplink bytes dropped - Non-Standard QCI (GBR)	Counter / Int64
subdatastat-upbytedrop-totgbr	Subscriber Data Statistics - Uplink bytes dropped - Total GBR	Counter / Int64
subdatastat-upbytedrop-totnongbr	Subscriber Data Statistics - Uplink bytes dropped - Total NON-GBR	Counter / Int64

Statistic	Description	Data Type
subdatastat-totdownpktdrop	Subscriber Data Statistics - Total Downlink packets dropped	Counter / Int32
subdatastat-downpktdrop-qci1	Subscriber Data Statistics - Downlink packets dropped - QCI 1	Counter / Int32
subdatastat-downpktdrop-qci2	Subscriber Data Statistics - Downlink packets dropped - QCI 2	Counter / Int32
subdatastat-downpktdrop-qci3	Subscriber Data Statistics - Downlink packets dropped - QCI 3	Counter / Int32
subdatastat-downpktdrop-qci4	Subscriber Data Statistics - Downlink packets dropped - QCI 4	Counter / Int32
subdatastat-downpktdrop-qci5	Subscriber Data Statistics - Downlink packets dropped - QCI 5	Counter / Int32
subdatastat-downpktdrop-qci6	Subscriber Data Statistics - Downlink packets dropped - QCI 6	Counter / Int32
subdatastat-downpktdrop-qci7	Subscriber Data Statistics - Downlink packets dropped - QCI 7	Counter / Int32
subdatastat-downpktdrop-qci8	Subscriber Data Statistics - Downlink packets dropped - QCI 8	Counter / Int32
subdatastat-downpktdrop-qci9	Subscriber Data Statistics - Downlink packets dropped - QCI 9	Counter / Int32
subdatastat-downpktdrop-stdqcinongbr	Subscriber Data Statistics - Downlink packets dropped - Standard QCI (Non-GBR)	Counter / Int32
subdatastat-downpktdrop-stdqcigr	Subscriber Data Statistics - Downlink packets dropped - Standard QCI (GBR)	Counter / Int32
subdatastat-downpktdrop-qcinongbr	Subscriber Data Statistics - Downlink packets dropped - Non-Standard QCI (Non-GBR)	Counter / Int32
subdatastat-downpktdrop-qcigr	Subscriber Data Statistics - Downlink packets dropped - Non-Standard QCI (GBR)	Counter / Int32
subdatastat-downpktdrop-totgbr	Subscriber Data Statistics - Downlink packets dropped - Total GBR	Counter / Int32
subdatastat-downpktdrop-totnongbr	Subscriber Data Statistics - Downlink packets dropped - Total NON-GBR	Counter / Int32
subdatastat-totdownbytedrop	Subscriber Data Statistics - Total Downlink bytes dropped	Counter / Int64
subdatastat-downbytedrop-qci1	Subscriber Data Statistics - Downlink bytes dropped - QCI 1	Counter / Int64
subdatastat-downbytedrop-qci2	Subscriber Data Statistics - Downlink bytes dropped - QCI 2	Counter / Int64
subdatastat-downbytedrop-qci3	Subscriber Data Statistics - Downlink bytes dropped - QCI 3	Counter / Int64

## Common Statistics

Statistic	Description	Data Type
subdatastat-downbytedrop-qci4	Subscriber Data Statistics - Downlink bytes dropped - QCI 4	Counter / Int64
subdatastat-downbytedrop-qci5	Subscriber Data Statistics - Downlink bytes dropped - QCI 5	Counter / Int64
subdatastat-downbytedrop-qci6	Subscriber Data Statistics - Downlink bytes dropped - QCI 6	Counter / Int64
subdatastat-downbytedrop-qci7	Subscriber Data Statistics - Downlink bytes dropped - QCI 7	Counter / Int64
subdatastat-downbytedrop-qci8	Subscriber Data Statistics - Downlink bytes dropped - QCI 8	Counter / Int64
subdatastat-downbytedrop-qci9	Subscriber Data Statistics - Downlink bytes dropped - QCI 9	Counter / Int64
subdatastat-downbytedrop-stdqcinongbr	Subscriber Data Statistics - Downlink bytes dropped - Standard QCI (Non-GBR)	Counter / Int64
subdatastat-downbytedrop-stdqcigr	Subscriber Data Statistics - Downlink bytes dropped - Standard QCI (GBR)	Counter / Int64
subdatastat-downbytedrop-qcinongbr	Subscriber Data Statistics - Downlink bytes dropped - Non-Standard QCI (Non-GBR)	Counter / Int64
subdatastat-downbytedrop-qcigr	Subscriber Data Statistics - Downlink bytes dropped - Non-Standard QCI (GBR)	Counter / Int64
subdatastat-downbytedrop-totgbr	Subscriber Data Statistics - Downlink bytes dropped - Total GBR	Counter / Int64
subdatastat-downbytedrop-totnongbr	Subscriber Data Statistics - Downlink bytes dropped - Total NON-GBR	Counter / Int64
subdatastat-totuppktdropmbrexc	Subscriber Data Statistics - Total Uplink packets Drop mbr exceed	Counter / Int32
subdatastat-uppktdropmbrexc-qci1	Subscriber Data Statistics - Uplink packets Drop mbr exceed - QCI 1	Counter / Int32
subdatastat-uppktdropmbrexc-qci2	Subscriber Data Statistics - Uplink packets Drop mbr exceed - QCI 2	Counter / Int32
subdatastat-uppktdropmbrexc-qci3	Subscriber Data Statistics - Uplink packets Drop mbr exceed- QCI 3	Counter / Int32
subdatastat-uppktdropmbrexc-qci4	Subscriber Data Statistics - Uplink packets Drop mbr exceed - QCI 4	Counter / Int32
subdatastat-uppktdropmbrexc-qci5	Subscriber Data Statistics - Uplink packets Drop mbr exceed- QCI 5	Counter / Int32
subdatastat-uppktdropmbrexc-qci6	Subscriber Data Statistics - Uplink packets Drop mbr exceed - QCI 6	Counter / Int32
subdatastat-uppktdropmbrexc-qci7	Subscriber Data Statistics - Uplink packets Drop mbr exceed - QCI 7	Counter / Int32

Statistic	Description	Data Type
subdatastat-uppktdropmbrexc-qci8	Subscriber Data Statistics - Uplink packets Drop mbr exceed - QCI 8	Counter / Int32
subdatastat-uppktdropmbrexc-qci9	Subscriber Data Statistics - Uplink packets Drop mbr exceed - QCI 9	Counter / Int32
subdatastat-uppktdropmbrexc-stdqcinongbr	Subscriber Data Statistics - Uplink packets Drop mbr exceed - Standard QCI (Non-GBR)	Counter / Int32
subdatastat-uppktdropmbrexc-stdqciubr	Subscriber Data Statistics - Uplink packets Drop mbr exceed - Standard QCI (GBR)	Counter / Int32
subdatastat-uppktdropmbrexc-qcinongbr	Subscriber Data Statistics - Uplink packets Drop mbr exceed - Non-Standard QCI (Non-GBR)	Counter / Int32
subdatastat-uppktdropmbrexc-qciubr	Subscriber Data Statistics - Uplink packets Drop mbr exceed - Non-Standard QCI (GBR)	Counter / Int32
subdatastat-uppktdropmbrexc-totubr	Subscriber Data Statistics - Uplink packets Drop mbr exceed - Total GBR	Counter / Int32
subdatastat-uppktdropmbrexc-totnongbr	Subscriber Data Statistics - Uplink packets Drop mbr exceed - Total NON-GBR	Counter / Int32
subdatastat-totupbytedropmbrexc	Subscriber Data Statistics - Total Uplink bytes Drop mbr exceed	Counter / Int64
subdatastat-upbytedropmbrexc-qci1	Subscriber Data Statistics - Uplink bytes Drop mbr exceed - QCI 1	Counter / Int64
subdatastat-upbytedropmbrexc-qci2	Subscriber Data Statistics - Uplink bytes Drop mbr exceed - QCI 2	Counter / Int64
subdatastat-upbytedropmbrexc-qci3	Subscriber Data Statistics - Uplink bytes Drop mbr exceed- QCI 3	Counter / Int64
subdatastat-upbytedropmbrexc-qci4	Subscriber Data Statistics - Uplink bytes Drop mbr exceed - QCI 4	Counter / Int64
subdatastat-upbytedropmbrexc-qci5	Subscriber Data Statistics - Uplink bytes Drop mbr exceed- QCI 5	Counter / Int64
subdatastat-upbytedropmbrexc-qci6	Subscriber Data Statistics - Uplink bytes Drop mbr exceed - QCI 6	Counter / Int64
subdatastat-upbytedropmbrexc-qci7	Subscriber Data Statistics - Uplink bytes Drop mbr exceed - QCI 7	Counter / Int64
subdatastat-upbytedropmbrexc-qci8	Subscriber Data Statistics - Uplink bytes Drop mbr exceed - QCI 8	Counter / Int64
subdatastat-upbytedropmbrexc-qci9	Subscriber Data Statistics - Uplink bytes Drop mbr exceed - QCI 9	Counter / Int64
subdatastat-upbytedropmbrexc-stdqcinongbr	Subscriber Data Statistics - Uplink bytes Drop mbr exceed - Standard QCI (Non-GBR)	Counter / Int64
subdatastat-upbytedropmbrexc-stdqciubr	Subscriber Data Statistics - Uplink bytes Drop mbr exceed - Standard QCI (GBR)	Counter / Int64

## Common Statistics

Statistic	Description	Data Type
subdatastat-upbytedropmbrexc-qcinongbr	Subscriber Data Statistics - Uplink bytes Drop mbr exceed - Non-Standard QCI (Non-GBR)	Counter / Int64
subdatastat-upbytedropmbrexc-qcigr	Subscriber Data Statistics - Uplink bytes Drop mbr exceed - Non-Standard QCI (GBR)	Counter / Int64
subdatastat-upbytedropmbrexc-totgbr	Subscriber Data Statistics - Uplink bytes Drop mbr exceed - Total GBR	Counter / Int64
subdatastat-upbytedropmbrexc-totnongbr	Subscriber Data Statistics - Uplink bytes Drop mbr exceed - Total NON-GBR	Counter / Int64
subdatastat-totdownpktdropmbrexc	Subscriber Data Statistics - Total Downlink packets Drop mbr exceed	Counter / Int32
subdatastat-downpktdropmbrexc-qci1	Subscriber Data Statistics - Downlink packets Drop mbr exceed - QCI 1	Counter / Int32
subdatastat-downpktdropmbrexc-qci2	Subscriber Data Statistics - Downlink packets Drop mbr exceed - QCI 2	Counter / Int32
subdatastat-downpktdropmbrexc-qci3	Subscriber Data Statistics - Downlink packets Drop mbr exceed- QCI 3	Counter / Int32
subdatastat-downpktdropmbrexc-qci4	Subscriber Data Statistics - Downlink packets Drop mbr exceed - QCI 4	Counter / Int32
subdatastat-downpktdropmbrexc-qci5	Subscriber Data Statistics - Downlink packets Drop mbr exceed- QCI 5	Counter / Int32
subdatastat-downpktdropmbrexc-qci6	Subscriber Data Statistics - Downlink packets Drop mbr exceed - QCI 6	Counter / Int32
subdatastat-downpktdropmbrexc-qci7	Subscriber Data Statistics - Downlink packets Drop mbr exceed - QCI 7	Counter / Int32
subdatastat-downpktdropmbrexc-qci8	Subscriber Data Statistics - Downlink packets Drop mbr exceed - QCI 8	Counter / Int32
subdatastat-downpktdropmbrexc-qci9	Subscriber Data Statistics - Downlink packets Drop mbr exceed - QCI 9	Counter / Int32
subdatastat-downpktdropmbrexc-stdqcinongbr	Subscriber Data Statistics - Downlink packets Drop mbr exceed - Standard QCI (Non-GBR)	Counter / Int32
subdatastat-downpktdropmbrexc-stdqcigr	Subscriber Data Statistics - Downlink packets Drop mbr exceed - Standard QCI (GBR)	Counter / Int32
subdatastat-downpktdropmbrexc-qcinongbr	Subscriber Data Statistics - Downlink packets Drop mbr exceed - Non-Standard QCI (Non-GBR)	Counter / Int32
subdatastat-downpktdropmbrexc-qcigr	Subscriber Data Statistics - Downlink packets Drop mbr exceed - Non-Standard QCI (GBR)	Counter / Int32
subdatastat-downpktdropmbrexc-totgbr	Subscriber Data Statistics - Downlink packets Drop mbr exceed - Total GBR	Counter / Int32
subdatastat-downpktdropmbrexc-totnongbr	Subscriber Data Statistics - Downlink packets Drop mbr exceed - Total NON-GBR	Counter / Int32

Statistic	Description	Data Type
subdatastat-totdownbytedropmbrexc	Subscriber Data Statistics - Total Downlink bytes Drop mbr exceed	Counter / Int64
subdatastat-downbytedropmbrexc-qci1	Subscriber Data Statistics - Downlink bytes Drop mbr exceed - QCI 1	Counter / Int64
subdatastat-downbytedropmbrexc-qci2	Subscriber Data Statistics - Downlink bytes Drop mbr exceed - QCI 2	Counter / Int64
subdatastat-downbytedropmbrexc-qci3	Subscriber Data Statistics - Downlink bytes Drop mbr exceed- QCI 3	Counter / Int64
subdatastat-downbytedropmbrexc-qci4	Subscriber Data Statistics - Downlink bytes Drop mbr exceed - QCI 4	Counter / Int64
subdatastat-downbytedropmbrexc-qci5	Subscriber Data Statistics - Downlink bytes Drop mbr exceed- QCI 5	Counter / Int64
subdatastat-downbytedropmbrexc-qci6	Subscriber Data Statistics - Downlink bytes Drop mbr exceed - QCI 6	Counter / Int64
subdatastat-downbytedropmbrexc-qci7	Subscriber Data Statistics - Downlink bytes Drop mbr exceed - QCI 7	Counter / Int64
subdatastat-downbytedropmbrexc-qci8	Subscriber Data Statistics - Downlink bytes Drop mbr exceed - QCI 8	Counter / Int64
subdatastat-downbytedropmbrexc-qci9	Subscriber Data Statistics - Downlink bytes Drop mbr exceed - QCI 9	Counter / Int64
subdatastat-downbytedropmbrexc-stdqcinongbr	Subscriber Data Statistics - Downlink bytes Drop mbr exceed - Standard QCI (Non-GBR)	Counter / Int64
subdatastat-downbytedropmbrexc-stdqcigr	Subscriber Data Statistics - Downlink bytes Drop mbr exceed - Standard QCI (GBR)	Counter / Int64
subdatastat-downbytedropmbrexc-qcinongbr	Subscriber Data Statistics - Downlink bytes Drop mbr exceed - Non-Standard QCI (Non-GBR)	Counter / Int64
subdatastat-downbytedropmbrexc-qcigr	Subscriber Data Statistics - Downlink bytes Drop mbr exceed - Non-Standard QCI (GBR)	Counter / Int64
subdatastat-downbytedropmbrexc-totgbr	Subscriber Data Statistics - Downlink bytes Drop mbr exceed - Total GBR	Counter / Int64
subdatastat-downbytedropmbrexc-totnongbr	Subscriber Data Statistics - Downlink bytes Drop mbr exceed - Total NON-GBR	Counter / Int64
apnambratelimit-uppktdrop	APN AMBR Rate Limiting Statistics - Uplink packets dropped	Counter / Int32
apnambratelimit-downpktdrop	APN AMBR Rate Limiting Statistics - Downlink packets dropped	Counter / Int32
apnambratelimit-upbytedrop	APN AMBR Rate Limiting Statistics - Uplink bytes dropped	Counter / Int64
apnambratelimit-downbytedrop	APN AMBR Rate Limiting Statistics - Downlink bytes dropped	Counter / Int64

## ■ Common Statistics

Statistic	Description	Data Type
 <b>Important:</b> See Bulk Statistics Overview for statistics that are common to all schema.		

# Chapter 30

## Port Schema Statistics

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The Port schema provides the following types of statistics:

- **Counter:** A counter records incremental data cumulatively and rolls over when the counter limit is reached. The limit depends upon the counter data type.
- **Gauge:** A gauge statistic indicates a single value representative of a single instance. This type is often used to track particular events in time.

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 **Important:** The format string syntax is described by Schema Format String Syntax in the Bulk Statistics Overview chapter.

 **Important:** Unless otherwise indicated, all statistics are counters. For statistics with the Int32 data type, the roll-over to zero limit is 4,294,967,295. For statistics with the Int64 data type, the roll-over to zero limit is 18,446,744,073,709,551,615. All counter statistics are cumulative and reset only by one of the following methods: roll-over (as described above), after a system restart, or after a clear command is performed. All statistics are considered standards-based unless otherwise noted.

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The following variables are supported:

**Table 30. Port-level Schema Statistics**

Statistic	Description	Data Type
card	Chassis slot numbers 17 through 48.	Int32
port	Port number on the card; 0 through 7 for the Ethernet 10/100 Line Card, 0 for the Ethernet 1000 Line Card, 0 through 3 for the four-port Quad Gig-E line card (ST40 only), and 0 through 1 for the SPIO.	Int32
maxrate	The maximum physical data rate for the port. For example a 10/100 Ethernet port that has negotiated a 10 Mbps rate reports 100,000,000 as the max rate (100 Mbps).	Int64
rxbytes	The number of bytes received over the port.	Int64
txbytes	The number of bytes transmitted over the port.	Int64

Statistic	Description	Data Type
ucast_inpackets	The number of unicast packets received over the port.   <b>Important:</b> This statistic is not supported for SPIO ports.	Int64
ucast_outpackets	The number of unicast packets sent over the port.   <b>Important:</b> This statistic is not supported for SPIO ports.	Int64
mcast_inpackets	The number of multicast packets received over the port.   <b>Important:</b> This statistic is not supported for SPIO ports.	Int64
mcast_outpackets	The number of multicast packets sent over the port.   <b>Important:</b> This statistic is not supported for SPIO ports.	Int64
bcast_inpackets	The number of broadcast packets received over the port.   <b>Important:</b> This statistic is not supported for SPIO ports.	Int64
bcast_outpackets	The number of broadcast packets sent over the port.   <b>Important:</b> This statistic is not supported for SPIO ports.	Int64
rxpackets	The number of packets received over the port.	Int64
txpackets	The number of packets transmitted over the port.	Int64
rxdiscbytes	The number of bytes received over the port that were discarded.	Int64
rxdiscpackets	The number of packets received over the port that were discarded.	Int64
txdiscbytes	The number of bytes transmitted over the port that were discarded.	Int64
txdiscpackets	The number of packets transmitted over the port that were discarded.	Int64

Statistic	Description	Data Type
frag-rcvd	The number of fragments received on this port.	Int64
pkt-reassembled	The number of packets re-assembled from fragments received on this port.	Int64
frag-tokernel	The number of fragments received on this port and sent to the kernel.	Int64
util-rx-curr	The current average port utilization for received data in Mbps.	Int64
util-tx-curr	The current average port utilization for transmitted data in Mbps.	Int64
util-rx-5min	The average port utilization for received data over the last five minutes in Mbps.	Int64
util-tx-5min	The current average port utilization for transmitted data over the last five minutes in Mbps.	Int64
util-rx-15min	The average port utilization for received data over the last 15 minutes in Mbps.	Int64
util-tx-15min	The current average port utilization for transmitted data over the last 15 minutes in Mbps.	Int64
port-5peak-rx-util	This is the peak Rx port utilization. This is the peak one minute average over the last 5 minutes. This is a Gauge type of statistic.	Int64
port-5peak-tx-util	This is the peak Tx port utilization. This is the peak one minute average over the last 5 minutes. This is a Gauge type of statistic.	Int64
port-15peak-rx-util	This is the peak Rx port utilization. This is the peak one minute average over the last 15 minutes. This is a Gauge type of statistic.	Int64
port-15peak-tx-util	This is the peak Tx port utilization. This is the peak one minute average over the last 15 minutes. This is a Gauge type of statistic.	Int64



**Important:** See Bulk Statistics Overview for statistics that are common to all schema.



# Chapter 31

## PPP Schema Statistics

The PPP schema provides the following types of statistics:

- **Counter:** A counter records incremental data cumulatively and rolls over when the counter limit is reached. The limit depends upon the counter data type.
- **Gauge:** A gauge statistic indicates a single value representative of a single instance. This type is often used to track particular events in time.

 **Important:** The format string syntax is described by Schema Format String Syntax in the Bulk Statistics Overview chapter.

 **Important:** Unless otherwise indicated, all statistics are counters. For statistics with the Int32 data type, the roll-over to zero limit is 4,294,967,295. For statistics with the Int64 data type, the roll-over to zero limit is 18,446,744,073,709,551,615. All counter statistics are cumulative and reset only by one of the following methods: roll-over (as described above), after a system restart, or after a clear command is performed. All statistics are considered standards-based unless otherwise noted.

The following variables are supported:

**Table 31. PPP Schema Statistics**

Statistic	Description	Type
vpnname	The name of the context configured on the system that is currently facilitating the service processing the subscriber's session.	String
vpnid	The identification number of the context configured on the system that is currently facilitating the service processing the subscriber's session. This is an internal reference number.	Int32
servname	The name of the service for which PPP statistics are being displayed.	String
svctype	The type of the service for which PPP statistics are being displayed.	String
init	The total number of subscriber sessions that have been received by the by the system for processing.	Int32
reneg	The total number of subscriber sessions that have been re-negotiated by the by the system.	Int32
fail-reneg	The total number of subscriber sessions that have failed to be re-negotiated by the by the system	Int32
success	The total number of subscriber sessions that have been successfully connected by the by the system.	Int32
failed	The total number of subscriber sessions that the system has/have failed to process.	Int32

Statistic	Description	Type
released	The total number of subscriber sessions that have been disconnected.	Int32
released-local	The total number of subscriber sessions that have been dropped by the system.	Int32
released-remote	The total number of subscriber sessions that have been dropped by the mobile nodes.	Int32
altppp-connected	The total number of Alt PPP subscriber sessions that have been connected by the by the system.	Int32
lcp-fail-maxretry	The number of sessions that were released during setup due to the system not receiving a response prior to the expiration of the maximum number of Link Control Protocol (LCP) retries.	Int32
lcp-fail-option	The number of sessions that were released during setup due to failed negotiations between the system and the mobile nodes over Link Control Protocol (LCP) options.	Int32
lcp-fail-unknown	The number of sessions that were released during setup due to failed LCP negotiations for unknown reasons.	Int32
ipcp-fail-maxretry	The number of sessions that were released during setup due to the system not receiving a response prior to the expiration of the maximum number of Internet Protocol Control Protocol (IPCP) retries.	Int32
ipcp-fail-option	The number of sessions that were released during setup due to failed negotiations between the system and the mobile nodes over Internet Protocol Control Protocol (IPCP) options.	Int32
ipcp-fail-unknown	The number of sessions that were released during setup due to failed IPCP negotiations for unknown reasons.	Int32
fail-ccp	The number Compression Control Protocol negotiation failures.	Int32
fail-auth	The number of sessions that were released during setup due to subscriber authentication failures.	Int32
abort-auth	The number of sessions that were released during setup due to aborted authentication processes.	Int32
rp-disc	The number of sessions that were released during setup due to lower-layer disconnects.	Int32
entered-lcp	The number of sessions entering or re-entering the Link Control Protocol (LCP) phase of call setup.	Int32
entered-auth	The number of sessions entering or re-entering the authentication phase of call setup.	Int32
entered-ipcp	The number of sessions entering or re-entering the Internet Protocol Control Protocol (IPCP) phase of call setup.	Int32
success-lcp	The number of sessions for which LCP was successfully negotiated.	Int32
success-auth	The number of sessions for which authentication was successful.	Int32
reneg-pdsn	The number of session re-negotiations initiated by the system.	Int32
reneg-mobile	The number of session re-negotiations initiated by the mobile nodes.	Int32
reneg-addrmis	The number of session re-negotiations that occurred due to mis-matched IP addresses.	Int32
reneg-rp_handoff	The number of session re-negotiations that occurred due to lower-layer handoffs.   <b>Important:</b> This statistic is provided for compatibility only. Please use the reneg-rp-handoff statistic.	Int32

Statistic	Description	Type
reneg-rp-handoff	The number of session re-negotiations that occurred due to lower-layer handoffs.	Int32
reneg-update	The number of session re-negotiations that occurred due to parameter updates.	Int32
reneg-other	The number of session re-negotiations that occurred due to other reasons.	Int32
conn-sess-reneg	Indicates the number of PPP renegotiation happened for sessions which are already in connected/established state.	Int32
auth-attempt-chap	The number of sessions that attempted to authenticate using the Challenge Handshake Authentication Protocol (CHAP).	Int32
auth-attempt-ppp	The number of sessions that attempted to authenticate using the Password Authentication Protocol (PAP).   <b>Important:</b> This statistic is provided for compatibility only. Please use the auth-attempt-pap statistic.	Int32
auth-attempt-pap	The number of sessions that attempted to authenticate using the Password Authentication Protocol (PAP).	Int32
auth-attempt-mschap	The number of sessions that attempted to authenticate using MicroSoft CHAP (MS CHAP).   <b>Important:</b> This statistic is provided for compatibility only. Please use the auth-attempt-mschap statistic.	Int32
auth-attempt-mschap	The number of sessions that attempted to authenticate using MicroSoft CHAP (MS CHAP).	Int32
auth-success-chap	The number of sessions that successfully authenticated using the Challenge Handshake Authentication Protocol (CHAP).	Int32
auth-success-pap	The number of sessions that successfully authenticated using the Password Authentication Protocol (PAP).	Int32
auth-success-mschap	The number of sessions that successfully authenticated using MicroSoft CHAP (MS CHAP).	Int32
auth-fail-chap	The number of sessions that failed authentication using the Challenge Handshake Authentication Protocol (CHAP).	Int32
auth-fail-pap	The number of sessions that failed authentication using the Password Authentication Protocol (PAP).	Int32
auth-fail-mschap	The number of sessions that failed authentication using MicroSoft CHAP (MS CHAP).	Int32
auth-abort-chap	The number of sessions that aborted authentication while using the Challenge Handshake Authentication Protocol (CHAP).	Int32
auth-abort-pap	The number of sessions that aborted authentication while using the Password Authentication Protocol (PAP).	Int32

Statistic	Description	Type
auth-abort-mschap	The number of sessions that aborted authentication while using MicroSoft CHAP (MS CHAP).	Int32
sess-skip-auth	The number of sessions that skipped the authentication process.	Int32
comp-stac	The total number of sessions that negotiated the use data compression using the STAC protocol.	Int32
comp-mppc	The total number of sessions that negotiated the use data compression using the MPPC protocol.	Int32
comp-defl	The total number of sessions that negotiated the use data compression using the DEFLATE protocol.	Int32
comp-sess-neg	The total number of sessions that negotiated the use of data compression.	Int32
comp-sess-neg-fail	The total number of sessions for which data compression negotiation failed.	Int32
rverrr-basfcs	The number of packets received with an invalid Frame Check Sequence (FCS).	Int32
rverrr-unknproto	The number of packets received with an invalid protocol type.	Int32
rverrr-badaddr	The number of packets received with a bad address field.	Int32
rverrr-badctrl	The number of packets received with a bad control field.	Int32
comp-vjhdr	The total number of sessions that negotiated the use Van Jacobson header compression.	Int32
comp-rohchr	The total number of sessions that negotiated the use of RObust Header Compression (ROHC).	Int32
disc-lcp-remote	The number of sessions for which the mobile node initiated the disconnection.	Int32
disc-rp-remote	The number of sessions in which the mobile node disconnected the lower layers of the protocol stack.	Int32
disc-admin	The number of sessions for which the system initiated the disconnection.	Int32
disc-idle-timeout	The number of sessions disconnected due to exceeding their idle timeout limit.	Int32
disc-abs-timeout	The number of sessions disconnected due to exceeding their absolute timeout limit.	Int32
disc-ppp-keepalive	The number of sessions disconnected due to keep alive failures.	Int32
disc-no-resource	The number of sessions disconnected due to lack of resources on the local side (CPU and memory).	Int32
disc-misc	The number of sessions that were disconnected for reasons other than those listed here.	Int32
disc-rp-local	The number of sessions that experienced a local disconnect at the lower-layers.	Int32
disc-add-flow-fail	The number of sessions that experienced a disconnect due to a flow addition failure.	Int32
disc-maxretry-lcp	The number of sessions that experienced a disconnect due to exceeding the maximum number of LCP retries.	Int32
disc-maxretry-ipcp	The number of sessions that experienced a disconnect due to exceeding the maximum number of IPCP retries.	Int32

Statistic	Description	Type
disc-max-setup-time	The number of sessions that experienced a disconnect due to exceeding the maximum setup timer.	Int32
disc-bad-dest-vpn	The number of sessions that experienced a disconnect due to the specification of invalid destination context.	Int32
disc-opt-neg-lcp	The number of sessions that experienced a disconnect due to the failed negotiation of an LCP option.	Int32
disc-opt-neg-ipcp	The number of sessions that experienced a disconnect due to the failed negotiation of an IPCP option.	Int32
disc-no-remoteaddr	The number of sessions that experienced a disconnect because no remote IP address was specified.	Int32
disc-typedetect-fail	The number of sessions that experienced a disconnect because the system could not identify the call type.	Int32
disc-bad-src-addr	The number of sessions that experienced a disconnect due to a source address violation.	Int32
disc-remote	The number of sessions that experienced a remote disconnect at the upper-layers.	Int32
disc-long-timeout	The number of sessions that experienced a disconnect due to the expiration of the long-duration timer.	Int32
disc-auth-fail	The number of sessions that experienced a disconnect due to PPP authentication failures.	Int32
eap-authattempt	The total number of EAP authentication attempt done on HSGW. This is a counter type of statistics and collected at HSGW service level.	Int32
eap-authsuccess	The total number of EAP authentication attempt done on HSGW and was successful. This is a counter type of statistics and collected at HSGW service level.	Int32
eap-authfail	The total number of EAP authentication attempt done on HSGW and was unsuccessful. This is a counter type of statistics and collected at HSGW service level.	Int32
eap-authabort	The total number of EAP authentication procedures attempted on HSGW but aborted due to any reason. This is a counter type of statistics and collected at HSGW service level.	Int32
lcpecho-req-total	The total number of LCP echo request messages sent.	Int32
lcpecho-req-resent	The total number of LCP echo request messages that were re-sent.	Int32
lcpecho-rep-recvd	The total number of LCP echo reply messages received.	Int32
lcpecho-timeout	The total number of LCP echo request messages that timed-out prior to the system's receiving a response.	Int32
recverr-ctrl-field	The total number of bad control field errors experienced in received packets.	Int32
recverr-bad-length	The total number of bad packet length errors experienced in received packets.	Int32
remote-term	The number of sessions for which termination was initiated from the remote (mobile) side.	Int32

Statistic	Description	Type
misc-fail	The number of session failures that occurred due to reasons other than those listed by the other variables.	Int32
in-oct	The number of inbound octets received.	Int64
in-ucast	The number of inbound unicast packets received.	Int32
in-nucast	The number of inbound non-unicast (multicast or broadcast) packets received.	Int32
in-pkt	The number of inbound packets that were received.	Int32
in-discard	The number of inbound packets that were discarded.	Int32
in-discard-oct	The number of inbound octets that were discarded.	Int32
out-oct	The number of outbound octets transmitted.	Int64
out-ucast	The number of outbound unicast packets transmitted.	Int32
out-nucast	The number of outbound non-unicast (multicast or broadcast) packets transmitted.	Int32
out-pkt	The number of outbound packets that were transmitted.	Int32
out-discard	The number of outbound packets that were discarded.	Int32
out-discard-oct	The number of outbound octets that were discarded.	Int32
num-sessions	The current total number of PPP sessions.	Int32
lcpvse-req-total	The total number of LCP vendor specific extension request messages sent to mobile stations to update the inactivity timer in conjunction with the always on feature.	Int32
lcpvse-req-resent	The total number of LCP vendor specific extension request messages retransmitted to mobile stations to update the inactivity timer in conjunction with the always on feature.	Int32
lcpvse-req-recvd	The total number of responses to LCP vendor specific extension replies received from mobile stations as part of the inactivity timer update process in conjunction with the always on feature.	Int32
lcpvse-req-reject	The total number protocol reject responses received for LCP vendor specific extension request messages sent to mobile stations to update the inactivity timer in conjunction with the always on feature.	Int32
lcpvse-req-maxreach	The total number of max retransmissions reached for LCP vendor specific extension request messages sent to mobile stations to update the inactivity timer in conjunction with the always on feature.	Int32
vsncp-attempt	Total number of Vendor Specific Network Control Protocol (VSNCNP) connection attempted on HSGW. This is a counter type of statistics and collected at HSGW service level.	Int32
vsncp-conn	Total number of vendor Specific Network Control Protocol (VSNCNP) connected to HSGW. This is a counter type of statistics and collected at HSGW service level.	Int32
vsncp-fail	Total number of Vendor Specific Network Control Protocol (VSNCNP) connection attempted but failed to HSGW. This is a counter type of statistics and collected at HSGW service level.	Int32
vsncp-rellocal	Total number of Vendor Specific Network Control Protocol (VSNCNP) connection released locally by HSGW. This is a counter type of statistics and collected at HSGW service level.	Int32

Statistic	Description	Type
vsncp-relremote	Total number of Vendor Specific Network Control Protocol (VSNCP) connection released remotely by peer. This is a counter type of statistics and collected at HSGW service level.	Int32
vsncp-fail-maxretry	Total number of Vendor Specific Network Control Protocol (VSNCP) connection failed as maximum retry limit for connection setup exhausted. This is a counter type of statistics and collected at HSGW service level.	Int32
vsncp-fail-optiss	Total number of Vendor Specific Network Control Protocol (VSNCP) connection failed due to failure option as ISS. This is a counter type of statistics and collected at HSGW service level.	Int32
vsncp-fail-unk	Total number of Vendor Specific Network Control Protocol (VSNCP) connection failed due to unknown failure option. This is a counter type of statistics and collected at HSGW service level.	Int32



**Important:** See Bulk Statistics Overview for statistics that are common to all schema.



# Chapter 32

## RADIUS Schema Statistics

This schema provides the following types of statistics:

- **Counter:** A counter records incremental data cumulatively and rolls over when the counter limit is reached. The limit depends upon the counter data type.
- **Gauge:** A gauge statistic indicates a single value representative of a single instance. This type is often used to track particular events in time.

 **Important:** The format string syntax is described by *Schema Format String Syntax* in the *Bulk Statistics Overview* chapter.

 **Important:** Unless otherwise indicated, all statistics are counters. For statistics with the Int32 data type, the roll-over to zero limit is 4,294,967,295. For statistics with the Int64 data type, the roll-over to zero limit is 18,446,744,073,709,551,615. All counter statistics are cumulative and reset only by one of the following methods: roll-over (as described above), after a system restart, or after a clear command is performed. All statistics are considered standards-based unless otherwise noted.

The following variables are supported:

**Table 32. RADIUS Schema Statistics**

Statistic	Description	Data Type
ipaddr	The IP address of the RADIUS for which statistics are being collected.	String
port	The UDP port being used for the exchange of RADIUS data.	Int32
servertype	The type of RADIUS server (authentication or accounting) for which statistics are being collected.	String
vpnname	The name of the context configured on the system that is currently facilitating the RADIUS server configuration.	String
vpnid	The identification number of the context configured on the system that is currently facilitating the RADIUS server configuration. This is an internal reference number.	Int32
group	The RADIUS group name on a per-radius-server basis.	String
nasipaddr	The RADIUS network access server address.	String

Statistic	Description	Data Type
auth-req-sent	The total number of authentication requests sent to this server.	Int32
auth-req-sentwdmu	The total number of authentication requests sent to this server with a Dynamic Mobile IP Key Update.	Int32
auth-req-pending	The total number of authentication requests pending for this server.	Int32
auth-req-queued	The total number of authentication requests queued for this server.	Int32
auth-req-retried	The total number of authentication requests that were re-sent to this server.	Int32
auth-req-retriedwdmu	The total number of authentication requests that were re-sent to this server with a Dynamic Mobile IP Key Update.	Int32
auth-chal-rcvd	The total number of authentication access challenges received from this server.	Int32
auth-acc-rcvd	The total number of authentication accept messages received from this server.	Int32
auth-rej-rcvd	The total number of authentication reject messages received from this server.	Int32
auth-rej-rcvdwdmu	The total number of authentication reject messages received from this server with a Dynamic Mobile IP Key Update.	Int32
auth-timeout	The total number of authentication requests for this server that timed-out.	Int32
cons-fail	The total number of consecutive authentication failures that occurred with this server.	Int32
auth-cons-fail	The total number of consecutive authentication failures that occurred with this server.   <b>Important:</b> This statistic is provided for compatibility only. Please use the cons-fail statistic.	Int32
auth-rsp-badauth	The total number of Accept Request responses received by the system from the server that contains a incorrect Authenticator field, thereby failing message authentication.	Int32
auth-rsp-malformed	The total number of Accept Request responses received by the system from the server that were malformed.	Int32
auth-rsp-malformedattr	The total number of malformed or invalid attributes received in Access-Request response messages.	Int32
auth-rsp-unktype	The total number of Accept Request responses received by the system from the server that contained an unknown message type.	Int32
auth-rsp-dropped	The total number of authentication responses from this server that were discarded.	Int32
auth-rsp-roundtripusec	Indicates the amount of time it took for the system to receive a valid response from the server for the last authentication request.	Int32
probe-issued	The total number of probe transactions issued to the RADIUS server.	Int32
probe-success	The total number of complete successful probe transactions to the RADIUS server.	Int32
probe-failed	The total number of failed probe transactions to the RADIUS server.	Int32

Statistic	Description	Data Type
probe-roundtriptimeusec	The amount of time, in milliseconds, that it took from when a request was sent to and acknowledgement was received from the RADIUS server.	Int32
keepalive-auth-req-sent	The total number of keepalive authentication requests sent.	Int32
keepalive-auth-retried	The total number of keepalive authentication requests retried.	Int32
keepalive-auth-timeout	The total number of keepalive authentication requests that timed out.	Int32
keepalive-auth-acc-rcvd	The total number of keepalive authentication requests that were received.	Int32
keepalive-auth-rej-rcvd	The total number of keepalive authentication rejections that were received.	Int32
keepalive-auth-rsp-badauth	The total number of keepalive authentication request response messages that failed with a bad authenticator.	Int32
keepalive-auth-rsp-malformed	The total number of keepalive authentication request response messages that were malformed.	Int32
keepalive-auth-rsp-malformedattr	The total number of keepalive authentication request response messages that contained malformed attributes.	Int32
keepalive-auth-rsp-unktype	The total number of keepalive authentication request response messages that failed with an unknown type.	Int32
keepalive-auth-rsp-dropped	The total number of keepalive authentication request response messages that were dropped.	Int32
acc-req-sent	The total number of accounting requests sent to this server.	Int32
acc-req-pending	The total number of accounting requests pending for this server.	Int32
acc-req-queued	The total number of accounting requests queued for this server.	Int32
acc-req-retried	The total number of accounting requests that were re-sent to this server.	Int32
acc-rsp-rcvd	The total number of accounting responses received from this server.	Int32
acc-req-timeout	The total number of accounting requests for this server that timed-out.	Int32
acc-req-cons-fail	The total number of consecutive accounting failures that occurred with this server.   <b>Important:</b> This statistic is provided for compatibility only. Please use the cons-fail statistic.	Int32
acc-rsp-badresp	The total number of Accounting Responses received by the system from the server that contained an incorrect Authenticator field, thereby failing message.	Int32
acc-rsp-malformed	The total number of Accounting Responses received by the system from the server that were malformed.	Int32
acc-rsp-unktype	The total number of Accounting Responses received by the system from the server that contained an unknown message type.	Int32
acc-rsp-dropped	The total number of Accounting Responses from the server that were discarded.	Int32

## ■ Common Statistics

Statistic	Description	Data Type
acc-rsp-roundtripusec	Indicates the amount of time it took for the system to receive a valid response from the server for the last accounting request.	Int32
acc-start-sent	The total number of accounting start messages sent.	Int32
acc-stop-sent	The total number of accounting stop messages sent.	Int32
acc-interim-sent	The total number of interim accounting messages sent.	Int32
acc-on-sent	The total number of accounting on messages sent.	Int32
acc-off-sent	The total number of accounting off messages sent.	Int32
acc-start-retries	The total number of accounting start retry messages sent.	Int32
acc-stop-retries	The total number of accounting stop retry messages sent.	Int32
acc-interim-retries	The total number of interim accounting retry messages sent.	Int32
acc-on-retries	The total number of accounting on retry messages sent.	Int32
acc-off-retries	The total number of accounting off retry messages sent.	Int32
acc-ttl-g1	The total number of accounted bytes as user input.	Int64
acc-ttl-g2	The total number of accounted bytes outputted to user.	Int64
keepalive-acct-req-sent	The total number of keepalive accounting request messages sent.	Int32
keepalive-acct-retried	The total number of keepalive accounting messages retried.	Int32
keepalive-acct-success	The total number of successful keepalive accounting messages.	Int32
keepalive-acct-timeout	The total number of keepalive accounting timeout messages.	Int32
keepalive-acct-rsp-badauth	The total number of keepalive accounting request response messages that failed with a bad authenticator.	Int32
keepalive-acct-rsp-malformed	The total number of keepalive accounting request response messages that were malformed.	Int32
keepalive-acct-rsp-unktype	The total number of keepalive accounting request response messages that failed with an unknown type.	Int32
keepalive-acct-rsp-dropped	The total number of keepalive accounting request response messages that were dropped.	Int32
online-acc-req-sent	The total number of Online Access Request messages sent.	Int32
online-acc-req-pending	The total number of Online Access Request messages pending.	Int32
online-acc-req-retried	The total number of Online Access Request messages retried.	Int32
online-acc-rsp-rcvd	The total number of Online Access Accept messages received.	Int32
online-acc-rej-rcvd	The total number of Online Access Reject messages received.	Int32
online-acc-req-timeout	The total number of Online Access Request message timeouts.	Int32
online-acc-rsp-badauth	The total number of Online Access Request messages that failed with a bad authenticator.	Int32

Statistic	Description	Data Type
online-acc-rsp-malformed	The total number of Online Access Request Response messages that were malformed.	Int32
online-acc-rsp-malformedattr	The total number of Online Access Request Response messages that contained a malformed attribute.	Int32
online-acc-rsp-unktype	The total number of Online Access Request Response messages that are of an unknown type.	Int32
online-acc-badmsgauth	The total number of Online Access Request Response messages that contained a bad message authenticator.	Int32
online-acc-nomsgauth	The total number of Online Access Request Response messages that contained no message authenticator.	Int32



**Important:** See *Bulk Statistics Overview* for statistics that are common to all schema.



# Chapter 33

## RP Schema Statistics

The RP schema provides the following types of statistics:

- **Counter:** A counter records incremental data cumulatively and rolls over when the counter limit is reached. The limit depends upon the counter data type.
- **Gauge:** A gauge statistic indicates a single value representative of a single instance. This type is often used to track particular events in time.

 **Important:** The format string syntax is described by Schema Format String Syntax in the Bulk Statistics Overview chapter.

 **Important:** Unless otherwise indicated, all statistics are counters. For statistics with the Int32 data type, the roll-over to zero limit is 4,294,967,295. For statistics with the Int64 data type, the roll-over to zero limit is 18,446,744,073,709,551,615. All counter statistics are cumulative and reset only by one of the following methods: roll-over (as described above), after a system restart, or after a clear command is performed. All statistics are considered standards-based unless otherwise noted.

The following variables are supported:

**Table 33. RP Schema Statistics**

Statistic	Description	Data Type
vpnname	The name of the context configured on the system that is currently facilitating the PDSN service.	String
vpnid	The identification number of the context configured on the system that is currently facilitating the PDSN service. This is an internal reference number.	Int32
servname	Displays the name of the PDSN service for which the statistics are displayed.	String
num-sessions	The current total number of RP sessions	Int32
sess-cursetup	The total number of current sessions per service.	Int32
sess-currevasetup	The total number of current EVDO-Rev A sessions per service.	Int32
sess-ttlsetup	The total sessions setup per service.	Int32
sess-ttlrevasetup	The total EVDO-Rev A sessions setup per service.	Int32
sess-ttlrevarreleased	The total EVDO-Rev A sessions released per service.	Int32

Statistic	Description	Data Type
sess-ttlrevadowngrade	The total EVDO-Rev A sessions that were downgraded per service.	Int32
sess-ttlreleased	The total number of sessions released per service.	Int32
svctype	Indicates the type of services running for this schema. It is collected at the per service level.	String
a10-cursetup	The total number of current A10s per service.	Int32
a10aux-cursetup	The total number of current aux A10s per service.	Int32
a10main-cursetup	The total number of current main A10s per service.	Int32
a10-ttlsetup	The total number of A10s setup per service.	Int32
a10aux-ttlsetup	The total number of aux A10s setup per service.	Int32
a10main-ttlsetup	The total number of main a10s setup per service.	Int32
a10-ttlreleased	The total number of a10s released per service.	Int32
a10aux-ttlreleased	The total number of aux A10s released per service.	Int32
a10main-ttlreleased	The total number of main A10s released per service.	Int32
sess-release-dereg	The total number of sessions de-registered per service.	Int32
sess-release-expiry	The total number of sessions released due to lifetime expiry per service.	Int32
sess-release-ppplayer	The total number of sessions released due to a PPP Layer command reported per service.	Int32
sess-release-pcfmonfail	The total number of sessions released due to a PCF Monitor failure reported per service.	Int32
sess-release-grekey	The total number of sessions released due to a GRE Key Mismatch reported per service.	Int32
sess-release-purged	The total number of sessions released due to inconsistencies found during audits between the A11 Manager task and the Session Manager task. When an inconsistency is identified, the session is released and accounting stops are issued.	Int32
sess-release-other	The total number of sessions released due to other reasons reported per service.	Int32
recv-total	The total number of registration requests, renewals, and de-registrations received.	Int32
accept-total	The total number of registration requests that have been accepted.	Int32
denied-total	The total number of registration requests that have been rejected.	Int32
reply -total	The total number of registration replies sent.	Int32
discard-total	The total number of registration requests that have been discarded.	Int32
accept-initial	The total number of initial registration requests received and accepted.	Int32
recv-initial	The total number of initial registration requests received.	Int32

Statistic	Description	Data Type
accept-intrapdsn	<p>The total number of registration requests received for sessions going through an intra-PDSN handoff.</p> <hr/> <p> <b>Important:</b> This statistic is provided for compatibility only. Please use the <u>accept-active-intrapdsn</u> statistic.</p> <hr/>	Int32
accept-active-intrapdsn	The total number of registration requests received with ACTIVE START for an intra-PDSN handoff.	Int32
accept-dormant-intrapdsn	The total number of registration requests received with ACTIVE STOP for an intra-PDSN handoff.	Int32
accept-interpdsn	The total number of registration requests received for sessions going through an inter-PDSN handoff.	Int32
reva-rrq-recv	The total number of Rev-A RRQs received per service.	Int32
reva-rrq-accept	The total number of Rev-A RRQs accepted per service.	Int32
reva-rrq-denied	The total number of Rev-A RRQs denied per service.	Int32
reva-rrq-reply	The total number of Rev-A RRQs per service that were replied to.	Int32
denied-initial	The total number of initial registration requests received and rejected.	Int32
discard-initial	The total number of Initial RRQ discarded.	Int32
recv-initial-setupstart	The total number of Initial Setup/Start RRQ received.	Int32
accept-initial-setupstart	The total number of Initial Setup/Start RRQ received and accepted.	Int32
denied-initial-setupstart	The total number of Initial Setup/Start RRQ received and denied.	Int32
discard-initial-setupstart	The total number of initial start or setup registration requests that have been received and discarded.	Int32
accept-renew	The total number of registration request renewals received and accepted.	Int32
denied-renew	The total number of registration request renewals received and rejected.	Int32
recv-renew	The total number of registration request renewals received.	Int32
discard-renew	The total number of registration request renewals received and discarded	Int32
recv-renew-noairlink	The total number of registration request renewals received due to “No airlink”.	Int32
accept-renew-noairlink	The total number of registration request renewals received due to “No airlink” and accepted.	Int32
denied-renew-noairlink	The total number of registration request renewals received due to “No airlink” and denied.	Int32
discard-renew-noairlink	The total number of registration request renewals received due to “No airlink” and discarded.	Int32

Statistic	Description	Data Type
active-start-renew	The total number of ACTIVE START registration request renewals received.   <b>Important:</b> This statistic is provided for compatibility only. Please use the <u>accept-renew-activestart</u> statistic.	Int32
recv-renew-activestart	The total number of RRQ renewals with an Active Start record received.	Int32
accept-renew-activestart	The total number of RRQ renewals with an Active Start record received and accepted.	Int32
denied-renew-activestart	The total number of RRQ renewals with an Active Start record received and denied.	Int32
discard-renew-activestart	The total number of RRQ renewals with an Active Start record received and discarded.	Int32
active-stop-renew	The total number of ACTIVE STOP registration request renewals received.   <b>Important:</b> This statistic is provided for compatibility only. Please use the <u>accept-renew-activestop</u> statistic.	Int32
recv-renew-activestop	The total number of RRQ renewals with an Active Stop record received.	Int32
accept-renew-activestop	The total number of RRQ renewals with an Active Stop record received and accepted.	Int32
denied-renew-activestop	The total number of RRQ renewals with an Active Stop record received and denied.	Int32
discard-renew-activestop	The total number of RRQ renewals with an Active Stop record received and discarded.	Int32
accept-dereg	The total number of de-registration requests received and accepted.	Int32
denied-dereg	The total number of de-registration request renewals received and rejected.	Int32
recv-dereg	The total number of de-registration request renewals received.	Int32
discard-dereg	The the total number of de-registration requests received and discarded.	Int32
recv-dereg-noactivestop	The total number of de-registration requests with a No Active Stop record received.	Int32
accept-dereg-noactivestop	The total number of de-registration requests with a No Active Stop record received and accepted.	Int32
denied-dereg-noactivestop	The total number of de-registration requests with a No Active Stop record received and denied	Int32
discard-dereg-noactivestop	The total number of de-registration requests with a No Active Stop record received and discarded.	Int32

Statistic	Description	Data Type
active-stop-dereg	<p>The total number of ACTIVE STOP de-registration request renewals received and accepted.</p> <hr/> <p> <b>Important:</b> This statistic is provided for compatibility only. Please use the <u>accept-dereg-activestop</u> statistic.</p> <hr/>	Int32
recv-dereg-activestop	The the total number of de-registration request with an Active Stop record received.	Int32
accept-dereg-activestop	The the total number of de-registration request with an Active Stop record received and accepted.	Int32
denied-dereg-activestop	The the total number of de-registration request with an Active Stop record received and denied.	Int32
discard-dereg-activestop	The the total number of de-registration request with an Active Stop record received and discarded.	Int32
recv-intrapdsn-activeanidhandoff	The total number of intra PDSN handoff RRQs with active Access Network Identifier (ANID) received.	Int32
accept-intrapdsn-activeanidhandoff	The total number of intra PDSN handoff RRQs with active ANID received and accepted.	Int32
denied-intrapdsn-activeanidhandoff	The total number of intra PDSN handoff RRQs with active ANID received and denied.	Int32
discard-intrapdsn-activeanidhandoff	The total number of intra PDSN handoff RRQs with active ANID received and discarded.	Int32
recv-intrapdsn-dormantanidhandoff	The total number of intra PDSN handoff RRQs with dormant ANID received.	Int32
accept-intrapdsn-dormantanidhandoff	The total number of intra PDSN handoff RRQs with dormant ANID received and accepted.	Int32
denied-intrapdsn-dormantanidhandoff	The total number of intra PDSN handoff RRQs with dormant ANID received and denied.	Int32
discard-intrapdsn-dormantanidhandoff	The total number of intra PDSN handoff RRQs with dormant ANID received and discarded.	Int32
recv-interpdsn-activemeianidhandoff	The total number of inter PDSN handoff RRQs with active Mobility Event Indicator (MEI) and ANID received.	Int32
accept-interpdsn-activemeianidhandoff	The total number of inter PDSN handoff RRQs with active MEI and ANID received and accepted.	Int32
denied-interpdsn-activemeianidhandoff	The total number of inter PDSN handoff RRQs with active MEI and ANID received and denied.	Int32
discard-interpdsn-activemeianidhandoff	The total number of inter PDSN handoff RRQs with active MEI and ANID received and discarded.	Int32
send-error	The total number of registration replies for which errors were experienced during transmission.	Int32

Statistic	Description	Data Type
hash-error	The total number of registration requests that had internal hash lookup errors.	Int32
decode-error	The total number of registration requests that had decode errors.	Int32
unhandled	The total number of registration requests that had unhandled errors.	Int32
seqerror	The total number of registration requests that had sequence numbers that were not acceptable.	Int32
deny-unspec	The total number of registration requests that were denied using reply code of 80H (Registration Denied - reason unspecified)	Int32
deny-adminprohib	The total number of registration requests that were denied using reply code of 81H (Registration Denied - administratively prohibited).	Int32
deny-noresource	The total number of registration requests that were denied using reply code of 82H (Registration Denied - insufficient resources).	Int32
deny-auth	The total number of registration requests that were denied using reply code of 83H (Registration Denied - mobile node failed authentication).	Int32
deny-idmismatch	The total number of registration requests that were denied using reply code of 85H (Registration Denied - identification mismatch).	Int32
deny-badrequest	The total number of registration requests that were denied using reply code of 86H (Registration Denied - poorly formed request).	Int32
deny-unknownpdsn	The total number of registration requests that were denied using reply code of 88H (Registration Denied - unknown PDSN address)	Int32
deny-revtununavail	The total number of registration requests that were denied using reply code of 89H (Registration Denied - requested reverse tunnel unavailable).	Int32
deny-revtunreq	The total number of registration requests that were denied using reply code of 8AH (Registration Denied - reverse tunnel is mandatory and "T"-bit not set).	Int32
deny-unrecogvend	The total number of registration requests that were denied using reply code of 8DH (Registration Denied - unsupported vendor ID or unable to interpret data in the CVSE).	Int32
deny-sessclosed	The total number of registration requests that were denied using an error code 0x8E for absent RP sessions. Refer to the <b>session-already-closed</b> keyword for the <b>registration-deny</b> command in the PDSN Configuration Mode chapter of the Command Line Interface Reference for additional information.	Int32
deny-bsninfo	The total number of registration requests that were denied because BSN information was unavailable.	Int32
deny-noresource-nosessmgr	The total number of RRQ denied due to Insufficient resource, no session manager reported per service.	Int32
deny-noresource-nomem	The total number of RRQ denied due to Insufficient resource, no memory reported per service.	Int32
deny-noresource-sessmgrretried	The total number of RRQ denied due to Insufficient resource, session managers retried reported per service.	Int32
deny-noresource-inputq	The total number of RRQ denied due to Insufficient resource, input queue exceeded reported per service.	Int32

Statistic	Description	Data Type
deny-noresource-policy	The total number of RRQ denied due to Insufficient resource, policy rejected reported per service.	Int32
deny-noresource-sessmgrrej	The total number of RRQ denied due to Insufficient resource, session manager rejected reported per service.	Int32
deny-noresource-allmgrrej	The total number of RRQ denied due to Insufficient resource, A11 manager rejected reported per service.	Int32
deny-badrequest-alrdorm	The total number of RRQ denied due to poorly formed request, session already dormant reported per service.	Int32
deny-badrequest-alractive	The total number of RRQ denied due to poorly formed request, already active reported per service.	Int32
deny-badrequest-setupabsent	The total number of RRQ denied due to poorly formed request, airlink setup absent reported per service.	Int32
deny-badrequest-miscoaddr	The total number of RRQ denied due to poorly formed request, mismatched CoA/Source address reported per service.	Int32
deny-badrequest-pkttoshort	The total number of RRQ denied due to poorly formed request, packet too short reported per service.	Int32
deny-badrequest-pkttolong	The total number of RRQ denied due to poorly formed request, packet too long reported per service.	Int32
deny-badrequest-fieldlen	The total number of RRQ denied due to poorly formed request, invalid field length reported per service.	Int32
deny-badrequest-flags	The total number of RRQ denied due to poorly formed request, invalid flags reported per service.	Int32
deny-badrequest-hoanonzero	The total number of RRQ denied due to poorly formed request, HOA non-zero reported per service.	Int32
deny-badrequest-sse	The total number of RRQ denied due to poorly formed request, invalid SSE reported per service.	Int32
deny-badrequest-vse	The total number of RRQ denied due to poorly formed request, invalid VSE reported per service.	Int32
deny-badrequest-authextn	The total number of RRQ denied due to poorly formed request, invalid authorization extension reported per service.	Int32
deny-badrequest-unkextn	The total number of RRQ denied due to poorly formed request, invalid unknown extension reported per service.	Int32
deny-badrequest-other	The total number of RRQ denied due to poorly formed request, other reason reported per service.	Int32
deny-unspec-nullpkt	The total number of RRQ denied due to unspecified reason, null packet received reported per service.	Int32
deny-unspec-lifzero	The total number of RRQ denied due to unspecified reason, lifetime zero in initial RRQ reported per service.	Int32

Statistic	Description	Data Type
deny-unspec-notready	The total number of RRQ denied due to unspecified reason, session manager not ready reported per service.	Int32
deny-unspec-crphandoff	The total number of RRQ denied due to unspecified reason, Closed RP handoff in progress reported per service.	Int32
deny-unspec-noairlink	The total number of RRQ denied due to unspecified reason, no airlink setup reported per service.	Int32
deny-unspec-intrahandoff	The total number of RRQ Denied due to unspecified reason, intra PDSN handoff triggered reported per service.	Int32
deny-cong-drop	The total number of denied registration replies discarded due to congestion. Refer to the Configuring Congestion Control chapter of this guide for additional information.	Int32
deny-cong-adminprohib	The total number of denied registration replies that were sent with a reply code of 81H (Registration Denied - administratively prohibited) due to congestion. Refer to the Configuring Congestion Control chapter of this guide for additional information.	Int32
deny-cong-unknownpdsn	The total number of denied registration replies that were sent with a reply code of 88H (Registration Denied - unknown PDSN address) due to congestion. Refer to the Configuring Congestion Control chapter of this guide for additional information.	Int32
upd-total	The total number of registration updates that were transmitted.	Int32
upd-accept	The total number of registration updates that were accepted by the PCF.	Int32
upd-denied	The total number of registration updates that were denied.	Int32
upd-unack	The total number of registration updates that were not acknowledged.	Int32
upd-trans	The total number of initial registration updates that were transmitted.	Int32
upd-ttlnoetrans	The total number of registration updates that were not re-transmitted due to TTL expiration.	Int32
upd-retrans	The total number of registration updates that were re-transmitted.	Int32
upd-received	The total number of registration acknowledgements that were received.	Int32
upd-ack-received	The total number of registration acknowledgements that were received.	Int32
upd-discard	The total number of registration acknowledgements that were discarded.	Int32
upd-senderror	The total number of registration updates for which errors were experienced during transmission.	Int32
upd-upltrinit	The total number of registration updates that were initiated by upper processing layers.  <div style="text-align: center;">  <b>Important:</b> This statistic is obsolete. </div>	Int32

Statistic	Description	Data Type
upd-uplyrinit	The total number of registration updates that were initiated by upper processing layers.   <b>Important:</b> This statistic is obsolete.	Int32
upd-other	The total number of registration updates that were sent due to reasons other than those listed here.	Int32
upd-handoff	The number of registration updates that were sent due to handoff releases.	Int32
upd-lifetime	The total number of registration updates that the send reason was Lifetime Expiry reported per service.	Int32
upd-smgexit	The total number of registration updates that the send reason was that the session manager exited reported per service.	Int32
upddeny-unspec	The total number of denied registration updates that were sent with a reply code of 80H (Registration Denied - reason unspecified).	Int32
upddeny-adminprohib	The total number of denied registration updates that were sent with a reply code of 81H (Registration Denied - administratively prohibited).	Int32
upddeny-auth	The total number of denied registration updates that were sent with a reply code of 83H (Registration Denied - mobile node failed authentication).	Int32
upddeny-idmismatch	The total number of denied registration updates that were sent with a reply code of 85H (Registration Denied - identification mismatch).	Int32
upddeny-badrequest	The total number of denied registration updates that were sent with a reply code of 86H (Registration Denied - poorly formed request).	Int32
upd-discard-absent	The total number of registration acknowledgements that were discarded due to the session having been already ended because the acknowledgement was late.	Int32
upd-discard-nomem	The total number of registration acknowledgements that were discarded due to insufficient memory.	Int32
upd-discard-malform	The total number of registration acknowledgements that were discarded due to being poorly formed.	Int32
upd-discard-authfail	The total number of registration acknowledgements that were discarded due to the mobile node failing authentication.	Int32
upd-discard-bounce	The total number of internal communication messages between an A11 Manager task and a Session Manager task that bounced (were not successfully sent).	Int32
upd-discard-inputq	The number of times that the queue in which incoming calls are kept prior to being processed exceeded its capacity.	Int32
upd-discard-mismatchid	The total number of discarded registration acknowledgements due to reply code 85H (Registration Denied - identification mismatch).	Int32
upd-discard-invpkflen	The total number of registration acknowledgements that were discarded due to having an invalid packet length.	Int32

Statistic	Description	Data Type
upd-discard-unkpcf	The total number of registration acknowledgements that were discarded due to Unknown PCF.	Int32
upd-discard-unhpkct	The total number of registration acknowledgements that were discarded due to Unhandled Packet.	Int32
upd-discard-misc	The number of registration acknowledgements that were discarded due to reasons other than those listed above.	Int32
disc-absent	 <b>Important:</b> This statistic has been renamed to upd-discard-absent. However, this statistic name is still provided for compatibility only.	Int32
disc-nomem	 <b>Important:</b> This statistic has been renamed to upd-discard-nomem. However, this statistic name is still provided for compatibility only.	Int32
disc-malform	 <b>Important:</b> This statistic has been renamed to upd-discard-malform. However, this statistic name is still provided for compatibility only.	Int32
disc-authfail	 <b>Important:</b> This statistic has been renamed to upd-discard-authfail. However, this statistic name is still provided for compatibility only.	Int32
disc-bounce	 <b>Important:</b> This statistic has been renamed to upd-discard-bounce. However, this statistic name is still provided for compatibility only.	Int32
disc-inputq	 <b>Important:</b> This statistic has been renamed to upd-discard-inputq. However, this statistic name is still provided for compatibility only.	Int32

Statistic	Description	Data Type
disc-mismatchid	 <b>Important:</b> This statistic has been renamed to upd-discard-mismatchid. However, this statistic name is still provided for compatibility only.	Int32
disc-invpklen	 <b>Important:</b> This statistic has been renamed to upd-discard-invpklen. However, this statistic name is still provided for compatibility only.	Int32
disc-misc	 <b>Important:</b> This statistic has been renamed to upd-discard-misc. However, this statistic name is still provided for compatibility only.	Int32
sec-violations	The total number of security violations that occurred.	Int32
sec-badauth	The total number of security violations that occurred due to a mis-computed authentication field.	Int32
sec-badid	The total number of security violations that occurred due to the receipt of a Security Parameter Index (SPI) that is not configured on the PDSN.	Int32
sec-badspi	The total number of security violations that occurred due to the receipt of a Security Parameter Index (SPI) that was in the reserved range (0 through 255).	Int32
sec-mnhaauth	The total number of security violations that occurred due to missing mobile node-home agent authentication extensions.	Int32
sec-regupdate	The total number of security violations that occurred due to missing registration update authentication extensions	Int32
rrqdiscard-nosessmgr	The total number of registration requests discarded due to no session manager, reported per service.	Int32
rrqdiscard-nomem	The total number of registration requests discarded due to no memory, reported per service.	Int32
rrqdiscard-authfail	The total number of registration requests discarded due to auth failure, reported per service.	Int32
rrqdiscard-smgrdead	The total number of registration requests discarded due to session manager dead, reported per service.	Int32
rrqdiscard-adminprohib	The total number of registration requests discarded due to admin prohibited, reported per service.	Int32
rrqdiscard-smgrnotready	The total number of registration requests discarded due to session manager not ready, reported per service.	Int32
rrqdiscard-unkpdsn	The total number of registration requests discarded due to unknown pdsn, reported per service.	Int32

Statistic	Description	Data Type
rrqdiscard-bounce	The total number of registration requests discarded due to internal bounce error, reported per service.	Int32
rrqdiscard-inputq	The total number of registration requests discarded due to input queue exceeded, reported per service.	Int32
rrqdiscard-maxsess	The total number of registration requests discarded due to max sessions reached, reported per service.	Int32
rrqdiscard-invlen	The total number of registration requests discarded due to invalid packet length, reported per service.	Int32
rrqdiscard-grekey	The total number of registration requests discarded due to GRE key changed, reported per service.	Int32
rrqdiscard-overload	The total number of registration requests discarded due to overload/congestion, reported per service.	Int32
rrqdiscard-misc	The total number of registration requests discarded due to miscellaneous errors reported per service.	Int32
ttlprepaid	The total number of Prepaid calls facilitated by the service.	Int32
curprepaid	The total number of Prepaid calls currently being facilitated by the service.	Int32
ttlonlineauthsucc	The total number of successful Online Authentications for the service.	Int32
ttlonlineauthfail	The total number of successful Online Authentications for the service.	Int32
rx-pkt-xoff	The total number of packets Received with XOFF per service.	Int32
rx-pkt-xon	The total number of packets Received with XON per Service.	Int32
xontoxoff	The total number of XON->XOFF transitions per service.	Int32
pkt-dropped-xoff	The total number of output packets dropped to XOFF per service.	Int32
bytes-dropped-xoff	The total number of output bytes dropped on XOFF per Service.	Int32
sess-num-transmitted	The total number of RP session update messages transmitted.	Int32
sess-accepted	The total number of RP session update ack messages accepted.	Int32
sess-denied	The total number of RP session update messages denied.	Int32
sess-not-acknowledged	The total number of RP session update messages not acknowledged.	Int32
sess-initial-update	The total number of RP session update messages initially transmitted.	Int32
sess-update-retransmitted	The total number of RP session update messages re-transmitted.	Int32
sess-update-ack-received	The total number of RP session update acknowledgement messages received.	Int32
sess-update-ack-discarded	The total number of RP session update acknowledgement messages discarded.	Int32
sess-update-send-error	The total number of RP session update send errors that occurred.	Int32
sess-updreason-alwayson	The total number of session updates sent due to Always On, reported per service. This is a Rev-A specific statistic.	Int32

Statistic	Description	Data Type
sess-updreason-qosinfo	The total number of session updates sent due to QoS Info, reported per service.	Int32
sess-updreason-qostftviol	The total number of session updates sent due to TFT Violation, reported per service.	Int32
sess-updreason-qostrafviol	The total number of session updates sent due to Traffic Violation, reported per service.	Int32
sess-updreason-qostrafpol	The total number of session updates sent due to Traffic Policing, reported per service.	Int32
sess-updreason-qosoptrig	The total number of session updates sent due to Operator Triggered, reported per service.	Int32
sess-always-on-indication	The total number of RP session updates supporting Always-on functionality.	Int32
sess-reason-unspecified	The total number of RP session update messages denied with status code reason-unspecified.	Int32
sess-PDSN-auth-fail	<p>The total number of RP session update messages denied due to message authentication failure at the PCF.</p> <hr/> <p> <b>Important:</b> This statistic is provided for compatibility only. Please use the <a href="#">sess-pdsn-auth-fail</a> statistic.</p>	Int32
sess-pdsn-auth-fail	The total number of RP session update messages denied due to message authentication failure at the PCF.	Int32
sess-ID-mismatch	<p>The total number of RP session update messages denied due to having an ID mismatch at the PCF.</p> <hr/> <p> <b>Important:</b> This statistic is provided for compatibility only. Please use the <a href="#">sess-id-mismatch</a> statistic.</p>	Int32
sess-id-mismatch	The total number of RP session update messages denied due to having an ID mismatch at the PCF.	Int32
sess-poorly-formed-update	The total number of session update messages denied by the PCF due to poorly formed message error.	Int32
sess-para-not-update	The total number of update ack messages received with status code indicating that parameters were not updated.	Int32
sess-upddenied-noresource	The total number of session updates sent due to Insufficient Resources, reported per service.	Int32
sess-upddenied-adminprohib	The total number of session updates denied due to Admin Prohibited, reported per service.	Int32
sess-upddenied-idnotsupp	The total number of session updates denied due to Profile ID Not Supported, reported per service.	Int32
sess-upddenied-handoff	The total number of session updates denied due to handoffs in progress per service.	Int32

Statistic	Description	Data Type
sess-absent	The total number of update ack messages that were discarded by the PDSN due to no session being present at the PDSN.	Int32
sess-no-memory	The total number of update ack messages that were discarded by the PDSN due to no memory available.	Int32
sess-malformed	The total number of update ack messages that were discarded by the PDSN due to being malformed.	Int32
sess-auth-fail	The total number of update ack messages that were discarded by the PDSN due to message authentication failure.	Int32
sess-ID-bounce-error	The total number of update ack messages that were discarded by the PDSN due to internal communication error within the PDSN.	Int32
sess-input-Q-exceeded	The total number of update ack messages that were discarded by the PDSN due to exceeding input pacing queues at the PDSN.	Int32
sess-mismatched-ID	The total number of update ack messages that were discarded by the PDSN due to mismatched id in the message.	Int32
sess-invalid-packet-length	The total number of update ack messages that were discarded by the PDSN due to bad packet length.	Int32
sess-misc-reasons	The total number of update ack messages that were discarded by the PDSN due to other reasons.	Int32
sess-updackdisc-sessdisc	Session Update Ack Discard Reasons – Session Disconnecting per service.	Int32
sess-updackdisc-pktnothand	Session Update Ack Discard Reasons – Packet Not Handled per service.	Int32
sess-gre-packet-sent-sdb	The total number of GRE packets transmitted in short data burst (SDB).	Int32
sess-gre-byte-sent-sdb	The total number of GRE bytes transmitted in short data burst (SDB).	Int32



**Important:** See Bulk Statistics Overview for statistics that are common to all schema.

# Chapter 34

## SCCP Schema Statistics

The SCCP schema provides the following types of statistics:

- **Counter:** A counter records incremental data cumulatively and rolls over when the counter limit is reached. The limit depends upon the counter data type.
- **Gauge:** A gauge statistic indicates a single value representative of a single instance. This type is often used to track particular events in time.

 **Important:** The format string syntax is described by Schema Format String Syntax in the Bulk Statistics Overview chapter.

 **Important:** Unless otherwise indicated, all statistics are counters. For statistics with the Int32 data type, the roll-over to zero limit is 4,294,967,295. For statistics with the Int64 data type, the roll-over to zero limit is 18,446,744,073,709,551,615. All counter statistics are cumulative and reset only by one of the following methods: roll-over (as described above), after a system restart, or after a clear command is performed. All statistics are considered standards-based unless otherwise noted.

The following variables are supported:

**Table 34. SCCP Service Schema Statistics**

Statistic	Description	Data Type
ssa-txed	Total number of subsystem available messages sent by Signalling Connection Control Part (SCCP) function.	Int32
ss-oos-grant-txed	Total number of subsystem out of service grant messages sent by SCCP function.	Int32
ss-oos-req-txed	Total number of subsystem out of service request messages sent by SCCP function.	Int32
ssp-txed	Total number of subsystem prohibited messages sent by SCCP function.	Int32
ss-status-test-txed	Total number of subsystem status test messages sent by SCCP function.	Int32
ssa-rcvd	Total number of subsystem available messages received by Signalling Connection Control Part (SCCP) function.	Int32
ss-oos-grant-rcvd	Total number of subsystem out of service grant messages received by SCCP function.	Int32
ss-oos-req-rcvd	Total number of subsystem out of service request messages received by SCCP function.	Int32

## ■ Common Statistics

Statistic	Description	Data Type
ss-prohibit-rcvd	Total number of subsystem prohibited messages received by SCCP function.	Int32
ss-status-test-rcvd	Total number of subsystem status test messages received by SCCP function.	Int32
ss-congested-txed	Total number of subsystem congested messages sent by SCCP function.	Int32
ss-congested-rcvd	Total number of subsystem congested messages received by SCCP function.	Int32
sccp-rtf-notrans-addr-nature	Total number of SCCP function routing failed due to no translation for address of specific such type.	Int32
sccp-rtf-notrans-addr-specific	Total number of SCCP function routing failed due to no translation of specific address.	Int32
sccp-rtf-netwfail-pc-unavail	Total number of SCCP function routing failed due to network failure or point code unavailable.	Int32
sccp-rtf-netw-conges	Total number of SCCP function routing failed due to network failure congestion.	Int32
sccp-rtf-ssn-fail	Total number of SCCP function routing failed due to failure of subsystem of specific SS number.	Int32
sccp-rtf-ssn-conges	Total number of SCCP function routing failed due to congestion of subsystem of specific SS number.	Int32
sccp-syntax-error	Total number of SCCP function failed due to syntax error in message.	Int32
sccp-reassem-err-timer	Total number of SCCP function failed as reassembly timer expired for message. This is a counter type of statistic.	Int32
sccp-reassem-err-sequence	Total number of SCCP function failed as segment out of sequence during reassembly. This is a counter type of statistic.	Int32
sccp-reassem-err-space	Total number of SCCP function failed as out of memory/space error occurred during reassembly. This is a counter type of statistic.	Int32
sccp-hop-counter-violation	Total number of SCCP function failed due to hop counter violation in message.	Int32
sccp-provider-ini-reset	Total number of SCCP function failed due service provider initiated reset occurred.	Int32
sccp-provider-ini-rel	Total number of SCCP function failed due service provider initiated release occurred.	Int32
sccp-msg-toolarge-segment	Total number of SCCP function failed as message is too large for segmentation.	Int32
sccp-segmentation-fail	Total number of SCCP function failed due to segmentation procedure failure.	Int32
sccp-total-msgs-handled	Total number of SCCP messages handled by subsystem.	Int32
sccp-total-msgs-handl-local-ss	Total number of SCCP messages handled by subsystem which were intended for local subsystems.	Int32
sccp-total-msgs-req-gtt	Total number of SCCP messages requiring global address translation.	Int32
sccp-udt-sent	Total unit data messages sent by SCCP function.	Int32
sccp-udt-rcvd	Total unit data messages received by SCCP function.	Int32
sccp-udts-sent	Total unit data service messages sent by SCCP function.	Int32
sccp-udts-rcvd	Total unit data service messages received by SCCP function.	Int32
sccp-xudt-sent	Total extended unit data messages sent by SCCP function.	Int32

Statistic	Description	Data Type
sccp-xudt-rcvd	Total extended unit data messages received by SCCP function.	Int32
sccp-xudts-sent	Total extended unit data service messages sent by SCCP function.	Int32
sccp-xudts-rcvd	Total extended unit data service messages received by SCCP function.	Int32
sccp-ludt-sent	Total long unit data messages sent by SCCP function.	Int32
sccp-ludt-rcvd	Total long unit data messages received by SCCP function.	Int32
sccp-ludts-sent	Total long unit data service messages sent by SCCP function.	Int32
sccp-ludts-rcvd	Total long unit data service messages received by SCCP function.	Int32
sccp-cr-sent	Total connection refuse messages for message transfer part (MTP) and ISDN user part (ISUP) sent by SCCP function.	Int32
sccp-cr-rcvd	Total connection refuse messages for message transfer part (MTP) and ISDN user part (ISUP) received by SCCP function.	Int32
sccp-cc-sent	Total connection confirm messages for message transfer part (MTP) and ISDN user part (ISUP) sent by SCCP function.	Int32
sccp-cc-rcvd	Total connection confirm messages for message transfer part (MTP) and ISDN user part (ISUP) received by SCCP function.	Int32
sccp-cref-sent	Total connection refusal messages for message transfer part (MTP) and ISDN user part (ISUP) sent by SCCP function.	Int32
sccp-cref-rcvd	Total connection refusal messages for message transfer part (MTP) and ISDN user part (ISUP) received by SCCP.	Int32
sccp-rsr-msg-sent	Total reset request messages sent by SCCP function.	Int32
sccp-rsr-msg-rcvd	Total reset request messages received by SCCP function.	Int32
sccp-err-msg-sent	Total error messages sent by SCCP function.	Int32
sccp-err-msg-rcvd	Total error messages received by SCCP function. This is a counter type of statistic.	Int32
sccp-unequipped-user	Total number of unequipped users on SCCP function. This is a counter type of statistic.	Int32
sccp-reason-unknown	Total number of failure at SCCP function due to unknown reasons or reasons not specified in this table. This is a counter type of statistic.	Int32
sccp-congested-msg-rcvd	Total number of messages received for congested SCCP function. This is a counter type of statistic.	Int32
sccp-prohibit-msg-rcvd	Total number of SCCP-Prohibit messages received for SCCP function. This is a counter type of statistic.	Int32
sccp-class-0-sent	Total number of SCCP class -0 (basic connectionless) messages sent by SCCP function.	Int32
sccp-class-0-rcvd	Total number of SCCP class -0 (basic connectionless) messages received by SCCP function.	Int32
sccp-class-1-sent	Total number of SCCP class -1 (sequenced connectionless) messages sent by SCCP function.	Int32

## ■ Common Statistics

Statistic	Description	Data Type
sccp-class-1-rcvd	Total number of SCCP class -1 (sequenced connection) messages received by SCCP function.	Int32
sccp-DT1-sent	Total number of SCCP DT -1 (data format - 1) messages sent by SCCP function.	Int32
sccp-DT1-rcvd	Total number of SCCP DT -1 (data format - 1) messages received by SCCP function.	Int32
sccp-rel-compl-supv-fail	Total number of SCCP function released due to failure in SCCP supervisor endpoint.	Int32
sccp-rel-disconn-req-rx	Total number of SCCP function released due to disconnect request messages received by SCCP function.	Int32
sccp-routing-fail-invalid-ins-routing-req	Total number of routing failed due to invalid instance information in routing request by SCCP function.	Int32
sccp-routing-fail-invalid-isni-routing-req	Total number of routing failed due to invalid intermediate signaling network identification (ISNI) information in routing request by SCCP function.	Int32
sccp-routing-fail-isni-constrained-routing	Total number of routing failed due to constraints by ISNI information in routing request by SCCP function.	Int32
sccp-routing-fail-redundant-isni-routing-req	Total number of routing failed due to redundant ISNI information in routing request by SCCP function.	Int32
sccp-routing-fail-isni-identify-network	Total number of times the SCCP routing failed due to missing ISNI network identification information.	Int32
sccp-inactivity-rcv-tmr-expired	Total number of expired SCCP inactivity timer received.	Int32
sccp-inactivity-test-sent	Total number of SCCP inactivity test messages sent.	Int32
sccp-inactivity-test-received	Total number of SCCP inactivity test messages received.	Int32



**Important:** See *Bulk Statistics Overview* for statistics that are common to all schema.

# Chapter 35

## SGSN Schema Statistics

The SGSN schema provides the following types of statistics:

- **Counter:** A counter records incremental data cumulatively and rolls over when the counter limit is reached. The limit depends upon the counter data type.
- **Gauge:** A gauge statistic indicates a single value representative of a single instance. This type is often used to track particular events in time.

 **Important:** The format string syntax is described by “Schema Format String Syntax” in the *Bulk Statistics Overview* chapter.

 **Important:** Unless otherwise indicated, all statistics are counters. For statistics with the Int32 data type, the roll-over to zero limit is 4,294,967,295. For statistics with the Int64 data type, the roll-over to zero limit is 18,446,744,073,709,551,615. All counter statistics are cumulative and reset only by one of the following methods: roll-over (as described above), after a system restart, or after a clear command is performed. All statistics are considered standards-based unless otherwise noted.

The following variables are supported:

**Table 35. SGSN Service Schema Statistics**

Statistic	Description	Data Type
vpnname	Indicates the name of VPN context in which SGSN service is configured. This is a stat key variable.	String
vpnid	Indicates the identifier of VPN context in which SGSN service is configured. This is a stat key variable.	Int32
servname	Indicates the name of SGSN service for which these statistics are collected. This is a stat key variable.	String
mcc	Indicates the mobile country code (MCC) of SGSN service for which these statistics are collected. This is a stat key variable.	Int32
mnc	Indicates the mobile network code (MNC) of SGSN service for which these statistics are collected. This is a stat key variable.	Int32

Statistic	Description	Data Type
lac	Indicates the location area code (LAC) of SGSN service for which these statistics are collected. This is a stat key variable.	Int32
rac	Indicates the routing area code (RAC) of SGSN service for which these statistics are collected. This is a stat key variable.	Int32
3G-attached	<b>Description:</b> Total number of subscribers, including home and visiting, attached for 3G service. <b>Triggers:</b> 1) Increments when a subscriber attaches to the SGSN. 2) Decrements when a subscriber detaches from the SGSN. <b>Availability:</b> per SGSN service, per RA <b>Type:</b> Gauge	Int32
2G-attached	<b>Description:</b> Total number of subscribers, including home and visiting, attached for 2G service. <b>Triggers:</b> 1) Increments when a subscriber attaches to the SGSN. 2) Decrements when a subscriber detaches from the SGSN. <b>Availability:</b> per GPRS service; per RA <b>Type:</b> Gauge	Int32
3G-home-subscribers	Indicates the total number of home subscribers attached for 3G service; where 'home' means the MCC and MNC of the IMSI are equal to the SGSN PLMN ID. <b>Type:</b> Gauge.	Int32
2G-home-subscribers	Indicates the total number of home subscribers attached for 2G service; where 'home' means the MCC and MNC of the IMSI are equal to the SGSN PLMN ID. <b>Type:</b> Gauge.	Int32
3G-visiting-national	<b>Description:</b> This proprietary gauge indicates the total number of attached subscribers (active and standby) whose MCC (from IMSI) matches with SGSN service's MCC, but MNC is different from the SGSN service's MNC for 3G service. <b>Triggers:</b> 1) Increments when a national subscriber attaches to the SGSN. 2) Decrements when a national subscriber detaches from the SGSN. <b>Availability:</b> per SGSN service, per RA <b>Type:</b> Gauge	Int32
2G-visiting-national	<b>Description:</b> This proprietary gauge indicates the total number of attached subscribers (active and standby) whose MCC (from IMSI) matches with GPRS service's MCC, but MNC is different from the GPRS service's MNC for 2G service. <b>Triggers:</b> 1) Increments when a national subscriber attaches to the SGSN. 2) Decrements when a national subscriber detaches from the SGSN. <b>Availability:</b> per GPRS service; per RA <b>Type:</b> Gauge	Int32
3G-visiting-foreign	<b>Description:</b> This proprietary gauge indicates the total number of attached subscribers (active and standby) whose MCC/MNC (from IMSI) does not match with the PLMN of the 3G SGSN service. <b>Triggers:</b> 1) Increments when a foreign subscriber attaches to the SGSN. 2) Decrements when a foreign subscriber detaches from the SGSN. <b>Availability:</b> per SGSN service, per RA <b>Type:</b> Gauge	Int32

Statistic	Description	Data Type
2G-visiting-foreign	<p><b>Description:</b> This proprietary gauge indicates the total number of attached subscribers (active and standby) whose MCC/MNC (from IMSI) does not match with the PLMN of the 2G SGSN service.</p> <p><b>Triggers:</b>            1) Increments when a subscriber establishes an Iu and completes the security procedure in it.            2) Decrements when a connected subscriber releases the Iu.</p> <p><b>Availability:</b> per GPRS service; per RA  <b>Type:</b> Gauge</p>	Int32
3G-network-sharing-supp-ue	<p><b>Description:</b> This proprietary gauge indicates the total number of 3G Network Sharing Supporting User Equipment currently in the system. This statistics is specific to releases 8.1 and higher.</p> <p><b>Triggers:</b> Increments when a network sharing supporting UE connects with the 3G SGSN.</p> <p><b>Availability:</b> per SGSN service, per RA  <b>Type:</b> Gauge</p>	Int32
3G-network-sharing-non-supp-ue	<p><b>Description:</b> This proprietary gauge indicates the total number of 3G Network Sharing Non-supporting User Equipment currently in the system. This statistics is specific to releases 8.1 and higher.</p> <p><b>Triggers:</b> Increments when a network sharing non-supporting UE connects with the 3G SGSN.</p> <p><b>Availability:</b> per SGSN service, per RA  <b>Type:</b> Gauge</p>	Int32
pmm-connected	<p><b>Description:</b> Total number of subscribers in packet mobility management-connected (PMM-CONNECTED) state.</p> <p><b>Triggers:</b>            1) Increments when a subscriber attaches to the SGSN.            2) Decrements when a subscriber detaches from the SGSN.</p> <p><b>Availability:</b> per SGSN service, per RA  <b>Type:</b> Gauge</p>	Int32
pmm-idle	Total number of subscribers in packet mobility management-idle (PMM-IDLE) mode. <b>Type:</b> Gauge	Int32
gprs-standby	Total number of GPRS subscribers in standby mode. <b>Type:</b> Gauge	Int32
gprs-ready	Total number of GPRS subscribers in ready mode. <b>Type:</b> Gauge	Int32
3G-attached-with-pdp	<p><b>Description:</b> Total number of 3G visiting and home subscribers in attached state with at least one active PDP context.</p> <p><b>Triggers:</b> This gauge changes after successful activation of the first PDP context for a subscriber.</p> <p><b>Availability:</b> per SGSN service, per RA  <b>Type:</b> Gauge</p>	Int32
2G-attached-with-pdp	<p><b>Description:</b> Total number of 2G visiting and home subscribers in attached state with at least one active PDP context per GPRS service.</p> <p><b>Triggers:</b> This gauge changes after successful activation of the first PDP context for a subscriber.</p> <p><b>Availability:</b> per GPRS service  <b>Type:</b> Gauge</p>	Int32
3G-attached-no-pdp	This statistic has been obsoleted.	Int32
2G-attached-no-pdp	This statistic has been obsoleted.	Int32

Statistic	Description	Data Type
3G-detached	Total number of subscribers in detached state with PDP context for 3G service. <b>Type:</b> Gauge	Int32
3G-total-attach-req-all	Total number of all types of 3G Attach Request messages on the SGSN service, including SGSN-only and combined attaches. <b>Type:</b> Counter	Int32
3G-total-attach-req	Total number of IMSI and P-TMSI 3G Attach Request messages for GPRS and IMSI (PS and CS). <b>Type:</b> Counter	Int32
3G-total-comb-attach-req	Total number of combined 3G Attach Request messages. <b>Type:</b> Counter	Int32
2G-total-attach-req-all	Total number of all types of 2G Attach Request messages on the GPRS service, including GPRS-only and combined attaches. <b>Type:</b> Counter	Int32
2G-total-attach-req	Total number of GPRS-only IMSI and P-TMSI Attach Request messages for GPRS and IMSI (PS and CS). <b>Type:</b> Counter	Int32
2G-total-comb-attach-req	Total number of combined 2G Attach Request messages. <b>Type:</b> Counter.	Int32
3G-IMSI-Attch	Total number of International Mobile Subscriber Identifier (IMSI) Attach Request messages for CS attach in 3G service.	Int32
3G-IMSI-Attch-Combined	Total number of IMSI and P-TMSI Attach Request messages for GPRS and IMSI (PS and CS) attach in 3G service.	Int32
2G-IMSI-Attch	Total number of IMSI Attach Request messages for CS in 2G service.	Int32
2G-IMSI-Attch-Combined	Total number of IMSI and P-TMSI Attach Request messages for GPRS and IMSI (PS and CS) attach in 2G service.	Int32
3G-ptmsi-Attch	Total number of Packet-Temporary Mobile Subscriber Identifier (P-TMSI) Attach Request messages for CS attach in 3G service.	Int32
3G-ptmsi-Attch-Combined	Total number of P-TMSI Attach Request messages for combined GPRS and IMSI (PS and CS) in 3G service.	Int32
3G-local-ptmsi-Attch	Total number of local P-TMSI Attach Request messages for CS attach in 3G service. <b>Type:</b> Counter	Int32
3G-local-ptmsi-Attch-comb	Total number of local P-TMSI Attach Request messages for combined PS and CS attach in 3G service. <b>Type:</b> Counter.	Int32
3G-remote-ptmsi-Attch	Total number of remote P-TMSI Attach Request messages for CS in 3G service. <b>Type:</b> Counter.	Int32
3G-remote-ptmsi-Attch-comb	Total number of remote P-TMSI Attach Request messages for combined PS and CS attach in 3G service. <b>Type:</b> Counter.	Int32
2G-ptmsi-Attch	Total number of P-TMSI Attach Request messages for CS attach in 2G service.	Int32

Statistic	Description	Data Type
2G-ptmsi-Attach-Combined	Total number of P-TMSI Attach Request messages for combined GPRS and IMSI (PS and CS) in 2G service.	Int32
2G-local-ptmsi-Attach	Total number of remote P-TMSI Attach Request messages for CS in 2G service.	Int32
2G-local-ptmsi-Attach-comb	Total number of local P-TMSI Attach Request messages for combined GPRS and IMSI (PS and CS) in 2G service.	Int32
2G-remote-ptmsi-Attach	Total number of remote P-TMSI Attach Request messages for CS in 2G service.	Int32
2G-remote-ptmsi-Attach-comb	Total number of remote P-TMSI Attach Request messages for combined GPRS and IMSI (PS and CS) in 2G service.	Int32
3G-ret-imsi-attach	Total number of IMSI Attach Request messages retransmitted for 3G service.	Int32
3G-ret-imsi-attach-comb	Total number of IMSI Attach Request messages retransmitted for combined GPRS and IMSI (PS and CS) in 3G service.	Int32
2G-ret-imsi-attach	Total number of IMSI Attach Request messages retransmitted for 2G service.	Int32
2G-ret-imsi-attach-comb	Total number of IMSI Attach Request messages retransmitted for combined GPRS and IMSI (PS and CS) in 2G service.	Int32
3G-ret-local-ptmsi-attach	Total number of local-P-TMSI Attach Request messages retransmitted for 3G service.	Int32
3G-ret-local-ptmsi-attach-comb	Total number of local P-TMSI Attach Request messages retransmitted for combined GPRS and IMSI (PS and CS) in 3G service.	Int32
2G-ret-local-ptmsi-attach	Total number of local-P-TMSI Attach Request messages retransmitted for 2G service.	Int32
2G-ret-local-ptmsi-attach-comb	Total number of local P-TMSI Attach Request messages retransmitted for combined GPRS and IMSI (PS and CS) in 2G service.	Int32
3G-ret-remote-ptmsi-attach	Total number of remote P-TMSI Attach Request messages retransmitted for 3G service.	Int32
3G-ret-remote-ptmsi-attach-comb	Total number of remote P-TMSI Attach Request messages retransmitted for combined GPRS and IMSI (PS and CS) in 3G service.	Int32
2G-ret-remote-ptmsi-attach	Total number of remote P-TMSI Attach Request messages retransmitted for 2G service.	Int32
2G-ret-remote-ptmsi-attach-comb	Total number of remote P-TMSI Attach Request messages retransmitted for combined GPRS and IMSI (PS and CS) in 2G service.	Int32
3G-attach-accept	<b>Description:</b> Total number of Attach Request messages accepted for 3G service. <b>Triggers:</b> On sending a successful attach-accept with attach-result "GPRS-only Attached". <b>Availability:</b> per SGSN service, per RA <b>Type:</b> Counter	Int32

Statistic	Description	Data Type
3G-comb-attach-accept	<b>Description:</b> Total number of Attach Accept messages sent with attach result “Combined GPRS/IMSI Attached” in 3G service. <b>Triggers:</b> On sending a successful attach-accept with attach-result “Combined attached”. <b>Availability:</b> per SGSN service, per RA <b>Type:</b> Counter	Int32
3G-ret-attach-accept	Total number of Attach Request accept messages retransmitted for 3G service.	Int32
3G-ret-attach-accept-comb	Total number of combined (GPRS and IMSI) Attach Request accept messages retransmitted for 3G service.	Int32
2G-attach-accept	<b>Description:</b> Total number of Attach Request messages accepted for 2G service. <b>Triggers:</b> On sending a successful attach-accept with attach-result “GPRS-only Attached”. <b>Availability:</b> per GPRS service <b>Type:</b> Counter	Int32
2G-comb-attach-accept	<b>Description:</b> Total number of Attach Accepts sends with attach-result “Combined GPRS/IMSI Attached” in 2G service. <b>Triggers:</b> On sending a successful attach-accept with attach-result “Combined attached”. <b>Availability:</b> per GPRS service <b>Type:</b> Counter	Int32
2G-ret-attach-accept	Total number of Attach Request accepted messages retransmitted for 2G service.	Int32
2G-ret-attach-accept-comb	Total number of combined (GPRS and IMSI) Attach Request accept messages retransmitted for 2G service.	Int32
3G-attach-complete	Total number of attach procedures completed for 3G service.	Int32
2G-attach-complete	Total number of attach procedures completed for 2G service.	Int32
3G-attach-reject-all	Total number of Attach Request messages rejected for for 3G service.	Int32
3G-attach-reject	<b>Description:</b> Total number of Attach Rejects sent with individual causes against Attach Request of type “GPRS Attach” in 3G service. <b>Triggers:</b> A derived counter. See individual counters for trigger points. <b>Availability:</b> per SGSN service, per RA <b>Type:</b> Counter	Int32
3G-attach-reject-comb	<b>Description:</b> Sum of all Attach-Reject counters with individual causes sent against Attach Requests of type "Combined GPRS/IMSI Attach" in 3G service. <b>Triggers:</b> A derived counter. See individual counters for trigger points. <b>Availability:</b> per SGSN service, per RA <b>Type:</b> Counter	Int32
2G-attach-reject-all	Total number of Attach Request messages rejected for for 2G service.	Int32
2G-attach-reject	<b>Description:</b> Total number of Attach Rejects sent with individual causes against Attach Requests of type “GPRS Attach” in 2G service. <b>Triggers:</b> A derived counter. See individual counters for trigger points. <b>Availability:</b> per GPRS service <b>Type:</b> Counter	Int32

Statistic	Description	Data Type
2G-attach-reject-comb	<p><b>Description:</b> Sum of all Attach-Reject counters with individual causes sent against Attach requests of type "Combined GPRS/IMSI Attach" in 2G service.</p> <p><b>Triggers:</b> A derived counter. See individual counters for trigger points.</p> <p><b>Availability:</b> per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
3G-attach-rej-imsi-unknown-at-hlr	<p><b>Description:</b> Total number of Attach Rejects sent with cause "imsi unknown at hlr" against Attach requests of type "GPRS Attach" in 3G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On HLR sending a bad response to an SAI-Req or a GLU-Req.</li> <li>On getting zero auth vectors for HLR for a SAI-Req.</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
2G-attach-rej-imsi-unknown-at-hlr	<p><b>Description:</b> Total number of Attach Rejects sent with cause "imsi unknown at hlr" against Attach requests of type "GPRS Attach" in 2G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On HLR sending a bad response to an SAI-Req or a GLU-Req.</li> <li>On HLR getting zero auth vectors for a SAI-Req.</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
3G-attach-rej-illegal-ms	Total number of Attach Requests rejected for 3G service due to illegal mobile subscriber.	Int32
2G-attach-rej-illegal-ms	Total number of Attach Requests rejected for 2G service due to illegal mobile subscriber.	Int32
3G-attach-rej-illegal-me	Total number of Attach Requests rejected for 3G service due to illegal mobile equipment.	Int32
2G-attach-rej-illegal-me	Total number of Attach Requests rejected for 2G service due to illegal mobile equipment.	Int32
3G-gprs-service-not-allowed	<p><b>Description:</b> Total number of Attach Rejects sent with cause "GPRS Services not allowed" against Attach requests of type "GPRS Attach" in 3G service.</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>On getting a cl (subs-with) while a RAU/attach is in progress.</li> <li>On getting "Subscriber Unknown" failure from HLR for SAI-Req/GLU-Req.</li> <li>For rejecting attaches due to subscriber control inactivity.</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs.</li> </ol> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
2G-gprs-service-not-allowed	<p><b>Description:</b> Total number of Attach Rejects sent with cause "GPRS Services not allowed" against Attach requests of type "GPRS Attach" in 3G service.</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) On getting a cl (subs-with) while a RAU/attach is in progress.</li> <li>2) On getting "Subscriber Unknown" failure from HLR for SAI-Req/GLU-Req.</li> <li>3) For rejecting attaches due to subscriber control inactivity.</li> <li>4) When operator policy is configured with this value as the reject cause for attaches/RAUs.</li> </ol> <p><b>Availability:</b> per GPRS service.</p> <p><b>Type:</b> Counter</p>	Int32
3G-gprs-and-non-gprs-service-not-allowed	<p><b>Description:</b> Total number of Attach Rejects sent with cause "GPRS and non-GPRS Services not allowed" against Attach requests of type "GPRS Attach" in 3G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On getting "IMSI unknown" from HLR for SAI-Req/GLU-Req.</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs.</li> </ul> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
2G-gprs-and-non-gprs-service-not-allowed	<p><b>Description:</b> Total number of Attach Rejects sent with cause "GPRS and non-GPRS Services not allowed" against Attach requests of type "GPRS Attach" in 2G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On getting "IMSI unknown" from HLR for SAI-Req/GLU-Req.</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs.</li> </ul> <p><b>Availability:</b> per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
3G-attach-rej-msid-not-derived-by-nwt	<p><b>Description:</b> Total number of Attach Rejects sent with cause "msid not derived by nwt" against Attach Requests of type "GPRS Attach" in 3G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On getting periodic RAU with old RAI as a non-local RAI.</li> <li>• When PTMSI-IE is missing in RAU.</li> <li>• When old RAI has invalid location area values (0x0000 or 0xffff) for PTMSI-attaches/RAUs.</li> <li>• When getting a RAU with old RAI in 2G and PTMSI is unknown.</li> <li>• When getting PTMSI-SIG-MISMATCH SGSN Context Request sent with IMSI Validated.</li> <li>• When getting a RAU Request while an attach with the same peer-SGSN-PTMSI is in progress.</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs.</li> </ul> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
2G-attach-rej-msid-not-derived-by-nwt	<p><b>Description:</b> Total number of Attach Rejects sent with cause "msid not derived by nwt" against Attach Requests of type "GPRS Attach" in 2G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• When SGSN-Context-Resp arrives with any cause other than "accepted".</li> <li>• When GMM-Identity-Req with MS fails.</li> <li>• When GTP-Identity-Req with MS fails.</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs.</li> </ul> <p><b>Availability:</b> per GPRS service  <b>Type:</b> Counter</p>	Int32
3G-attach-rej-implicitly-detach	<p><b>Description:</b> Total number of Attach Requests rejected with cause "implicitly detached" against Attach requests of type "GPRS Attach" in 3G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• RAU at 3G when subscriber was detached from 2G.</li> <li>• When we get a different IMSI in SGSN Context Response for an SGSN Context Request sent with IMSI validated.</li> <li>• When we get RAU while awaiting a Detach Accept.</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs.</li> </ul> <p><b>Availability:</b> per SGSN service, per RA  <b>Type:</b> Counter</p>	Int32
2G-attach-rej-implicitly-detach	<p><b>Description:</b> Total number of Attach Requests rejected with cause "implicitly detached" against Attach requests of type "GPRS Attach" in 2G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• When we get an RAU from an unknown MS.</li> <li>• On T3350 expiry for the attach-accept</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs.</li> </ul> <p><b>Availability:</b> per GPRS service  <b>Type:</b> Counter</p>	Int32
3G-attach-rej-plmn-not-allowed	<p><b>Description:</b> Total number of Attach Rejects sent with cause "plmn not allowed" against Attach Requests of type "GPRS Attach" in 3G service.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per SGSN service, per RA  <b>Type:</b> Counter</p>	Int32
2G-attach-rej-plmn-not-allowed	<p><b>Description:</b> Total number of Attach Rejects sent with cause "plmn not allowed" against Attach Requests of type "GPRS Attach" in 2G service.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per GPRS service  <b>Type:</b> Counter</p>	Int32
3G-attach-rej-la-not-allowed	<p>Total number of GPRS Attach Rejected for 3G service due to specific location area not allowed.</p>	Int32

Statistic	Description	Data Type
2G-attach-rej-la-not-allowed	Total number of GPRS Attach Rejected for 2G service due to specific location area not allowed.	Int32
3G-roaming-not-allowed-in-this-location-area	<p><b>Description:</b> Total number of Attach Rejects sent with cause "Roaming not allowed in this Location Area" against Attach Requests of type "GPRS Attach" in 3G service.</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) When rejecting as a shared SGSN as operator not accepting the given IMSI.</li> <li>2) When operator policy is configured with this value as the reject cause for attaches/RAUs.</li> </ol> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
2G-roaming-not-allowed-in-this-location-area	<p><b>Description:</b> Total number of Attach Rejects sent with cause "Roaming not allowed in this Location Area" against Attach Requests of type "GPRS Attach" in 2G service.</p> <p><b>Triggers:</b> When operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
3G-gprs-service-not-allowed-in-this-plmn	<p><b>Description:</b> Total number of Attach Rejects sent with cause "GPRS services not allowed in this PLMN" against Attach Requests of type "GPRS Attach" in 3G service.</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) On getting "Roaming Not allowed" from HLR for SAI-Req/GLU-Req.</li> <li>2) When operator policy is configured with this value as the reject cause for attaches/RAUs.</li> </ol> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
2G-gprs-service-not-allowed-in-this-plmn	<p><b>Description:</b> Total number of Attach Rejects sent with cause "GPRS services not allowed in this PLMN" against Attach Requests of type "GPRS Attach" in 2G service.</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) On getting "Roaming not allowed" from HLR for SAI-Req/GLU-Req.</li> <li>2) When operator policy is configured with this value as the reject cause for attaches/RAUs.</li> </ol> <p><b>Availability:</b> per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
3G-no-suitable-cells-in-location-area	<p><b>Description:</b> Total number of Attach Rejects sent with cause "No suitable cell in location area" against Attach requests of type "GPRS Attach" in 3G service.</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) On getting "UMTS Access Control" from HLR for SAI-Req/GLU-Req.</li> <li>2) When operator policy is configured with this value as the reject cause for attaches/RAUs.</li> </ol> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
2G-no-suitable-cells-in-location-area	<p><b>Description:</b> Total number of Attach Rejects sent with cause "No suitable cell in location area" against Attach requests of type "GPRS Attach" in 2G service.</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) On getting "UMTS Access Control" from HLR for SAI-Req/GLU-Req.</li> <li>2) When operator policy is configured with this value as the reject cause for attaches/RAUs.</li> </ol> <p><b>Availability:</b> per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
3G-attach-rej-msc-not-reachable	Total number of GPRS Attach Rejected for 3G service as MSC not reachable.	Int32

Statistic	Description	Data Type
2G-attach-rej-msc-not-reachable	Total number of GPRS Attach Rejected for 2G service as MSC not reachable.	Int32
3G-attach-rej-network-failure	<p><b>Description:</b> Total number of Attach Rejects sent with cause "Network Failure" against Attach requests of type "GPRS Attach" in 3G service.</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) RNC is overloaded.</li> <li>2) Not enough credits at session manager.</li> <li>3) On getting cause "data missing from HLR" in SAI-Req/GLU-Req.</li> <li>4) Too many IU's for the same IMSI.</li> <li>5. On congestion, if configured for attach-throttling.</li> <li>6. When operator policy is configured with this value as the reject cause for attaches/RAUs.</li> </ol> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
2G-attach-rej-network-failure	<p><b>Description:</b> Total number of Attach Rejects sent with cause "Network Failure" against Attach requests of type "GPRS Attach" in 3G service.</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) RNC is overloaded.</li> <li>2) Not enough credits at session manager.</li> <li>3) On getting cause "data missing from HLR" in SAI-Req/GLU-Req.</li> <li>4) Too many IU's for the same IMSI.</li> <li>5. On congestion, if configured for attach-throttling.</li> <li>6. When operator policy is configured with this value as the reject cause for attaches/RAUs.</li> </ol> <p><b>Availability:</b> per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
3G-attach-rej-mac-failure	Total number of GPRS Attach Rejected for 3G service due to message authenticate code (MAC) failure.	Int32
2G-attach-rej-mac-failure	Total number of GPRS Attach Rejected for 2G service due to MAC failure.	Int32
3G-attach-rej-sync-failure	<p><b>Description:</b> Total number of Attach Rejects sent with cause "sync failure" against Attach Requests of type "GPRS Attach" in 3G service.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
2G-attach-rej-sync-failure	<p><b>Description:</b> Total number of Attach Rejects sent with cause "sync failure" against Attach Requests of type "GPRS Attach" in 2G service.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
3G-attach-rej-congestion	<p><b>Description:</b> Total number of Attach Rejects sent with cause "Congestion" against Attach Request of type "GPRS Attach" in a 3G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On congestion, if configured for attach-throttling.</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs.</li> </ul> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
2G-attach-rej-congestion	<p><b>Description:</b> Total number of GPRS Attach Rejected for 2G service due to network congestion.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On congestion, if configured for attach-throttling.</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs.</li> </ul> <p><b>Availability:</b> per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
3G-attach-rej-gsm-auth-unacceptable	<p><b>Description:</b> Total number of Attach Rejects sent with cause "gsm auth unacceptable" against Attach Requests of type "GPRS Attach" in 3G service.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
2G-attach-rej-gsm-auth-unacceptable	<p><b>Description:</b> Total number of Attach Rejects sent with cause "gsm auth unacceptable" against Attach Requests of type "GPRS Attach" in 2G service.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
3G-attach-rej-no-pdp-ctx-activated	<p><b>Description:</b> Total number of Attach Rejects sent with cause "no pdp ctx activated" against Attach Requests of type "GPRS Attach" in 3G service.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
2G-attach-rej-no-pdp-ctx-activated	<p><b>Description:</b> Total number of Attach Rejects sent with cause "no pdp ctx activated" against Attach Requests of type "GPRS Attach" in 2G service.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
3G-attach-rej-retry-from-new-cell	<p><b>Description:</b> Total number of Attach Rejects sent with cause "retry from new cell" against Attach Requests of type "GPRS Attach" in 3G service.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
2G-attach-rej-retry-from-new-cell	<p><b>Description:</b> Total number of Attach Rejects sent with cause "retry from new cell" against Attach Requests of type "GPRS Attach" in 2G service.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
3G-attach-rej-sem-wrong-msg	<p><b>Description:</b> Total number of Attach Rejects sent with cause "sem wrong msg" against Attach Requests of type "GPRS Attach" in 3G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• When getting an appropriate decode error.</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs.</li> </ul> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
2G-attach-rej-sem-wrong-msg	<p><b>Description:</b> Total number of Attach Rejects sent with cause "sem wrong msg" against Attach Requests of type "GPRS Attach" in 2G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• When getting an appropriate decode error.</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs.</li> </ul> <p><b>Availability:</b> per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
3G-attach-rej-invalid-mand-info	<p><b>Description:</b> Total number of Attach Rejects sent with cause "invalid mand info" against Attach Requests of type "GPRS Attach" in 3G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• When getting an appropriate decode error.</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs.</li> </ul> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
2G-attach-rej-invalid-mand-info	<p><b>Description:</b> Total number of Attach Rejects sent with cause "invalid mand info" against Attach Requests of type "GPRS Attach" in 2G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• When getting an appropriate decode error.</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs.</li> </ul> <p><b>Availability:</b> per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
3G-attach-rej-msg-type-not-exist	<p><b>Description:</b> Total number of Attach Rejects sent with cause "msg type not exist" against Attach Requests of type "GPRS Attach" in 3G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• When getting an appropriate decode error.</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs.</li> </ul> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
2G-attach-rej-msg-type-not-exist	<p><b>Description:</b> Total number of Attach Rejects sent with cause "msg type not exist" against Attach Requests of type "GPRS Attach" in 2G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>When getting an appropriate decode error.</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs.</li> </ul> <p><b>Availability:</b> per GPRS service <b>Type:</b> Counter</p>	Int32
3G-attach-rej-msg-type-not-comp-prot-state	<p><b>Description:</b> Total number of Attach Rejects sent with cause "msg type not comp prot state" against Attach Requests of type "GPRS Attach" in 3G service.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per SGSN service, per RA <b>Type:</b> Counter</p>	Int32
2G-attach-rej-msg-type-not-comp-prot-state	<p><b>Description:</b> Total number of Attach Rejects sent with cause "msg type not comp prot state" against Attach Requests of type "GPRS Attach" in 2G service.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per GPRS service <b>Type:</b> Counter</p>	Int32
3G-attach-rej-ie-non-existent	<p><b>Description:</b> Total number of Attach Rejects sent with cause "ie non existent" against Attach Requests of type "GPRS Attach" in 3G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>When getting an appropriate decode error.</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs.</li> </ul> <p><b>Availability:</b> per SGSN service, per RA <b>Type:</b> Counter</p>	Int32
2G-attach-rej-ie-non-existent	<p><b>Description:</b> Total number of Attach Rejects sent with cause "ie non existent" against Attach Requests of type "GPRS Attach" in 2G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>When getting an appropriate decode error.</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs.</li> </ul> <p><b>Availability:</b> per GPRS service <b>Type:</b> Counter</p>	Int32
3G-attach-rej-conditional-ie-err	<p><b>Description:</b> Total number of Attach Rejects sent with cause "conditional ie err" against Attach Requests of type "GPRS Attach" in 3G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>When getting an appropriate decode error.</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs.</li> </ul> <p><b>Availability:</b> per SGSN service, per RA <b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
2G-attach-rej-conditional-ie-err	<p><b>Description:</b> Total number of Attach Rejects sent with cause "conditional ie err" against Attach Requests of type "GPRS Attach" in 2G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• When getting an appropriate decode error.</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs.</li> </ul> <p><b>Availability:</b> per GPRS service <b>Type:</b> Counter</p>	Int32
3G-attach-rej-msg-not-comp-prot-state	<p><b>Description:</b> Total number of Attach Rejects sent with cause "msg not comp prot state" against Attach Requests of type "GPRS Attach" in 3G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• When getting an Attach Request before getting Relocation-complete during SRNS.</li> <li>• When getting periodic RAU in a direct transfer message.</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs.</li> </ul> <p><b>Availability:</b> per SGSN service, per RA <b>Type:</b> Counter</p>	Int32
2G-attach-rej-msg-not-comp-prot-state	<p><b>Description:</b> Total number of Attach Rejects sent with cause "msg not comp prot state" against Attach Requests of type "GPRS Attach" in 2G service.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per GPRS service <b>Type:</b> Counter</p>	Int32
3G-attach-rej-protocol-error	<p><b>Description:</b> Total number of Attach Rejects sent with cause "protocol error" against Attach Requests of type "GPRS Attach" in 3G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• When getting an appropriate decode error.</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs.</li> </ul> <p><b>Availability:</b> per SGSN service, per RA <b>Type:</b> Counter</p>	Int32
2G-attach-rej-protocol-error	<p><b>Description:</b> Total number of Attach Rejects sent with cause "protocol error" against Attach Requests of type "GPRS Attach" in 2G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• When the PLMN-id in BSSGP message does not match the configured PLMN at GPRS-service.</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs.</li> </ul> <p><b>Availability:</b> per GPRS service <b>Type:</b> Counter</p>	Int32
3G-attach-rej-unknown-cause	<p><b>Description:</b> Total number of Attach Rejects sent with cause "unknown cause" against Attach Requests of type "GPRS Attach" in 3G service.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per SGSN service, per RA <b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
2G-attach-rej-unknown-cause	<p><b>Description:</b> Total number of Attach Rejects sent with cause "unknown cause" against Attach Requests of type "GPRS Attach" in 2G service.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
3G-comb-attach-rej-imsi-unknown-at-hlr	Total number of combined (GPRS and IMSI) Attach Requests rejected for 3G service due to IMSI not known at HLR.	Int32
2G-comb-attach-rej-imsi-unknown-at-hlr	Total number of combined (GPRS and IMSI) Attach Requests rejected for 3G service due to IMSI not known at HLR.	Int32
3G-comb-attach-rej-illegal-ms	Total number of combined (GPRS and IMSI) Attach Requests rejected for 3G service due to illegal mobile subscriber.	Int32
2G-comb-attach-rej-illegal-ms	Total number of combined (GPRS and IMSI) Attach Requests rejected for 2G service due to illegal mobile subscriber.	Int32
3G-comb-attach-rej-illegal-me	Total number of combined (GPRS and IMSI) Attach Requests rejected for 3G service due to illegal mobile equipment.	Int32
2G-comb-attach-rej-illegal-me	Total number of combined (GPRS and IMSI) Attach Requests rejected for 2G service due to illegal mobile equipment.	Int32
3G-comb-gprs-service-not-allowed	<p><b>Description:</b> Total number of Attach Rejects sent with cause "GPRS services not allowed" against Attach Requests of type "Combined GPRS/IMSI Attach" in 3G service.</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) On getting a cl (subs-with) while a RAU/attach is in progress.</li> <li>2) On getting "Subscriber Unknown" failure from hlr for glu/sai-req.</li> <li>3) For rejecting attaches due to subscriber-control-inactivity.</li> <li>4) When operator policy is configured with this value as the reject cause for attaches/RAUs.</li> </ol> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
2G-comb-gprs-service-not-allowed	<p><b>Description:</b> Total number of Attach Rejects sent with cause "GPRS services not allowed" against Attach Requests of type "Combined GPRS/IMSI Attach" in 2G service.</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) On getting a cl (subs-with) while a RAU/attach is in progress.</li> <li>2) On getting "Subscriber Unknown" failure from hlr for glu/sai-req.</li> <li>3) For rejecting attaches due to subscriber-control-inactivity.</li> <li>4) When operator policy is configured with this value as the reject cause for attaches/RAUs.</li> </ol> <p><b>Availability:</b> per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
3G-comb-gprs-and-non-gprs-svc-not-allow	<p><b>Description:</b> Total number of Attach Rejects sent with cause "GPRS and non-GPRS services not allowed" against Attach Requests of type "Combined GPRS/IMSI Attach" in 3G service.</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) On getting "Imsi unknown" from HLR for SAI-Req/GLU-Req.</li> <li>2) When operator policy is configured with this value as the reject cause for attaches/RAUs.</li> </ol> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
2G-comb-gprs-and-non-gprs-svc-not-allow	<p><b>Description:</b> Total number of Attach Rejects sent with cause "GPRS and non-GPRS services not allowed" against Attach Requests of type "Combined GPRS/IMSI Attach" in 3G service.</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) On getting "Imsi unknown" from HLR for SAI-Req/GLU-Req.</li> <li>2) When operator policy is configured with this value as the reject cause for attaches/RAUs.</li> </ol> <p><b>Availability:</b> per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
3G-comb-attach-rej-msid-not-derived-by-nwt	Total number of combined (GPRS and IMSI) Attach Requests rejected for 3G service as network failed to derive MSID from request message.	Int32
2G-comb-attach-rej-msid-not-derived-by-nwt	Total number of combined (GPRS and IMSI) Attach Requests rejected for 2G service as network failed to derive MSID from request message.	Int32
3G-comb-attach-rej-implicitly-detach	Total number of combined (GPRS and IMSI) Attach Requests rejected for 3G service as subscriber implicitly detached from network.	Int32
2G-comb-attach-rej-implicitly-detach	Total number of combined (GPRS and IMSI) Attach Requests rejected for 3G service as subscriber implicitly detached from network.	Int32
3G-comb-attach-rej-plmn-not-allowed	Total number of combined (GPRS and IMSI) Attach Rejected for 3G service due to specific PLMN not allowed.	Int32
2G-comb-attach-rej-plmn-not-allowed	Total number of combined (GPRS and IMSI) Attach Rejected for 2G service due to specific PLMN not allowed.	Int32
3G-comb-attach-rej-la-not-allowed	Total number of combined (GPRS and IMSI) Attach Rejected for 3G service due to specific location area not allowed.	Int32
2G-comb-attach-rej-la-not-allowed	Total number of combined (GPRS and IMSI) Attach Rejected for 2G service due to specific location area not allowed.	Int32
3G-comb-roam-not-allow-in-loc-area	<p><b>Description:</b> Total number of Attach Rejects sent with cause "Roaming not allowed in LA" against attached request of type "Combined GPRS/IMSI Attach" in 3G service.</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) When rejecting as a shared SGSN due to no operator accepting the given IMSI.</li> <li>2) When operator policy is configured with this value as the reject cause for attaches/RAUs.</li> </ol> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
2G-comb-roam-not-allow-in-loc-area	<p><b>Description:</b> Total number of Attach Rejects sent with cause "Roaming not allowed in LA" against attached request of type "Combined GPRS/IMSI Attach" in 2G service.</p> <p><b>Triggers:</b> When operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
3G-comb-gprs-svc-not-allow-in-plmn	<p><b>Description:</b> Total number of Attach Rejects sent with cause "GPRS Service Not Allowed in PLMN" against Attach Requests of type "Combined GPRS/IMSI Attach" in 3G service.</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) On getting "Roaming not allowed" from HLR for SAI-Req/GLU-Req.</li> <li>2) When operator policy is configured with this value as the reject cause for attaches/RAUs.</li> </ol> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
2G-comb-gprs-svc-not-allow-in-plmn	<p><b>Description:</b> Total number of Attach Rejects sent with cause "GPRS Service Not Allowed in PLMN" against Attach Requests of type "Combined GPRS/IMSI Attach" in 2G service.</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) On getting "Roaming not allowed" from HLR for SAI-Req/GLU-Req.</li> <li>2) When operator policy is configured with this value as the reject cause for attaches/RAUs.</li> </ol> <p><b>Availability:</b> per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
3G-comb-no-suitable-cells-in-loc-area	<p><b>Description:</b> Total number of Attach Rejects sent with cause "No suitable cells in LA" against Attach requests of type "Combined GPRS/IMSI Attach" in 3G service.</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) On getting "UMTS access control" from HLR for SAI-Req/GLU-Req.</li> <li>2) When operator policy is configured with this value as the reject cause for attaches/RAUs.</li> </ol> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
2G-comb-no-suitable-cells-in-loc-area	<p><b>Description:</b> Total number of Attach Rejects sent with cause "No suitable cells in LA" against Attach requests of type "Combined GPRS/IMSI Attach" in 2G service.</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) On getting "UMTS access control" from HLR for SAI-Req/GLU-Req.</li> <li>2) When operator policy is configured with this value as the reject cause for attaches/RAUs.</li> </ol> <p><b>Availability:</b> per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
3G-comb-attach-rej-msc-not-reachable	Total number of combined (GPRS and IMSI) Attach Rejected for 3G service as MSC not reachable.	Int32
2G-comb-attach-rej-msc-not-reachable	Total number of combined (GPRS and IMSI) Attach Rejected for 2G service as MSC not reachable.	Int32
3G-comb-attach-rej-network-failure	<p><b>Description:</b> Total number of Attach Rejects sent with cause "Network Failure" against Attach requests of type "Combined GPRS/IMSI Attach" in 3G service.</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) On getting cause "data missing from HLR" in SAI-Req/GLU-Req.</li> <li>2) On XID failure for RAU.</li> <li>3) Inability to send an SGSN-CTX-Req out for an RAU.</li> <li>4) Inability to send a Check-IMEI Request out.</li> <li>5. On congestion, if configured for attach-throttling.</li> <li>6. When operator policy is configured with this value as the reject cause for attaches/RAUs.</li> </ol> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
2G-comb-attach-rej-network-failure	<p><b>Description:</b> Total number of Attach Rejects sent with cause "Network Failure" against Attach requests of type "Combined GPRS/IMSI Attach" in 2G service.</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) On getting cause "data missing from HLR" in SAI-Req/GLU-Req.</li> <li>2) On XID failure for RAU.</li> <li>3) Inability to send an SGSN-CTX-Req out for an RAU.</li> <li>4) Inability to send a Check-IMEI Request out.</li> <li>5. On congestion, if configured for attach-throttling.</li> <li>6. When operator policy is configured with this value as the reject cause for attaches/RAUs.</li> </ol> <p><b>Availability:</b> per GPRS service  <b>Type:</b> Counter</p>	Int32
3G-comb-attach-rej-mac-failure	Total number of combined (GPRS and IMSI) Attach Rejected for 3G service due to message authenticate code (MAC) failure.	Int32
2G-comb-attach-rej-mac-failure	Total number of combined (GPRS and IMSI) Attach Rejected for 2G service due to MAC failure.	Int32
3G-comb-attach-rej-sync-failure	Total number of combined (GPRS and IMSI) Attach Rejected for 3G service due to context synchronization failure.	Int32
2G-comb-attach-rej-sync-failure	Total number of combined (GPRS and IMSI) Attach Rejected for 2G service due to context synchronization failure.	Int32
3G-comb-attach-rej-congestion	<p><b>Description:</b> Total number of Attach Rejects sent with cause "Congestion" against Attach requests of type "Combined GPRS/IMSI Attach" in 3G service.</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) On congestion, if configured for attach-throttling.</li> <li>2) When operator policy is configured with this value as the reject cause for Attaches/RAUs.</li> </ol> <p><b>Availability:</b> per SGSN service, per RA  <b>Type:</b> Counter</p>	Int32
2G-comb-attach-rej-congestion	<p><b>Description:</b> Total number of Attach Rejects sent with cause "Congestion" against Attach requests of type "Combined GPRS/IMSI Attach" in the 2G service.</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) On congestion, if configured for attach-throttling.</li> <li>2) When an operator policy is configured with this value as the reject cause for Attaches/RAUs.</li> </ol> <p><b>Availability:</b> per GPRS service  <b>Type:</b> Counter</p>	Int32
3G-comb-attach-rej-gsm-auth-unacceptable	<p><b>Description:</b> Total number of Attach Rejects sent with cause "gsm-auth-unacceptable" against Attach Requests of type "Combined GPRS/IMSI Attach" in the 3G service</p> <p><b>Triggers:</b> When an operator policy is configured with this value as the reject cause for Attaches/RAUs.</p> <p><b>Availability:</b> per SGSN service, per RA  <b>Type:</b> Counter</p>	Int32
2G-comb-attach-rej-gsm-auth-unacceptable	<p><b>Description:</b> Total number of Attach Rejects sent with cause "gsm-auth-unacceptable" against Attach Requests of type "Combined GPRS/IMSI Attach" in the 2G service</p> <p><b>Triggers:</b> When an operator policy is configured with this value as the reject cause for Attaches/RAUs.</p> <p><b>Availability:</b> per GPRS service, per RA  <b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
3G-comb-attach-rej-no-pdp-ctx-activated	<p><b>Description:</b> Total number of Attach Rejects sent with cause "no-pdp-ctx-activated" against Attach Requests of type "Combined GPRS/IMSI Attach" in the 3G service</p> <p><b>Triggers:</b> When an operator policy is configured with this value as the reject cause for Attaches/RAUs.</p> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
2G-comb-attach-rej-no-pdp-ctx-activated	<p><b>Description:</b> Total number of Attach Rejects sent with cause "no-pdp-ctx-activated" against Attach Requests of type "Combined GPRS/IMSI Attach" in the 2G service</p> <p><b>Triggers:</b> When an operator policy is configured with this value as the reject cause for Attaches/RAUs.</p> <p><b>Availability:</b> per GPRS service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
3G-comb-attach-rej-retry-from-new-cell	<p><b>Description:</b> Total number of Attach Rejects sent with cause "retry-from-new-cell" against Attach Requests of type "Combined GPRS/IMSI Attach" in the 3G service</p> <p><b>Triggers:</b> When an operator policy is configured with this value as the reject cause for Attaches/RAUs.</p> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
2G-comb-attach-rej-retry-from-new-cell	<p><b>Description:</b> Total number of Attach Rejects sent with cause "retry-from-new-cell" against Attach Requests of type "Combined GPRS/IMSI Attach" in the 2G service</p> <p><b>Triggers:</b> When an operator policy is configured with this value as the reject cause for Attaches/RAUs.</p> <p><b>Availability:</b> per GPRS service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
3G-comb-attach-rej-sem-wrong-msg	<p><b>Description:</b> Total number of Attach Rejects sent with cause "sem-wrong-msg" against Attach Requests of type "Combined GPRS/IMSI Attach" in the 3G service</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) On decode failure of messages.</li> <li>2) When an operator policy is configured with this value as the reject cause for Attaches/RAUs.</li> </ol> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
2G-comb-attach-rej-sem-wrong-msg	<p><b>Description:</b> Total number of Attach Rejects sent with cause "sem-wrong-msg" against Attach Requests of type "Combined GPRS/IMSI Attach" in the 2G service</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) On decode failure of messages.</li> <li>2) When an operator policy is configured with this value as the reject cause for Attaches/RAUs.</li> </ol> <p><b>Availability:</b> per GPRS service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
3G-comb-attach-rej-invalid-mand-info	<p><b>Description:</b> Total number of Attach Rejects sent with cause "invalid-mand-info" against Attach Requests of type "Combined GPRS/IMSI Attach" in the 3G service</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) On decode failure of messages.</li> <li>2) When an operator policy is configured with this value as the reject cause for Attaches/RAUs.</li> </ol> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
2G-comb-attach-rej-invalid-mand-info	<p><b>Description:</b> Total number of Attach Rejects sent with cause "invalid-mand-info" against Attach Requests of type "Combined GPRS/IMSI Attach" in the 2G service</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) On decode failure of messages.</li> <li>2) When an operator policy is configured with this value as the reject cause for Attaches/RAUs.</li> </ol> <p><b>Availability:</b> per GPRS service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
3G-comb-attach-rej-msg-type-not-exist	<p><b>Description:</b> Total number of Attach Rejects sent with cause "msg-type-not-exist" against Attach Requests of type "Combined GPRS/IMSI Attach" in the 3G service</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) On decode failure of messages.</li> <li>2) When an operator policy is configured with this value as the reject cause for Attaches/RAUs.</li> </ol> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
2G-comb-attach-rej-msg-type-not-exist	<p><b>Description:</b> Total number of Attach Rejects sent with cause "msg-type-not-exist" against Attach Requests of type "Combined GPRS/IMSI Attach" in the 2G service</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) On decode failure of messages.</li> <li>2) When an operator policy is configured with this value as the reject cause for Attaches/RAUs.</li> </ol> <p><b>Availability:</b> per GPRS service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
3G-comb-attach-rej-msg-type-not-comp-pstate	<p><b>Description:</b> Total number of Attach Rejects sent with cause "msg-type-not-comp-pstate" against Attach Requests of type "Combined GPRS/IMSI Attach" in the 3G service</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) On decode failure of messages.</li> <li>2) When an operator policy is configured with this value as the reject cause for Attaches/RAUs.</li> </ol> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
2G-comb-attach-rej-msg-type-not-comp-pstate	<p><b>Description:</b> Total number of Attach Rejects sent with cause "msg-type-not-comp-pstate" against Attach Requests of type "Combined GPRS/IMSI Attach" in the 2G service</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) On decode failure of messages.</li> <li>2) When an operator policy is configured with this value as the reject cause for Attaches/RAUs.</li> </ol> <p><b>Availability:</b> per GPRS service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
3G-comb-attach-rej-ie-non-existent	<p><b>Description:</b> Total number of Attach Rejects sent with cause "ie-non-existent" against Attach Requests of type "Combined GPRS/IMSI Attach" in the 3G service</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) On decode failure of messages.</li> <li>2) When an operator policy is configured with this value as the reject cause for Attaches/RAUs.</li> </ol> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
2G-comb-attach-rej-ie-non-existent	<p><b>Description:</b> Total number of Attach Rejects sent with cause "ie-non-existent" against Attach Requests of type "Combined GPRS/IMSI Attach" in the 2G service</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) On decode failure of messages.</li> <li>2) When an operator policy is configured with this value as the reject cause for Attaches/RAUs.</li> </ol> <p><b>Availability:</b> per GPRS service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
3G-comb-attach-rej-conditional-ie-err	<p><b>Description:</b> Total number of Attach Rejects sent with cause "conditional-ie-err" against Attach Requests of type "Combined GPRS/IMSI Attach" in the 3G service</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) On decode failure of messages.</li> <li>2) When an operator policy is configured with this value as the reject cause for Attaches/RAUs.</li> </ol> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
2G-comb-attach-rej-conditional-ie-err	<p><b>Description:</b> Total number of Attach Rejects sent with cause "conditional-ie-err" against Attach Requests of type "Combined GPRS/IMSI Attach" in the 2G service</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) On decode failure of messages.</li> <li>2) When an operator policy is configured with this value as the reject cause for Attaches/RAUs.</li> </ol> <p><b>Availability:</b> per GPRS service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
3G-comb-attach-rej-msg-not-comp-prot-state	<p><b>Description:</b> Total number of Attach Rejects sent with cause "msg-not-comp-prot-state" against Attach Requests of type "Combined GPRS/IMSI Attach" in the 3G service</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) When SGSN receives an Attach Request before getting Relocation-Complete during SRNS.</li> <li>2) When SGSN receives periodic RAU in a Dir-Transfer message.</li> <li>3) When an operator policy is configured with this value as the reject cause for Attaches/RAUs.</li> </ol> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
2G-comb-attach-rej-msg-not-comp-prot-state	<p><b>Description:</b> Total number of Attach Rejects sent with cause "msg-not-comp-prot-state" against Attach Requests of type "Combined GPRS/IMSI Attach" in the 2G service</p> <p><b>Triggers:</b></p> <p>When an operator policy is configured with this value as the reject cause for Attaches/RAUs.</p> <p><b>Availability:</b> per GPRS service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
3G-comb-attach-rej-protocol-error	<p><b>Description:</b> Total number of Attach Rejects sent with cause "protocol-error" against Attach Requests of type "Combined GPRS/IMSI Attach" in the 3G service</p> <p><b>Triggers:</b></p> <p>When an operator policy is configured with this value as the reject cause for Attaches/RAUs.</p> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
2G-comb-attach-rej-protocol-error	<p><b>Description:</b> Total number of Attach Rejects sent with cause "protocol-error" against Attach Requests of type "Combined GPRS/IMSI Attach" in the 2G service</p> <p><b>Triggers:</b>                      1) When the PLMN ID in the MSSGP message does not match the configured PLMN in the GPRS Service.                      2) When an operator policy is configured with this value as the reject cause for Attaches/RAUs.</p> <p><b>Availability:</b> per GPRS service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
3G-comb-attach-rej-unknown-cause	<p><b>Description:</b> Total number of Attach Rejects sent with any cause other than those captured in stats already listed against Attach Requests of type "Combined GPRS/IMSI Attach" in the 3G service</p> <p><b>Triggers:</b>                      When an operator policy is configured with this value as the reject cause for Attaches/RAUs.</p> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
2G-comb-attach-rej-unknown-cause	<p><b>Description:</b> Total number of Attach Rejects sent with any cause other than those captured in stats already listed against Attach Requests of type "Combined GPRS/IMSI Attach" in the 2G service</p> <p><b>Triggers:</b>                      When an operator policy is configured with this value as the reject cause for Attaches/RAUs.</p> <p><b>Availability:</b> per GPRS service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
3G-total-attach-fail	<p><b>Description:</b> Total number of Attach Requests of type "GPRS Attach" that were dropped from processing in 3G service.</p> <p><b>Triggers:</b>                      1) Another Attach, differing from this attach, was received and pre-empted existing Attach procedure.                      2) Iu released while the attach procedure was in progress.</p> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
3G-total-attach-fail-comb	<p><b>Description:</b> Total number of Attach Requests of type "Combined GPRS/IMSI Attach" that were dropped from processing in 3G service.</p> <p><b>Triggers:</b>                      1) Another Attach, differing from this attach, was received and pre-empted existing Attach procedure.                      2) Iu released while the attach procedure was in progress.</p> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
3G-total-attach-fail-all	<p><b>Description:</b> Sum of 3G-total-attach-fail + 3G-total-attach-fail-comb.</p> <p><b>Triggers:</b>                      n/a</p> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
2G-total-attach-fail	<p><b>Description:</b> Total number of Attach Requests of type “GPRS Attach” that were dropped from processing in 2G service.</p> <p><b>Triggers:</b> Another Attach, differing from this attach, was received and pre-empted existing Attach procedure.</p> <p><b>Availability:</b> per GPRS service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
2G-total-attach-fail-comb	<p><b>Description:</b> Total number of Attach Requests of type “Combined GPRS/IMSI Attach” that were dropped from processing in 2G service.</p> <p><b>Triggers:</b> Another Attach, differing from this attach, was received and pre-empted existing Attach procedure.</p> <p><b>Availability:</b> per GPRS service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
2G-total-attach-fail-all	<p><b>Description:</b> Sum of the stats for 2G-total-attach-fail + 2G-total-attach-fail-comb. This is new in release 9.0.</p> <p><b>Triggers:</b> n/a</p> <p><b>Availability:</b> per GPRS service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
3G-attach-fail- iu_release	Total number of attach procedures failed for 3G service due to Iu interface release.	Int32
3G-attach-fail- ongoing-proc	<p><b>Description:</b> This proprietary counter indicates the total number of attach procedures failed for 3G service due to a new attach received.</p> <p><b>Triggers:</b> Increments when we abort an ongoing attach due to another new attach in 3G.</p> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
2G-attach-fail- ongoing-proc	<p><b>Description:</b> This proprietary counter indicates the total number of Attach procedures failed for 2G service due to a new attach received.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• Suspend during Attach procedure</li> <li>• Radio-status lost during Attach procedure</li> <li>• BVC-block during Attach procedure</li> <li>• T3350 expiry during Attach procedure</li> <li>• T3360 expiry during Attach procedure</li> <li>• XID timer expiry during Attach procedure</li> </ul> <p><b>Availability:</b> per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
3G-attach-fail- iu_release-comb	Total number of combined (GPRS and IMSI) attach procedures failed due to Iu released for 3G service.	Int32
3G-attach-fail- ongoing-proc-comb	Total number of combined (GPRS and IMSI) attach procedures failed due to on going attach procedures for 3G service.	Int32
2G-attach-fail- ongoing-proc-comb	Total number of combined (GPRS and IMSI) attach procedures failed due to on going attach procedures for 2G service.	Int32

Statistic	Description	Data Type
3G-intra-rau	Total number of intra SGSN routing area updates received for 3G service.	Int32
2G-intra-rau	Total number of intra SGSN routing area updates received for 2G service.	Int32
3G-periodic-rau	Total number of periodic routing area updates received for 3G service.	Int32
2G-periodic-rau	Total number of periodic routing area updates received for 2G service.	Int32
3G-intra-comb-rau	Total number of intra SGSN combined (GPRS and IMSI) routing area updates received for 3G service.	Int32
2G-intra-comb-rau	Total number of intra SGSN combined (GPRS and IMSI) routing area updates received for 2G service.	Int32
3G-inter-sgsn-rau	Total packet switched inter-SGSN-RA update request messages for 3G service.	Int32
2G-inter-sgsn-rau	Total packet switched inter-SGSN-RA update request messages for 2G service.	Int32
3G-inter-sgsn-comb-rau	Total combined (GPRS and IMSI) inter-SGSN-RA update request messages for 3G service.	Int32
2G-inter-sgsn-comb-rau	Total combined (GPRS and IMSI) inter-SGSN-RA update request messages for 2G service.	Int32
3G-ret-intra-rau	Total routing area update request messages retransmitted for intra-SGSN RA updates for 3G.	Int32
2G-ret-intra-rau	Total routing area update request messages retransmitted for intra-SGSN RA updates for 2G.	Int32
3G-ret-periodic-rau	Total periodic intra-RA update messages retransmitted for 3G.	Int32
2G-ret-periodic-rau	Total periodic intra-RA update messages retransmitted for 2G.	Int32
3G-ret-inter-sgsn-rau	Total packet switched inter-SGSN-RA update request messages retransmitted for 3G service.	Int32
2G-ret-inter-sgsn-rau	Total packet switched inter-SGSN-RA update request messages retransmitted for 2G service.	Int32
3G-rau-accept-intra	<b>Description:</b> Sum of all RAU-Accepts sent against Intra-SGSN-RAU requests with update type “RA Updating” in 3G service. <b>Triggers:</b> On sending a successful RAU-Accept with update-result “RA Updating”. <b>Availability:</b> per SGSN service, per RA <b>Type:</b> Counter	Int32
3G-comb-upd-rau-accept-intra	<b>Description:</b> Sum of all RAU-reject counters with individual causes against Intra-SGSN-RAU request with update type “Combined RA/LA update” or “Combined RA/LA update with IMSI Attach” in 3G service. <b>Triggers:</b> On sending a successful rau-accept with update-result "Combined RA/LA update" or "Combined RA/LA update with IMSI Attach". <b>Availability:</b> per SGSN service, per RA <b>Type:</b> Counter	Int32
3G-rau-accept-inter	<b>Description:</b> Sum of all RAU-Accepts sent against Inter-SGSN-RAU requests with update type “RA Updating” in 3G service. <b>Triggers:</b> On sending a successful RAU-Accept with update-result “RA Updating”. <b>Availability:</b> per SGSN service, per RA <b>Type:</b> Counter	Int32

Statistic	Description	Data Type
3G-comb-upd-rau-accept-inter	<p><b>Description:</b> Sum of all RAU-reject counters with individual causes against Inter-SGSN-RAU requests with update type “Combined RA/LA update” or “Combined RA/LA update with IMSI Attach” in 3G service.</p> <p><b>Triggers:</b> A derived counter. See individual counters for trigger points.</p> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
2G-rau-accept-intra	<p><b>Description:</b> Sum of all RAU-Accepts sent against Intra-SGSN-RAU requests with update type “RA Updated” in 2G service.</p> <p><b>Triggers:</b> On sending a successful RAU-Accept with update-result “RA Updated”.</p> <p><b>Availability:</b> per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
2G-comb-upd-rau-accept-intra	<p><b>Description:</b> Sum of all RAU-reject counters with individual causes against Intra-SGSN-RAU requests with update type “Combined RA/LA update” or “Combined RA/LA update with IMSI Attach” in 2G service.</p> <p><b>Triggers:</b> On sending a successful RAU-accept with update-result "Combined RA/LA update" or "Combined RA/LA update with IMSI Attach".</p> <p><b>Availability:</b> per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
2G-rau-accept-inter	<p><b>Description:</b> Sum of all RAU-Accepts sent against Inter-SGSN-RAU requests with update type “RA Updated” in 2G service.</p> <p><b>Triggers:</b> On sending a successful RAU-Accept with update-result “RA Updated”.</p> <p><b>Availability:</b> per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
2G-comb-upd-rau-accept-inter	<p><b>Description:</b> Sum of all RAU-reject counters with individual causes against Intra-SGSN-RAU request with update type “Combined RA/LA update” or “Combined RA/LA update with IMSI Attach” in 2G service.</p> <p><b>Triggers:</b> A derived counter. See individual counters for trigger points.</p> <p><b>Availability:</b> per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
3G-rau-accept-periodic	<p><b>Description:</b> Sum of all RAU-Accepts sent against Intra-SGSN-RAU requests of type “Periodic Updating” with update type “RA updating” in 3G service.</p> <p><b>Triggers:</b> On sending a successful RAU-Accept with update-result “Periodic Updating”.</p> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
2G-rau-accept-periodic	<p><b>Description:</b> Sum of all RAU-Accepts sent against Intra-SGSN-RAU requests of type “Periodic Updating” with update type “RA updated” in 2G service.</p> <p><b>Triggers:</b> On sending a successful RAU-Accept with update-result “Periodic Updated”.</p> <p><b>Availability:</b> per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
3G-ret-rau-accept-intra	Total number of intra-SGSN routing area update accept messages retransmitted for 3G service.	Int32
2G-ret-rau-accept-intra	Total number of intra-SGSN routing area update accept messages retransmitted for 2G service.	Int32
3G-ret-rau-accept-inter	Total number of inter-SGSN routing area update accept messages retransmitted for 3G service.	Int32

Statistic	Description	Data Type
2G-ret-rau-accept-inter	Total number of inter-SGSN routing area update accept messages retransmitted for 2G service.	Int32
3G-ret-rau-accept-periodic	Total number of periodic routing area update accept messages retransmitted for 3G service.	Int32
2G-ret-rau-accept-periodic	Total number of periodic routing area update accept messages retransmitted for 2G service.	Int32
3G-rau-complete	Total number of routing area update complete messages for 3G service.	Int32
2G-rau-complete	Total number of routing area update complete messages for 2G service.	Int32
3G-rau-reject	Total number of routing area update reject messages for 3G service.	Int32
3G-intra-rau-reject	<b>Description:</b> Sum of all RAU-reject counters with individual causes against Intra-SGSN-RAU requests of type “RA Updating” in 3G service. <b>Triggers:</b> A derived counter. See individual counters for trigger points. <b>Availability:</b> per SGSN service, per RA <b>Type:</b> Counter	Int32
3G-periodic-rau-reject	<b>Description:</b> Sum of all RAU-reject counters with individual causes against Intra-SGSN-RAU requests of type “Periodic RA Updating” in 3G service. <b>Triggers:</b> A derived counter. See individual counters for trigger points. <b>Availability:</b> per SGSN service, per RA <b>Type:</b> Counter	Int32
3G-inter-rau-reject	<b>Description:</b> Sum of all RAU-reject counters with individual causes against Inter-SGSN-RAU requests of type “RA Updating” in 3G service. <b>Triggers:</b> A derived counter. See individual counters for trigger points. <b>Availability:</b> per SGSN service, per RA <b>Type:</b> Counter	Int32
3G-comb-rau-reject	<b>Description:</b> Sum of all RAU-reject counters with individual causes against Intra-SGSN-RAU requests of type “Combined RA/LA update” or “Combined RA/LA update with IMSI Attach” in 3G service. <b>Triggers:</b> A derived counter. See individual counters for trigger points. <b>Availability:</b> per SGSN service, per RA <b>Type:</b> Counter	Int32
3G-comb-inter-rau-reject	<b>Description:</b> Sum of all RAU-reject counters with individual causes against Inter-SGSN-RAU requests of type “Combined RA/LA update” or “Combined RA/LA update with IMSI Attach” in 3G service. <b>Triggers:</b> A derived counter. See individual counters for trigger points. <b>Availability:</b> per SGSN service, per RA <b>Type:</b> Counter	Int32
2G-rau-reject	Total number of routing area update messages rejected for 2G service.	Int32
2G-intra-rau-reject	<b>Description:</b> Sum of all RAU-reject counters with individual causes against Intra-SGSN-RAU requests of type “RAU Updating” in 2G service. <b>Triggers:</b> A derived counter. See individual counters for trigger points. <b>Availability:</b> per GPRS service <b>Type:</b> Counter	Int32

Statistic	Description	Data Type
2G-periodic-rau-reject	<b>Description:</b> Sum of all RAU-reject counters with individual causes against Intra-SGSN-RAU requests of type “Periodic RA Updating” in 2G service. <b>Triggers:</b> A derived counter. See individual counters for trigger points. <b>Availability:</b> per GPRS service <b>Type:</b> Counter	Int32
2G-inter-rau-reject	<b>Description:</b> Sum of all RAU-reject counters with individual causes against Inter-SGSN-RAU requests of type “RAU Updating” in 2G service. <b>Triggers:</b> A derived counter. See individual counters for trigger points. <b>Availability:</b> per GPRS service <b>Type:</b> Counter	Int32
2G-comb-rau-reject	<b>Description:</b> Sum of all RAU-reject counters with individual causes against Intra-SGSN-RAU requests of type “Combined RA/LA update” or “Combined RA/LA update with IMSI Attach” in 2G service. <b>Triggers:</b> A derived counter. See individual counters for trigger points. <b>Availability:</b> per GPRS service <b>Type:</b> Counter	Int32
2G-comb-inter-rau-reject	<b>Description:</b> Sum of all RAU-reject counters with individual causes against Inter-SGSN-RAU requests of type “Combined RA/LA update” or “Combined RA/LA update with IMSI Attach” in 2G service. <b>Triggers:</b> A derived counter. See individual counters for trigger points. <b>Availability:</b> per GPRS service <b>Type:</b> Counter	Int32
3G-rau-rej-imsi-unknown-hlr	This statistic has been deleted.	Int32
2G-rau-rej-imsi-unknown-hlr	This statistic has been deleted.	Int32
3G-rau-rej-illegal-ms	This statistic has been deleted.	Int32
2G-rau-rej-illegal-ms	This statistic has been deleted.	Int32
3G-rau-rej-illegal-me	This statistic has been deleted.	Int32
2G-rau-rej-illegal-me	This statistic has been deleted.	Int32
3G-rau-rej-gprs-svc-not-allow	This statistic has been deleted.	Int32
2G-rau-rej-gprs-svc-not-allow	This statistic has been deleted.	Int32
3G-rau-rej-gprs-and-nongprs-svc-not-allow	This statistic has been deleted.	Int32

Statistic	Description	Data Type
2G-rau-rej-gprs-and-nongprs-svc-not-allow	This statistic has been deleted.	Int32
3G-rau-rej-msid-not-derived-by-nw	This statistic has been deleted.	Int32
2G-rau-rej-msid-not-derived-by-nw	This statistic has been deleted.	Int32
3G-rau-rej-implicitly-detach	This statistic has been deleted.	Int32
2G-rau-rej-implicitly-detach	This statistic has been deleted.	Int32
3G-rau-rej-plmn-not-allowed	This statistic has been deleted.	Int32
2G-rau-rej-plmn-not-allowed	This statistic has been deleted.	Int32
3G-rau-rej-location-area-not-allowed	This statistic has been deleted.	Int32
2G-rau-rej-location-area-not-allowed	This statistic has been deleted.	Int32
3G-rau-rej-roam-not-allowed-in-larea	This statistic has been deleted.	Int32
2G-rau-rej-roam-not-allowed-in-larea	This statistic has been deleted.	Int32
3G-rau-rej-gprs-svc-not-allowed-in-plmn	This statistic has been deleted.	Int32
2G-rau-rej-gprs-svc-not-allowed-in-plmn	This statistic has been deleted.	Int32
3G-rau-rej-no-cells-in-location-area	This statistic has been deleted.	Int32
2G-rau-rej-no-cells-in-location-area	This statistic has been deleted.	Int32
3G-rau-rej-msc-not-reachable	This statistic has been deleted.	Int32
2G-rau-rej-msc-not-reachable	This statistic has been deleted.	Int32
3G-rau-rej-network-failure	This statistic has been deleted.	Int32

## ■ Common Statistics

Statistic	Description	Data Type
2G-rau-rej-network-failure	This statistic has been deleted.	Int32
3G-rau-rej-mac-failure	This statistic has been deleted.	Int32
2G-rau-rej-mac-failure	This statistic has been deleted.	Int32
3G-rau-rej-syn-failure	This statistic has been deleted.	Int32
2G-rau-rej-syn-failure	This statistic has been deleted.	Int32
3G-rau-rej-congestion	This statistic has been deleted.	Int32
2G-rau-rej-congestion	This statistic has been deleted.	Int32
3G-rau-rej-gsm-auth-unacceptable	This statistic has been deleted.	Int32
2G-rau-rej-gsm-auth-unacceptable	This statistic has been deleted.	Int32
3G-rau-rej-no-pdp-ctx-actv	This statistic has been deleted.	Int32
2G-rau-rej-no-pdp-ctx-actv	This statistic has been deleted.	Int32
3G-rau-rej-retry-from-new-cell	This statistic has been deleted.	Int32
2G-rau-rej-retry-from-new-cell	This statistic has been deleted.	Int32
3G-rau-rej-sem-wrong-msg	This statistic has been deleted.	Int32
2G-rau-rej-sem-wrong-msg	This statistic has been deleted.	Int32
3G-rau-rej-inval-mand-info	This statistic has been deleted.	Int32
2G-rau-rej-inval-mand-info	This statistic has been deleted.	Int32
3G-rau-rej-msg-type-non-exist	This statistic has been deleted.	Int32
2G-rau-rej-msg-type-non-exist	This statistic has been deleted.	Int32

Statistic	Description	Data Type
3G-rau-rej-mtype-not-compat-prot-state	This statistic has been deleted.	Int32
2G-rau-rej-mtype-not-compat-prot-state	This statistic has been deleted.	Int32
3G-rau-rej-ie-non-existent	This statistic has been deleted.	Int32
2G-rau-rej-ie-non-existent	This statistic has been deleted.	Int32
3G-rau-rej-cond-ie-error	This statistic has been deleted.	Int32
2G-rau-rej-cond-ie-error	This statistic has been deleted.	Int32
3G-rau-rej-msg-not-compat-prot-state	This statistic has been deleted.	Int32
2G-rau-rej-msg-not-compat-prot-state	This statistic has been deleted.	Int32
3G-rau-rej-prot-error	This statistic has been deleted.	Int32
2G-rau-rej-prot-error	This statistic has been deleted.	Int32
3G-rau-rej-unknown-error	This statistic has been deleted.	Int32
2G-rau-rej-unknown-error	This statistic has been deleted.	Int32
3G-intra-rau-rej-imsi-unknown-hlr	Total number of intra-SGSN routing area update requests rejected for 3G service due to unknown IMSI in HLR.	Int32
2G-intra-rau-rej-imsi-unknown-hlr	Total number of intra-SGSN routing area update requests rejected for 2G service due to unknown IMSI in HLR.	Int32
3G-intra-rau-rej-illegal-ms	Total number of intra-SGSN routing area update requests rejected for 3G service due to illegal mobile subscriber.	Int32
2G-intra-rau-rej-illegal-ms	Total number of intra-SGSN routing area update requests rejected for 2G service due to illegal mobile subscriber.	Int32
3G-intra-rau-rej-illegal-me	Total number of intra-SGSN routing area update requests rejected for 3G service due to illegal mobile equipment.	Int32
2G-intra-rau-rej-illegal-me	Total number of intra-SGSN routing area update requests rejected for 2G service due to illegal mobile equipment.	Int32

Statistic	Description	Data Type
3G-intra-rau-rej-gprs-svc-not-allw	Total number of intra-SGSN routing area update requests rejected for 3G service due to GPRS service not allowed for subscriber.	Int32
2G-intra-rau-rej-gprs-svc-not-allw	Total number of intra-SGSN routing area update requests rejected for 2G service due to GPRS service not allowed for subscriber.	Int32
3G-intra-rau-rej-nongprs-svc-not-allow	Total number of intra-SGSN routing area update requests rejected for 3G service due to GPRS and non-GPRS service not allowed for subscriber.	Int32
2G-intra-rau-rej-nongprs-svc-not-allow	Total number of intra-SGSN routing area update requests rejected for 2G service due to GPRS and non-GPRS service not allowed for subscriber.	Int32
3G-intra-rau-rej-msid-not-derived-by-nw	Total number of intra-SGSN routing area update requests rejected for 3G service due to network failed to derive MSID from attach message.	Int32
2G-intra-rau-rej-msid-not-derived-by-nw	Total number of intra-SGSN routing area update requests rejected for 2G service due to network failed to derive MSID from attach message.	Int32
3G-intra-rau-rej-implicitly-detach	Total number of intra-SGSN routing area update requests rejected for 3G service due to implicitly detach.	Int32
2G-intra-rau-rej-implicitly-detach	Total number of intra-SGSN routing area update requests rejected for 2G service due to implicitly detach.	Int32
3G-intra-rau-rej-plmn-not-allowed	Total number of intra-SGSN routing area update requests rejected for 3G service due to specific PLMN not allowed.	Int32
2G-intra-rau-rej-plmn-not-allowed	The total intra-SGSN routing area update message rejected in intra-2G roaming due to specific PLMN not allowed.	Int32
3G-intra-rau-rej-loc-area-not-allow	Total number of intra-SGSN routing area update requests rejected for 3G service due to specific location area not allowed.	Int32
2G-intra-rau-rej-loc-area-not-allow	Total number of intra-SGSN routing area update requests rejected for 2G service due to specific location area not allowed.	Int32
3G-intra-rau-rej-roam-not-allow-larea	Total number of intra-SGSN routing area update requests rejected for 3G service due to roaming not allowed in specific location area.	Int32
2G-intra-rau-rej-roam-not-allow-larea	Total number of intra-SGSN routing area update requests rejected for 2G service due to roaming not allowed in specific location area.	Int32
3G-intra-rau-rej-gprs-svc-not-allow-plmn	<p><b>Description:</b> Total number of RAU rejects sent with cause “GPRS service not allowed in this PLMN” against Intra-SGSN-RAU requests of type “RA Updating” in 3G service.</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) On getting “Roaming not allowed” from HLR for SAI-Req/GLU-Req.</li> <li>2) When operator policy is configured with this value as the reject cause for attaches/RAUs.</li> </ol> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
2G-intra-rau-rej-gprs-svc-not-allow-plmn	<p><b>Description:</b> Total number of RAU rejects sent with cause “GPRS service not allowed in this PLMN” against Intra-SGSN-RAU requests of type “RA Updating” in 2G service.</p> <p><b>Triggers:</b></p> <p>1) On getting “Roaming not allowed” from HLR for SAI-Req/GLU-Req.</p> <p>2) When operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
3G-intra-rau-rej-no-cells-in-loc-area	Total number of intra-SGSN routing area update requests rejected for 3G service due to non availability of suitable cell in specific location area.	Int32
2G-intra-rau-rej-no-cells-in-loc-area	Total number of intra-SGSN routing area update requests rejected for 2G service due to non availability of suitable cell in specific location area.	Int32
3G-intra-rau-rej-msc-not-reachable	Total number of intra-SGSN routing area update requests rejected for 3G service as MSC not reachable.	Int32
2G-intra-rau-rej-msc-not-reachable	Total number of intra-SGSN routing area update requests rejected for 2G service as MSC not reachable.	Int32
3G-intra-rau-rej-network-failure	Total number of intra-SGSN routing area update requests rejected for 3G service due to network failure.	Int32
2G-intra-rau-rej-network-failure	Total number of intra-SGSN routing area update requests rejected for 2G service due to network failure.	Int32
3G-intra-rau-rej-mac-failure	Total number of intra-SGSN routing area update requests rejected for 3G service due to message authenticate code (MAC) failure.	Int32
2G-intra-rau-rej-mac-failure	Total number of intra-SGSN routing area update requests rejected for 2G service due to MAC failure.	Int32
3G-intra-rau-rej-syn-failure	Total number of intra-SGSN routing area update requests rejected for 3G service due to context synchronization failure.	Int32
2G-intra-rau-rej-syn-failure	Total number of intra-SGSN routing area update requests rejected for 2G service due to context synchronization failure.	Int32
3G-intra-rau-rej-congestion	Total number of intra-SGSN routing area update requests rejected for 3G service due to network congestion.	Int32
2G-intra-rau-rej-congestion	Total number of intra-SGSN routing area update requests rejected for 2G service due to network congestion.	Int32
3G-intra-rau-rej-gsm-auth-unacceptable	Total number of intra-SGSN routing area update requests rejected for 3G service due to unacceptable authentication from GSM network.	Int32
2G-intra-rau-rej-gsm-auth-unacceptable	Total number of intra-SGSN routing area update requests rejected for 2G service due to unacceptable authentication from GSM network.	Int32
3G-intra-rau-rej-no-pdp-ctx-actv	Total number of intra-SGSN routing area update requests rejected for 3G service as PDP context is not activated.	Int32
2G-intra-rau-rej-no-pdp-ctx-actv	Total number of intra-SGSN routing area update requests rejected for 2G service as PDP context is not activated.	Int32

Statistic	Description	Data Type
3G-intra-rau-rej-retry-from-new-cell	Total number of intra-SGSN routing area update requests rejected for 3G service as subscriber retried for update from new cell.	Int32
2G-intra-rau-rej-retry-from-new-cell	Total number of intra-SGSN routing area update requests rejected for 2G service as subscriber retried for update from new cell.	Int32
3G-intra-rau-rej-inval-mand-info	Total number of intra-SGSN routing area update requests rejected for 3G service as mandatory information in message is invalid.	Int32
2G-intra-rau-rej-inval-mand-info	Total number of intra-SGSN routing area update requests rejected for 2G service as mandatory information in message is invalid.	Int32
3G-intra-rau-rej-msg-type-non-exist	Total number of intra-SGSN routing area update requests rejected for 3G service due to non-existent type of message.	Int32
2G-intra-rau-rej-msg-type-non-exist	Total number of intra-SGSN routing area update requests rejected for 2G service due to non-existent type of message.	Int32
3G-intra-rau-rej-mtype-incompat-pstate	Total number of intra-SGSN routing area update requests rejected for 3G service as message type is not compatible with protocol state.	Int32
2G-intra-rau-rej-mtype-incompat-pstate	Total number of intra-SGSN routing area update requests rejected for 2G service as message type is not compatible with protocol state.	Int32
3G-intra-rau-rej-ie-non-existent	Total number of intra-SGSN routing area update requests rejected for 3G service due to non-existence of information element.	Int32
2G-intra-rau-rej-ie-non-existent	Total number of intra-SGSN routing area update requests rejected for 2G service due to non-existence of information element.	Int32
3G-intra-rau-rej-cond-ie-error	Total number of intra-SGSN routing area update requests rejected for 3G service due to error in conditional information element.	Int32
2G-intra-rau-rej-cond-ie-error	Total number of intra-SGSN routing area update requests rejected for 2G service due to error in conditional information element.	Int32
3G-intra-rau-rej-msg-incompat-prot-state	Total number of intra-SGSN routing area update requests rejected for 3G service as message type is not compatible with protocol state.	Int32
2G-intra-rau-rej-msg-incompat-prot-state	Total number of intra-SGSN routing area update requests rejected for 2G service as message type is not compatible with protocol state.	Int32
3G-intra-rau-rej-prot-error	Total number of intra-SGSN routing area update requests rejected for 3G service due to protocol error in message.	Int32
2G-intra-rau-rej-prot-error	Total number of intra-SGSN routing area update requests rejected for 2G service due to protocol error in message.	Int32
3G-intra-rau-rej-unknown-error	Total number of intra-SGSN routing area update requests rejected for 3G service where cause is unknown or not specified here.	Int32
2G-intra-rau-rej-unknown-error	Total number of intra-SGSN routing area update requests rejected for 2G service where cause is unknown or not specified here.	Int32

Statistic	Description	Data Type
3G-intra-prau-rej-imsi-unknown-hlr	Total number of periodic intra-SGSN routing area update requests rejected for 3G service due to unknown IMSI in HLR.	Int32
2G-intra-prau-rej-imsi-unknown-hlr	Total number of periodic intra-SGSN routing area update requests rejected for 2G service due to unknown IMSI in HLR.	Int32
3G-intra-prau-rej-illegal-ms	Total number of periodic intra-SGSN routing area update requests rejected for 3G service due to illegal mobile subscriber.	Int32
2G-intra-prau-rej-illegal-ms	Total number of periodic intra-SGSN routing area update requests rejected for 2G service due to illegal mobile subscriber.	Int32
3G-intra-prau-rej-illegal-me	Total number of periodic intra-SGSN routing area update requests rejected for 3G service due to illegal mobile equipment.	Int32
2G-intra-prau-rej-illegal-me	Total number of periodic intra-SGSN routing area update requests rejected for 2G service due to illegal mobile equipment.	Int32
3G-intra-prau-rej-gprs-svc-not-allow	Total number of periodic intra-SGSN routing area update requests rejected for 3G service due to GPRS service not allowed for subscriber.	Int32
2G-intra-prau-rej-gprs-svc-not-allow	Total number of periodic intra-SGSN routing area update requests rejected for 2G service due to GPRS service not allowed for subscriber.	Int32
3G-intra-prau-rej-nongprs-svc-not-allow	Total number of periodic intra-SGSN routing area update requests rejected for 3G service due to GPRS and non-GPRS service not allowed for subscriber.	Int32
2G-intra-prau-rej-nongprs-svc-not-allow	Total number of periodic intra-SGSN routing area update requests rejected for 2G service due to GPRS and non-GPRS service not allowed for subscriber.	Int32
3G-intra-prau-rej-msid-not-derived-by-nw	Total number of periodic intra-SGSN routing area update requests rejected for 3G service due to network failed to derive MSID from attach message.	Int32
2G-intra-prau-rej-msid-not-derived-by-nw	Total number of periodic intra-SGSN routing area update requests rejected for 2G service due to network failed to derive MSID from attach message.	Int32
3G-intra-prau-rej-implicitly-detach	Total number of periodic intra-SGSN routing area update requests rejected for 3G service due to implicitly detach.	Int32
2G-intra-prau-rej-implicitly-detach	Total number of periodic intra-SGSN routing area update requests rejected for 2G service due to implicitly detach.	Int32
3G-intra-prau-rej-plmn-not-allowed	Total number of periodic intra-SGSN routing area update requests rejected for 3G service due to specific PLMN not allowed.	Int32
2G-intra-prau-rej-plmn-not-allowed	The total periodic intra-SGSN routing area update message rejected in intra-2G roaming due to specific PLMN not allowed.	Int32
3G-intra-prau-rej-loc-area-not-allowed	Total number of periodic intra-SGSN routing area update requests rejected for 3G service due to specific location area not allowed.	Int32

Statistic	Description	Data Type
2G-intra-prau-rej-loc-area-not-allowed	Total number of periodic intra-SGSN routing area update requests rejected for 2G service due to specific location area not allowed.	Int32
3G-intra-prau-rej-roam-not-allowed-larea	Total number of periodic intra-SGSN routing area update requests rejected for 3G service due to roaming not allowed in specific location area.	Int32
2G-intra-prau-rej-roam-not-allowed-larea	Total number of periodic intra-SGSN routing area update requests rejected for 2G service due to roaming not allowed in specific location area.	Int32
3G-intra-prau-rej-gprs-svc-not-allowed-plmn	Total number of periodic intra-SGSN routing area update requests rejected for 3G service due to GPRS service not allowed in specific PLMN.	Int32
2G-intra-prau-rej-gprs-svc-not-allowed-plmn	Total number of periodic intra-SGSN routing area update requests rejected for 2G service due to GPRS service not allowed in specific PLMN.	Int32
3G-intra-prau-rej-no-cells-in-loc-area	<p><b>Description:</b> Total number of intra-SGSN RAU requests, of type “periodic updating”, for 3G service that were rejected with reject messages sent with a cause of "No Suitable Cells In Location Area".</p> <p><b>Triggers:</b> Increments:</p> <ul style="list-style-type: none"> <li>- upon receiving a "UMTS access control" message from a Siemens HLR for a sai-req (service area identify request).</li> <li>- when an operator policy is configured with this value as the reject cause for RAUs.</li> </ul> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
2G-intra-prau-rej-no-cells-in-loc-area	<p><b>Description:</b> Total number of intra-SGSN RAU requests, of type “periodic updating”, for 2G service that were rejected where “rau-reject” messages were sent with a cause of "No Suitable Cells In Location Area".</p> <p><b>Triggers:</b> Increments:</p> <ul style="list-style-type: none"> <li>- upon receiving a "UMTS access control" message from a Siemens HLR for a sai-req (service area identify request).</li> <li>- when an operator policy is configured with this value as the reject cause for RAUs.</li> </ul> <p><b>Availability:</b> per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
3G-intra-prau-rej-msc-not-reachable	<p><b>Description:</b> Total number of intra-SGSN RAU requests, of type “periodic updating”, for 3G service that were rejected where “rau-reject” messages were sent with a cause of "MSC temporarily not reachable".</p> <p><b>Triggers:</b> Increments: when the operator policy is configured with this value as the reject cause for RAUs.</p> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
2G-intra-prau-rej-msc-not-reachable	<p><b>Description:</b> Total number of intra-SGSN RAU requests, of type “periodic updating”, for 2G service that were rejected where “rau-reject” messages were sent with a cause of "MSC temporarily not reachable".</p> <p><b>Triggers:</b> Increments: when the operator policy is configured with this value as the reject cause for RAUs.</p> <p><b>Availability:</b> per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
3G-intra-prau-rej-network-failure	<p><b>Description:</b> Total number of intra-SGSN RAU requests, of type “period updating”, for 3G service that were rejected where the “rau-reject” message was sent with a cause "Network Failure"</p> <p><b>Triggers:</b> Increments :</p> <ul style="list-style-type: none"> <li>- if RNC is overloaded.</li> <li>- if not enough credits at session manager.</li> <li>- upon receiving sai-request with cause of "data missing from hlr" .</li> <li>- if there are too many IU's for the same subscriber.</li> <li>- upon receiving RAU with a peer-sgsn P-TMSI when another attach is ongoing with the same P-TMSI.</li> <li>- when the operator policy is configured with this value as the reject cause for RAUs.</li> </ul> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
2G-intra-prau-rej-network-failure	<p><b>Description:</b> Total number of intra-SGSN RAU requests, of type “period updating”, for 2G service that were rejected where the “rau-reject” message was sent with a cause "Network Failure"</p> <p><b>Triggers:</b> Increments :</p> <ul style="list-style-type: none"> <li>- upon receiving a sai-req with cause "data missing from hlr".</li> <li>- on XID failure for RAU.</li> <li>- if unable to send a “check-imei” request out.</li> <li>- when the operator policy is configured with this value as the reject cause for RAUs.</li> </ul> <p><b>Availability:</b> per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
3G-intra-prau-rej-mac-failure	<p><b>Description:</b> Total number of intra-SGSN RAU requests, of type “period updating”, for 3G service that were rejected where the “rau-reject” message was sent with a cause "MAC Failure".</p> <p><b>Triggers:</b> Increments when the operator policy is configured with this value as the reject cause for RAUs.</p> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
2G-intra-prau-rej-mac-failure	<p><b>Description:</b> Total number of intra-SGSN RAU requests, of type “period updating”, for 2G service that were rejected where the “rau-reject” message was sent with a cause "MAC Failure".</p> <p><b>Triggers:</b> Increments when the operator policy is configured with this value as the reject cause for RAUs.</p> <p><b>Availability:</b> per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
3G-intra-prau-rej-syn-failure	<p><b>Description:</b> Total number of intra-SGSN RAU requests, of type “period updating”, for 3G service that were rejected where the “rau-reject” message was sent with a cause "SYNC Failure".</p> <p><b>Triggers:</b> Increments when the operator policy is configured with this value as the reject cause for RAUs.</p> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
2G-intra-prau-rej-syn-failure	<b>Description:</b> Total number of intra-SGSN RAU requests, of type “period updating”, for 2G service that were rejected where the “rau-reject” message was sent with a cause "SYNC Failure". <b>Triggers:</b> Increments when the operator policy is configured with this value as the reject cause for RAUs. <b>Availability:</b> per GPRS service <b>Type:</b> Counter	Int32
3G-intra-prau-rej-congestion	Total number of periodic intra-SGSN routing area update requests rejected for 3G service due to network congestion.	Int32
2G-intra-prau-rej-congestion	Total number of periodic intra-SGSN routing area update requests rejected for 2G service due to network congestion.	Int32
3G-intra-prau-rej-gsm-auth-unacceptable	Total number of periodic intra-SGSN routing area update requests rejected for 3G service due to unacceptable authentication from GSM network.	Int32
2G-intra-prau-rej-gsm-auth-unacceptable	Total number of periodic intra-SGSN routing area update requests rejected for 2G service due to unacceptable authentication from GSM network.	Int32
3G-intra-prau-rej-no-pdp-ctx-actv	Total number of periodic intra-SGSN routing area update requests rejected for 3G service as PDP context is not activated.	Int32
2G-intra-prau-rej-no-pdp-ctx-actv	Total number of periodic intra-SGSN routing area update requests rejected for 2G service as PDP context is not activated.	Int32
3G-intra-prau-rej-retry-from-new-cell	Total number of periodic intra-SGSN routing area update requests rejected for 3G service as subscriber retried for update from new cell.	Int32
2G-intra-prau-rej-retry-from-new-cell	Total number of periodic intra-SGSN routing area update requests rejected for 2G service as subscriber retried for update from new cell.	Int32
3G-intra-prau-rej-sem-wrong-msg	Total number of periodic intra-SGSN routing area update requests rejected for 3G service as Attach Request message is semantically wrong.	Int32
2G-intra-prau-rej-sem-wrong-msg	Total number of periodic intra-SGSN routing area update requests rejected for 2G service as Attach Request message is semantically wrong.	Int32
3G-intra-prau-rej-inval-mand-info	Total number of periodic intra-SGSN routing area update requests rejected for 3G service as mandatory information in message is invalid.	Int32
2G-intra-prau-rej-inval-mand-info	Total number of periodic intra-SGSN routing area update requests rejected for 2G service as mandatory information in message is invalid.	Int32
3G-intra-prau-rej-msg-type-non-exist	Total number of periodic intra-SGSN routing area update requests rejected for 3G service due to non-existent type of message.	Int32
2G-intra-prau-rej-msg-type-non-exist	Total number of periodic intra-SGSN routing area update requests rejected for 2G service due to non-existent type of message.	Int32
3G-intra-prau-rej-mtype-incompat-pstate	Total number of periodic intra-SGSN routing area update requests rejected for 3G service as message type is not compatible with protocol state.	Int32

Statistic	Description	Data Type
2G-intra-prau-rej-mtype-incompat-pstate	Total number of periodic intra-SGSN routing area update requests rejected for 2G service as message type is not compatible with protocol state.	Int32
3G-intra-prau-rej-ie-non-existent	Total number of periodic intra-SGSN routing area update requests rejected for 3G service due to non-existence of information element.	Int32
2G-intra-prau-rej-ie-non-existent	Total number of periodic intra-SGSN routing area update requests rejected for 2G service due to non-existence of information element.	Int32
3G-intra-prau-rej-cond-ie-error	Total number of periodic intra-SGSN routing area update requests rejected for 3G service due to error in conditional information element.	Int32
2G-intra-prau-rej-cond-ie-error	Total number of periodic intra-SGSN routing area update requests rejected for 2G service due to error in conditional information element.	Int32
3G-intra-prau-rej-msg-incompat-pstate	Total number of periodic intra-SGSN routing area update requests rejected for 3G service as message type is not compatible with protocol state.	Int32
2G-intra-prau-rej-msg-incompat-pstate	Total number of periodic intra-SGSN routing area update requests rejected for 2G service as message type is not compatible with protocol state.	Int32
3G-intra-prau-rej-prot-error	Total number of periodic intra-SGSN routing area update requests rejected for 3G service due to protocol error in message.	Int32
2G-intra-prau-rej-prot-error	Total number of periodic intra-SGSN routing area update requests rejected for 2G service due to protocol error in message.	Int32
3G-intra-prau-rej-unknown-error	Total number of periodic intra-SGSN routing area update requests rejected for 3G service where cause is unknown or not specified here.	Int32
2G-intra-prau-rej-unknown-error	Total number of periodic intra-SGSN routing area update requests rejected for 2G service where cause is unknown or not specified here.	Int32
3G-comb-rau-rej-imsi-unknown-hlr	Total number of combined (GPRS and IMSI) routing area update requests rejected for 3G service due to unknown IMSI in HLR.	Int32
2G-comb-rau-rej-imsi-unknown-hlr	Total number of combined (GPRS and IMSI) routing area update requests rejected for 2G service due to unknown IMSI in HLR.	Int32
3G-comb-rau-rej-illegal-ms	Total number of combined (GPRS and IMSI) routing area update requests rejected for 3G service due to illegal mobile subscriber.	Int32
2G-comb-rau-rej-illegal-ms	Total number of combined (GPRS and IMSI) routing area update requests rejected for 2G service due to illegal mobile subscriber.	Int32
3G-comb-rau-rej-illegal-me	Total number of combined (GPRS and IMSI) routing area update requests rejected for 3G service due to illegal mobile equipment.	Int32
2G-comb-rau-rej-illegal-me	Total number of combined (GPRS and IMSI) routing area update requests rejected for 2G service due to illegal mobile equipment.	Int32
3G-comb-rau-rej-gprs-svc-not-allow	Total number of combined (GPRS and IMSI) routing area update requests rejected for 3G service due to GPRS service not allowed for subscriber.	Int32

Statistic	Description	Data Type
2G-comb-rau-rej-gprs-svc-not-allow	Total number of combined (GPRS and IMSI) routing area update requests rejected for 2G service due to GPRS service not allowed for subscriber.	Int32
3G-comb-rau-rej-nongprs-svc-not-allow	Total number of combined (GPRS and IMSI) routing area update requests rejected for 3G service due to GPRS and non-GPRS service not allowed for subscriber.	Int32
2G-comb-rau-rej-nongprs-svc-not-allow	Total number of combined (GPRS and IMSI) routing area update requests rejected for 2G service due to GPRS and non-GPRS service not allowed for subscriber.	Int32
3G-comb-rau-rej-msid-not-derived-by-nw	Total number of combined (GPRS and IMSI) routing area update requests rejected for 3G service due to network failed to derive MSID from attach message.	Int32
2G-comb-rau-rej-msid-not-derived-by-nw	Total number of combined (GPRS and IMSI) routing area update requests rejected for 2G service due to network failed to derive MSID from attach message.	Int32
3G-comb-rau-rej-implicitly-detach	Total number of combined (GPRS and IMSI) routing area update requests rejected for 3G service due to implicitly detach.	Int32
2G-comb-rau-rej-implicitly-detach	Total number of combined (GPRS and IMSI) routing area update requests rejected for 2G service due to implicitly detach.	Int32
3G-comb-rau-rej-plmn-not-allowed	Total number of combined (GPRS and IMSI) routing area update requests rejected for 3G service due to specific PLMN not allowed.	Int32
2G-comb-rau-rej-plmn-not-allowed	The total intra-SGSN routing area update message rejected in intra-2G roaming due to specific PLMN not allowed.	Int32
3G-comb-rau-rej-loc-area-not-allowed	Total number of combined (GPRS and IMSI) routing area update requests rejected for 3G service due to specific location area not allowed.	Int32
2G-comb-rau-rej-loc-area-not-allowed	Total number of combined (GPRS and IMSI) routing area update requests rejected for 2G service due to specific location area not allowed.	Int32
3G-comb-rau-rej-roam-not-allowed-larea	Total number of combined (GPRS and IMSI) routing area update requests rejected for 3G service due to roaming not allowed in specific location area.	Int32
2G-comb-rau-rej-roam-not-allowed-larea	Total number of combined (GPRS and IMSI) routing area update requests rejected for 2G service due to roaming not allowed in specific location area.	Int32
3G-comb-rau-rej-gprs-svc-not-allowed-plmn	<p><b>Description:</b> Total number of RAU rejects sent with cause “GPRS service not allowed in this PLMN” against Intra-SGSN-RAU requests of type “Combined RA/LA update” or “Combined RA/LA update with IMSI Attach” in 3G service.</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) On getting “Roaming not allowed” from HLR for SAI-Req/GLU-Req.</li> <li>2) When operator policy is configured with this value as the reject cause for attaches/RAUs.</li> </ol> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
2G-comb-rau-rej-gprs-svc-not-allowed-plmn	<p><b>Description:</b> Total number of RAU reject messages sent with cause "GPRS service not allowed in this PLMN" against Intra-SGSN-RAU requests of type "Combined RA/LA update" or "Combined RA/LA update with IMSI Attach" in 2G service.</p> <p><b>Triggers:</b>            1) On getting "Roaming not allowed" from HLR for SAI-Req/GLU-Req.            2) When operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per GPRS service  <b>Type:</b> Counter</p>	Int32
3G-comb-rau-rej-no-cells-in-loc-area	<p><b>Description:</b> Total number of intra-SGSN RAU requests for 3G service, of type "Combined RA/LA update" or "Combined RA/LA update with IMSI Attach", sent with cause "No Suitable Cells In Location Area".</p> <p><b>Triggers:</b> Increments:            - upon receiving "UMTS access control" for the SAI-Request from the Siemens HLR.            - when the operator policy is configured with this value as the reject cause for RAUs.</p> <p><b>Availability:</b> per SGSN service, per RA  <b>Type:</b> Counter</p>	Int32
2G-comb-rau-rej-no-cells-in-loc-area	<p><b>Description:</b> Total number of intra-SGSN RAU requests for 2G service, of type "Combined RA/LA update" or "Combined RA/LA update with IMSI Attach", sent with cause "No Suitable Cells In Location Area".</p> <p><b>Triggers:</b> Increments:            - upon receiving "UMTS access control" for the SAI-Request from the Siemens HLR.            - when the operator policy is configured with this value as the reject cause for RAUs.</p> <p><b>Availability:</b> per GPRS service  <b>Type:</b> Counter</p>	Int32
3G-comb-rau-rej-msc-not-reachable	<p><b>Description:</b> Total number of intra-SGSN RAU requests for 3G service, of type "Combined RA/LA update" or "Combined RA/LA update with IMSI Attach", sent with cause "MSC temporarily not reachable".</p> <p><b>Triggers:</b> Increments when the operator policy is configured with this value as the reject cause for RAUs.</p> <p><b>Availability:</b> per SGSN service, per RA  <b>Type:</b> Counter</p>	Int32
2G-comb-rau-rej-msc-not-reachable	<p><b>Description:</b> Total number of intra-SGSN RAU requests for 2G service, of type "Combined RA/LA update" or "Combined RA/LA update with IMSI Attach", sent with cause "MSC temporarily not reachable".</p> <p><b>Triggers:</b> Increments when the operator policy is configured with this value as the reject cause for RAUs.</p> <p><b>Availability:</b> per GPRS service  <b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
3G-comb-rau-rej-network-failure	<p><b>Description:</b> Total number of intra-SGSN RAU requests for 3G service, of type "Combined RA/LA update" or "Combined RA/LA update with IMSI Attach", sent with cause "MSC temporarily not reachable".</p> <p><b>Triggers:</b> Increments:</p> <ul style="list-style-type: none"> <li>- if the RNC is overloaded.</li> <li>- if there is not enough credits at session manager.</li> <li>- upon receiving cause "data missing from hlr" in the SAI-request.</li> <li>- if there are too many IU's for the same subscriber.</li> <li>- upon receiving an RAU with a peer-sgsn P-TMSI when another attach is ongoing with the same P-TMSI.</li> <li>- when the operator policy is configured with this value as the reject cause for RAUs.</li> </ul> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
2G-comb-rau-rej-network-failure	<p><b>Description:</b> Total number of intra-SGSN RAU requests for 2G service, of type "Combined RA/LA update" or "Combined RA/LA update with IMSI Attach", sent with cause "MSC temporarily not reachable".</p> <p><b>Triggers:</b> Increments</p> <ul style="list-style-type: none"> <li>- if the RNC is overloaded.</li> <li>- if there is not enough credits at session manager.</li> <li>- upon receiving cause "data missing from hlr" in the SAI-request.</li> <li>- if there are too many IU's for the same subscriber.</li> <li>- upon receiving an RAU with a peer-sgsn P-TMSI when another attach is ongoing with the same P-TMSI.</li> <li>- when the operator policy is configured with this value as the reject cause for RAUs.</li> </ul> <p><b>Availability:</b> per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
3G-comb-rau-rej-mac-failure	<p><b>Description:</b> Total number of intra-SGSN RAU requests for 3G service, of type "Combined RA/LA update" or "Combined RA/LA update with IMSI Attach", sent with cause "MAC Failure".</p> <p><b>Triggers:</b> Increments when the operator policy is configured with this value as the reject cause for RAUs.</p> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
2G-comb-rau-rej-mac-failure	<p><b>Description:</b> Total number of intra-SGSN RAU requests for 2G service, of type "Combined RA/LA update" or "Combined RA/LA update with IMSI Attach", sent with cause "MAC Failure".</p> <p><b>Triggers:</b> Increments when the operator policy is configured with this value as the reject cause for RAUs.</p> <p><b>Availability:</b> per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
3G-comb-rau-rej-syn-failure	<p><b>Description:</b> Total number of intra-SGSN RAU requests for 3G service, of type "Combined RA/LA update" or "Combined RA/LA update with IMSI Attach", sent with cause "SYNC Failure".</p> <p><b>Triggers:</b> Increments when the operator policy is configured with this value as the reject cause for RAUs.</p> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
2G-comb-rau-rej-syn-failure	<b>Description:</b> Total number of intra-SGSN RAU requests for 2G service, of type "Combined RA/LA update" or "Combined RA/LA update with IMSI Attach", sent with cause "SYNC Failure". <b>Triggers:</b> Increments when the operator policy is configured with this value as the reject cause for RAUs. <b>Availability:</b> per GPRS service <b>Type:</b> Counter	Int32
3G-comb-rau-rej-congestion	Total number of combined (GPRS and IMSI) routing area update requests rejected for 3G service due to network congestion.	Int32
2G-comb-rau-rej-congestion	Total number of combined (GPRS and IMSI) routing area update requests rejected for 2G service due to network congestion.	Int32
3G-comb-rau-rej-gsm-auth-unacceptable	Total number of combined (GPRS and IMSI) routing area update requests rejected for 3G service due to unacceptable authentication from GSM network.	Int32
2G-comb-rau-rej-gsm-auth-unacceptable	Total number of combined (GPRS and IMSI) routing area update requests rejected for 2G service due to unacceptable authentication from GSM network.	Int32
3G-comb-rau-rej-no-pdp-ctx-actv	Total number of combined (GPRS and IMSI) routing area update requests rejected for 3G service as PDP context is not activated.	Int32
2G-comb-rau-rej-no-pdp-ctx-actv	Total number of combined (GPRS and IMSI) routing area update requests rejected for 2G service as PDP context is not activated.	Int32
3G-comb-rau-rej-retry-from-new-cell	Total number of combined (GPRS and IMSI) routing area update requests rejected for 3G service as subscriber retried for update from new cell.	Int32
2G-comb-rau-rej-retry-from-new-cell	Total number of combined (GPRS and IMSI) routing area update requests rejected for 2G service as subscriber retried for update from new cell.	Int32
3G-comb-rau-rej-sem-wrong-msg	Total number of combined (GPRS and IMSI) routing area update requests rejected for 3G service as Attach Request message is semantically wrong.	Int32
2G-comb-rau-rej-sem-wrong-msg	Total number of combined (GPRS and IMSI) routing area update requests rejected for 2G service as Attach Request message is semantically wrong.	Int32
3G-comb-rau-rej-inval-mand-info	Total number of combined (GPRS and IMSI) routing area update requests rejected for 3G service as mandatory information in message is invalid.	Int32
2G-comb-rau-rej-inval-mand-info	Total number of combined (GPRS and IMSI) routing area update requests rejected for 2G service as mandatory information in message is invalid.	Int32
3G-comb-rau-rej-msg-type-non-exist	Total number of combined (GPRS and IMSI) routing area update requests rejected for 3G service due to non-existence of information element.	Int32
2G-comb-rau-rej-msg-type-non-exist	Total number of combined (GPRS and IMSI) routing area update requests rejected for 2G service due to non-existence of information element.	Int32
3G-comb-rau-rej-mtype-incompat-pstate	Total number of combined (GPRS and IMSI) routing area update requests rejected for 3G service as message type is not compatible with protocol state.	Int32

Statistic	Description	Data Type
2G-comb-rau-rej-mtype-incompat-pstate	Total number of combined (GPRS and IMSI) routing area update requests rejected for 2G service as message type is not compatible with protocol state.	Int32
3G-comb-rau-rej-ie-non-existent	Total number of combined (GPRS and IMSI) routing area update requests rejected for 3G service due to non-existent type of message.	Int32
2G-comb-rau-rej-ie-non-existent	Total number of combined (GPRS and IMSI) routing area update requests rejected for 2G service due to non-existent type of message.	Int32
3G-comb-rau-rej-cond-ie-error	Total number of combined (GPRS and IMSI) routing area update requests rejected for 3G service due to error in conditional information element.	Int32
2G-comb-rau-rej-cond-ie-error	Total number of combined (GPRS and IMSI) routing area update requests rejected for 2G service due to error in conditional information element.	Int32
3G-comb-rau-rej-msg-incompat-pstate	Total number of combined (GPRS and IMSI) routing area update requests rejected for 3G service as message type is not compatible with protocol state.	Int32
2G-comb-rau-rej-msg-incompat-pstate	Total number of combined (GPRS and IMSI) routing area update requests rejected for 2G service as message type is not compatible with protocol state.	Int32
3G-comb-rau-rej-prot-error	Total number of combined (GPRS and IMSI) routing area update requests rejected for 3G service due to protocol error in message.	Int32
2G-comb-rau-rej-prot-error	Total number of combined (GPRS and IMSI) routing area update requests rejected for 2G service due to protocol error in message.	Int32
3G-comb-rau-rej-unknown-error	Total number of combined (GPRS and IMSI) routing area update requests rejected for 3G service where cause is unknown or not specified here.	Int32
2G-comb-rau-rej-unknown-error	Total number of combined (GPRS and IMSI) routing area update requests rejected for 2G service where cause is unknown or not specified here.	Int32
3G-inter-rau-rej-imsi-unknown-hlr	<p><b>Description:</b> Total number of RAU rejects sent with cause "imsi-unknown-in-hlr" against Inter-SGSN-RAU requests of type "RA Updating in 3G service.</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) On HLR sending a bad response to an SAI-Req or a GLU-Req.</li> <li>2) On receiving zero (0) authorization vectors for HLR for SAI-Req.</li> <li>3) When an operator policy is configured with this value as the reject cause for Attaches/RAUs.</li> </ol> <p><b>Availability:</b> per SGSN service</p> <p><b>Type:</b> Counter</p>	Int32
2G-inter-rau-rej-imsi-unknown-hlr	<p><b>Description:</b> Total number of RAU rejects sent with cause "imsi-unknown-in-hlr" against Inter-SGSN-RAU requests of type "RA Updating in 2G service.</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) On HLR sending a bad response to an SAI-Req or a GLU-Req.</li> <li>2) On receiving zero (0) authorization vectors for HLR for SAI-Req.</li> <li>3) When an operator policy is configured with this value as the reject cause for Attaches/RAUs.</li> </ol> <p><b>Availability:</b> per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
3G-inter-rau-rej-illegal-ms	<p><b>Description:</b> Total number of RAU rejects sent with cause "illegal-ms" against Inter-SGSN-RAU requests of type "RA Updating in 3G service.</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) Increments when an Xres mismatch, followed by identity procedure, results in same IMSI.</li> <li>2) Increments upon receiving a bad identity-type for an Identity Request (type IMSI) that was initiated after an Xres mismatch.</li> <li>3) Increments after a security command failure.</li> <li>4) When an operator policy is configured with this value as the reject cause for Attaches/RAUs.</li> </ol> <p><b>Availability:</b> per SGSN service</p> <p><b>Type:</b> Counter</p>	Int32
2G-inter-rau-rej-illegal-ms	<p><b>Description:</b> Total number of RAU rejects sent with cause "illegal-ms" against Inter-SGSN-RAU requests of type "RA Updating in 2G service.</p> <p><b>Triggers:</b></p> <p>When an operator policy is configured with this value as the reject cause for Attaches/RAUs.</p> <p><b>Availability:</b> per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
3G-inter-rau-rej-illegal-me	<p><b>Description:</b> Total number of RAU rejects sent with cause "illegal-me" against Inter-SGSN-RAU requests of type "RA Updating in 3G service.</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) When unable to retrieve IMEI/IMEISV from the ms.</li> <li>2) Upon failure of IMEI verification with the EIR.</li> <li>3) Upon getting unknown equipment failure from EIR/HLR.</li> <li>4) When an operator policy is configured with this value as the reject cause for Attaches/RAUs.</li> </ol> <p><b>Availability:</b> per SGSN service</p> <p><b>Type:</b> Counter</p>	Int32
2G-inter-rau-rej-illegal-me	<p><b>Description:</b> Total number of RAU rejects sent with cause "illegal-me" against Inter-SGSN-RAU requests of type "RA Updating in 2G service.</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) Upon failure of IMEI verification with the EIR.</li> <li>2) Upon getting unknown equipment failure from EIR/HLR.</li> <li>3) When an operator policy is configured with this value as the reject cause for Attaches/RAUs.</li> </ol> <p><b>Availability:</b> per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
3G-inter-rau-rej-gprs-svc-not-allow	<p><b>Description:</b> Total number of RAU rejects sent with cause "gprs-svc-not-allowed" against Inter-SGSN-RAU requests of type "RA Updating in 3G service.</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) Upon receiving a cl(subs-with) while a RAU/Attach is in progress.</li> <li>2) Upon receiving Subscriber Unknown failure from the HLR for GLU/SAI-Req.</li> <li>3) After rejecting attaches due to subscriber-control-inactivity.</li> <li>4) When an operator policy is configured with this value as the reject cause for Attaches/RAUs.</li> </ol> <p><b>Availability:</b> per SGSN service</p> <p><b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
2G-inter-rau-rej-gprs-svc-not-allow	<p><b>Description:</b> Total number of RAU rejects sent with cause "gprs-svc-not-allowed" against Inter-SGSN-RAU requests of type "RA Updating in 2G service.</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) Upon receiving a cl(subs-with) while a RAU/Attach is in progress.</li> <li>2) Upon receiving Subscriber Unknown failure from the HLR for GLU/SAI-Req.</li> <li>3) After rejecting attaches due to subscriber-control-inactivity.</li> <li>4) When an operator policy is configured with this value as the reject cause for Attaches/RAUs.</li> </ol> <p><b>Availability:</b> per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
3G-inter-rau-rej-nongprs-svc-not-allow	<p><b>Description:</b> Total number of RAU rejects sent with cause "nongprs-svc-not-allowed" against Inter-SGSN-RAU requests of type "RA Updating in 3G service.</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) Upon receiving IMSI-Unknown from HLR in response to SAI-Req/GLU-Req.</li> <li>2) When an operator policy is configured with this value as the reject cause for Attaches/RAUs.</li> </ol> <p><b>Availability:</b> per SGSN service</p> <p><b>Type:</b> Counter</p>	Int32
2G-inter-rau-rej-nongprs-svc-not-allow	<p><b>Description:</b> Total number of RAU rejects sent with cause "nongprs-svc-not-allowed" against Inter-SGSN-RAU requests of type "RA Updating in 2G service.</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) Upon receiving IMSI-Unknown from HLR in response to SAI-Req/GLU-Req.</li> <li>2) When an operator policy is configured with this value as the reject cause for Attaches/RAUs.</li> </ol> <p><b>Availability:</b> per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
3G-inter-rau-rej-msid-not-derived-by-nw	<p><b>Description:</b> Total number of inter-SGSN routing area update request rejects sent with cause "MSID not derived by network" against Inter-SGSN-RAU requests of type "RA Updating" in 3G service.</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) When PTMSI IE is missing in RAU.</li> <li>2) When old RAI has invalid location area values (0x0000 or 0xFFFE) for P-TMSI-attaches/RAU.</li> <li>3) When getting a RAU with old RAI in 2G, and P-TMSI is unknown.</li> <li>4) When getting P-TMSI-SIG-MISMATCH for an SGSN Context Request sent with IMSI Validated.</li> <li>5) When getting a RAU Request while an attach with the same peer-SGSN-P-TMSI is in progress.</li> <li>6) When operator policy is configured with this value as the reject cause for attaches/RAUs.</li> </ol> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
2G-inter-rau-rej-msid-not-derived-by-nw	<p><b>Description:</b> Total number of inter-SGSN routing area update request rejects sent with cause "MSID not derived by network" against Inter-SGSN-RAU requests of type "RA Updating" in 2G service.</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) When SGSN-Context-resp arrives with any cause other than "accepted".</li> <li>2) When operator policy is configured with this value as the reject cause for attaches/RAUs.</li> </ol> <p><b>Availability:</b> per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
3G-inter-rau-rej-implicitly-detach	<p><b>Description:</b> Total number of RAU rejects sent with cause "implicitly-detach" against Inter-SGSN-RAU requests of type "RA Updating in 3G service.</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) Upon RAU at 3G when subscriber was detached from 2G.</li> <li>2) When an operator policy is configured with this value as the reject cause for Attaches/RAUs.</li> <li>3) When SGSN receives a different IMSI in an SGSN-Ctx-Rsp for an SGSN-Ctx-Req sent with IMSI-validated.</li> <li>4) When SGSN gets RAU while awaiting Detach-Accept.</li> </ol> <p><b>Availability:</b> per SGSN service  <b>Type:</b> Counter</p>	Int32
2G-inter-rau-rej-implicitly-detach	<p><b>Description:</b> Total number of RAU rejects sent with cause "implicitly-detach" against Inter-SGSN-RAU requests of type "RA Updating in 2G service.</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) When an operator policy is configured with this value as the reject cause for Attaches/RAUs.</li> <li>2) When SGSN receives RAU from an unknown MS.</li> <li>3) On t3350 expiry for the Attach-Accept.</li> </ol> <p><b>Availability:</b> per GPRS service  <b>Type:</b> Counter</p>	Int32
3G-inter-rau-rej-plmn-not-allowed	<p><b>Description:</b> Total number of RAU rejects sent with cause "plmn-not-allowed" against Inter-SGSN-RAU requests of type "RA Updating in 3G service.</p> <p><b>Triggers:</b></p> <p>When an operator policy is configured with this value as the reject cause for Attaches/RAUs.</p> <p><b>Availability:</b> per SGSN service  <b>Type:</b> Counter</p>	Int32
2G-inter-rau-rej-plmn-not-allowed	<p><b>Description:</b> Total number of RAU rejects sent with cause "plmn-not-allowed" against Inter-SGSN-RAU requests of type "RA Updating in 2G service.</p> <p><b>Triggers:</b></p> <p>When an operator policy is configured with this value as the reject cause for Attaches/RAUs.</p> <p><b>Availability:</b> per GPRS service  <b>Type:</b> Counter</p>	Int32
3G-inter-rau-rej-loc-area-not-allowed	<p><b>Description:</b> Total number of RAU rejects sent with cause "loc-area-not-allowed" against Inter-SGSN-RAU requests of type "RA Updating in 3G service.</p> <p><b>Triggers:</b></p> <p>When an operator policy is configured with this value as the reject cause for Attaches/RAUs.</p> <p><b>Availability:</b> per SGSN service  <b>Type:</b> Counter</p>	Int32
2G-inter-rau-rej-loc-area-not-allowed	<p><b>Description:</b> Total number of RAU rejects sent with cause "loc-area-not-allowed" against Inter-SGSN-RAU requests of type "RA Updating in 2G service.</p> <p><b>Triggers:</b></p> <p>When an operator policy is configured with this value as the reject cause for Attaches/RAUs.</p> <p><b>Availability:</b> per GPRS service  <b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
3G-inter-rau-rej-roam-not-allowed-larea	<p><b>Description:</b> Total number of RAU rejects sent with cause "roam-not-allowed-in-location-area" against Inter-SGSN-RAU requests of type "RA Updating in 3G service.</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) When rejecting as a shared-SGSN because no operator accepts the given IMSI.</li> <li>2) When an operator policy is configured with this value as the reject cause for Attaches/RAUs.</li> </ol> <p><b>Availability:</b> per SGSN service</p> <p><b>Type:</b> Counter</p>	Int32
2G-inter-rau-rej-roam-not-allowed-larea	<p><b>Description:</b> Total number of RAU rejects sent with cause "roam-not-allowed-in-location-area" against Inter-SGSN-RAU requests of type "RA Updating in 2G service.</p> <p><b>Triggers:</b></p> <p>When an operator policy is configured with this value as the reject cause for Attaches/RAUs.</p> <p><b>Availability:</b> per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
3G-inter-rau-rej-gprs-svc-not-allowed-plmn	<p><b>Description:</b> Total number of RAU rejects sent with cause "GPRS service not allowed in this PLMN" against Inter-SGSN-RAU requests of type "RA Updating" in 3G service.</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) On getting "Roaming not allowed" from HLR for SAI-Req/GLU-Req.</li> <li>2) When operator policy is configured with this value as the reject cause for attaches/RAUs.</li> </ol> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
2G-inter-rau-rej-gprs-svc-not-allowed-plmn	<p><b>Description:</b> Total number of RAU rejects sent with cause "GPRS service not allowed in this PLMN" against Inter-SGSN-RAU requests of type "RA Updating" in 2G service.</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) On getting "Roaming not allowed" from HLR for SAI-Req/GLU-Req.</li> <li>2) When operator policy is configured with this value as the reject cause for attaches/RAUs.</li> </ol> <p><b>Availability:</b> per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
3G-inter-rau-rej-no-cells-in-location-area	<p><b>Description:</b> Total number of RAU rejects sent with cause "no-cells-in-location-area" against Inter-SGSN-RAU requests of type "RA Updating" in 3G service.</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) On getting "UMTS access control" from HLR for SAI-Req/GLU-Req.</li> <li>2) When operator policy is configured with this value as the reject cause for attaches/RAUs.</li> </ol> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
2G-inter-rau-rej-no-cells-in-location-area	<p><b>Description:</b> Total number of RAU rejects sent with cause "no-cells-in-location-area" against Inter-SGSN-RAU requests of type "RA Updating" in 2G service.</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) On getting "UMTS access control" from HLR for SAI-Req/GLU-Req.</li> <li>2) When operator policy is configured with this value as the reject cause for attaches/RAUs.</li> </ol> <p><b>Availability:</b> per GPRS service, per RA</p> <p><b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
3G-inter-rau-rej-msc-not-reachable	<p><b>Description:</b> Total number of RAU rejects sent with cause “msc-not-reachable” against Inter-SGSN-RAU requests of type “RA Updating” in 3G service.</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) On sending an Attach/RAU Accept with cause GPRS only attached” or RA Updated” for a cvcombined CS/PS request either because: <ul style="list-style-type: none"> <li>• request timed out</li> <li>• inability to send to VLR</li> </ul> </li> <li>2) When operator policy is configured with this value as the reject cause for attaches/RAUs.</li> </ol> <p><b>Availability:</b> per SGSN service, per RA  <b>Type:</b> Counter</p>	Int32
2G-inter-rau-rej-msc-not-reachable	<p><b>Description:</b> Total number of RAU rejects sent with cause “msc-not-reachable” against Inter-SGSN-RAU requests of type “RA Updating” in 2G service.</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) On sending an Attach/RAU Accept with cause GPRS only attached” or RA Updated” for a cvcombined CS/PS request either because: <ul style="list-style-type: none"> <li>• request timed out</li> <li>• inability to send to VLR</li> </ul> </li> <li>2) When operator policy is configured with this value as the reject cause for attaches/RAUs.</li> </ol> <p><b>Availability:</b> per GPRS service, per RA  <b>Type:</b> Counter</p>	Int32
3G-inter-rau-rej-network-failure	<p><b>Description:</b> Total number of RAU rejects sent with cause “network-failure” against Inter-SGSN-RAU requests of type “RA Updating” in 3G service.</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) RNC is overloaded.</li> <li>2) Not enough credits with Session Manager.</li> <li>3) On receiving cause “data missing from HLR” in SAI-Req/GLU-Req.</li> <li>4) When there are too many Ius for the same IMSI.</li> <li>5) When getting a RAU with a peer-SGSN PTMSI when another Attach is ongoing with the same PTMSI.</li> <li>6) On congestion, when configured for attach-throttling.</li> <li>7) When the operator policy is configured with this value as the reject cause for Attaches/RAUs.</li> </ol> <p><b>Availability:</b> per SGSN service, per RA  <b>Type:</b> Counter</p>	Int32
2G-inter-rau-rej-network-failure	<p><b>Description:</b> Total number of RAU rejects sent with cause “network-failure” against Inter-SGSN-RAU requests of type “RA Updating” in 2G service.</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) On receiving cause “data missing from HLR” in SAI-Req/GLU-Req.</li> <li>2) On receiving XID failure for RAU.</li> <li>3) SGSN unable to send an SGSN-Ctx-Req for a RAU.</li> <li>4) SGSN unable to send a Check-IMEI Request.</li> <li>5) On congestion, when configured for attach-throttling.</li> <li>6) When the operator policy is configured with this value as the reject cause for Attaches/RAUs.</li> </ol> <p><b>Availability:</b> per GPRS service, per RA  <b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
3G-inter-rau-rej-mac-failure	<p><b>Description:</b> Total number of RAU rejects sent with cause “mac-failure” against Inter-SGSN-RAU requests of type “RA Updating” in 3G service.</p> <p><b>Triggers:</b> When the operator policy is configured with this value as the reject cause for Attaches/RAUs.</p> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
2G-inter-rau-rej-mac-failure	<p><b>Description:</b> Total number of RAU rejects sent with cause “mac-failure” against Inter-SGSN-RAU requests of type “RA Updating” in 2G service.</p> <p><b>Triggers:</b> When the operator policy is configured with this value as the reject cause for Attaches/RAUs.</p> <p><b>Availability:</b> per GPRS service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
3G-inter-rau-rej-syn-failure	<p><b>Description:</b> Total number of RAU rejects sent with cause “syn-failure” against Inter-SGSN-RAU requests of type “RA Updating” in 3G service.</p> <p><b>Triggers:</b> When the operator policy is configured with this value as the reject cause for Attaches/RAUs.</p> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
2G-inter-rau-rej-syn-failure	<p><b>Description:</b> Total number of RAU rejects sent with cause “syn-failure” against Inter-SGSN-RAU requests of type “RA Updating” in 2G service.</p> <p><b>Triggers:</b> When the operator policy is configured with this value as the reject cause for Attaches/RAUs.</p> <p><b>Availability:</b> per GPRS service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
3G-inter-rau-rej-congestion	<p><b>Description:</b> Total number of RAU rejects sent with cause “congestion” against Inter-SGSN-RAU requests of type “RA Updating” in 3G service.</p> <p><b>Triggers:</b> When the operator policy is configured with this value as the reject cause for Attaches/RAUs.</p> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
2G-inter-rau-rej-congestion	<p><b>Description:</b> Total number of RAU rejects sent with cause “congestion” against Inter-SGSN-RAU requests of type “RA Updating” in 2G service.</p> <p><b>Triggers:</b> When the operator policy is configured with this value as the reject cause for Attaches/RAUs.</p> <p><b>Availability:</b> per GPRS service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
3G-inter-rau-rej-gsm-auth-unacceptable	<p><b>Description:</b> Total number of RAU rejects sent with cause “gsm-auth-unacceptable” against Inter-SGSN-RAU requests of type “RA Updating” in 3G service.</p> <p><b>Triggers:</b> When the operator policy is configured with this value as the reject cause for Attaches/RAUs.</p> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
2G-inter-rau-rej-gsm-auth-unacceptable	<p><b>Description:</b> Total number of RAU rejects sent with cause “gsm-auth-unacceptable” against Inter-SGSN-RAU requests of type “RA Updating” in 2G service.</p> <p><b>Triggers:</b> When the operator policy is configured with this value as the reject cause for Attaches/RAUs.</p> <p><b>Availability:</b> per GPRS service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
3G-inter-rau-rej-no-pdp-ctx-actv	<p><b>Description:</b> Total number of RAU rejects sent with cause “no-pdp-ctx-actvated” against Inter-SGSN-RAU requests of type “RA Updating” in 3G service.</p> <p><b>Triggers:</b> When the operator policy is configured with this value as the reject cause for Attaches/RAUs.</p> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
2G-inter-rau-rej-no-pdp-ctx-actv	<p><b>Description:</b> Total number of RAU rejects sent with cause “no-pdp-ctx-actvated” against Inter-SGSN-RAU requests of type “RA Updating” in 32G service.</p> <p><b>Triggers:</b> When the operator policy is configured with this value as the reject cause for Attaches/RAUs.</p> <p><b>Availability:</b> per GPRS service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
3G-inter-rau-rej-retry-from-new-cell	<p><b>Description:</b> Total number of RAU rejects sent with cause “retry-from-new-cell” against Inter-SGSN-RAU requests of type “RA Updating” in 3G service.</p> <p><b>Triggers:</b> When the operator policy is configured with this value as the reject cause for Attaches/RAUs.</p> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
2G-inter-rau-rej-retry-from-new-cell	<p><b>Description:</b> Total number of RAU rejects sent with cause “retry-from-new-cell” against Inter-SGSN-RAU requests of type “RA Updating” in 32G service.</p> <p><b>Triggers:</b> When the operator policy is configured with this value as the reject cause for Attaches/RAUs.</p> <p><b>Availability:</b> per GPRS service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
3G-inter-rau-rej-sem-wrong-msg	<p><b>Description:</b> Total number of RAU rejects sent with cause “sem-wrong-msg” against Inter-SGSN-RAU requests of type “RA Updating” in 3G service.</p> <p><b>Triggers:</b> 1) On decode failure of messages. 2) When the operator policy is configured with this value as the reject cause for Attaches/RAUs.</p> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
2G-inter-rau-rej-sem-wrong-msg	<p><b>Description:</b> Total number of RAU rejects sent with cause “sem-wrong-msg” against Inter-SGSN-RAU requests of type “RA Updating” in 2G service.</p> <p><b>Triggers:</b> 1) On decode failure of messages. 2) When the operator policy is configured with this value as the reject cause for Attaches/RAUs.</p> <p><b>Availability:</b> per GPRS service, per RA</p> <p><b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
3G-inter-rau-rej- inval-mand-info	<p><b>Description:</b> Total number of RAU rejects sent with cause "invalid-mandatory-info" against Inter-SGSN-RAU requests of type "RA Updating" in 3G service.</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) On decode failure of messages.</li> <li>2) When the operator policy is configured with this value as the reject cause for Attaches/RAUs.</li> </ol> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
2G-inter-rau-rej- inval-mand-info	<p><b>Description:</b> Total number of RAU rejects sent with cause "invalid-mandatory-info" against Inter-SGSN-RAU requests of type "RA Updating" in 3G service.</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) On decode failure of messages.</li> <li>2) When the operator policy is configured with this value as the reject cause for Attaches/RAUs.</li> </ol> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
3G-inter-rau-rej- msg-type-non-exist	<p><b>Description:</b> Total number of RAU rejects sent with cause "msg-type-doesn't-exist" against Inter-SGSN-RAU requests of type "RA Updating" in 3G service.</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) On decode failure of messages.</li> <li>2) When the operator policy is configured with this value as the reject cause for Attaches/RAUs.</li> </ol> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
2G-inter-rau-rej- msg-type-non-exist	<p><b>Description:</b> Total number of RAU rejects sent with cause "msg-type-doesn't-exist" against Inter-SGSN-RAU requests of type "RA Updating" in 2G service.</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) On decode failure of messages.</li> <li>2) When the operator policy is configured with this value as the reject cause for Attaches/RAUs.</li> </ol> <p><b>Availability:</b> per GPRS service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
3G-inter-rau-rej- mtype-incompat- pstate	<p><b>Description:</b> Total number of RAU rejects sent with cause "msg-type-incompatible-with-protocol-state" against Inter-SGSN-RAU requests of type "RA Updating" in 3G service.</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) On decode failure of messages.</li> <li>2) When the operator policy is configured with this value as the reject cause for Attaches/RAUs.</li> </ol> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
2G-inter-rau-rej- mtype-incompat- pstate	<p><b>Description:</b> Total number of RAU rejects sent with cause "msg-type-incompatible-with-protocol-state" against Inter-SGSN-RAU requests of type "RA Updating" in 2G service.</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) On decode failure of messages.</li> <li>2) When the operator policy is configured with this value as the reject cause for Attaches/RAUs.</li> </ol> <p><b>Availability:</b> per GPRS service, per RA</p> <p><b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
3G-inter-rau-rej-ie-non-existent	<p><b>Description:</b> Total number of RAU rejects sent with cause "ie-non-existent" against Inter-SGSN-RAU requests of type "RA Updating" in 3G service.</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) On decode failure of messages.</li> <li>2) When the operator policy is configured with this value as the reject cause for Attaches/RAUs.</li> </ol> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
2G-inter-rau-rej-ie-non-existent	<p><b>Description:</b> Total number of RAU rejects sent with cause "ie-non-existent" against Inter-SGSN-RAU requests of type "RA Updating" in 2G service.</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) On decode failure of messages.</li> <li>2) When the operator policy is configured with this value as the reject cause for Attaches/RAUs.</li> </ol> <p><b>Availability:</b> per GPRS service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
3G-inter-rau-rej-cond-ie-error	<p><b>Description:</b> Total number of RAU rejects sent with cause "cond-ie-error" against Inter-SGSN-RAU requests of type "RA Updating" in 3G service.</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) On decode failure of messages.</li> <li>2) When the operator policy is configured with this value as the reject cause for Attaches/RAUs.</li> </ol> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
2G-inter-rau-rej-cond-ie-error	<p><b>Description:</b> Total number of RAU rejects sent with cause "cond-ie-error" against Inter-SGSN-RAU requests of type "RA Updating" in 2G service.</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) On decode failure of messages.</li> <li>2) When the operator policy is configured with this value as the reject cause for Attaches/RAUs.</li> </ol> <p><b>Availability:</b> per GPRS service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
3G-inter-rau-rej-msg-not-compat-pstate	<p><b>Description:</b> Total number of RAU rejects sent with cause "msg-not-compatible-with-protocol-state" against Inter-SGSN-RAU requests of type "RA Updating" in 3G service.</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) When SGSN receives an Attach-Request before getting a Relocation-Complete during SRNS</li> <li>2) When SGSN gets periodic RAU in a Dir-Transfer message.</li> <li>3) When the operator policy is configured with this value as the reject cause for Attaches/RAUs.</li> </ol> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
2G-inter-rau-rej-msg-not-compat-pstate	<p><b>Description:</b> Total number of RAU rejects sent with cause "msg-not-compatible-with-protocol-state" against Inter-SGSN-RAU requests of type "RA Updating" in 2G service.</p> <p><b>Triggers:</b></p> <p>When the operator policy is configured with this value as the reject cause for Attaches/RAUs.</p> <p><b>Availability:</b> per GPRS service, per RA</p> <p><b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
3G-inter-rau-rej-prot-error	<p><b>Description:</b> Total number of RAU rejects sent with cause "protocol-error" against Inter-SGSN-RAU requests of type "RA Updating" in 3G service.</p> <p><b>Triggers:</b> When the operator policy is configured with this value as the reject cause for Attaches/RAUs.</p> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
2G-inter-rau-rej-prot-error	<p><b>Description:</b> Total number of RAU rejects sent with cause "protocol-error" against Inter-SGSN-RAU requests of type "RA Updating" in 2G service.</p> <p><b>Triggers:</b> 1) When the PLMN-ID in the BSSGP message does not match the PLMN in the GPRS Service configuration. 2) When the operator policy is configured with this value as the reject cause for Attaches/RAUs.</p> <p><b>Availability:</b> per GPRS service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
3G-inter-rau-rej-unknown-error	<p><b>Description:</b> Total number of RAU rejects sent with any cause, other than those listed above, against Inter-SGSN-RAU requests of type "RA Updating" in 3G service.</p> <p><b>Triggers:</b> When the operator policy is configured with this value as the reject cause for Attaches/RAUs.</p> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
2G-inter-rau-rej-unknown-error	<p><b>Description:</b> Total number of RAU rejects sent with any cause, other than those listed above, against Inter-SGSN-RAU requests of type "RA Updating" in 2G service.</p> <p><b>Triggers:</b> When the operator policy is configured with this value as the reject cause for Attaches/RAUs.</p> <p><b>Availability:</b> per GPRS service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
3G-comb-irau-rej-imsi-unknown-hlr	Total number of combined (GPRS and IMSI) inter-SGSN routing area update requests rejected for 3G service due to unknown IMSI in HLR.	Int32
2G-comb-irau-rej-imsi-unknown-hlr	Total number of combined (GPRS and IMSI) inter-SGSN routing area update requests rejected for 2G service due to unknown IMSI in HLR.	Int32
3G-comb-irau-rej-illegal-ms	Total number of combined (GPRS and IMSI) inter-SGSN routing area update requests rejected for 3G service due to illegal mobile subscriber.	Int32
2G-comb-irau-rej-illegal-ms	Total number of combined (GPRS and IMSI) inter-SGSN routing area update requests rejected for 2G service due to illegal mobile subscriber.	Int32
3G-comb-irau-rej-illegal-me	Total number of combined (GPRS and IMSI) inter-SGSN routing area update requests rejected for 3G service due to illegal mobile equipment.	Int32
2G-comb-irau-rej-illegal-me	Total number of combined (GPRS and IMSI) inter-SGSN routing area update requests rejected for 2G service due to illegal mobile equipment.	Int32

Statistic	Description	Data Type
3G-comb-irau-rej-gprs-svc-not-allow	<p><b>Description:</b> Total number of inter-SGSN routing area update request rejects sent with cause “GPRS services not allowed in this PLMN” against Inter-SGSN-RAU requests of type “Combined RA/LA update” or “Combined RA/LA update with IMSI Attach” in 3G service.</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) On getting "Roaming not allowed" from HLR for SAI-Req/GLU-Req.</li> <li>2) When operator policy is configured with this value as the reject cause for attaches/RAUs.</li> </ol> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
2G-comb-irau-rej-gprs-svc-not-allow	<p><b>Description:</b> Total number of inter-SGSN routing area update request rejects sent with cause “GPRS services not allowed in this PLMN” against Inter-SGSN-RAU requests of type “Combined RA/LA update” or “Combined RA/LA update with IMSI Attach” in 2G service.</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) On getting "Roaming not allowed" from HLR for SAI-Req/GLU-Req.</li> <li>2) When operator policy is configured with this value as the reject cause for attaches/RAUs.</li> </ol> <p><b>Availability:</b> per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
3G-comb-irau-rej-nongprs-svc-not-allow	Total number of combined (GPRS and IMSI) inter-SGSN routing area update requests rejected for 3G service due to GPRS and non-GPRS service not allowed for subscriber.	Int32
2G-comb-irau-rej-nongprs-svc-not-allow	Total number of combined (GPRS and IMSI) inter-SGSN routing area update requests rejected for 2G service due to GPRS and non-GPRS service not allowed for subscriber.	Int32
3G-comb-irau-rej-msid-not-derived-by-nw	<p><b>Description:</b> Total number of inter-SGSN routing area update request rejects sent with cause “MSID not derived by network” against Inter-SGSN-RAU requests of type “Combined RA/LA update” or “Combined RA/LA update with IMSI Attach” in 3G service.</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) When PTMSI IE is missing in RAU.</li> <li>2) When old RAI has invalid location area values (0x0000 or 0xFFFFE) for P-TMSI-attaches/RAU.</li> <li>3) When getting a RAU with old RAI in 2G, and P-TMSI is unknown.</li> <li>4) When getting P-TMSI-SIG-MISMATCH for an SGSN Context Request sent with IMSI Validated.</li> <li>5. When getting a RAU Request while an attach with the same peer-SGSN-P-TMSI is in progress.</li> <li>6. When operator policy is configured with this value as the reject cause for attaches/RAUs.</li> </ol> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
2G-comb-irau-rej-msid-not-derived-by-nw	<p><b>Description:</b> Total number of inter-SGSN routing area update request rejects sent with cause “MSID not derived by network” against Inter-SGSN-RAU requests of type “Combined RA/LA update” or “Combined RA/LA update with IMSI Attach” in 2G service.</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) When SGSN-Context-resp arrives with any cause other than “accepted”.</li> <li>2) When operator policy is configured with this value as the reject cause for attaches/RAUs.</li> </ol> <p><b>Availability:</b> per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
3G-comb-irau-rej-implicitly-detach	<p><b>Description:</b> Total number of RAU Rejects sent with cause “implicitly-detach” against Inter-SGSN-RAU Requests of type “Combined RA/LA update” or “Combined RA/LA update with IMSI Attach” in the 3G service</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) RAU at 3G sehn subscriber was detached from 2G.</li> <li>2) When the SGSN receives a different IMSI in an SGSN-CTX-RSP for an SGSN-CTX-REQ sent with IMSI-validated.</li> <li>3) When the SGSN receives RAU while awaiting Detach-Accept.</li> <li>4) When an operator policy is configured with this value as the reject cause for Attaches/RAUs.</li> </ol> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
2G-comb-irau-rej-implicitly-detach	<p><b>Description:</b> Total number of RAU Rejects sent with cause “implicitly-detach” against Inter-SGSN-RAU Requests of type “Combined RA/LA update” or “Combined RA/LA update with IMSI Attach” in the 2G service</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) When the SGSN receives RAU from an unkown MS.</li> <li>2) When an operator policy is configured with this value as the reject cause for Attaches/RAUs.</li> </ol> <p><b>Availability:</b> per GPRS service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
3G-comb-irau-rej-plmn-not-allowed	<p><b>Description:</b> Total number of RAU Rejects sent with cause “plmn-not-allowed” against Inter-SGSN-RAU Requests of type “Combined RA/LA update” or “Combined RA/LA update with IMSI Attach” in the 3G service</p> <p><b>Triggers:</b></p> <p>When an operator policy is configured with this value as the reject cause for Attaches/RAUs.</p> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
2G-comb-irau-rej-plmn-not-allowed	<p><b>Description:</b> Total number of RAU Rejects sent with cause “plmn-not-allowed” against Inter-SGSN-RAU Requests of type “Combined RA/LA update” or “Combined RA/LA update with IMSI Attach” in the 2G service</p> <p><b>Triggers:</b></p> <p>When an operator policy is configured with this value as the reject cause for Attaches/RAUs.</p> <p><b>Availability:</b> per GPRS service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
3G-comb-irau-rej-loc-area-not-allowed	<p><b>Description:</b> Total number of RAU Rejects sent with cause “loc-area-not-allowed” against Inter-SGSN-RAU Requests of type “Combined RA/LA update” or “Combined RA/LA update with IMSI Attach” in the 3G service</p> <p><b>Triggers:</b></p> <p>When an operator policy is configured with this value as the reject cause for Attaches/RAUs.</p> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
2G-comb-irau-rej-loc-area-not-allowed	<p><b>Description:</b> Total number of RAU Rejects sent with cause “loc-area-not-allowed” against Inter-SGSN-RAU Requests of type “Combined RA/LA update” or “Combined RA/LA update with IMSI Attach” in the 2G service</p> <p><b>Triggers:</b></p> <p>When an operator policy is configured with this value as the reject cause for Attaches/RAUs.</p> <p><b>Availability:</b> per GPRS service, per RA</p> <p><b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
3G-comb-irau-rej-roam-not-allowed-larea	<p><b>Description:</b> Total number of RAU Rejects sent with cause “roaming-not-allowed-in-location-area” against Inter-SGSN-RAU Requests of type "Combined RA/LA update" or “Combined RA/LA update with IMSI Attach” in the 3G service</p> <p><b>Triggers:</b> When rejecting as a shared SGSN because no operator is accepting the provided IMSI. When an operator policy is configured with this value as the reject cause for Attaches/RAUs.</p> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
2G-comb-irau-rej-roam-not-allowed-larea	<p><b>Description:</b> Total number of RAU Rejects sent with cause “roaming-not-allowed-in-location-area” against Inter-SGSN-RAU Requests of type "Combined RA/LA update" or “Combined RA/LA update with IMSI Attach” in the 2G service</p> <p><b>Triggers:</b> When an operator policy is configured with this value as the reject cause for Attaches/RAUs.</p> <p><b>Availability:</b> per GPRS service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
3G-comb-irau-rej-gprs-svc-not-allowed-plmn	<p><b>Description:</b> Total number of RAU rejects sent with cause "GPRS service not allowed in PLMN" against Inter-SGSN-RAU requests of type "Combined RA/LA update" or "Combined RA/LA update with IMSI Attach" in 3G service.</p> <p><b>Triggers:</b> 1) On getting “Roaming not allowed” from HLR for SAI-Req/GLU-Req. 2) When operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
2G-comb-irau-rej-gprs-svc-not-allowed-plmn	<p><b>Description:</b> Total number of RAU rejects sent with cause "GPRS service not allowed in PLMN" against Inter-SGSN-RAU requests of type "Combined RA/LA update" or "Combined RA/LA update with IMSI Attach" in 2G service.</p> <p><b>Triggers:</b> 1) On getting “Roaming not allowed” from HLR for SAI-Req/GLU-Req. 2) When operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
3G-comb-irau-rej-no-cells-in-location-area	Total number of combined (GPRS and IMSI) inter-SGSN routing area update requests rejected for 3G service due to non availability of suitable cell in specific location area.	Int32
2G-comb-irau-rej-no-cells-in-location-area	Total number of combined (GPRS and IMSI) inter-SGSN routing area update requests rejected for 2G service due to non availability of suitable cell in specific location area.	Int32
3G-comb-irau-rej-msc-not-reachable	Total number of combined (GPRS and IMSI) inter-SGSN routing area update requests rejected for 3G service as MSC not reachable.	Int32
2G-comb-irau-rej-msc-not-reachable	Total number of combined (GPRS and IMSI) inter-SGSN routing area update requests rejected for 2G service as MSC not reachable.	Int32
3G-comb-irau-rej-network-failure	Total number of combined (GPRS and IMSI) inter-SGSN routing area update requests rejected for 3G service due to network failure.	Int32
2G-comb-irau-rej-network-failure	Total number of combined (GPRS and IMSI) inter-SGSN routing area update requests rejected for 2G service due to network failure.	Int32

## Common Statistics

Statistic	Description	Data Type
3G-comb-irau-rej-mac-failure	Total number of combined (GPRS and IMSI) inter-SGSN routing area update requests rejected for 3G service due to message authenticate code (MAC) failure.	Int32
2G-comb-irau-rej-mac-failure	Total number of combined (GPRS and IMSI) inter-SGSN routing area update requests rejected for 2G service due to MAC failure.	Int32
3G-comb-irau-rej-syn-failure	Total number of combined (GPRS and IMSI) inter-SGSN routing area update requests rejected for 3G service due to context synchronization failure.	Int32
2G-comb-irau-rej-syn-failure	Total number of combined (GPRS and IMSI) inter-SGSN routing area update requests rejected for 2G service due to context synchronization failure.	Int32
3G-comb-irau-rej-congestion	Total number of combined (GPRS and IMSI) inter-SGSN routing area update requests rejected for 3G service due to network congestion.	Int32
2G-comb-irau-rej-congestion	Total number of combined (GPRS and IMSI) inter-SGSN routing area update requests rejected for 2G service due to network congestion.	Int32
3G-comb-irau-rej-gsm-auth-unacceptable	Total number of combined (GPRS and IMSI) inter-SGSN routing area update requests rejected for 3G service due to unacceptable authentication from GSM network.	Int32
2G-comb-irau-rej-gsm-auth-unacceptable	Total number of combined (GPRS and IMSI) inter-SGSN routing area update requests rejected for 2G service due to unacceptable authentication from GSM network.	Int32
3G-comb-irau-rej-no-pdp-ctx-actv	Total number of combined (GPRS and IMSI) inter-SGSN routing area update requests rejected for 3G service as PDP context is not activated.	Int32
2G-comb-irau-rej-no-pdp-ctx-actv	Total number of combined (GPRS and IMSI) inter-SGSN routing area update requests rejected for 2G service as PDP context is not activated.	Int32
3G-comb-irau-rej-retry-from-new-cell	Total number of combined (GPRS and IMSI) inter-SGSN routing area update requests rejected for 3G service as subscriber retried for update from new cell.	Int32
2G-comb-irau-rej-retry-from-new-cell	Total number of combined (GPRS and IMSI) inter-SGSN routing area update requests rejected for 2G service as subscriber retried for update from new cell.	Int32
3G-comb-irau-rej-sem-wrong-msg	Total number of combined (GPRS and IMSI) inter-SGSN routing area update requests rejected for 3G service as Attach Request message is semantically wrong.	Int32
2G-comb-irau-rej-sem-wrong-msg	Total number of combined (GPRS and IMSI) inter-SGSN routing area update requests rejected for 2G service as Attach Request message is semantically wrong.	Int32
3G-comb-irau-rej-inval-mand-info	Total number of combined (GPRS and IMSI) inter-SGSN routing area update requests rejected for 3G service as mandatory information in message is invalid.	Int32
2G-comb-irau-rej-inval-mand-info	Total number of combined (GPRS and IMSI) inter-SGSN routing area update requests rejected for 2G service as mandatory information in message is invalid.	Int32
3G-comb-irau-rej-msg-type-non-exist	Total number of combined (GPRS and IMSI) inter-SGSN routing area update requests rejected for 3G service due to non-existent type of message.	Int32
2G-comb-irau-rej-msg-type-non-exist	Total number of combined (GPRS and IMSI) inter-SGSN routing area update requests rejected for 2G service due to non-existent type of message.	Int32

Statistic	Description	Data Type
3G-comb-irau-rej-mtype-incompat-pstate	Total number of combined (GPRS and IMSI) inter-SGSN routing area update requests rejected for 3G service as message type is not compatible with protocol state.	Int32
2G-comb-irau-rej-mtype-incompat-pstate	Total number of combined (GPRS and IMSI) inter-SGSN routing area update requests rejected for 2G service as message type is not compatible with protocol state.	Int32
3G-comb-irau-rej-ie-non-existent	Total number of combined (GPRS and IMSI) inter-SGSN routing area update requests rejected for 3G service due to non-existence of information element.	Int32
2G-comb-irau-rej-ie-non-existent	Total number of combined (GPRS and IMSI) inter-SGSN routing area update requests rejected for 2G service due to non-existence of information element.	Int32
3G-comb-irau-rej-cond-ie-error	Total number of combined (GPRS and IMSI) inter-SGSN routing area update requests rejected for 3G service due to error in conditional information element.	Int32
2G-comb-irau-rej-cond-ie-error	Total number of combined (GPRS and IMSI) inter-SGSN routing area update requests rejected for 2G service due to error in conditional information element.	Int32
3G-comb-irau-rej-msg-not-compat-pstate	Total number of combined (GPRS and IMSI) inter-SGSN routing area update requests rejected for 3G service as message type is not compatible with protocol state.	Int32
2G-comb-irau-rej-msg-not-compat-pstate	Total number of combined (GPRS and IMSI) inter-SGSN routing area update requests rejected for 2G service as message type is not compatible with protocol state.	Int32
3G-comb-irau-rej-prot-error	Total number of combined (GPRS and IMSI) inter-SGSN routing area update requests rejected for 3G service due to protocol error in message.	Int32
2G-comb-irau-rej-prot-error	Total number of combined (GPRS and IMSI) inter-SGSN routing area update requests rejected for 2G service due to protocol error in message.	Int32
3G-comb-irau-rej-unknown-error	Total number of combined (GPRS and IMSI) inter-SGSN routing area update requests rejected for 3G service where cause is unknown or not specified here.	Int32
2G-comb-irau-rej-unknown-error	Total number of combined (GPRS and IMSI) inter-SGSN routing area update requests rejected for 2G service where cause is unknown or not specified here.	Int32
3G-total-rau-failure	Total number of routing area updates failed for 3G service.	Int32
2G-total-rau-failure	Total number of routing area updates failed for 2G service.	Int32
3G-total-intra-rau-failure	<p><b>Description:</b> This proprietary counter indicates the total number of Intra-SGSN-RAU requests of type “RA Updating” that were dropped from processing in 3G service. “Dropped” indicates that the requests were silently discarded and no reject was sent for such requests.</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) Another RAU, differing from this RAU, was received and pre-empted existing RAU procedure.</li> <li>2) Another Attach, differing from this attach, was received and pre-empted existing Attach procedure.</li> </ol> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
2G-total-intra-rau-failure	<p><b>Description:</b> This proprietary counter indicates the total number of Intra-SGSN-RAU requests of type “RA Updating” that were dropped from processing in 2G service. “Dropped” indicates that the requests were silently discarded and no reject was sent for such requests.</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) Another RAU, differing from this RAU, was received and pre-empted existing RAU procedure.</li> <li>2) Another Attach, differing from this attach, was received and pre-empted existing Attach procedure.</li> </ol> <p><b>Availability:</b> per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
3G-total-periodic-rau-failure	<p><b>Description:</b> This proprietary counter indicates the total number of Intra-SGSN-RAU requests of type “Periodic Updating” that were dropped from processing in 3G service. “Dropped” indicates that the requests were silently discarded and no reject was sent for such requests.</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) Another RAU, differing from this RAU, was received and pre-empted existing RAU procedure.</li> <li>2) Another Attach, differing from this attach, was received and pre-empted existing Attach procedure.</li> <li>3) Iu released while attach procedure in progress.</li> </ol> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
2G-total-periodic-rau-failure	<p><b>Description:</b> This proprietary counter indicates the total number of Intra-SGSN RAU requests, of type “Periodic Updating”, that were dropped from processing in 2G service. “Dropped” indicates that the requests were silently discarded and no reject was sent for such requests.</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) Another RAU, differing from this RAU, was received and pre-empted existing RAU procedure.</li> <li>2) Another Attach, differing from this attach, was received and pre-empted existing Attach procedure.</li> </ol> <p><b>Availability:</b> per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
3G-total-intra-rau-failure-comb	<p><b>Description:</b> This proprietary counter indicates the total number of Inter-SGSN RAU requests, of type “Combined RA/LA Update or “Combined RA/LA Update with IMSI Attach”, that were failed in 3G service. “Dropped” indicates that the requests were silently discarded and no reject was sent for such requests.</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) Another RAU, differing from this RAU, was received and pre-empted existing RAU procedure.</li> <li>2) Another Attach, differing from this attach, was received and pre-empted existing Attach procedure.</li> <li>3) Iu released while attach procedure in progress.</li> </ol> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
2G-total-intra-rau-failure-comb	<p><b>Description:</b> This proprietary counter indicates the total number of Inter-SGSN-RAU requests of type “Combined RA/LA Update or “Combined RA/LA Update with IMSI Attach” that were failed in 3G service. “Dropped” indicates that the requests were silently discarded and no reject was sent for such requests.</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) Another RAU, differing from this RAU, was received and pre-empted existing RAU procedure.</li> <li>2) Another Attach, differing from this attach, was received and pre-empted existing Attach procedure.</li> </ol> <p><b>Availability:</b> per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
3G-total-inter-rau-failure	<p><b>Description:</b> This proprietary counter indicates the total number of Inter-SGSN-RAU requests of type “RA Updating” that were failed in 3G service. “Dropped” indicates that the requests were silently discarded and no reject was sent for such requests.</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) Another RAU, differing from this RAU, was received and pre-empted existing RAU procedure.</li> <li>2) Another Attach, differing from this attach, was received and pre-empted existing Attach procedure.</li> <li>3) Iu released while attach procedure in progress.</li> </ol> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
2G-total-inter-rau-failure	<p><b>Description:</b> This proprietary counter indicates the total number of Inter-SGSN-RAU requests of type “RA Updating” that were failed in 2G service. “Dropped” indicates that the requests were silently discarded and no reject was sent for such requests.</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) Another RAU, differing from this RAU, was received and pre-empted existing RAU procedure.</li> <li>2) Another Attach, differing from this attach, was received and pre-empted existing Attach procedure.</li> </ol> <p><b>Availability:</b> per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
3G-total-comb-inter-rau-failure	<p><b>Description:</b> This proprietary counter indicates the total number of Inter-SGSN-RAU requests of type “Combined RA/LA Update or “Combined RA/LA Iupdate with IMSI Attach” that were failed in 3G service. “Dropped” indicates that the requests were silently discarded and no reject was sent for such requests.</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) Another RAU, differing from this RAU, was received and pre-empted existing RAU procedure.</li> <li>2) Another Attach, differing from this attach, was received and pre-empted existing Attach procedure.</li> <li>3) Iu released while attach procedure was in progress.</li> </ol> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
2G-total-comb-inter-rau-failure	<p><b>Description:</b> This proprietary counter indicates the total number of Inter-SGSN-RAU requests of type “Combined RA/LA Update or “Combined RA/LA Iupdate with IMSI Attach” that were failed in 2G service. “Dropped” indicates that the requests were silently discarded and no reject was sent for such requests.</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) Another RAU, differing from this RAU, was received and pre-empted existing RAU procedure.</li> <li>2) Another Attach, differing from this attach, was received and pre-empted existing Attach procedure.</li> </ol> <p><b>Availability:</b> per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
3G-intra-ra-upd-rau-fail-iu_release	Total number of intra-SGSN routing area updates failed for 3G service due to Iu released.	Int32
3G-intra-ra-upd-rau-fail-ongoing-proc	Total number of intra-SGSN routing area updates failed for 3G service due ongoing procedures.	Int32
2G-intra-ra-upd-rau-fail-ongoing-proc	Total number of intra-SGSN routing area updates failed for 2G service due ongoing procedures.	Int32

Statistic	Description	Data Type
3G-intra-perio-rau-fail-iu_release	Total number of intra-SGSN periodic routing area updates failed for 3G service due Iu released.	Int32
3G-intra-perio-rau-fail-ongoing-proc	Total number of intra-SGSN periodic routing area updates failed for 3G service due ongoing procedures.	Int32
2G-intra-perio-rau-fail-ongoing-proc	Total number of intra-SGSN periodic routing area updates failed for 2G service due ongoing procedures.	Int32
3G-inter-rau-fail-iu_release	Total number of inter-SGSN periodic routing area updates failed for 3G service due Iu released.	Int32
3G-inter-rau-fail-ongoing-proc	Total number of inter-SGSN periodic routing area updates failed for 3G service due ongoing procedures.	Int32
2G-inter-rau-fail-ongoing-proc	Total number of inter-SGSN periodic routing area updates failed for 2G service due ongoing procedures.	Int32
3G-intra-comb-rau-fail-iu_release	<b>Description:</b> Total number of combined RAUs dropped from processing as the Iu (in which the RAU came) was released. This counter is new in release 9.0. <b>Triggers:</b> Increments when the Iu releases during an ongoing RAU. <b>Availability:</b> per SGSN service, per RA <b>Type:</b> Counter	Int32
3G-intra-comb-rau-fail-ongoing-proc	<b>Description:</b> Total number of combined RAUs dropped from processing as another RAU/Attach/Detach was received. This counter is new in release 9.0. <b>Triggers:</b> Increments when another Attach/RAU/Detach is received. <b>Availability:</b> per SGSN service, per RA <b>Type:</b> Counter	Int32
2G-intra-comb-rau-fail-ongoing-proc	<b>Description:</b> Total number of combined RAUs dropped from processing as another RAU/Attach/Detach was received. This counter is new in release 9.0. <b>Triggers:</b> Increments when another Attach/RAU/Detach is received. <b>Availability:</b> per GPRS service <b>Type:</b> Counter	Int32
3G-inter-comb-rau-fail-iu_release	<b>Description:</b> Total number of combined inter-SGSN RAUs dropped from processing as the Iu (in which the RAU came) was released. This counter is new in release 9.0. <b>Triggers:</b> Increments when the Iu releases during an ongoing RAU. <b>Availability:</b> per SGSN service, per RA <b>Type:</b> Counter	Int32
3G-inter-comb-rau-fail-ongoing-proc	<b>Description:</b> Total number of combined inter-SGSN RAUs dropped from processing as another RAU/Attach/Detach was received. This counter is new in release 9.0. <b>Triggers:</b> Increments when another Attach/RAU/Detach is received. <b>Availability:</b> per SGSN service, per RA <b>Type:</b> Counter	Int32
2G-inter-comb-rau-fail-ongoing-proc	<b>Description:</b> Total number of combined inter-SGSN RAUs dropped from processing as another RAU/Attach/Detach was received. This counter is new in release 9.0. <b>Triggers:</b> Increments when another Attach/RAU/Detach is received. <b>Availability:</b> per GPRS service <b>Type:</b> Counter	Int32

Statistic	Description	Data Type
intra-sgsn-inter-system-gsm-to-wcdma-success	<b>Description:</b> Total number of Attach and RAU Requests received at 3G from 2G mobile stations (MS) attached in the same SGSN. <b>Triggers:</b> Increments when a Mobile Station (MS) performs an intra-SGSN inter-RAT Attach/RAU from 2G to 3G. <b>Availability:</b> Across all SGSN services <b>Type:</b> Counter	Int32
intra-sgsn-inter-system-gsm-to-wcdma-rej	<b>Description:</b> Total number of Attach/RAU Rejects sent against Attach/RAU Requests received at 3G from 2G mobile stations (MS) attached in the same SGSN. <b>Triggers:</b> Increments when an Attach/RAU procedure is rejected on an intra-SGSN inter-RAT Attach/RAU Request from 2G to 3G. <b>Availability:</b> Across all SGSN services <b>Type:</b> Counter	Int32
intra-sgsn-inter-system-gsm-to-wcdma-fail	<b>Description:</b> Total number of failed Attach/RAU Procedures initiated at 3G from 2G mobile stations (MS) attached in the same SGSN. <b>Triggers:</b> Increments when an Attach/RAU procedure is dropped without an Attach/RAU Reject on an intra-SGSN inter-RAT from 2G to 3G. <b>Availability:</b> Across all SGSN services <b>Type:</b> Counter	Int32
intra-sgsn-inter-system-wcdma-to-gsm-success	<b>Description:</b> Total number of RAU and Attach Requests received at 2G from 3G mobile stations (MS) attached in the same SGSN. <b>Triggers:</b> Increments when a Mobile Station (MS) performs an intra-SGSN inter-RAT Attach/RAU from 3G to 2G. <b>Availability:</b> Across all GPRS services <b>Type:</b> Counter	Int32
intra-sgsn-inter-system-wcdma-to-gsm-rej	<b>Description:</b> Total number of Attach/RAU Rejects sent against Attach/RAU Requests received at 2G from 3G mobile stations (MS) attached in the same SGSN. <b>Triggers:</b> Increments when an Attach/RAU procedure is rejected on an intra-SGSN inter-RAT Attach/RAU Request from 3G to 2G. <b>Availability:</b> Across all GPRS services <b>Type:</b> Counter	Int32
intra-sgsn-inter-system-wcdma-to-gsm-fail	<b>Description:</b> Total number of failed Attach/RAU Procedures initiated at 2G from 3G mobile stations (MS) attached in the same SGSN. <b>Triggers:</b> Increments when an Attach/RAU procedure is dropped without an Attach/RAU Reject on an intra-SGSN inter-RAT from 3G to 2G. <b>Availability:</b> Across all GPRS services <b>Type:</b> Counter	Int32
inter-system-2G-to-3G-rau-requests	<b>Description:</b> Total number of RAU-requests of type "RA Updating" received from subscribers who attached previously to the same SGSN under 2G. <b>Triggers:</b> Increments upon reception of a RAU-request at the 3G SGSN. <b>Availability:</b> per SGSN service, per RA <b>Type:</b> Counter	Int32
inter-system-2G-to-3G-rau-accepts	<b>Description:</b> Total number of RAU-accepts with update-result - "RA updated" issued against RAU-requests from subscribers who attached previously to the same SGSN under 2G. <b>Triggers:</b> Increments upon issue of such a RAU-accept message at the 3G SGSN. <b>Availability:</b> per SGSN service, per RA <b>Type:</b> Counter	Int32

Statistic	Description	Data Type
inter-system-2G-to-3G-rau-rejects	<p><b>Description:</b> Total number of RAU-rejects issued against RAU-requests of the type "RA Updating" which were received from subscribers who attached previously to the same SGSN under 2G.</p> <p><b>Triggers:</b> Increments upon issue of such a RAU-reject message by the 3G SGSN.</p> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
inter-system-2G-to-3G-comb-rau-requests	<p><b>Description:</b> Total number of RAU-requests, of type "Combined RA/LA update" or "Combined RA/LA update, with IMSI Attach" received from subscribers who attached previously to the same SGSN under 2G.</p> <p><b>Triggers:</b> Increments upon reception of such a RAU-request message at the 3G SGSN.</p> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
inter-system-2G-to-3G-comb-rau-accepts	<p><b>Description:</b> Total number of RAU-accepts, with update-result - "Combined RA/LA updated", issued against RAU-requests from subscribers who attached previously to the same SGSN under 2G.</p> <p><b>Triggers:</b> Increments upon issue of such RAU-accept message at the 3G SGSN.</p> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
inter-system-2G-to-3G-comb-rau-rejects	<p><b>Description:</b> Total number of RAU-rejects, issued against RAU-requests of the type "Combined RA/LA update" or "Combined RA/LA update with IMSI Attach", received from subscribers who attached previously to the same SGSN under 2G.</p> <p><b>Triggers:</b> Increments upon issue of such a RAU-reject message at the 3G SGSN.</p> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
inter-system-2G-to-3G-attach-requests	<p><b>Description:</b> Total number of attach-request messages, of the type "GPRS Attach", received from subscribers who attached previously to the same SGSN under 2G.</p> <p><b>Triggers:</b> Increments upon reception of such an attach-request message at the 3G SGSN.</p> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
inter-system-2G-to-3G-attach-accepts	<p><b>Description:</b> Total number of attach-accepts of type "GPRS only attached" issued against attach-requests from subscribers who attached previously to the same SGSN under 2G.</p> <p><b>Triggers:</b> Increments upon issue of such an attach-accept message at the 3G SGSN.</p> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
inter-system-2G-to-3G-attach-rejects	<p><b>Description:</b> Total number of attach-reject messages, issued against attach-requests of type "GPRS Attach", received from subscribers who attached previously to the same SGSN under 2G.</p> <p><b>Triggers:</b> Increments upon issue of such an attach-reject message from the 3G SGSN.</p> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
inter-system-2G-to-3G-comb-attach-requests	<p><b>Description:</b> Total number of attach-request messages, of type "Combined GPRS/IMSI Attach", received from subscribers who attached previously to the same SGSN under 2G.</p> <p><b>Triggers:</b> Increments upon reception of such attach-request messages at the 3G SGSN.</p> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
inter-system-2G-to-3G-comb-attach-accepts	<p><b>Description:</b> Total number of attach-accept messages, of the type "Combined GPRS/IMSI attached", issued against attach-requests from subscribers who attached previously to the same SGSN under 2G.</p> <p><b>Triggers:</b> Increments upon issue of such an attach-accept message by the 3G SGSN.</p> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
inter-system-2G-to-3G-comb-attach-rejects	<p><b>Description:</b> Total number of attach-reject messages, issued against attach-requests of type "Combined GPRS/IMSI Attach", received from subscribers who attached previously to the same SGSN under 2G.</p> <p><b>Triggers:</b> Increments upon issue of such an attach-reject message by the 3G SGSN.</p> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
inter-system-3G-to-2G-rau-requests	<p><b>Description:</b> Total number of RAU-request messages, of type "RA Updating", received from subscribers who attached previously to the same SGSN under 3G.</p> <p><b>Triggers:</b> Increments upon reception of such a RAU-request message at the 2G SGSN.</p> <p><b>Availability:</b> across all GPRS services</p> <p><b>Type:</b> Counter</p>	Int32
inter-system-3G-to-2G-rau-accepts	<p><b>Description:</b> Total number of RAU-accept messages, with update-result - "RA updated", issued against RAU-requests from subscribers who previously attached to the same SGSN under 3G.</p> <p><b>Triggers:</b> Increments upon issue of such a RAU-accept message by the 2G SGSN.</p> <p><b>Availability:</b> across all GPRS services</p> <p><b>Type:</b> Counter</p>	Int32
inter-system-3G-to-2G-rau-rejects	<p><b>Description:</b> Total number of RAU-reject messages, issued against RAU-requests of type "Ra Updating", received from subscribers who attached previously to the same SGSN under 3G.</p> <p><b>Triggers:</b> Increments upon issue of such a RAU-reject message by the 2G SGSN.</p> <p><b>Availability:</b> across all GPRS services</p> <p><b>Type:</b> Counter</p>	Int32
inter-system-3G-to-2G-comb-rau-requests	<p><b>Description:</b> Total number of RAU-request messages, of type "Combined RA/LA update" or "Combined RA/LA update with IMSI Attach", received from subscribers who attached previously to the same SGSN under 3G.</p> <p><b>Triggers:</b> Increments upon reception of such a RAU-request message by the 2G SGSN.</p> <p><b>Availability:</b> across all GPRS services</p> <p><b>Type:</b> Counter</p>	Int32
inter-system-3G-to-2G-comb-rau-accepts	<p><b>Description:</b> Total number of RAU-accept messages, with update-result - "Combined RA/LA updated", issued against RAU-requests from subscribers who attached previously to the same SGSN under 3G.</p> <p><b>Triggers:</b> Increments upon issue of such a RAU-accept message by the 2G SGSN.</p> <p><b>Availability:</b> across all GPRS services</p> <p><b>Type:</b> Counter</p>	Int32
inter-system-3G-to-2G-comb-rau-rejects	<p><b>Description:</b> Total number of RAU-reject messages, issued against RAU-requests of type "Combined RA/LA update" or "Combined RA/LA update with IMSI Attach", received from subscribers who attached previously to the same SGSN under 3G.</p> <p><b>Triggers:</b> Increments upon issue of such a RAU-reject message by the 2G SGSN.</p> <p><b>Availability:</b> across all GPRS services</p> <p><b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
inter-system-3G-to-2G-attach-requests	<b>Description:</b> Total number of "Attach Request" messages, of type "GPRS Attach", received from subscribers who attached previously to the same SGSN under 3G. <b>Triggers:</b> Increments upon reception of such an "Attach Request" message at the 2G SGSN. <b>Availability:</b> across all GPRS services <b>Type:</b> Counter	Int32
inter-system-3G-to-2G-attach-accepts	<b>Description:</b> Total number of "attach-accept" messages, of type "GPRS only attached", issued against "attach-requests" from subscribers who attached previously to the same SGSN under 3G. <b>Triggers:</b> Increments upon issue of such an "attach-accept" message at the 2G SGSN. <b>Availability:</b> across all GPRS services <b>Type:</b> Counter	Int32
inter-system-3G-to-2G-attach-rejects	<b>Description:</b> Total number of "attach-reject" messages, issued against "attach-requests" of type "GPRS Attach", received from subscribers who attached previously to the same SGSN under 3G. <b>Triggers:</b> Increments upon issue of such an "attach-reject" message by the 2G SGSN. <b>Availability:</b> across all GPRS services <b>Type:</b> Counter	Int32
inter-system-3G-to-2G-comb-attach-requests	<b>Description:</b> Total number of "attach-request" messages, of type "Combined GPRS/IMSI Attach", received from subscribers who attached previously to the same SGSN under 3G. <b>Triggers:</b> Increments upon reception of such an "attach-request" message by the 2G SGSN. <b>Availability:</b> across all GPRS services <b>Type:</b> Counter	Int32
inter-system-3G-to-2G-comb-attach-accepts	<b>Description:</b> Total number of "attach-accept" messages, of type "Combined GPRS/IMSI attached", issued against "attach-requests" from subscribers who attached previously to the same SGSN under 3G. <b>Triggers:</b> Increments upon reception of such an "attach-request" message by the 2G SGSN. <b>Availability:</b> across all GPRS services <b>Type:</b> Counter	Int32
inter-system-3G-to-2G-comb-attach-rejects	<b>Description:</b> Total number of Attach rejects issued against attach-requests of type "Combined GPRS/IMSI Attach" received from subscribers who are previously attached in the same sgsn under 3g. <b>Triggers:</b> Increments upon issue of such an "attach-reject" by the 2G SGSN. <b>Availability:</b> across all GPRS services <b>Type:</b> Counter	Int32
ps-inter-rat-rau-total	<b>Description:</b> Total number of GPRS only Inter RAT RAU Requests received in both 2G and 3G services. <b>Availability:</b> per RA, per GPRS/SGSN service <b>Type:</b> Counter	Int32
ps-inter-rat-rau-3g	<b>Description:</b> Total number of GPRS only Inter RAT RAU Requests received in a 3G service from a 2G service. <b>Availability:</b> per RA, per SGSN service <b>Type:</b> Counter	Int32
ps-inter-rat-rau-2g	<b>Description:</b> Total number of GPRS only Inter RAT RAU Requests received in a 2G service from a 3G service. <b>Availability:</b> per RA, per GPRS service <b>Type:</b> Counter	Int32

Statistic	Description	Data Type
comb-inter-rat-rau-total	<b>Description:</b> Total number of Combined Inter RAT RAU Requests received in both 2G and 3G services. <b>Availability:</b> per RA, per GPRS/SGSN service <b>Type:</b> Counter	Int32
comb-inter-rat-rau-3g	<b>Description:</b> Total number of Combined Inter RAT RAU Requests received in a 3G service from a 2G service. <b>Availability:</b> per RA, per SGSN service <b>Type:</b> Counter	Int32
comb-inter-rat-rau-2g	<b>Description:</b> Total number of Combined Inter RAT RAU Requests received in a 2G service from a 3G service. <b>Availability:</b> per RA, per GPRS service <b>Type:</b> Counter	Int32
ret-ps-inter-rat-rau-total	<b>Description:</b> Total number of retransmitted GPRS only Inter RAT RAU Requests received in both 2G and 3G services. <b>Availability:</b> per RA, per GPRS/SGSN service <b>Type:</b> Counter	Int32
ret-ps-inter-rat-rau-3g	<b>Description:</b> Total number of retransmitted GPRS only Inter RAT RAU Requests received in a 3G service from a 2G service. <b>Availability:</b> per RA, per SGSN service <b>Type:</b> Counter	Int32
ret-ps-inter-rat-rau-2g	<b>Description:</b> Total number of retransmitted GPRS only Inter RAT RAU Requests received in a 2G service from a 3G service. <b>Availability:</b> per RA, per GPRS service <b>Type:</b> Counter	Int32
ret-comb-inter-rat-rau-total	<b>Description:</b> Total number of retransmitted Combined Inter RAT RAU Requests received in both 2G and 3G services. <b>Availability:</b> per RA, per GPRS/SGSN service <b>Type:</b> Counter	Int32
ret-comb-inter-rat-rau-3g	<b>Description:</b> Total number of retransmitted Combined Inter RAT RAU Requests received in a 3G service from a 2G service. <b>Availability:</b> per RA, per SGSN service <b>Type:</b> Counter	Int32
ret-comb-inter-rat-rau-2g	<b>Description:</b> Total number of retransmitted Combined Inter RAT RAU Requests received in a 2G service from a 3G service. <b>Availability:</b> per RA, per GPRS service <b>Type:</b> Counter	Int32
ps-inter-service-rau-total	<b>Description:</b> Total number of GPRS only Inter Service RAU Requests received in both 2G and 3G services. <b>Availability:</b> per RA, per GPRS/SGSN service <b>Type:</b> Counter	Int32
ps-inter-service-rau-3g	<b>Description:</b> Total number of GPRS only Inter Service RAU Requests from one 3G service to another 3G service. <b>Availability:</b> per RA, per SGSN service <b>Type:</b> Counter	Int32

Statistic	Description	Data Type
ps-inter-service-rau-2g	<b>Description:</b> Total number of GPRS only Inter Service RAU Requests from one 2G service to another 2G service. <b>Availability:</b> per RA, per GPRS service <b>Type:</b> Counter	Int32
comb-inter-service-rau-total	<b>Description:</b> Total number of Combined Inter Service RAU Requests received in both 2G and 3G services. <b>Availability:</b> per RA, per GPRS/SGSN service <b>Type:</b> Counter	Int32
comb-inter-service-rau-3g	<b>Description:</b> Total number of Combined Inter Service RAU Requests from one 3G service to another 3G service. <b>Availability:</b> per RA, per SGSN service <b>Type:</b> Counter	Int32
comb-inter-service-rau-2g	<b>Description:</b> Total number of Combined Inter Service RAU Requests from one 2G service to another 2G service. <b>Availability:</b> per RA, per GPRS service <b>Type:</b> Counter	Int32
ret-ps-inter-service-rau-total	<b>Description:</b> Total number of retransmitted GPRS only Inter Service RAU Requests received in both 2G and 3G services. <b>Availability:</b> per RA, per GPRS/SGSN service <b>Type:</b> Counter	Int32
ret-ps-inter-service-rau-3g	<b>Description:</b> Total number of retransmitted GPRS only Inter Service RAU Requests from one 3G service to another 3G service. <b>Availability:</b> per RA, per SGSN service <b>Type:</b> Counter	Int32
ret-ps-inter-service-rau-2g	<b>Description:</b> Total number of retransmitted GPRS only Inter Service RAU Requests from one 2G service to another 2G service. <b>Availability:</b> per RA, per GPRS service <b>Type:</b> Counter	Int32
ret-comb-inter-service-rau-total	<b>Description:</b> Total number of retransmitted Combined Inter Service RAU Requests received in both 2G and 3G services. <b>Availability:</b> per RA, per GPRS/SGSN service <b>Type:</b> Counter	Int32
ret-comb-inter-service-rau-3g	<b>Description:</b> Total number of retransmitted Combined Inter Service RAU Requests from one 3G service to another 3G service. <b>Availability:</b> per RA, per SGSN service <b>Type:</b> Counter	Int32
ret-comb-inter-service-rau-2g	<b>Description:</b> Total number of retransmitted Combined Inter Service RAU Requests from one 2G service to another 2G service. <b>Availability:</b> per RA, per GPRS service <b>Type:</b> Counter	Int32
ps-inter-rat-rau-acc-total	<b>Description:</b> Total number of GPRS only Inter RAT RAU Accepts sent in both 2G and 3G services. <b>Availability:</b> per RA, per GPRS/SGSN service <b>Type:</b> Counter	Int32

Statistic	Description	Data Type
ps-inter-rat-rau-acc-3g	<b>Description:</b> Total number of GPRS only Inter RAT RAU Accepts sent against RAU Requests from subscribers moving from a 2G service to a 3G service. <b>Availability:</b> per RA, per SGSN service <b>Type:</b> Counter	Int32
ps-inter-rat-rau-acc-2g	<b>Description:</b> Total number of GPRS only Inter RAT RAU Accepts sent against RAU Requests from subscribers moving from a 3G service to a 2G service. <b>Availability:</b> per RA, per GPRS service <b>Type:</b> Counter	Int32
comb-inter-rat-rau-acc-total	<b>Description:</b> Total number of Combined Inter RAT RAU Accepts sent in both 2G and 3G services. <b>Availability:</b> per RA, per GPRS/SGSN service <b>Type:</b> Counter	Int32
comb-inter-rat-rau-acc-3g	<b>Description:</b> Total number of Combined Inter RAT RAU Accepts sent against RAU Requests from subscribers moving from a 2G service to a 3G service. <b>Availability:</b> per RA, per SGSN service <b>Type:</b> Counter	Int32
comb-inter-rat-rau-acc-2g	<b>Description:</b> Total number of Combined Inter RAT RAU Accepts sent against RAU Requests from subscribers moving from a 3G service to a 2G service. <b>Availability:</b> per RA, per GPRS service <b>Type:</b> Counter	Int32
ret-ps-inter-rat-rau-acc-total	<b>Description:</b> Total number of retransmitted GPRS only Inter RAT RAU Accepts sent in both 2G and 3G services. <b>Availability:</b> per RA, per GPRS/SGSN service <b>Type:</b> Counter	Int32
ret-ps-inter-rat-rau-acc-3g	<b>Description:</b> Total number of retransmitted GPRS only Inter RAT RAU Accepts sent against RAU Requests from subscribers moving from a 2G service to a 3G service. <b>Availability:</b> per RA, per SGSN service <b>Type:</b> Counter	Int32
ret-ps-inter-rat-rau-acc-2g	<b>Description:</b> Total number of retransmitted GPRS only Inter RAT RAU Accepts sent against RAU Requests from subscribers moving from a 3G service to a 2G service. <b>Availability:</b> per RA, per GPRS service <b>Type:</b> Counter	Int32
ret-comb-inter-rat-rau-acc-total	<b>Description:</b> Total number of retransmitted Combined Inter RAT RAU Accepts sent in both 2G and 3G services. <b>Availability:</b> per RA, per GPRS/SGSN service <b>Type:</b> Counter	Int32
ret-comb-inter-rat-rau-acc-3g	<b>Description:</b> Total number of retransmitted Combined Inter RAT RAU Accepts sent against RAU Requests from subscribers moving from a 3G service to a 2G service. <b>Availability:</b> per RA, per SGSN service <b>Type:</b> Counter	Int32
ret-comb-inter-rat-rau-acc-2g	<b>Description:</b> Total number of retransmitted Combined Inter RAT RAU Accepts sent against RAU Requests from subscribers moving from a 2G service to a 3G service. <b>Availability:</b> per RA, per GPRS service <b>Type:</b> Counter	Int32

Statistic	Description	Data Type
ps-inter-service-rau-acc-total	<b>Description:</b> Total number of GPRS only Inter Service RAU Accepts sent in both 2G and 3G services. <b>Availability:</b> per RA, per GPRS/SGSN service <b>Type:</b> Counter	Int32
ps-inter-service-rau-acc-3g	<b>Description:</b> Total number of GPRS only Inter Service RAU Accepts sent against RAU Requests from subscribers moving from one 3G service to another 3G service. <b>Availability:</b> per RA, per SGSN service <b>Type:</b> Counter	Int32
ps-inter-service-rau-acc-2g	<b>Description:</b> Total number of GPRS only Inter Service RAU Accepts sent against RAU Requests from subscribers moving from one 2G service to another 2G service. <b>Availability:</b> per RA, per GPRS service <b>Type:</b> Counter	Int32
comb-inter-service-rau-acc-total	<b>Description:</b> Total number of Combined Inter Service RAU Accepts sent in both 2G and 3G services. <b>Availability:</b> per RA, per GPRS/SGSN service <b>Type:</b> Counter	Int32
comb-inter-service-rau-acc-3g	<b>Description:</b> Total number of Combined Inter Service RAU Accepts sent against RAU Requests from subscribers moving from one 3G service to another 3G service. <b>Availability:</b> per RA, per SGSN service <b>Type:</b> Counter	Int32
comb-inter-service-rau-acc-2g	<b>Description:</b> Total number of Combined Inter Service RAU Accepts sent against RAU Requests from subscribers moving from one 2G service to another 2G service. <b>Availability:</b> per RA, per GPRS service <b>Type:</b> Counter	Int32
ret-ps-inter-service-rau-acc-total	<b>Description:</b> Total number of retransmitted GPRS only Inter Service RAU Accepts sent in both 2G and 3G services. <b>Availability:</b> per RA, per GPRS/SGSN service <b>Type:</b> Counter	Int32
ret-ps-inter-service-rau-acc-3g	<b>Description:</b> Total number of retransmitted GPRS only Inter Service RAU Accepts sent against RAU Requests from subscribers moving from one 3G service to another 3G service. <b>Availability:</b> per RA, per SGSN service <b>Type:</b> Counter	Int32
ret-ps-inter-service-rau-acc-2g	<b>Description:</b> Total number of retransmitted GPRS only Inter Service RAU Accepts sent against RAU Requests from subscribers moving from one 2G service to another 2G service. <b>Availability:</b> per RA, per GPRS service <b>Type:</b> Counter	Int32
ret-comb-inter-service-rau-acc-total	<b>Description:</b> Total number of retransmitted Combined Inter Service RAU Accepts sent in both 2G and 3G services. <b>Availability:</b> per RA, per GPRS/SGSN service <b>Type:</b> Counter	Int32
ret-comb-inter-service-rau-acc-3g	<b>Description:</b> Total number of retransmitted Combined Inter Service RAU Accepts sent against RAU Requests from subscribers moving from one 3G service to another 3G service. <b>Availability:</b> per RA, per SGSN service <b>Type:</b> Counter	Int32

Statistic	Description	Data Type
ret-comb-inter-service-rau-acc-2g	<b>Description:</b> Total number of retransmitted Combined Inter Service RAU Accepts sent against RAU Requests from subscribers moving from one 2G service to another 2G service. <b>Availability:</b> per RA, per GPRS service <b>Type:</b> Counter	Int32
ps-inter-rat-rau-rej-total	<b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects sent in both 2G and 3G services. <b>Availability:</b> per RA, per GPRS/SGSN service <b>Type:</b> Counter	Int32
ps-inter-rat-rau-rej-3g	<b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects sent against RAU Requests for subscribers moving from 2G service to a 3G service. <b>Availability:</b> per RA, per SGSN service <b>Type:</b> Counter	Int32
ps-inter-rat-rau-rej-2g	<b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects sent against RAU Requests for subscribers moving from 3G service to a 2G service. <b>Availability:</b> per RA, per GPRS service <b>Type:</b> Counter	Int32
comb-inter-rat-rau-rej-total	<b>Description:</b> Total number of Combined Inter RAT RAU Rejects sent in both 2G and 3G services. <b>Availability:</b> per RA, per GPRS/SGSN service <b>Type:</b> Counter	Int32
comb-inter-rat-rau-rej-3g	<b>Description:</b> Total number of Combined Inter RAT RAU Rejects sent against RAU Requests for subscribers moving from 2G service to a 3G service. <b>Availability:</b> per RA, per SGSN service <b>Type:</b> Counter	Int32
comb-inter-rat-rau-rej-2g	<b>Description:</b> Total number of Combined Inter RAT RAU Rejects sent against RAU Requests for subscribers moving from 3G service to a 2G service. <b>Availability:</b> per RA, per GPRS service <b>Type:</b> Counter	Int32
ps-inter-service-rau-rej-total	<b>Description:</b> Total number of GPRS only Inter Service RAU Rejects sent in both 2G and 3G services. <b>Availability:</b> per RA, per GPRS/SGSN service <b>Type:</b> Counter	Int32
ps-inter-service-rau-rej-3g	<b>Description:</b> Total number of GPRS only Inter Service RAU Rejects sent against RAU Requests for subscribers moving from one 3G service to another 3G service. <b>Availability:</b> per RA, per SGSN service <b>Type:</b> Counter	Int32
ps-inter-service-rau-rej-2g	<b>Description:</b> Total number of GPRS only Inter Service RAU Rejects sent against RAU Requests for subscribers moving from one 2G service to another 2G service. <b>Availability:</b> per RA, per GPRS service <b>Type:</b> Counter	Int32
comb-inter-service-rau-rej-total	<b>Description:</b> Total number of Combined Inter Service RAU Rejects sent in both 2G and 3G services. <b>Availability:</b> per RA, per GPRS/SGSN service <b>Type:</b> Counter	Int32

Statistic	Description	Data Type
comb-inter-service-rau-rej-3g	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects sent against RAU Requests for subscribers moving from one 3G service to another 3G service.</p> <p><b>Availability:</b> per RA, per SGSN service</p> <p><b>Type:</b> Counter</p>	Int32
comb-inter-service-rau-rej-2g	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects sent against RAU Requests for subscribers moving from one 2G service to another 2G service.</p> <p><b>Availability:</b> per RA, per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
3G-isrv-ps-rej-imsi-unknown-hlr	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 3G service with cause "IMSI unknown at HLR".</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On HLR sending a bad response to a SAI-Req or GLU-Req</li> <li>• On getting zero auth vectors for HLR for a SAI-Req</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per SGSN service</p> <p><b>Type:</b> Counter</p>	Int32
2G-isrv-ps-rej-imsi-unknown-hlr	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 2G service with cause "IMSI unknown at HLR".</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On HLR sending a bad response to a SAI-Req or GLU-Req</li> <li>• On getting zero auth vectors for HLR for a SAI-Req</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
3G-isrv-ps-rej-illegal-ms	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 3G service with cause "Illegal M".</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On HLR sending a bad response to a SAI-Req or GLU-Req</li> <li>• On getting zero auth vectors for HLR for a SAI-Req</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per SGSN service</p> <p><b>Type:</b> Counter</p>	Int32
2G-isrv-ps-rej-illegal-ms	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 2G service with cause "Illegal MS".</p> <ul style="list-style-type: none"> <li>• <b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
3G-isrv-ps-rej-illegal-me	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 3G service with cause “Illegal ME”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• Unable to retrieve IMEI/IMEISV from MS</li> <li>• On IMEI verification failure with EIR</li> <li>• On getting unknown equipment failure from EIR/HLR</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per SGSN service  <b>Type:</b> Counter</p>	Int32
2G-isrv-ps-rej-illegal-me	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 2G service with cause “Illegal ME”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On IMEI verification failure with EIR</li> <li>• On getting unknown equipment failure from EIR/HLR</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service  <b>Type:</b> Counter</p>	Int32
3G-isrv-ps-rej-gprs-svc-not-allow	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects sent with cause “GPRS services not allowed in this PLMN” against Inter-service-RAU Requests in 3G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On getting a cl (subs-with) while an attach/RAU is in progress</li> <li>• On getting “Subscriber Unknown” failure from HLR for SAI-Req/GLU-Req</li> <li>• For rejecting attaches due to subscriber control inactivity</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per SGSN service  <b>Type:</b> Counter</p>	Int32
2G-isrv-ps-rej-gprs-svc-not-allow	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects sent with cause “GPRS services not allowed in this PLMN” against Inter-service-RAU Requests in 2G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On getting a cl (subs-with) while an attach/RAU is in progress</li> <li>• On getting “Subscriber Unknown” failure from HLR for SAI-Req/GLU-Req</li> <li>• For rejecting attaches due to subscriber control inactivity</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service  <b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
3G-isrv-ps-rej-nongprs-svc-not-allow	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects sent with cause “GPRS and non-GPRS service not allowed for subscriber” against Inter-service-RAU Requests in 3G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On getting “IMSI unknown” from HLR for SAI-Req/GLU-Req</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per SGSN service</p> <p><b>Type:</b> Counter</p>	Int32
2G-isrv-ps-rej-nongprs-svc-not-allow	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects sent with cause “GPRS and non-GPRS service not allowed for subscriber” against Inter-service-RAU Requests in 2G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On getting “IMSI unknown” from HLR for SAI-Req/GLU-Req</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
3G-isrv-ps-rej-msid-not-derived-by-nw	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Request Rejects sent with cause “MSID not derived by network” against Inter-Service-RAU Requests in 3G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On getting periodic RAU with old RAI as a non-local RAI</li> <li>When PTMSI-IE is missing in RAU</li> <li>When old RAI has invalid location area values (0x0000 or 0xffff) for PTMSI-attaches/RAUs</li> <li>When getting a RAU with old RAI in 2G and PTMSI is unknown</li> <li>When getting PTMSI-SIG-MISMATCH for a SGSN Context Request sent with IMSI Validated</li> <li>When getting a RAU Request while an attach with the same peer-SGSN-PTMSI is in progress</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per SGSN service</p> <p><b>Type:</b> Counter</p>	Int32
2G-isrv-ps-rej-msid-not-derived-by-nw	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Request Rejects sent with cause “MSID not derived by network” against Inter-Service-RAU Requests in 2G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>When SGSN-Context-Resp arrives with any cause other than “accepted”</li> <li>When GMM-Identity-Req with MS fails</li> <li>When GTP-Identity-Req with MS fails</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
3G-isrv-ps-rej-implicitly-detach	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 3G service with cause “Implicitly detached”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• RAU at 3G when subscriber was detached from 2G</li> <li>• When we get a different IMSI in SGSN Context Response for an SGSN Context Request sent with IMSI validated</li> <li>• When we get RAU while awaiting a Detach Accept</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per SGSN service  <b>Type:</b> Counter</p>	Int32
2G-isrv-ps-rej-implicitly-detach	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 2G service with cause “Implicitly detached”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• When we get an RAU from an unknown MS</li> <li>• On T3350 expiry for the attach-accept</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service  <b>Type:</b> Counter</p>	Int32
3G-isrv-ps-rej-plmn-not-allowed	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 3G service with cause “PLMN not allowed”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per SGSN service  <b>Type:</b> Counter</p>	Int32
2G-isrv-ps-rej-plmn-not-allowed	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 2G service with cause “PLMN not allowed”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per GPRS service  <b>Type:</b> Counter</p>	Int32
3G-isrv-ps-rej-loc-area-not-allowed	<p><b>Description:</b> Total number of GPRS only Inter Service RAU rejects in 3G service with cause “Location area not allowed”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per SGSN service  <b>Type:</b> Counter</p>	Int32
2G-isrv-ps-rej-loc-area-not-allowed	<p><b>Description:</b> Total number of GPRS only Inter Service RAU rejects in 2G service with cause “Location area not allowed”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per GPRS service  <b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
3G-isrv-ps-rej-roam-not-allowed-larea	<p><b>Description:</b> Total number of GPRS only Inter Service RAU rejects in 3G service with cause “Roaming area not allowed in the given location area”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• When rejecting as a shared SGSN due to no operator accepting the given IMSI</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per SGSN service <b>Type:</b> Counter</p>	Int32
2G-isrv-ps-rej-roam-not-allowed-larea	<p><b>Description:</b> Total number of GPRS only Inter Service RAU rejects in 2G service with cause “Roaming area not allowed in the given location area”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per GPRS service <b>Type:</b> Counter</p>	Int32
3G-isrv-ps-rej-gprs-svc-not-allowed-plmn	<p><b>Description:</b> Total number of GPRS only RAU Rejects sent with cause “GPRS service not allowed in this PLMN” against Inter-Service-RAU Requests in 3G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On getting “Roaming not allowed” from HLR for SAI-Req/GLU-Req</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per SGSN service <b>Type:</b> Counter</p>	Int32
2G-isrv-ps-rej-gprs-svc-not-allowed-plmn	<p><b>Description:</b> Total number of GPRS only RAU Rejects sent with cause “GPRS service not allowed in this PLMN” against Inter-Service-RAU Requests in 2G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On getting “Roaming not allowed” from HLR for SAI-Req/GLU-Req</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service <b>Type:</b> Counter</p>	Int32
3G-isrv-ps-rej-no-cells-in-location-area	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 3G service with cause “No cells in location area”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On getting “UMTS access control” from Siemens HLR for SAI-Req/GLU-Req</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per SGSN service <b>Type:</b> Counter</p>	Int32
2G-isrv-ps-rej-no-cells-in-location-area	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 2G service with cause “No cells in location area”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On getting “UMTS access control” from Siemens HLR for SAI-Req/GLU-Req</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service <b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
3G-isrv-ps-rej-msc-not-reachable	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 3G service with cause “MSC not reachable”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On sending an attach/RAU Accept with cause “GPRS only attached” or “RA updated” for a combined CS/PS request either because:                             <ul style="list-style-type: none"> <li>• the request is timed out</li> <li>• inability to send to VLR</li> </ul> </li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per SGSN service  <b>Type:</b> Counter</p>	Int32
2G-isrv-ps-rej-msc-not-reachable	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 2G service with cause “MSC not reachable”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On sending an attach/RAU Accept with cause “GPRS only attached” or “RA updated” for a combined CS/PS request either because:                             <ul style="list-style-type: none"> <li>• the request is timed out</li> <li>• inability to send to VLR</li> </ul> </li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service  <b>Type:</b> Counter</p>	Int32
3G-isrv-ps-rej-network-failure	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 3G service with cause “Network Failure”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• RNC is overloaded</li> <li>• Not enough credits at session manager</li> <li>• On getting cause “data missing from HLR” in SAI-Req/GLU-Req</li> <li>• Too many IUs for the same IMSI</li> <li>• On getting a RAU with a peer SGSN PTMSI when another Attach is ongoing with the same PTMSI</li> <li>• On congestion, if configured for attach-throttling</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per SGSN service  <b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
2G-isrv-ps-rej-network-failure	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 2G service with cause “Network Failure”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On getting cause “data missing from HLR” in SAI-Req/GLU-Req</li> <li>• On XID failure for RAU</li> <li>• Inability to send an SGSN-Ctx-Req out for an RAU.</li> <li>• Inability to send a Check-IMEI Request out</li> <li>• On congestion, if configured for attach-throttling</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service  <b>Type:</b> Counter</p>	Int32
3G-isrv-ps-rej-mac-failure	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 3G service with cause “Message Authenticate Code (MAC) Failure”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per SGSN service  <b>Type:</b> Counter</p>	Int32
2G-isrv-ps-rej-mac-failure	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 2G service with cause “Message Authenticate Code (MAC) Failure”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per GPRS service  <b>Type:</b> Counter</p>	Int32
3G-isrv-ps-rej-syn-failure	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 3G service with cause “Context Synchronization Failure”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per SGSN service  <b>Type:</b> Counter</p>	Int32
2G-isrv-ps-rej-syn-failure	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 2G service with cause “Context Synchronization Failure”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per GPRS service  <b>Type:</b> Counter</p>	Int32
3G-isrv-ps-rej-congestion	<p><b>Description:</b> Total number of GPRS Only Inter Service RAU Rejects in 3G service with cause “Network Congestion”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On congestion, if configured for attach-throttling</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per SGSN service  <b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
2G-isrv-ps-rej-congestion	<p><b>Description:</b> Total number of GPRS Only Inter Service RAU Rejects in 2G service with cause “Network Congestion”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On congestion, if configured for attach-throttling</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service <b>Type:</b> Counter</p>	Int32
3G-isrv-ps-rej-gsm-auth-unacceptable	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 3G service with cause “GSM Authentication unacceptable”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per SGSN service <b>Type:</b> Counter</p>	Int32
2G-isrv-ps-rej-gsm-auth-unacceptable	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 2G service with cause “GSM Authentication unacceptable”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per GPRS service <b>Type:</b> Counter</p>	Int32
3G-isrv-ps-rej-no-pdp-ctx-actv	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 3G service with cause “PDP context not activated”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per SGSN service <b>Type:</b> Counter</p>	Int32
2G-isrv-ps-rej-no-pdp-ctx-actv	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 2G service with cause “PDP context not activated”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per GPRS service <b>Type:</b> Counter</p>	Int32
3G-isrv-ps-rej-retry-from-new-cell	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 3G service with cause “Subscriber retried from a new cell”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per SGSN service <b>Type:</b> Counter</p>	Int32
2G-isrv-ps-rej-retry-from-new-cell	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 2G service with cause “Subscriber retried from a new cell”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per GPRS service <b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
3G-isrv-ps-rej-sem-wrong-msg	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 3G service with cause “Semantically wrong message”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On decode failure of messages</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per SGSN service</p> <p><b>Type:</b> Counter</p>	Int32
2G-isrv-ps-rej-sem-wrong-msg	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 2G service with cause “Semantically wrong message”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On decode failure of messages</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
3G-isrv-ps-rej-inval-mand-info	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 3G service with cause “Invalid Mandatory Info”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On decode failure of messages</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per SGSN service</p> <p><b>Type:</b> Counter</p>	Int32
2G-isrv-ps-rej-inval-mand-info	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 2G service with cause “Invalid Mandatory Info”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On decode failure of messages</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
3G-isrv-ps-rej-msg-type-non-exist	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 3G service with cause “Message type does not exist”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On decode failure of messages</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per SGSN service</p> <p><b>Type:</b> Counter</p>	Int32
2G-isrv-ps-rej-msg-type-non-exist	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 2G service with cause “Message type does not exist”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On decode failure of messages</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
3G-isrv-ps-rej-mtype-incompat-pstate	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 3G service with cause “Message type not compatible with protocol state”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On decode failure of messages</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per SGSN service <b>Type:</b> Counter</p>	Int32
2G-isrv-ps-rej-mtype-incompat-pstate	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 2G service with cause “Message type not compatible with protocol state”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On decode failure of messages</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service <b>Type:</b> Counter</p>	Int32
3G-isrv-ps-rej-ie-non-existent	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 3G service with cause “Information element not existent”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On decode failure of messages</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per SGSN service <b>Type:</b> Counter</p>	Int32
2G-isrv-ps-rej-ie-non-existent	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 2G service with cause “Information element not existent”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On decode failure of messages</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service <b>Type:</b> Counter</p>	Int32
3G-isrv-ps-rej-cond-ie-error	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 3G service with cause “error in conditional informational element”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On decode failure of messages</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per SGSN service <b>Type:</b> Counter</p>	Int32
2G-isrv-ps-rej-cond-ie-error	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 2G service with cause “error in conditional informational element”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On decode failure of messages</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service <b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
3G-isrv-ps-rej-msg-not-compat-pstate	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 3G service with cause “message not compatible with protocol state”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• When getting an Attach Request before getting Relocation-complete during SRNS</li> <li>• When getting periodic RAU in a direct transfer message</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per SGSN service <b>Type:</b> Counter</p>	Int32
2G-isrv-ps-rej-msg-not-compat-pstate	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 2G service with cause “message not compatible with protocol state”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per GPRS service <b>Type:</b> Counter</p>	Int32
3G-isrv-ps-rej-prot-error	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 3G service with cause “protocol error”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per SGSN service <b>Type:</b> Counter</p>	Int32
2G-isrv-ps-rej-prot-error	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 3G service with cause “protocol error”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• When the PLMN ID in BSSGP message does not match the configured PLMN at GPRS service</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service <b>Type:</b> Counter</p>	Int32
3G-isrv-ps-rej-unknown-error	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 3G service with cause “unknown error”.</p> <p><b>Availability:</b> per RA, per SGSN service <b>Type:</b> Counter</p>	Int32
2G-isrv-ps-rej-unknown-error	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 2G service with cause “unknown error”.</p> <p><b>Availability:</b> per RA, per GPRS service <b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
3G-isrv-comb-rej-imsi-unknown-hlr	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects in 3G service with cause “IMSI unknown at HLR”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On HLR sending a bad response to a SAI-Req/GLU-Req</li> <li>• On getting zero auth vectors for HLR for a SAI-Req</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per SGSN service <b>Type:</b> Counter</p>	Int32
2G-isrv-comb-rej-imsi-unknown-hlr	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects in 2G service with cause “IMSI unknown at HLR”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per GPRS service <b>Type:</b> Counter</p>	Int32
3G-isrv-comb-rej-illegal-ms	<p><b>Description:</b> Total number of Combined Inter Service RAU rejects in 3G service with cause “Illegal MS”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• Unable to retrieve IMEI/IMEISV from MS</li> <li>• On IMEI verification failure with EIR</li> <li>• On getting unknown equipment failure from EIR/HLR</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per SGSN service <b>Type:</b> Counter</p>	Int32
2G-isrv-comb-rej-illegal-ms	<p><b>Description:</b> Total number of Combined Inter Service RAU rejects in 2G service with cause “Illegal MS”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On IMEI verification failure with EIR</li> <li>• On getting unknown equipment failure from EIR/HLR</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service <b>Type:</b> Counter</p>	Int32
3G-isrv-comb-rej-illegal-me	<p><b>Description:</b> Total number of Combined Inter Service RAU rejects in 3G service with cause “Illegal ME”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• Unable to retrieve IMEI/IMEISV from MS</li> <li>• On IMEI verification failure with EIR</li> <li>• On getting unknown equipment failure from EIR/HLR</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per SGSN service <b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
2G-isrv-comb-rej-illegal-me	<p><b>Description:</b> Total number of Combined Inter Service RAU rejects in 2G service with cause “Illegal ME”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On IMEI verification failure with EIR</li> <li>• On getting unknown equipment failure from EIR/HLR</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service <b>Type:</b> Counter</p>	Int32
3G-isrv-comb-rej-gprs-svc-not-allow	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects sent with cause “GPRS services not allowed in this PLMN” against Inter-service-RAU Requests in 3G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On getting a cl (subs-with) while an attach/RAU is in progress</li> <li>• On getting “Subscriber Unknown” failure from HLR for SAI-Req/GLU-Req</li> <li>• For rejecting attaches due to subscriber control inactivity</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per SGSN service <b>Type:</b> Counter</p>	Int32
2G-isrv-comb-rej-gprs-svc-not-allow	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects sent with cause “GPRS services not allowed in this PLMN” against Inter-service-RAU Requests in 2G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On getting a cl (subs-with) while an attach/RAU is in progress</li> <li>• On getting “Subscriber Unknown” failure from HLR for SAI-Req/GLU-Req</li> <li>• For rejecting attaches due to subscriber control inactivity</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service <b>Type:</b> Counter</p>	Int32
3G-isrv-comb-rej-nongprs-svc-not-allow	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects sent with cause “GPRS and non-GPRS service not allowed for subscriber” against Inter-service-RAU Requests in 3G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On getting “IMSI unknown” from HLR for SAI-Req/GLU-Req</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per SGSN service <b>Type:</b> Counter</p>	Int32
2G-isrv-comb-rej-nongprs-svc-not-allow	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects sent with cause “GPRS and non-GPRS service not allowed for subscriber” against Inter-service-RAU Requests in 2G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On getting “IMSI unknown” from HLR for SAI-Req/GLU-Req</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service <b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
3G-isrv-comb-rej-msid-not-derived-by-nw	<p><b>Description:</b> Total number of Combined Inter Service RAU Request Rejects sent with cause “MSID not derived by network” against Inter-Service-RAU Requests in 3G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On getting periodic RAU with old RAI as a non-local RAI</li> <li>• When PTMSI-IE is missing in RAU</li> <li>• When old RAI has invalid location area values (0x0000 or 0xffff) for PTMSI-attaches/RAUs</li> <li>• When getting a RAU with old RAI in 2G and PTMSI is unknown</li> <li>• When getting PTMSI-SIG-MISMATCH for a SGSN Context Request sent with IMSI Validated</li> <li>• When getting a RAU Request while an attach with the same peer-SGSN-PTMSI is in progress</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per SGSN service  <b>Type:</b> Counter</p>	Int32
2G-isrv-comb-rej-msid-not-derived-by-nw	<p><b>Description:</b> Total number of Combined Inter Service RAU Request Rejects sent with cause “MSID not derived by network” against Inter-Service-RAU Requests in 2G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• When SGSN-Context-Resp arrives with any cause other than “accepted”</li> <li>• When GMM-Identity-Req with MS fails</li> <li>• When GTP-Identity-Req with MS fails</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service  <b>Type:</b> Counter</p>	Int32
3G-isrv-comb-rej-implicitly-detach	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects in 3G service with cause “Implicitly detached”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• RAU at 3G when subscriber was detached from 2G</li> <li>• When we get a different IMSI in SGSN Context Response for an SGSN Context Request sent with IMSI validated</li> <li>• When we get RAU while awaiting a Detach Accept</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per SGSN service  <b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
2G-isrv-comb-rej-implicitly-detach	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects in 2G service with cause “Implicitly detached”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• When we get an RAU from an unknown MS</li> <li>• On T3350 expiry for the attach-accept</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service <b>Type:</b> Counter</p>	Int32
3G-isrv-comb-rej-plmn-not-allowed	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects in 3G service with cause “PLMN not allowed”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per SGSN service <b>Type:</b> Counter</p>	Int32
2G-isrv-comb-rej-plmn-not-allowed	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects in 2G service with cause “PLMN not allowed”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per GPRS service <b>Type:</b> Counter</p>	Int32
3G-isrv-comb-rej-loc-area-not-allowed	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects in 3G service with cause “Location area not allowed”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per SGSN service <b>Type:</b> Counter</p>	Int32
2G-isrv-comb-rej-loc-area-not-allowed	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects in 2G service with cause “Location area not allowed”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per GPRS service <b>Type:</b> Counter</p>	Int32
3G-isrv-comb-rej-roam-not-allowed-larea	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects in 3G service with cause “Roaming area not allowed in the given location area”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• When rejecting as a shared SGSN due to no operator accepting the given IMSI</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per SGSN service <b>Type:</b> Counter</p>	Int32
2G-isrv-comb-rej-roam-not-allowed-larea	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects in 2G service with cause “Roaming area not allowed in the given location area”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per GPRS service <b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
3G-isrv-comb-rej-gprs-svc-not-allowed-plmn	<p><b>Description:</b> Total number of Combined RAU Rejects sent with cause “GPRS service not allowed in this PLMN” against Inter-Service-RAU Requests in 3G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On getting “Roaming not allowed” from HLR for SAI-Req/GLU-Req</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per SGSN service <b>Type:</b> Counter</p>	Int32
2G-isrv-comb-rej-gprs-svc-not-allowed-plmn	<p><b>Description:</b> Total number of Combined RAU Rejects sent with cause “GPRS service not allowed in this PLMN” against Inter-Service-RAU Requests in 2G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On getting “Roaming not allowed” from HLR for SAI-Req/GLU-Req</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service <b>Type:</b> Counter</p>	Int32
3G-isrv-comb-rej-no-cells-in-location-area	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects in 3G service with cause “No cells in location area”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On getting “UMTS access control” from Siemens HLR for SAI-Req/GLU-Req</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per SGSN service <b>Type:</b> Counter</p>	Int32
2G-isrv-comb-rej-no-cells-in-location-area	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects in 2G service with cause “No cells in location area”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On getting “UMTS access control” from Siemens HLR for SAI-Req/GLU-Req</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service <b>Type:</b> Counter</p>	Int32
3G-isrv-comb-rej-msc-not-reachable	<p><b>Description:</b> Total number of Combined Inter Service RAU rejects in 3G service with cause “MSC not reachable”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On sending an attach/RAU Accept with cause “GPRS only attached” or “RA updated” for a combined CS/PS request either because: <ul style="list-style-type: none"> <li>the request is timed out</li> <li>inability to send to VLR</li> </ul> </li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per SGSN service <b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
2G-isrv-comb-rej-msc-not-reachable	<p><b>Description:</b> Total number of Combined Inter Service RAU rejects in 2G service with cause “MSC not reachable”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On sending an attach/RAU Accept with cause “GPRS only attached” or “RA updated” for a combined CS/PS request either because: <ul style="list-style-type: none"> <li>the request is timed out</li> <li>inability to send to VLR</li> </ul> </li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service  <b>Type:</b> Counter</p>	Int32
3G-isrv-comb-rej-network-failure	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects in 3G service with cause “Network Failure”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>RNC is overloaded</li> <li>Not enough credits at session manager</li> <li>On getting cause “data missing from HLR” in SAI-Req/GLU-Req</li> <li>Too many IUs for the same IMSI</li> <li>On getting a RAU with a peer SGSN PTMSI when another Attach is ongoing with the same PTMSI</li> <li>On congestion, if configured for attach-throttling</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per SGSN service  <b>Type:</b> Counter</p>	Int32
2G-isrv-comb-rej-network-failure	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects in 2G service with cause “Network Failure”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On getting cause “data missing from HLR” in SAI-Req/GLU-Req</li> <li>On XID failure for RAU</li> <li>Inability to send an SGSN-Ctx-Req out for an RAU</li> <li>Inability to send a Check-IMEI Request out</li> <li>On congestion, if configured for attach-throttling</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service  <b>Type:</b> Counter</p>	Int32
3G-isrv-comb-rej-mac-failure	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects in 3G service with cause “Message Authenticate Code (MAC) Failure”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per SGSN service  <b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
2G-isrv-comb-rej-mac-failure	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects in 2G service with cause “Message Authenticate Code (MAC) Failure”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
3G-isrv-comb-rej-syn-failure	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects in 3G service with cause “Context Synchronization Failure”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per SGSN service</p> <p><b>Type:</b> Counter</p>	Int32
2G-isrv-comb-rej-syn-failure	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects in 2G service with cause “Context Synchronization Failure”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
3G-isrv-comb-rej-congestion	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects in 3G service with cause “Network Congestion”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On congestion, if configured for attach-throttling</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per SGSN service</p> <p><b>Type:</b> Counter</p>	Int32
2G-isrv-comb-rej-congestion	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects in 2G service with cause “Network Congestion”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On congestion, if configured for attach-throttling</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
3G-isrv-comb-rej-gsm-auth-unacceptable	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects in 3G service with cause “GSM Authentication unacceptable”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per SGSN service</p> <p><b>Type:</b> Counter</p>	Int32
2G-isrv-comb-rej-gsm-auth-unacceptable	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects in 2G service with cause “GSM Authentication unacceptable”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
3G-isrv-comb-rej-no-pdp-ctx-actv	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects in 3G service with cause "PDP context not activated".</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per SGSN service</p> <p><b>Type:</b> Counter</p>	Int32
2G-isrv-comb-rej-no-pdp-ctx-actv	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects in 2G service with cause "PDP context not activated".</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
3G-isrv-comb-rej-retry-from-new-cell	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects in 3G service with cause "Subscriber retried from a new cell".</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per SGSN service</p> <p><b>Type:</b> Counter</p>	Int32
2G-isrv-comb-rej-retry-from-new-cell	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects in 2G service with cause "Subscriber retried from a new cell".</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
3G-isrv-comb-rej-sem-wrong-msg	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects in 3G service with cause "Semantically wrong message".</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On decode failure of messages</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per SGSN service</p> <p><b>Type:</b> Counter</p>	Int32
2G-isrv-comb-rej-sem-wrong-msg	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects in 2G service with cause "Semantically wrong message".</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On decode failure of messages</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
3G-isrv-comb-rej- inval-mand-info	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects in 3G service with cause “Invalid Mandatory Info”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On decode failure of messages</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per SGSN service <b>Type:</b> Counter</p>	Int32
2G-isrv-comb-rej- inval-mand-info	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects in 2G service with cause “Invalid Mandatory Info”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On decode failure of messages</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service <b>Type:</b> Counter</p>	Int32
3G-isrv-comb-rej- msg-type-non-exist	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects in 3G service with cause “Message type does not exist”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On decode failure of messages</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per SGSN service <b>Type:</b> Counter</p>	Int32
2G-isrv-comb-rej- msg-type-non-exist	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects in 2G service with cause “Message type does not exist”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On decode failure of messages</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service <b>Type:</b> Counter</p>	Int32
3G-isrv-comb-rej- mtype-incompat- pstate	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects in 3G service with cause “Message type not compatible with protocol state”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On decode failure of messages</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per SGSN service <b>Type:</b> Counter</p>	Int32
2G-isrv-comb-rej- mtype-incompat- pstate	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects in 3G service with cause “Message type not compatible with protocol state”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On decode failure of messages</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service <b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
3G-isrv-comb-rej- ie-non-existent	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects in 3G service with cause “Information element not existent”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On decode failure of messages</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per SGSN service</p> <p><b>Type:</b> Counter</p>	Int32
2G-isrv-comb-rej- ie-non-existent	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects in 2G service with cause “Information element not existent”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On decode failure of messages</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
3G-isrv-comb-rej- cond-ie-error	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects in 3G service with cause “error in conditional informational element”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On decode failure of messages</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per SGSN service</p> <p><b>Type:</b> Counter</p>	Int32
2G-isrv-comb-rej- cond-ie-error	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects in 2G service with cause “error in conditional informational element”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On decode failure of messages</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
3G-isrv-comb-rej- msg-not-compat- pstate	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects in 3G service with cause “message not compatible with protocol state”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>When getting an Attach Request before getting Relocation-complete during SRNS</li> <li>When getting periodic RAU in a direct transfer message</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per SGSN service</p> <p><b>Type:</b> Counter</p>	Int32
2G-isrv-comb-rej- msg-not-compat- pstate	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects in 2G service with cause “message not compatible with protocol state”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
3G-isrv-comb-rej-prot-error	<p><b>Description:</b> Total number of Combined Inter Service RAU rejects in 3G service with cause “protocol error”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per SGSN service</p> <p><b>Type:</b> Counter</p>	Int32
2G-isrv-comb-rej-prot-error	<p><b>Description:</b> Total number of Combined Inter Service RAU rejects in 2G service with cause “protocol error”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• When the PLMN ID in BSSGP message does not match the configured PLMN at GPRS service</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
3G-isrv-comb-rej-unknown-error	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects in 3G service with cause “unknown error”.</p> <p><b>Availability:</b> per RA, per SGSN service</p> <p><b>Type:</b> Counter</p>	Int32
2G-isrv-comb-rej-unknown-error	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects in 2G service with cause “unknown error”.</p> <p><b>Availability:</b> per RA, per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
3G-irat-ps-rej-imsi-unknown-hlr	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 3G service with cause “IMSI unknown at HLR”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On HLR sending a bad response to SAI-Req/GLU-Req</li> <li>• On getting zero auth vectors for HLR for a SAI-Req</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per SGSN service</p> <p><b>Type:</b> Counter</p>	Int32
2G-irat-ps-rej-imsi-unknown-hlr	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 2G service with cause “IMSI unknown at HLR”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On HLR sending a bad response to SAI-Req/GLU-Req</li> <li>• On getting zero auth vectors for HLR for a SAI-Req</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
3G-irat-ps-rej-illegal-ms	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 3G service with cause “Illegal MS”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On HLR sending a bad response to SAI-Req/GLU-Req</li> <li>• On getting zero auth vectors for HLR for a SAI-Req</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per SGSN service <b>Type:</b> Counter</p>	Int32
2G-irat-ps-rej-illegal-ms	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 2G service with cause “Illegal MS”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per GPRS service <b>Type:</b> Counter</p>	Int32
3G-irat-ps-rej-illegal-me	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 3G service with cause “Illegal ME”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• Unable to retrieve IMEI/IMEISV from MS</li> <li>• On IMEI verification failure with EIR</li> <li>• On getting unknown equipment failure from EIR/HLR</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per SGSN service <b>Type:</b> Counter</p>	Int32
2G-irat-ps-rej-illegal-me	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 2G service with cause “Illegal ME”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On IMEI verification failure with EIR</li> <li>• On getting unknown equipment failure from EIR/HLR</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service <b>Type:</b> Counter</p>	Int32
3G-irat-ps-rej-gprs-svc-not-allow	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects sent with cause “GPRS services not allowed in this PLMN” against Inter-service-RAU Requests in 3G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On getting a cl (subs-with) while an attach/RAU is in progress</li> <li>• On getting “Subscriber Unknown” failure from HLR for SAI-Req/GLU-Req</li> <li>• For rejecting attaches due to subscriber control inactivity</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per SGSN service <b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
2G-irat-ps-rej-gprs-svc-not-allow	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects sent with cause “GPRS services not allowed in this PLMN” against Inter-service-RAU Requests in 2G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On getting a cl (subs-with) while an attach/RAU is in progress</li> <li>On getting “Subscriber Unknown” failure from HLR for SAI-Req/GLU-Req</li> <li>For rejecting attaches due to subscriber control inactivity</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service <b>Type:</b> Counter</p>	Int32
3G-irat-ps-rej-nongprs-svc-not-allow	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects sent with cause “GPRS and non-GPRS service not allowed for subscriber” against Inter-service-RAU Requests in 3G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On getting “IMSI unknown” from HLR for SAI-Req/GLU-Req</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per SGSN service <b>Type:</b> Counter</p>	Int32
2G-irat-ps-rej-nongprs-svc-not-allow	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects sent with cause “GPRS and non-GPRS service not allowed for subscriber” against Inter-service-RAU Requests in 2G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On getting “IMSI unknown” from HLR for SAI-Req/GLU-Req</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service <b>Type:</b> Counter</p>	Int32
3G-irat-ps-rej-msid-not-derived-by-nw	<p><b>Description:</b> Total number of GPRS only inter-service routing area update request rejects sent with cause “MSID not derived by network” against Inter-Service-RAU requests in 3G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On getting periodic RAU with old RAI as a non-local RAI</li> <li>When PTMSI-IE is missing in RAU</li> <li>When old RAI has invalid location area values (0x0000 or 0xfffe) for PTMSI-attaches/RAUs</li> <li>When getting a RAU with old RAI in 2G and PTMSI is unknown</li> <li>When getting PTMSI-SIG-MISMATCH for a SGSN Context Request sent with IMSI Validated</li> <li>When getting a RAU Request while an attach with the same peer-SGSN-PTMSI is in progress</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per SGSN service <b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
2G-irat-ps-rej-msid-not-derived-by-nw	<p><b>Description:</b> Total number of GPRS only inter-service routing area update request rejects sent with cause “MSID not derived by network” against Inter-Service-RAU requests in 3G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• When SGSN-Context-Resp arrives with any cause other than “accepted”</li> <li>• When GMM-Identity-Req with MS fails</li> <li>• When GTP-Identity-Req with MS fails</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service  <b>Type:</b> Counter</p>	Int32
3G-irat-ps-rej-implicitly-detach	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 3G service with cause “Implicitly detached”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• RAU at 3G when subscriber was detached from 2G</li> <li>• When we get a different IMSI in SGSN Context Response for an SGSN Context Request sent with IMSI validated</li> <li>• When we get RAU while awaiting a Detach Accept</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per SGSN service  <b>Type:</b> Counter</p>	Int32
2G-irat-ps-rej-implicitly-detach	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 3G service with cause “Implicitly detached”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• When we get an RAU from an unknown MS</li> <li>• On T3350 expiry for the Attach-accept</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service  <b>Type:</b> Counter</p>	Int32
3G-irat-ps-rej-plmn-not-allowed	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 3G service with cause “PLMN not allowed”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per SGSN service  <b>Type:</b> Counter</p>	Int32
2G-irat-ps-rej-plmn-not-allowed	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 2G service with cause “PLMN not allowed”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per GPRS service  <b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
3G-irat-ps-rej-loc-area-not-allowed	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 3G service with cause “Location area not allowed”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per SGSN service</p> <p><b>Type:</b> Counter</p>	Int32
2G-irat-ps-rej-loc-area-not-allowed	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 2G service with cause “Location area not allowed”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
3G-irat-ps-rej-roam-not-allowed-larea	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 3G service with cause “Roaming area not allowed in the given location area”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• When rejecting as a shared SGSN due to no operator accepting the given IMSI</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per SGSN service</p> <p><b>Type:</b> Counter</p>	Int32
2G-irat-ps-rej-roam-not-allowed-larea	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 2G service with cause “Roaming area not allowed in the given location area”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• When rejecting as a shared SGSN due to no operator accepting the given IMSI</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
3G-irat-ps-rej-gprs-svc-not-allowed-plmn	<p><b>Description:</b> Total number of GPRS only RAU Rejects sent with cause “GPRS service not allowed in this PLMN” against Inter-Service-RAU Requests in 3G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On getting “Roaming not allowed” from HLR for SAI-Req/GLU-Req</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per SGSN service</p> <p><b>Type:</b> Counter</p>	Int32
2G-irat-ps-rej-gprs-svc-not-allowed-plmn	<p><b>Description:</b> Total number of GPRS only RAU Rejects sent with cause “GPRS service not allowed in this PLMN” against Inter-Service-RAU Requests in 2G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On getting “Roaming not allowed” from HLR for SAI-Req/GLU-Req</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
3G-irat-ps-rej-no-cells-in-location-area	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 3G service with cause “No cells in location area”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On getting “UMTS access control” from Siemens HLR for SAI-Req/GLU-Req</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per SGSN service</p> <p><b>Type:</b> Counter</p>	Int32
2G-irat-ps-rej-no-cells-in-location-area	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 2G service with cause “No cells in location area”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On getting “UMTS access control” from Siemens HLR for SAI-Req/GLU-Req</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
3G-irat-ps-rej-msc-not-reachable	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 3G service with cause “MSC not reachable”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On sending an attach/RAU Accept with cause “GPRS only attached” or “RA updated” for a combined CS/PS request either because: <ul style="list-style-type: none"> <li>the request is timed out</li> <li>inability to send to VLR</li> </ul> </li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per SGSN service</p> <p><b>Type:</b> Counter</p>	Int32
2G-irat-ps-rej-msc-not-reachable	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 2G service with cause “MSC not reachable”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On sending an attach/RAU Accept with cause “GPRS only attached” or “RA updated” for a combined CS/PS request either because: <ul style="list-style-type: none"> <li>the request is timed out</li> <li>inability to send to VLR</li> </ul> </li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
3G-irat-ps-rej-network-failure	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 3G service with cause “Network Failure”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• RNC is overloaded</li> <li>• Not enough credits at session manager</li> <li>• On getting cause “data missing from HLR” in SAI-Req/GLU-Req</li> <li>• Too many IUs for the same IMSI</li> <li>• On getting a RAU with a peer SGSN PTMSI when another Attach is ongoing with the same PTMSI</li> <li>• On congestion, if configured for attach-throttling</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per SGSN service  <b>Type:</b> Counter</p>	Int32
2G-irat-ps-rej-network-failure	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 2G service with cause “Network Failure”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On getting cause “data missing from HLR” in SAI-Req/GLU-Req</li> <li>• On XID failure for RAU</li> <li>• Inability to send an SGSN-Ctx-Req out for an RAU.</li> <li>• Inability to send a Check-IMEI Request out</li> <li>• On congestion, if configured for attach-throttling</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service  <b>Type:</b> Counter</p>	Int32
3G-irat-ps-rej-mac-failure	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 3G service with cause “Message Authenticate Code (MAC) Failure”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per SGSN service  <b>Type:</b> Counter</p>	Int32
2G-irat-ps-rej-mac-failure	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 2G service with cause “Message Authenticate Code (MAC) Failure”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per GPRS service  <b>Type:</b> Counter</p>	Int32
3G-irat-ps-rej-syn-failure	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 3G service with cause “Context Synchronization Failure”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per SGSN service  <b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
2G-irat-ps-rej-syn-failure	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 2G service with cause “Context Synchronization Failure”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
3G-irat-ps-rej-congestion	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 3G service with cause “Network Congestion”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On congestion, if configured for attach-throttling</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per SGSN service</p> <p><b>Type:</b> Counter</p>	Int32
2G-irat-ps-rej-congestion	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 2G service with cause “Network Congestion”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On congestion, if configured for attach-throttling</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
3G-irat-ps-rej-gsm-auth-unacceptable	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 3G service with cause “GSM Authentication unacceptable”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per SGSN service</p> <p><b>Type:</b> Counter</p>	Int32
2G-irat-ps-rej-gsm-auth-unacceptable	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 2G service with cause “GSM Authentication unacceptable”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
3G-irat-ps-rej-no-pdp-ctx-actv	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 3G service with cause “PDP context not activated”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per SGSN service</p> <p><b>Type:</b> Counter</p>	Int32
2G-irat-ps-rej-no-pdp-ctx-actv	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 2G service with cause “PDP context not activated”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
3G-irat-ps-rej-retry-from-new-cell	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 3G service with cause “Subscriber retried from a new cell”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per SGSN service</p> <p><b>Type:</b> Counter</p>	Int32
2G-irat-ps-rej-retry-from-new-cell	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 2G service with cause “Subscriber retried from a new cell”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
3G-irat-ps-rej-sem-wrong-msg	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 3G service with cause “Semantically wrong message”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On decode failure of messages</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per SGSN service</p> <p><b>Type:</b> Counter</p>	Int32
2G-irat-ps-rej-sem-wrong-msg	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 2G service with cause “Semantically wrong message”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On decode failure of messages</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
3G-irat-ps-rej-ival-mand-info	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 3G service with cause “Invalid Mandatory Info”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On decode failure of messages</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per SGSN service</p> <p><b>Type:</b> Counter</p>	Int32
2G-irat-ps-rej-ival-mand-info	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 2G service with cause “Invalid Mandatory Info”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On decode failure of messages</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
3G-irat-ps-rej-msg-type-non-exist	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 3G service with cause “Message type does not exist”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On decode failure of messages</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per SGSN service <b>Type:</b> Counter</p>	Int32
2G-irat-ps-rej-msg-type-non-exist	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 2G service with cause “Message type does not exist”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On decode failure of messages</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service <b>Type:</b> Counter</p>	Int32
3G-irat-ps-rej-mtype-incompat-pstate	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 3G service with cause “Message type not compatible with protocol state”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On decode failure of messages</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per SGSN service <b>Type:</b> Counter</p>	Int32
2G-irat-ps-rej-mtype-incompat-pstate	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 2G service with cause “Message type not compatible with protocol state”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On decode failure of messages</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service <b>Type:</b> Counter</p>	Int32
3G-irat-ps-rej-ie-non-existent	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 3G service with cause “Information element not existent”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On decode failure of messages</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per SGSN service <b>Type:</b> Counter</p>	Int32
2G-irat-ps-rej-ie-non-existent	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 2G service with cause “Information element not existent”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On decode failure of messages</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service <b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
3G-irat-ps-rej-cond- ie-error	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 3G service with cause “error in conditional informational element”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On decode failure of messages</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per SGSN service <b>Type:</b> Counter</p>	Int32
2G-irat-ps-rej-cond- ie-error	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 2G service with cause “error in conditional informational element”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On decode failure of messages</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service <b>Type:</b> Counter</p>	Int32
3G-irat-ps-rej-msg- not-compat-pstate	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 3G service with cause “message not compatible with protocol state”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>When getting an Attach Request before getting Relocation-complete during SRNS</li> <li>When getting periodic RAU in a direct transfer message</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per SGSN service <b>Type:</b> Counter</p>	Int32
2G-irat-ps-rej-msg- not-compat-pstate	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 2G service with cause “message not compatible with protocol state”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per GPRS service <b>Type:</b> Counter</p>	Int32
3G-irat-ps-rej-prot- error	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 3G service with cause “protocol error”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per SGSN service <b>Type:</b> Counter</p>	Int32
2G-irat-ps-rej-prot- error	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 2G service with cause “protocol error”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>When the PLMN ID in BSSGP message does not match the configured PLMN at GPRS service</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service <b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
3G-irat-ps-rej-unknown-error	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 3G service with cause “unknown error”.</p> <p><b>Availability:</b> per RA, per SGSN service</p> <p><b>Type:</b> Counter</p>	Int32
2G-irat-ps-rej-unknown-error	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 2G service with cause “unknown error”.</p> <p><b>Availability:</b> per RA, per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
3G-irat-comb-rej-imsi-unknown-hlr	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 3G service with cause “IMSI unknown at HLR”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On HLR sending a bad response to a SAI-Req/GLU-Req</li> <li>• On getting zero auth vectors for HLR for a SAI-Req</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per SGSN service</p> <p><b>Type:</b> Counter</p>	Int32
2G-irat-comb-rej-imsi-unknown-hlr	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 2G service with cause “IMSI unknown at HLR”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
3G-irat-comb-rej-illegal-ms	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 3G service with cause “Illegal MS”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• Unable to retrieve IMEI/IMEISV from MS</li> <li>• On IMEI verification failure with EIR</li> <li>• On getting unknown equipment failure from EIR/HLR</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per SGSN service</p> <p><b>Type:</b> Counter</p>	Int32
2G-irat-comb-rej-illegal-ms	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 2G service with cause “Illegal MS”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On IMEI verification failure with EIR</li> <li>• On getting unknown equipment failure from EIR/HLR</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
3G-irat-comb-rej-illegal-me	<p><b>Description:</b> Total number of Combined Inter RAT RAU rejects in 3G service with cause “Illegal ME”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• Unable to retrieve IMEI/IMEISV from MS</li> <li>• On IMEI verification failure with EIR</li> <li>• On getting unknown equipment failure from EIR/HLR</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per SGSN service  <b>Type:</b> Counter</p>	Int32
2G-irat-comb-rej-illegal-me	<p><b>Description:</b> Total number of Combined Inter RAT RAU rejects in 3G service with cause “Illegal ME”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On IMEI verification failure with EIR</li> <li>• On getting unknown equipment failure from EIR/HLR</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service  <b>Type:</b> Counter</p>	Int32
3G-irat-comb-rej-gprs-svc-not-allow	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects sent with cause “GPRS services not allowed in this PLMN” against Inter-service-RAU Requests in 3G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On getting a cl (subs-with) while an attach/RAU is in progress</li> <li>• On getting “Subscriber Unknown” failure from HLR for SAI-Req/GLU-Req</li> <li>• For rejecting attaches due to subscriber control inactivity</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per SGSN service  <b>Type:</b> Counter</p>	Int32
2G-irat-comb-rej-gprs-svc-not-allow	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects sent with cause “GPRS services not allowed in this PLMN” against Inter-service-RAU Requests in 3G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On getting a cl (subs-with) while an attach/RAU is in progress</li> <li>• On getting “Subscriber Unknown” failure from HLR for SAI-Req/GLU-Req</li> <li>• For rejecting attaches due to subscriber control inactivity</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service  <b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
3G-irat-comb-rej-nongprs-svc-not-allow	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects sent with cause “GPRS and non-GPRS service not allowed for subscriber” against Inter-service-RAU Requests in 3G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On getting “IMSI unknown” from HLR for SAI-Req/GLU-Req</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per SGSN service</p> <p><b>Type:</b> Counter</p>	Int32
2G-irat-comb-rej-nongprs-svc-not-allow	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects sent with cause “GPRS and non-GPRS service not allowed for subscriber” against Inter-service-RAU Requests in 2G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On getting “IMSI unknown” from HLR for SAI-Req/GLU-Req</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
3G-irat-comb-rej-msid-not-derived-by-nw	<p><b>Description:</b> Total number of Combined Inter Service RAU Request Rejects sent with cause “MSID not derived by network” against Inter-Service-RAU Requests in 3G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On getting periodic RAU with old RAI as a non-local RAI</li> <li>When PTMSI-IE is missing in RAU</li> <li>When old RAI has invalid location area values (0x0000 or 0xffff) for PTMSI-attaches/RAUs</li> <li>When getting a RAU with old RAI in 2G and PTMSI is unknown</li> <li>When getting PTMSI-SIG-MISMATCH for a SGSN Context Request sent with IMSI Validated</li> <li>When getting a RAU Request while an attach with the same peer-SGSN-PTMSI is in progress</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per SGSN service</p> <p><b>Type:</b> Counter</p>	Int32
2G-irat-comb-rej-msid-not-derived-by-nw	<p><b>Description:</b> Total number of Combined Inter Service RAU Request Rejects sent with cause “MSID not derived by network” against Inter-Service-RAU Requests in 2G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>When SGSN-Context-Resp arrives with any cause other than “accepted”</li> <li>When GMM-Identity-Req with MS fails</li> <li>When GTP-Identity-Req with MS fails</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
3G-irat-comb-rej-implicitly-detach	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 3G service with cause “Implicitly detached”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• RAU at 3G when subscriber was detached from 2G</li> <li>• When we get a different IMSI in SGSN Context Response for an SGSN Context Request sent with IMSI validated</li> <li>• When we get RAU while awaiting a Detach Accept</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per SGSN service <b>Type:</b> Counter</p>	Int32
2G-irat-comb-rej-implicitly-detach	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 2G service with cause “Implicitly detached”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• When we get an RAU from an unknown MS</li> <li>• On T3350 expiry for the attach-accept</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service <b>Type:</b> Counter</p>	Int32
3G-irat-comb-rej-plmn-not-allowed	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 3G service with cause “PLMN not allowed”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per SGSN service <b>Type:</b> Counter</p>	Int32
2G-irat-comb-rej-plmn-not-allowed	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 2G service with cause “PLMN not allowed”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per GPRS service <b>Type:</b> Counter</p>	Int32
3G-irat-comb-rej-loc-area-not-allowed	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 3G service with cause “Location area not allowed”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per SGSN service <b>Type:</b> Counter</p>	Int32
2G-irat-comb-rej-loc-area-not-allowed	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 2G service with cause “Location area not allowed”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per GPRS service <b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
3G-irat-comb-rej-roam-not-allowed-larea	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 3G service with cause “Roaming area not allowed in the given location area”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• When rejecting as a shared SGSN due to no operator accepting the given IMSI</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per SGSN service <b>Type:</b> Counter</p>	Int32
2G-irat-comb-rej-roam-not-allowed-larea	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 2G service with cause “Roaming area not allowed in the given location area”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per GPRS service <b>Type:</b> Counter</p>	Int32
3G-irat-comb-rej-gprs-svc-not-allowed-plmn	<p><b>Description:</b> Total number of Combined RAU Rejects sent with cause “GPRS service not allowed in this PLMN” against Inter-Service-RAU Requests in 3G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On getting “Roaming not allowed” from HLR for SAI-Req/GLU-Req</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per SGSN service <b>Type:</b> Counter</p>	Int32
2G-irat-comb-rej-gprs-svc-not-allowed-plmn	<p><b>Description:</b> Total number of Combined RAU Rejects sent with cause “GPRS service not allowed in this PLMN” against Inter-Service-RAU Requests in 2G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On getting “Roaming not allowed” from HLR for SAI-Req/GLU-Req</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service <b>Type:</b> Counter</p>	Int32
3G-irat-comb-rej-no-cells-in-location-area	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 3G service with cause “No cells in location area”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On getting “UMTS access control” from Siemens HLR for SAI-Req/GLU-Req</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per SGSN service <b>Type:</b> Counter</p>	Int32
2G-irat-comb-rej-no-cells-in-location-area	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 2G service with cause “No cells in location area”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On getting “UMTS access control” from Siemens HLR for SAI-Req/GLU-Req</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service <b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
3G-irat-comb-rej-msc-not-reachable	<p><b>Description:</b> Total number of Combined Inter RAT RAU rejects in 3G service with cause “MSC not reachable”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On sending an attach/RAU Accept with cause “GPRS only attached” or “RA updated” for a combined CS/PS request either because: <ul style="list-style-type: none"> <li>the request is timed out</li> <li>inability to send to VLR</li> </ul> </li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per SGSN service  <b>Type:</b> Counter</p>	Int32
2G-irat-comb-rej-msc-not-reachable	<p><b>Description:</b> Total number of Combined Inter RAT RAU rejects in 2G service with cause “MSC not reachable”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On sending an attach/RAU Accept with cause “GPRS only attached” or “RA updated” for a combined CS/PS request either because: <ul style="list-style-type: none"> <li>the request is timed out</li> <li>inability to send to VLR</li> </ul> </li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service  <b>Type:</b> Counter</p>	Int32
3G-irat-comb-rej-network-failure	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 3G service with cause “Network Failure”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>RNC is overloaded</li> <li>Not enough credits at session manager</li> <li>On getting cause “data missing from HLR” in SAI-Req/GLU-Req</li> <li>Too many IUs for the same IMSI</li> <li>On getting a RAU with a peer SGSN PTMSI when another Attach is ongoing with the same PTMSI</li> <li>On congestion, if configured for attach-throttling</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per SGSN service  <b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
2G-irat-comb-rej-network-failure	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 2G service with cause “Network Failure”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On getting cause “data missing from HLR” in SAI-Req/GLU-Req</li> <li>• On XID failure for RAU</li> <li>• Inability to send an SGSN-Ctx-Req out for an RAU</li> <li>• Inability to send a Check-IMEI Request out</li> <li>• On congestion, if configured for attach-throttling</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service  <b>Type:</b> Counter</p>	Int32
3G-irat-comb-rej-mac-failure	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 3G service with cause “Message Authenticate Code (MAC) Failure”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per SGSN service  <b>Type:</b> Counter</p>	Int32
2G-irat-comb-rej-mac-failure	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 2G service with cause “Message Authenticate Code (MAC) Failure”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per GPRS service  <b>Type:</b> Counter</p>	Int32
3G-irat-comb-rej-syn-failure	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 3G service with cause “Context Synchronization Failure”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per SGSN service  <b>Type:</b> Counter</p>	Int32
2G-irat-comb-rej-syn-failure	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 2G service with cause “Context Synchronization Failure”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per GPRS service  <b>Type:</b> Counter</p>	Int32
3G-irat-comb-rej-congestion	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 3G service with cause “Network Congestion”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On congestion, if configured for attach-throttling</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per SGSN service  <b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
2G-irat-comb-rej-congestion	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 2G service with cause “Network Congestion”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On congestion, if configured for attach-throttling</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service <b>Type:</b> Counter</p>	Int32
3G-irat-comb-rej-gsm-auth-unacceptable	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 3G service with cause “GSM Authentication unacceptable”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per SGSN service <b>Type:</b> Counter</p>	Int32
2G-irat-comb-rej-gsm-auth-unacceptable	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 2G service with cause “GSM Authentication unacceptable”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per GPRS service <b>Type:</b> Counter</p>	Int32
3G-irat-comb-rej-no-pdp-ctx-actv	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 3G service with cause “PDP context not activated”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per SGSN service <b>Type:</b> Counter</p>	Int32
2G-irat-comb-rej-no-pdp-ctx-actv	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 2G service with cause “PDP context not activated”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per GPRS service <b>Type:</b> Counter</p>	Int32
3G-irat-comb-rej-retry-from-new-cell	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 3G service with cause “Subscriber retried from a new cell”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per SGSN service <b>Type:</b> Counter</p>	Int32
2G-irat-comb-rej-retry-from-new-cell	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 2G service with cause “Subscriber retried from a new cell”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per GPRS service <b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
3G-irat-comb-rej-sem-wrong-msg	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 3G service with cause “Semantically wrong message”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On decode failure of messages</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per SGSN service</p> <p><b>Type:</b> Counter</p>	Int32
2G-irat-comb-rej-sem-wrong-msg	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 3G service with cause “Semantically wrong message”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On decode failure of messages</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
3G-irat-comb-rej-inval-mand-info	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 3G service with cause “Invalid Mandatory Info”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On decode failure of messages</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per SGSN service</p> <p><b>Type:</b> Counter</p>	Int32
2G-irat-comb-rej-inval-mand-info	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 2G service with cause “Invalid Mandatory Info”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On decode failure of messages</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
3G-irat-comb-rej-msg-type-non-exist	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 3G service with cause “Message type does not exist”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On decode failure of messages</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per SGSN service</p> <p><b>Type:</b> Counter</p>	Int32
2G-irat-comb-rej-msg-type-non-exist	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 2G service with cause “Message type does not exist”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On decode failure of messages</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
3G-irat-comb-rej-mtype-incompat-pstate	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 3G service with cause “Message type not compatible with protocol state”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On decode failure of messages</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per SGSN service <b>Type:</b> Counter</p>	Int32
2G-irat-comb-rej-mtype-incompat-pstate	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 2G service with cause “Message type not compatible with protocol state”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On decode failure of messages</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service <b>Type:</b> Counter</p>	Int32
3G-irat-comb-rej-ie-non-existent	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 3G service with cause “Information element not existent”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On decode failure of messages</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per SGSN service <b>Type:</b> Counter</p>	Int32
2G-irat-comb-rej-ie-non-existent	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 2G service with cause “Information element not existent”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On decode failure of messages</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service <b>Type:</b> Counter</p>	Int32
3G-irat-comb-rej-cond-ie-error	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 3G service with cause “error in conditional informational element”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On decode failure of messages</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per SGSN service <b>Type:</b> Counter</p>	Int32
2G-irat-comb-rej-cond-ie-error	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 2G service with cause “error in conditional informational element”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On decode failure of messages</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service <b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
3G-irat-comb-rej-msg-not-compat-pstate	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 3G service with cause “message not compatible with protocol state”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• When getting an Attach Request before getting Relocation-complete during SRNS</li> <li>• When getting periodic RAU in a direct transfer message</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per SGSN service <b>Type:</b> Counter</p>	Int32
2G-irat-comb-rej-msg-not-compat-pstate	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 2G service with cause “message not compatible with protocol state”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per GPRS service <b>Type:</b> Counter</p>	Int32
3G-irat-comb-rej-prot-error	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 3G service with cause “protocol error”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per SGSN service <b>Type:</b> Counter</p>	Int32
2G-irat-comb-rej-prot-error	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 2G service with cause “protocol error”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• When the PLMN ID in BSSGP message does not match the configured PLMN at GPRS service</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service <b>Type:</b> Counter</p>	Int32
3G-irat-comb-rej-unknown-error	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 3G service with cause “unknown error”.</p> <p><b>Availability:</b> per RA, per SGSN service <b>Type:</b> Counter</p>	Int32
2G-irat-comb-rej-unknown-error	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 2G service with cause “unknown error”.</p> <p><b>Availability:</b> per RA, per GPRS service <b>Type:</b> Counter</p>	Int32
3G-ms-init-detach	<p><b>Description:</b> Total number of MS initiated Detach Requests of type 'GPRS Detach' received for 3G service.</p> <p><b>Triggers:</b> Increments when the MS initiates a Detach Request.</p> <p><b>Availability:</b> per SGSN service, per RA <b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
2G-ms-init-detach	<p><b>Description:</b> Total number of MS initiated Detach Requests of type 'GPRS Detach' received for 2G service.</p> <p><b>Triggers:</b> Increments when the MS initiates a Detach Request.</p> <p><b>Availability:</b> per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
3G-ms-init-imsi-detach	<p><b>Description:</b> Total number of MS initiated Detach Requests of type 'Imsi Detach' received for 3G service.</p> <p><b>Triggers:</b> Increments when the MS initiates a Detach Request.</p> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
2G-ms-init-imsi-detach	<p><b>Description:</b> Total number of MS initiated Detach Requests of type 'Imsi Detach' received for 2G service.</p> <p><b>Triggers:</b> Increments when the MS initiates a Detach Request.</p> <p><b>Availability:</b> per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
3G-ms-init-comb-detach	<p><b>Description:</b> Total number of MS initiated GPRS and IMSI (PS and CS) Detach Requests of type 'Combined Gprs/Imsi Detach' received for 3G service.</p> <p><b>Triggers:</b> Increments when the MS initiates a Detach Request.</p> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
2G-ms-init-comb-detach	<p><b>Description:</b> Total number of MS initiated GPRS and IMSI (PS and CS) Detach Requests of type 'Combined Gprs/Imsi Detach' received for 2G service.</p> <p><b>Triggers:</b> Increments when the MS initiates a Detach Request.</p> <p><b>Availability:</b> per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
3G-nw-init-detach	<p><b>Description:</b> Total number of network initiated Detach Request procedures sent for 3G service.</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) When a subscriber cleared by Administrator/operator.</li> <li>2) When "Cancel Location" received from HLR.</li> <li>3) When stand-alone DSD is received with "All GPRS Subscription withdrawn".</li> <li>4) When subscriber-control-inactivity timer expires and action is to detach immediately.</li> </ol> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
2G-nw-init-detach	<p><b>Description:</b> Total number of network initiated Detach Request procedures received for 2G service.</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) When a subscriber cleared by Administrator/operator.</li> <li>2) When "Cancel Location" received from HLR.</li> <li>3) When stand-alone DSD is received with "All GPRS Subscription withdrawn".</li> <li>4) When subscriber-control-inactivity timer expires and action is to detach immediately.</li> </ol> <p><b>Availability:</b> per GPRS service, per RA</p> <p><b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
3G-ms-init-detach-accept	<p><b>Description:</b> Total number of 3G service MS-initiated Detach Accept messages received by the SGSN and sent by the mobile station (MS) in response to network-initiated Detach Request messages.</p> <p><b>Triggers:</b> Increments when a Detach Accept is received from an MS.</p> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
2G-ms-init-detach-accept	<p><b>Description:</b> Total number of 2G service MS-initiated Detach Accept messages received by the SGSN and sent by the mobile station (MS) in response to network-initiated Detach Request messages.</p> <p><b>Triggers:</b> Increments when a Detach Accept is received from an MS.</p> <p><b>Availability:</b> per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
3G-nw-init-detach-accept	<p><b>Description:</b> Total number of Network initiated Detach Accept messages in response to requests of type 'Gprs Detach' in 3G service.</p> <p><b>Triggers:</b> Increments when the network accepts a detach initiated by the MS.</p> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
3G-nw-init-imsi-detach-accept	<p><b>Description:</b> Total number of Network initiated IMSI (CS) Detach Accept messages in response to requests of type 'Imsi Detach' in 3G service.</p> <p><b>Triggers:</b> Increments when the network accepts a detach initiated by the MS.</p> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
3G-nw-init-comb-detach-accept	<p><b>Description:</b> Total number of Network initiated combined (GPRS and IMSI) Detach Accept messages in response to requests of type 'Combined Gprs/Imsi Detach' in 3G service.</p> <p><b>Triggers:</b> Increments when the network accepts a detach initiated by the MS.</p> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
2G-nw-init-detach-accept	<p><b>Description:</b> Total number of Network initiated Detach Accept messages in response to requests of type 'Gprs Detach' in 2G service.</p> <p><b>Triggers:</b> Increments when the network accepts a detach initiated by the MS.</p> <p><b>Availability:</b> per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
2G-nw-init-imsi-detach-accept	<p><b>Description:</b> Total number of Network initiated IMSI (CS) Detach Accept messages in response to requests of type 'Imsi Detach' in 2G service.</p> <p><b>Triggers:</b> Increments when the network accepts a detach initiated by the MS.</p> <p><b>Availability:</b> per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
2G-nw-init-comb-detach-accept	<p><b>Description:</b> Total number of Network initiated combined (GPRS and IMSI) Detach Accept messages in response to requests of type 'Combined Gprs/Imsi Detach' in 2G service.</p> <p><b>Triggers:</b> Increments when the network accepts a detach initiated by the MS.</p> <p><b>Availability:</b> per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
3G-signalling-service-request	<b>Description:</b> Total number of Service Request messages received for type "Signalling" in 3G service. <b>Triggers:</b> Increments when the MS initiates a Serving Request message. <b>Availability:</b> per SGSN service, per RA <b>Type:</b> Counter	Int32
2G-signalling-service-request	This statistics has been obsoleted.	Int32
3G-data-service-request	<b>Description:</b> Total number of Service Request messages received for type "Data" in 3G service. <b>Triggers:</b> Increments when the MS initiates a Serving Request message. <b>Availability:</b> per SGSN service, per RA <b>Type:</b> Counter	Int32
2G-data-service-request	This statistics has been obsoleted.	Int32
3G-service-response	<b>Description:</b> Total number of Service Accept messages sent by the network in 3G service. <b>Triggers:</b> Increments when the SGSN receives and accepts a Serving Request message in connected state. <b>Availability:</b> per SGSN service, per RA <b>Type:</b> Counter	Int32
2G-service-response	This statistics has been obsoleted.	Int32
3G-service-reject	<b>Description:</b> Total number of Service Reject messages sent by the network in 3G service. <b>Triggers:</b> A derived counter. See individual counters for trigger points. <b>Availability:</b> per SGSN service, per RA <b>Type:</b> Counter	Int32
2G-service-reject	This statistics has been obsoleted.	Int32
3G-service-rej-netwk-fail	<b>Description:</b> Total number of Service Request messages rejected for 3G service due to network failure. <b>Triggers:</b> <ul style="list-style-type: none"> <li>• When we initiate SAI towards HLR but we get no SAI response</li> <li>• Too many Iu's to the same MM context</li> <li>• RNC overload</li> </ul> <b>Availability:</b> per SGSN service, per RA <b>Type:</b> Counter	Int32
2G-service-rej-netwk-fail	This statistics has been obsoleted.	Int32
3G-service-rej-imsi-unknown-at-hlr	<b>Description:</b> Total number of Service Request messages rejected for 3G service due to unknown IMSI in HLR. <b>Triggers:</b> Increments when we initiate SAI towards HLR but we get an 'imsi not known' from HLR. <b>Availability:</b> per SGSN service, per RA <b>Type:</b> Counter	Int32

## Common Statistics

Statistic	Description	Data Type
2G-service-rej-imsi-unknown-at-hlr	This statistics has been obsoleted.	Int32
3G-service-rej-msid-not-derived-by-nwtk	<b>Description:</b> Total number of Service Request messages rejected for 3G service as MSID can not derived by network from message. <b>Triggers:</b> Increments when we get an unknown PTMSI service request from an MS. <b>Availability:</b> per SGSN service, per RA <b>Type:</b> Counter	Int32
2G-service-rej-msid-not-derived-by-nwtk	This statistics has been obsoleted.	Int32
3G-service-rej-implicitly-detach	<b>Description:</b> Total number of Service Request messages rejected for 3G service due to implicitly detach. <b>Triggers:</b> Increments when we get a service request from an MS that is already detached. <b>Availability:</b> per SGSN service, per RA <b>Type:</b> Counter	Int32
2G-service-rej-implicitly-detach	This statistics has been obsoleted.	Int32
3G-service-rej-illegal-ms	<b>Description:</b> Total number of Service Request messages rejected for 3G service due to illegal mobile subscriber. <b>Triggers:</b> Increments when authentication fails on a service request. <b>Availability:</b> per SGSN service, per RA <b>Type:</b> Counter	Int32
2G-service-rej-illegal-ms	This statistics has been obsoleted.	Int32
3G-service-rej-msg-not-compat-prot-state	<b>Description:</b> Total number of Service Request messages rejected for 3G service as message is not compatible with protocol state. <b>Triggers:</b> Increments when we get a service request for ongoing authentication or attach. <b>Availability:</b> per SGSN service, per RA <b>Type:</b> Counter	Int32
2G-service-rej-msg-not-compat-prot-state	This statistics has been obsoleted.	Int32
3G-service-rej-no-pdp-ctx-actv	<b>Description:</b> Total number of Service Request messages rejected for 3G service as no PDP context is activated. <b>Triggers:</b> Increments when we get a service request of type 'data' and we have no PDP contexts activated. <b>Availability:</b> per SGSN service, per RA <b>Type:</b> Counter	Int32
2G-service-rej-no-pdp-ctx-actv	This statistics has been obsoleted.	Int32

Statistic	Description	Data Type
3G-service-rej-sem-wrong-msg	<b>Description:</b> Total number of Service Request messages rejected for 3G service as request message is semantically wrong. <b>Triggers:</b> Increments when a decode failure happens on a service request. <b>Availability:</b> per SGSN service, per RA <b>Type:</b> Counter	Int32
3G-service-rej-unknown-cause	<b>Description:</b> Total number of 3G Service Request messages rejected for unknown causes. Any number other than zero (0) indicates a software problem. This counter is new in release 9.0. <b>Triggers:</b> Increments when a 3G Service Request is rejected. <b>Availability:</b> per SGSN service, per RA <b>Type:</b> Counter	Int32
2G-service-rej-sem-wrong-msg	<b>This statistic has been obsoleted in release 9.0.</b> <b>Description:</b> Total number of Service Request messages rejected for 2G service as request message is semantically wrong. <b>Triggers:</b> Increments when a decode failure happens on a service request. <b>Availability:</b> per GPRS service, per RA <b>Type:</b> Counter	Int32
3G-paging-request	<b>Description:</b> Total number of 3G service Paging Request messages originated by SGSN and sent to the Radio Network Controller (RNC) to contact mobile stations (MS). <b>Triggers:</b> 1) Subscriber is in standby state and SGSN has some downlink signalling activity to do for network initiated detach procedure or downlink SM-messages (like modify-PDP-Request) to be sent. 2) Downlink data is to be sent to a standby subscriber <b>Availability:</b> per SGSN service <b>Type:</b> Counter	Int32
2G-paging-request	<b>Description:</b> Total number of 2G service Paging Request messages originated by SGSN and sent to the Radio Network Controller (RNC) to contact mobile stations (MS). <b>Triggers:</b> 1) Subscriber is in standby state and SGSN has some downlink signalling activity to do for network initiated detach procedure or downlink SM-messages (like modify-PDP-Request) to be sent. 2) Downlink data is to be sent to a standby subscriber. <b>Availability:</b> per GPRS service <b>Type:</b> Counter	Int32
3G-ret-paging-request	Total paging request messages retransmitted in packet switching (PS) domain for 3G service.	Int32
2G-ret-paging-request	Total paging request messages retransmitted in packet switching (PS) domain for 2G service.	Int32
3G-paging-success	<b>Description:</b> Total number of successful paging responses in 3G service. <b>Triggers:</b> Any successful Iu passing security started after Paging is started. <b>Availability:</b> per SGSN service, per RA <b>Type:</b> Counter	Int32
2G-paging-success	<b>Description:</b> Total number of successful paging responses in 2G service. <b>Triggers:</b> Any LLC uplink frame received after a Page-Request is sent to MS. <b>Availability:</b> per GPRS service <b>Type:</b> Counter	Int32

Statistic	Description	Data Type
3G-cs-page-request	Total paging request messages in circuit switching (CS) domain for 3G service.	Int32
2G-cs-page-request	Total paging request messages in circuit switching (CS) domain for 2G service.	Int32
3G-cs-page-response	Total paging request response messages sent in circuit switching (CS) domain for 3G service.	Int32
2G-cs-page-response	Total paging request response messages sent in circuit switching (CS) domain for 2G service.	Int32
3G-gmm-status-sent	Total GPRS mobility management procedure status messages sent for 3G service.	Int32
2G-gmm-status-sent	Total GPRS mobility management procedure status messages sent for 2G service.	Int32
3G-gmm-status-rcvd	Total GPRS mobility management procedure status messages received for 3G service.	Int32
2G-gmm-status-rcvd	Total GPRS mobility management procedure status messages received for 2G service.	Int32
3G-gmm-info-sent	Total messages sent with GPRS mobility management information for 3G service.	Int32
2G-gmm-info-sent	Total messages sent with GPRS mobility management information for 2G service.	Int32
3G-auth-cipher-request	<b>Description:</b> Total authentication and ciphering request messages for 3G service. <b>Triggers:</b> Whenever authentication procedure is initiated. <b>Availability:</b> per SGSN service, per RA <b>Type:</b> Counter	Int32
2G-auth-cipher-request	<b>Description:</b> Total authentication and ciphering request messages for 2G service. <b>Triggers:</b> Whenever authentication procedure is initiated. <b>Availability:</b> per GPRS service <b>Type:</b> Counter	Int32
3G-ret-auth-cipher-request	<b>Description:</b> Indicates the total number of authorization and cipher requests that were retransmitted in 3G. <b>Triggers:</b> On expiry of T3360 and a retransmission of auth and cipher request. <b>Availability:</b> per SGSN service, per RA <b>Type:</b> Counter	Int32
2G-ret-auth-cipher-request	<b>Description:</b> Indicates the total number of authorization and cipher requests that were retransmitted in 2G. <b>Triggers:</b> On expiry of T3360 and a retransmission of auth and cipher request. <b>Availability:</b> per GPRS service, per RA <b>Type:</b> Counter	Int32
3G-auth-cipher-response	<b>Description:</b> Total authentication and ciphering request response messages for 3G service. <b>Triggers:</b> Whenever the MS sends a authentication and cipher response message. <b>Availability:</b> per SGSN service, per RA <b>Type:</b> Counter	Int32

Statistic	Description	Data Type
2G-auth-cipher-response	<b>Description:</b> Total authentication and ciphering request response messages for 2G service. <b>Triggers:</b> Whenever the MS sends a authentication and cipher response message. <b>Availability:</b> per GPRS service <b>Type:</b> Counter	Int32
3G-auth-cipher-rsp-sres-mismatch	<b>Description:</b> Indicates the number of authentication and cipher responses received, in 3G service, with mismatching xres/sres values. <b>Triggers:</b> When a mismatching Xres is received in auth-response. <b>Availability:</b> per SGSN service, per RA <b>Type:</b> Counter	Int32
2G-auth-cipher-rsp-sres-mismatch	<b>Description:</b> Indicates the number of authentication and cipher responses received, in 2G service, with mismatching xres/sres values. <b>Triggers:</b> When a mismatching Xres is received in auth-response. <b>Availability:</b> per GPRS service, per RA <b>Type:</b> Counter	Int32
3G-auth-cipher-reject	Total authentication and ciphering request reject messages for 3G service.	Int32
2G-auth-cipher-reject	Total authentication and ciphering request reject messages for 2G service.	Int32
3G-auth-cipher-rej-xres-mismatch	<b>Description:</b> Indicates the number of auth and cipher rejects sent by the SGSN due to xres not matching in 3G. <b>Triggers:</b> When auth-response has an xres mismatch and the SGSN proceeds to reject the MS because of it. <b>Availability:</b> per SGSN service, per RA <b>Type:</b> Counter	Int32
2G-auth-cipher-rej-xres-mismatch	<b>Description:</b> Indicates the number of auth and cipher rejects sent by the SGSN due to xres not matching in 2G. <b>Triggers:</b> When auth-response has an xres mismatch and the SGSN proceeds to reject the MS because of it. <b>Availability:</b> per GPRS service, per RA <b>Type:</b> Counter	Int32
3G-auth-cipher-rej-sync-not-have-auts	<b>Description:</b> Indicates the number of auth and cipher rejects sent by the SGSN in 3G when a SYNC failure is received without the AUTS parameter. <b>Triggers:</b> When an auth-failure message, with cause SYNC failure, is received but there is no AUTS (authentication token for re-synchronization) parameter. <b>Availability:</b> per SGSN service, per RA <b>Type:</b> Counter	Int32
2G-auth-cipher-rej-sync-not-have-auts	<b>Description:</b> Indicates the number of auth and cipher rejects sent by the SGSN in 2G when a SYNC failure is received without the AUTS parameter. <b>Triggers:</b> When an auth-failure message, with cause SYNC failure, is received but there is no AUTS (authentication token for re-synchronization) parameter. <b>Availability:</b> per GPRS service, per RA <b>Type:</b> Counter	Int32

Statistic	Description	Data Type
3G-auth-cipher-rej-many-sync-fail	<p><b>Description:</b> Indicates the number of auth and cipher rejects sent by the SGSN in 3G when there was more than one SYNC failure.</p> <p><b>Triggers:</b> When SGSN receives an auth-failure message with SYNC failure more than once in the same authentication procedure.</p> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
2G-auth-cipher-rej-many-sync-fail	<p><b>Description:</b> Indicates the number of auth and cipher rejects sent by the SGSN in 2G when there was more than one SYNC failure.</p> <p><b>Triggers:</b> When SGSN receives an auth-failure message with SYNC failure more than once in the same authentication procedure.</p> <p><b>Availability:</b> per GPRS service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
3G-auth-cipher-rej-many-mac-fail	<p><b>Description:</b> Indicates the number of auth and cipher rejects sent by the SGSN in 3G when there was more than one MAC failure.</p> <p><b>Triggers:</b> When SGSN receives an auth-failure message with MAC failure more than once in the same authentication procedure.</p> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
2G-auth-cipher-rej-many-mac-fail	<p><b>Description:</b> Indicates the number of auth and cipher rejects sent by the SGSN in 2G when there was more than one MAC failure.</p> <p><b>Triggers:</b> When SGSN receives an auth-failure message with MAC failure more than once in the same authentication procedure.</p> <p><b>Availability:</b> per GPRS service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
3G-auth-cipher-mac-fail	<p><b>Description:</b> Total authentication and ciphering failed due to message authentication code (MAC) failure in 3G service.</p> <p><b>Triggers:</b> When a authorization and cipher failure message is received with this cause.</p> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
2G-auth-cipher-mac-fail	<p><b>Description:</b> Total authentication and ciphering failed due to message authentication code (MAC) failure for 2G service.</p> <p><b>Triggers:</b> When a authorization and cipher failure message is received with this cause.</p> <p><b>Availability:</b> per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
3G-auth-cipher-syn-fail	<p><b>Description:</b> Total number of authentication and cipher procedure failures messages received with cause "SYNC failure" in 3G service.</p> <p><b>Triggers:</b> When a authorization and cipher failure message is received with this cause.</p> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
2G-auth-cipher-syn-fail	<p><b>Description:</b> Total number of authentication and cipher procedure failures messages received with cause "SYNC failure" in 2G service.</p> <p><b>Triggers:</b> When a authorization and cipher failure message is received with this cause.</p> <p><b>Availability:</b> per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
3G-auth-unacceptable	<b>Description:</b> Total number of authentication and cipher procedure fail messages received with cause “authentication unacceptable” in 3G service. <b>Triggers:</b> When a authorization and cipher failure message is received with this cause. <b>Availability:</b> per SGSN service, per RA <b>Type:</b> Counter	Int32
2G-auth-unacceptable	Indicates the number of authentication and cipher procedure fail messages received with cause “authentication unacceptable” in 2G service. <b>Triggers:</b> When a authorization and cipher failure message is received with this cause. <b>Availability:</b> per GPRS service <b>Type:</b> Counter	Int32
3G-ptmsi-realloc	Total Packet-Temporary Mobile Subscriber Identity reallocation procedure for 3G service.	Int32
2G-ptmsi-realloc	Total Packet-Temporary Mobile Subscriber Identity reallocation procedure for 2G service.	Int32
3G-ret-ptmsi-realloc	<b>Description:</b> Total number of PTMSI-Reallocation commands retransmitted in the 3G service. <b>Triggers:</b> Increments on expiry of T3350 timer and a retransmission of the PTMSI-Reallocation command. <b>Availability:</b> per SGSN service, per RA <b>Type:</b> Counter	Int32
2G-ret-ptmsi-realloc	<b>Description:</b> Total number of PTMSI-Reallocation commands retransmitted in the 2G service. <b>Triggers:</b> Increments on expiry of T3350 timer and a retransmission of the PTMSI-Reallocation command. <b>Availability:</b> per GPRS service, per RA <b>Type:</b> Counter	Int32
3G-ptmsi-realloc-complete	<b>Description:</b> Total number of PTMSI-Reallocation Complete messages received at 3G. <b>Triggers:</b> Increments when we receive a PTMSI Realloc Complete from MS in 3G. <b>Availability:</b> per SGSN service, per RA <b>Type:</b> Counter	Int32
2G-ptmsi-realloc-complete	<b>Description:</b> Total number of PTMSI-Reallocation Complete messages received at 2G. <b>Triggers:</b> Increments when we receive a PTMSI Realloc Complete from MS in 2G. <b>Availability:</b> per GPRS service <b>Type:</b> Counter	Int32
3G-imsi-identity-request	<b>Description:</b> Total number of identity request messages sent with identity type as “IMSI” in 3G service. <b>Triggers:</b> When the SGSN initiates a Identity request to know the IMSI of the subscriber. This is done when: - Unknown local P-TMSI attach is received. - GTP-Identity with peer SGSN failed on a peer SGSN P-TMSI attach. - Authenticate response X-RES mismatch and the IMSI was not ascertained from the MS itself. - On a MAC failure and the IMSI was not ascertained from the MS itself. <b>Availability:</b> per SGSN service, per RA <b>Type:</b> Counter	Int32

Statistic	Description	Data Type
2G-imsi-identity-request	<p><b>Description:</b> Total number of identity request messages sent with identity type as “IMSI” in 2G service.</p> <p><b>Triggers:</b> When the SGSN initiates an identity request to know the IMSI of the subscriber due to unknown local-PTMSI attach is received or GTP identity with Peer SGSN failed on a Peer SGSN PTMSI attach.</p> <p><b>Availability:</b> per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
3G-imei-identity-request	<p><b>Description:</b> Total number of identity request messages sent with identity type as “IMEI” for 3G service.</p> <p><b>Triggers:</b> When the SGSN initiates an identity request to know the IMEI of the UE due to unknown local-PTMSI attach is received or GTP identity with Peer SGSN failed on a Peer SGSN PTMSI attach.</p> <p><b>Availability:</b> per SGSN service</p> <p><b>Type:</b> Counter</p>	Int32
2G-imei-identity-request	<p><b>Description:</b> Total number of identity request messages sent with identity type as “IMEI” for 2G service.</p> <p><b>Triggers:</b> When the SGSN initiates an identity request to know the IMEI of the subscriber due to unknown local-PTMSI attach is received or GTP identity with Peer SGSN failed on a Peer SGSN PTMSI attach.</p> <p><b>Availability:</b> per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
3G-imeisv-identity-request	<p><b>Description:</b> Total number of identity request messages sent with identity type as “IMEI-SV” for 3G service.</p> <p><b>Triggers:</b> When the SGSN initiates an identity request to know the IMEI-SV of the UE due to unknown local-PTMSI attach is received or GTP identity with Peer SGSN failed on a Peer SGSN PTMSI attach.</p> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
2G-imeisv-identity-request	<p><b>Description:</b> Total number of identity request messages sent with identity type as “IMEI-SV” for 2G service.</p> <p><b>Triggers:</b> When the SGSN initiates an identity request to know the IMEI-SV of the subscriber due to unknown local-PTMSI attach is received or GTP identity with Peer SGSN failed on a Peer SGSN PTMSI attach.</p> <p><b>Availability:</b> per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
3G-tmsi-identity-request	<p><b>Description:</b> Total number of identity request messages sent with identity type as “T-IMSI” for 3G service.</p> <p><b>Triggers:</b> When the SGSN initiates an identity request to know the temporary IMSI of the subscriber due to unknown local-PTMSI attach is received or GTP identity with Peer SGSN failed on a Peer SGSN PTMSI attach.</p> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
2G-tmsi-identity-request	<p><b>Description:</b> Total number of identity request messages sent with identity type as “IMSI” for 2G service.</p> <p><b>Triggers:</b> When the SGSN initiates an identity request to know the IMSI of the subscriber due to unknown local-PTMSI attach is received or GTP identity with Peer SGSN failed on a Peer SGSN PTMSI attach.</p> <p><b>Availability:</b> per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
3G-ret-imsi-identity-request	Total number of IMSI identity request messages retransmitted for 3G service.	Int32
2G-ret-imsi-identity-request	Total number of IMSI identity request messages retransmitted for 2G service.	Int32
3G-ret-imei-identity-request	Total number of IMEI identity request messages retransmitted for 3G service.	Int32
2G-ret-imei-identity-request	Total number of IMEI identity request messages retransmitted for 2G service.	Int32
3G-ret-imeisv-identity-request	Total number of IMEI-SV identity request messages retransmitted for 3G service.	Int32
2G-ret-imeisv-identity-request	Total number of IMEI-SV identity request messages retransmitted for 2G service.	Int32
3G-ret-tmsi-identity-request	Total number of temporary IMS identity request messages retransmitted for 3G service.	Int32
2G-ret-tmsi-identity-request	Total number of temporary IMSI identity request messages retransmitted for 2G service.	Int32
3G-imsi-identity-response	<p><b>Description:</b> Total number of identity response messages received with MS identity of type “IMSI” for 3G service.</p> <p><b>Triggers:</b> When the SGSN receives an Identity response initiated to an identity request initiated of identity type IMSI.</p> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
2G-imsi-identity-response	<p><b>Description:</b> Total number of identity response messages received with MS identity of type “IMSI” for 2G service.</p> <p><b>Triggers:</b> When the SGSN receives an Identity response initiated to an identity request initiated of identity type IMSI.</p> <p><b>Availability:</b> per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
3G-imei-identity-response	<p><b>Description:</b> Total number of identity response messages received with MS identity of type “IMEI” for 3G service.</p> <p><b>Triggers:</b> When the SGSN receives an Identity response initiated to an identity request initiated of identity type IMEI.</p> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
2G-imei-identity-response	<p><b>Description:</b> Total number of identity response messages received with MS identity of type “IMEI” for 2G service.</p> <p><b>Triggers:</b> When the SGSN receives an Identity response initiated to an identity request initiated of identity type IMEI.</p> <p><b>Availability:</b> per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
3G-imeisv-identity-response	<p><b>Description:</b> Total number of identity response messages received with MS identity of type “IMEI-SV” for 3G service.</p> <p><b>Triggers:</b> When the SGSN receives an Identity response initiated to an identity request initiated of identity type IMEI-SV.</p> <p><b>Availability:</b> per SGSN service, per RA</p> <p><b>Type:</b> Counter</p>	Int32
2G-imeisv-identity-response	<p><b>Description:</b> Total number of identity response messages received with MS identity of type “IMEI-SV” for 2G service.</p> <p><b>Triggers:</b> When the SGSN receives an Identity response initiated to an identity request initiated of identity type IMEI-SV.</p> <p><b>Availability:</b> per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
3G-unknown-identity-response	Total number of unknown identity response sent for 3G service.	Int32
2G-unknown-identity-response	Total number of unknown identity response sent for 2G service.	Int32
3G-tmsi-identity-response	Total number of temporary IMSI identity response messages sent for 3G service.	Int32
2G-tmsi-identity-response	Total number of temporary IMSI identity response messages sent for 2G service.	Int32
new-connection-rejected-overload	<p><b>Description:</b> This proprietary counter indicates the total number of new connection (Inter-SGSN RAU and/or Attach) requests that were rejected due to an overload situation.</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) A congestion control mechanism is configured so that any new connection request received, that goes beyond the set threshold, will be rejected.</li> <li>2) A network overload control feature is enabled and configured to accept new connections only at a defined rate. Incoming requests are buffered in a queue. When the queue is full additional requests can be rejected.</li> </ol> <p><b>Availability:</b> per SGSN Service</p> <p><b>Type:</b> Counter</p>	Int32
3G-T3350-expiry	Total number of times the T3350 timer timed-out for 3G service.	Int32
2G-T3350-expiry	Total number of times the T3350 timer timed-out for 2G service.	Int32
3G-T3360-expiry	Total number of times the T3360 timer timed-out for 3G service.	Int32
2G-T3360-expiry	Total number of times the T3360 timer timed-out for 2G service.	Int32
3G-T3370-expiry	Total number of times the T3370 timer timed-out for 3G service.	Int32
2G-T3370-expiry	Total number of times the T3370 timer timed-out for 2G service.	Int32

Statistic	Description	Data Type
3G-T3322-expiry	Total number of times the T3322 timer timed-out for 3G service.	Int32
2G-T3322-expiry	Total number of times the T3322 timer timed-out for 2G service.	Int32
3G-T3313-expiry	Total number of times the T3313 timer timed-out for 3G service.	Int32
2G-T3313-expiry	Total number of times the T3313 timer timed-out for 2G service.	Int32
2G-ready-timer-expiry	Total number of times the 2G service ready timer timed-out.	Int32
Rnc-overload-attach-dropped	Total number of Attach Requests dropped due to overload at RNC.	Int32
Rnc-overload-service-req-dropped	Total number of service requests dropped due to overload at RNC.	Int32
Rnc-overload-skip-ptmsi-realloc	Total number of P-TMSI reallocation procedure skipped due to overload at RNC.	Int32
Rnc-overload-skip-auth	Total number of authentication procedure skipped due to overload at RNC.	Int32
Initial-UE-Rcvd	Total number of initial user equipment (UE) messages received.	Int32
Direct-Trans-Rcvd	Total number of common identifier messages sent.	Int32
Direct-Trans-Sent	Total number of direct transfer messages sent.	Int32
common-id-sent	Total number of direct transfer messages received.	Int32
sec-mode-command	Total number of security mode commands received.	Int32
sec-mode-complete	Total number of security mode completed.	Int32
sec-mode-reject	Total number of security mode commands rejected.	Int32
Iu-release-request	Total number of Iu interface release request received.	Int32
Iu-release-command	Total number of Iu interface release commands received.	Int32
Iu-release-complete	Total number of Iu interface release completed.	Int32
Reset-received	Total number of reset requests received.	Int32
Retransmitted-reset-received	Total number of retransmitted reset requests received.	Int32
Reset-Ack-sent	Total number of reset request acknowledgement sent.	Int32
Reset-sent	Total number of reset requests sent.	Int32
Retransmitted-reset-sent	Total number of reset requests retransmitted.	Int32
Reset-Ack-received	Total number of reset request acknowledgement received.	Int32
Resource-reset-received	Total number of resource reset requests received.	Int32

## ■ Common Statistics

Statistic	Description	Data Type
Resource-reset-ack-sent	Total number of resource reset request acknowledgement sent.	Int32
Resource-reset-sent	Total number of resource reset request sent.	Int32
Resource-reset-ack-received	Total number of resource reset request acknowledgement received.	Int32
Overload-control-rcvd	Total number of resource overload control message received.	Int32
Pc-congested-rcvd	Total number of point code (PC) congested message received.	Int32
Error-indication-rcvd	Total number of error indication message received.	Int32
Error-indication-sent	Total number of error indication message sent.	Int32
Relocation-required	Total number of message received for Serving Radio Network Subsystem (SRNS) relocation required.	Int32
Relocation-command	Total number of message received with SRNS relocation command.	Int32
Relocation-request	Total number of SRNS relocation requests received.	Int32
Relocation-request-ack	Total number of SRNS relocation requests Ack sent.	Int32
Relocation-failure	Total number of SRNS relocation failure messages received.	Int32
Relocation-prep-failure	Total number of SRNS relocation preparation failure messages received.	Int32
Relocation-cancel	Total number of SRNS relocation cancel messages received.	Int32
Relocation-cancel-ack	Total number of SRNS relocation cancel acknowledge messages sent.	Int32
Relocation-detect	Total number of SRNS relocation detected.	Int32
Relocation-complete	Total number of SRNS relocation completed.	Int32
Forward-srns-context	Total number of SRNS contexts forwarded.	Int32
GMM-received-nas-pdu	Total protocol data units received by GPRS mobility management (GMM) service through NAS interface.	Int32
GMM-sent-nas-pdu	Total protocol data units sent by GMM service through NAS interface.	Int32
SM-received-nas-pdu	Total protocol data units received by Service Management (SM) service through NAS interface.	Int32
SM-sent-nas-pdu	Total protocol data units sent by SM service through NAS interface.	Int32

Statistic	Description	Data Type
SMS-received-nas-pdu	Total protocol data units received by short message service (SMS) through NAS interface.	Int32
SMS-sent-nas-pdu	Total protocol data units sent by short message service (SMS) through NAS interface.	Int32
SMS-unexpected-nas-pdu	Total unexpected type of protocol data units received by short message service (SMS) through NAS interface.	Int32
Unidentified-nas-pdu	Total number of unknown type PDUs received through NAS interface.	Int32
exist-conn-proc-rej-overload	Total number of existing procedures rejected due to overload.	
3G-ptmsi-signature-mismatch-attach	Total number of NAS PDU dropped due to mismatch in P-TMSI signatures in attach procedures for 3G service.	Int32
2G-ptmsi-signature-mismatch-attach	Total number of NAS PDU dropped due to mismatch in P-TMSI signatures in attach procedures for 2G service.	Int32
3G-ptmsi-signature-mismatch-detach	Total number of NAS PDU dropped due to mismatch in P-TMSI signatures in detach procedures for 3G service.	Int32
2G-ptmsi-signature-mismatch-detach	Total number of NAS PDU dropped due to mismatch in P-TMSI signatures in detach procedures for 2G service.	Int32
3G-ptmsi-signature-mismatch-rau	Total number of NAS PDU dropped due to mismatch in P-TMSI signatures in routing area update procedures for 3G service.	Int32
2G-ptmsi-signature-mismatch-rau	Total number of NAS PDU dropped due to mismatch in P-TMSI signatures in routing area update procedures for 2G service.	Int32
3G-total-actv-req	Total number of request messages received for 3G context activation including primary and secondary type.	Int32
2G-total-actv-req	Total number of request messages received for 2G context activation including primary and secondary type.	Int32
3G-total-actv-accept	<b>Description:</b> Total number of request messages accepted for 3G context activation including primary and secondary type. <b>Triggers:</b> Increments when the SGSN sends Activate Accept or Activate Secondary Accept to the MS upon successful PDP Activation. <b>Availability:</b> per SGSN service, per RAI <b>Type:</b> Counter	Int32
2G-total-actv-accept	<b>Description:</b> Total number of request messages accepted for 2G context activation including primary and/or secondary type. <b>Triggers:</b> Increments when the SGSN sends Activate Accept or Activate Secondary Accept to the MS upon successful PDP Activation. <b>Availability:</b> per GPRS service <b>Type:</b> Counter	Int32

Statistic	Description	Data Type
3G-total-num-actv-pdp	<p><b>Description:</b> Total number of active PDP context (primary and secondary type) for 3G service in SGSN.</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) Increments when the context is completely active in the SGSN.</li> <li>2) Decrements when the context is deleted from the SGSN.</li> </ol> <p><b>Availability:</b> per SGSN service, per RAI</p> <p><b>Type:</b> Gauge</p>	Int32
2G-total-num-actv-pdp	<p><b>Description:</b> Total number of active PDP context (primary and secondary type) for 2G service in SGSN.</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1) Increments when the context is completely active in the SGSN.</li> <li>2) Decrements when the context is deleted from the SGSN.</li> </ol> <p><b>Availability:</b> per GPRS service</p> <p><b>Type:</b> Gauge</p>	Int32
3G-total-actv-pdp-with-dir-tunnel	Total number of active PDP context (primary and secondary type) for 3G service with direct tunnel enabled. This statistic value is of Gauge.	Int32
3G-primary-actv-req	Total number of request messages received for 3G primary PDP context activation.	Int32
2G-primary-actv-req	Total number of request messages received for 2G primary PDP context activation.	Int32
3G-primary-actv-req-nrpca	Total number of request messages received for 3G primary PDP context activation from network side.	Int32
3G-primary-req-act-pdp	Total number of requests to activate primary PDP context for 3G service.	Int32
3G-primary-req-act-pdp-retrans	Total number of requests retransmitted to activate primary PDP context for 3G service.	Int32
3G-primary-actv-accept	Total number of requests accepted to activate primary PDP context for 3G service.	Int32
2G-primary-actv-accept	Total number of requests accepted to activate primary PDP context for 2G service.	Int32
3G-total-actv-reject	<p><b>Description:</b> Total number of requests rejected to activate PDP context (primary and secondary) for 3G service.</p> <p><b>Triggers:</b> Increments when the SGSN sends Activate Reject or Activate Secondary Reject to the MS.</p> <p><b>Availability:</b> per SGSN service, per RAI</p> <p><b>Type:</b> Counter</p>	Int32
2G-total-actv-reject	<p><b>Description:</b> Total number of requests rejected to activate PDP context (primary and secondary) for 2G service.</p> <p><b>Triggers:</b> Increments when the SGSN sends Activate Reject or Activate Secondary Reject to the MS.</p> <p><b>Availability:</b> per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
3G-primary-actv-reject	Total number of requests rejected to activate primary PDP context for 3G service.	Int32
2G-primary-actv-reject	Total number of requests rejected to activate primary PDP context for 2G service.	Int32
3G-secondary-actv-req	Total number of requests to activate secondary PDP context for 3G service.	Int32
2G-secondary-actv-req	Total number of requests to activate secondary PDP context for 2G service.	Int32
3G-secondary-actv-acc	Total number of requests to activate secondary PDP context for 3G service accepted.	Int32
2G-secondary-actv-acc	Total number of requests to activate secondary PDP context for 2G service accepted.	Int32
3G-secondary-actv-rej	Total number of requests to activate secondary PDP context for 3G service rejected.	Int32
2G-secondary-actv-rej	Total number of requests to activate secondary PDP context for 2G service rejected.	Int32
3G-actv-rej-odb	Total number of requests to activate PDP context for 3G service rejected due to operator determined barring.	Int32
2G-actv-rej-odb	Total number of requests to activate PDP context for 2G service rejected due to operator determined barring.	Int32
3G-actv-rej-insufficient-resources	<p><b>Description:</b> Total number of requests sent to MS to activate PDP context for 3G service rejected due to:</p> <ul style="list-style-type: none"> <li>Resource allocation failures (memory, GTP-C Teid, GTP-U Teid, etc.) in SGSN</li> <li>Incorrect information sent by GGSN in CPC response (PDP Type modified by GGSN, missing PDP IP address, etc.)</li> <li>SNDCP activation failure</li> </ul> <p><b>Triggers:</b> Increments when the SGSN sends Activate Reject for the above conditions.  <b>Availability:</b> per SGSN service, per RAI  <b>Type:</b> Counter</p>	Int32
2G-actv-rej-insufficient-resources	<p><b>Description:</b> Total number of requests sent to MS to activate PDP context for 2G service rejected due to:</p> <ul style="list-style-type: none"> <li>Resource allocation failures (memory, GTP-C Teid, GTP-U Teid, etc.) in SGSN</li> <li>Incorrect information sent by GGSN in CPC response (PDP Type modified by GGSN, missing PDP IP address, etc.)</li> <li>SNDCP activation failure</li> </ul> <p><b>Triggers:</b> Increments when the SGSN sends Activate Reject for the above conditions.  <b>Availability:</b> per GPRS Service, RAI  <b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
3G-actv-rej-network-failure	<p><b>Description:</b> Total number of requests sent to MS to activate PDP context for 3G service rejected due to network failure.</p> <p><b>Triggers:</b> Increments when the SGSN sends Activate Reject due to SGSN operator policy restrictions and the cause code was configured as Network failure. Activations can be rejected due to SGSN operator policy in which the reject cause is configurable.</p> <p><b>Availability:</b> per SGSN service, per RAI</p> <p><b>Type:</b> Counter</p>	Int32
2G-actv-rej-network-failure	<p><b>Description:</b> Total number of requests sent to MS to activate PDP context for 2G service rejected due to network failure.</p> <p><b>Triggers:</b> Increments when the SGSN sends Activate Reject due to SGSN operator policy restrictions and the cause code was configured as Network failure. Activations can be rejected due to SGSN operator policy in which the reject cause is configurable.</p> <p><b>Availability:</b> per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
3G-actv-rej-missing-or-unknown-apn	<p><b>Description:</b> Total number of requests to activate PDP context for 3G service rejected due to APN related errors such as:</p> <ul style="list-style-type: none"> <li>• APN not present in Activate Request but multiple subscription records exist</li> <li>• DNS query fails for APN to GGSN resolution</li> <li>• Missing/Unknown APN received from GGSN</li> </ul> <p><b>Triggers:</b> Increments when the SGSN sends Activate Reject for all the above conditions.</p> <p><b>Availability:</b> per SGSN service, per RAI</p> <p><b>Type:</b> Counter</p>	Int32
2G-actv-rej-missing-or-unknown-apn	<p><b>Description:</b> Total number of requests sent to MS to activate PDP context for 3G service rejected due to APN related errors such as:</p> <ul style="list-style-type: none"> <li>• APN not present in Activate Request but multiple subscription records exist</li> <li>• DNS query fails for APN to GGSN resolution</li> <li>• Missing/Unknown APN received from GGSN</li> </ul> <p><b>Triggers:</b> Increments when the SGSN sends Activate Reject for all the above conditions.</p> <p><b>Availability:</b> per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
3G-actv-rej-unknown-pdp-addr-type	<p><b>Description:</b> Total number of requests sent to MS to activate PDP context for 3G service rejected due to PDP Address related errors such as:</p> <ul style="list-style-type: none"> <li>• PDP Address requested in Activate Request but PDP Address Type not requested</li> <li>• APN requested in Activate Request without PDP Address Type</li> <li>• Unknown PDP Address or Type error received in Create PDP Context Response from GGSN</li> </ul> <p><b>Triggers:</b> Increments when the SGSN sends Activate Reject for all the above conditions.</p> <p><b>Availability:</b> per SGSN service, per RAI</p> <p><b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
2G-actv-rej-unknown-pdp-addr-type	<p><b>Description:</b> Total number of requests sent to MS to activate PDP context for 2G service rejected due to PDP Address related errors such as:</p> <ul style="list-style-type: none"> <li>• PDP Address requested in Activate Request but PDP Address Type not requested</li> <li>• APN requested in Activate Request without PDP Address Type</li> <li>• Unknown PDP Address or Type error received in Create Pdp Context Response from GGSN</li> </ul> <p><b>Triggers:</b> Increments when the SGSN sends Activate Reject for all the above conditions.  <b>Availability:</b> per GPRS service  <b>Type:</b> Counter</p>	Int32
3G-actv-rej-usr-auth-failed	<p><b>Description:</b> Total number of requests sent to MS to activate PDP context for 3G service rejected due to user authentication failure on GGSN.  <b>Triggers:</b> Increments when the SGSN receives Create PDP Context Response with authentication failure cause.  <b>Availability:</b> per SGSN service, per RAI  <b>Type:</b> Counter</p>	Int32
2G-actv-rej-usr-auth-failed	<p><b>Description:</b> Total number of requests sent to MS to activate PDP context for 2G service rejected due to user authentication failure on GGSN.  <b>Triggers:</b> Increments when the SGSN receives Create PDP Context Response with authentication failure cause.  <b>Availability:</b> per GPRS service  <b>Type:</b> Counter</p>	Int32
3G-actv-rej-by-ggsn	<p><b>Description:</b> Total number of requests sent to MS to activate PDP context for 3G service due to receiving Create PDP Context Response from GGSN with a cause of:</p> <ul style="list-style-type: none"> <li>• "Insufficient resources"</li> <li>• "All Dynamic PDP address occupied"</li> </ul> <p><b>Triggers:</b> Increments when the SGSN sends Activate Reject for the above conditions.  <b>Availability:</b> per SGSN service, per RAI  <b>Type:</b> Counter</p>	Int32
2G-actv-rej-by-ggsn	<p><b>Description:</b> Total number of requests sent to MS to activate PDP context for 2G service due to receiving Create PDP Context Response from GGSN with a cause of:</p> <ul style="list-style-type: none"> <li>• "Insufficient resources"</li> <li>• "All Dynamic PDP address occupied"</li> </ul> <p><b>Triggers:</b> Increments when the SGSN sends Activate Reject for the above conditions.  <b>Availability:</b> per GPRS service, per RAI  <b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
3G-actv-rej- unspecified-error	<p><b>Description:</b> Total number of requests sent to MS to activate PDP context for 3G service rejected due to:</p> <ul style="list-style-type: none"> <li>Receiving Create PDP Context Response from GGSN with a cause of "system failure"</li> <li>GGSN fails to respond to CPC Request</li> <li>SGSN triggers PDP deletion before receiving CPC response from GGSN</li> <li>HLR triggers PDP deletion before receiving CPC response (DSD received from HLR for the PDP)</li> </ul> <p><b>Triggers:</b> Increments when the SGSN sends Activate Reject for the above conditions.  <b>Availability:</b> per SGSN service, per RAI  <b>Type:</b> Counter</p>	Int32
2G-actv-rej- unspecified-error	<p><b>Description:</b> Total number of requests sent to MS to activate PDP context for 2G service rejected due to:</p> <ul style="list-style-type: none"> <li>Receiving Create PDP Context Response from GGSN with a cause of "system failure"</li> <li>GGSN fails to respond to CPC Request</li> <li>SGSN triggers PDP deletion before receiving CPC response from GGSN</li> <li>HLR triggers PDP deletion before receiving CPC response (DSD received from HLR for the PDP)</li> </ul> <p><b>Triggers:</b> Increments when the SGSN sends Activate Reject for the above conditions.  <b>Availability:</b> per GPRS service  <b>Type:</b> Counter</p>	Int32
3G-actv-rej-service- not-supported	<p><b>Description:</b> Total number of requests to activate PDP context for 3G service rejected as requested service is not supported.  <b>Triggers:</b> Increments when the SGSN sends Activate Reject due to SGSN operator policy restrictions and the cause code was configured as Service Not Supported. Activations can be rejected due to SGSN operator policy in which the reject cause is configurable.  <b>Availability:</b> per SGSN service, per RAI  <b>Type:</b> Counter</p>	Int32
2G-actv-rej-service- not-supported	<p><b>Description:</b> Total number of requests sent to MS to activate PDP context for 2G service rejected as requested service is not supported.  <b>Triggers:</b> Increments when the SGSN sends Activate Reject due to SGSN operator policy restrictions and the cause code was configured as Service Not Supported. Activations can be rejected due to SGSN operator policy in which the reject cause is configurable.  <b>Availability:</b> per GPRS service  <b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
3G-actv-rej-service-not-subscribed	<p><b>Description:</b> Total number of requests sent to MS to activate PDP context for 3G service rejected as subscriber is not subscribed to requested service due to:</p> <ul style="list-style-type: none"> <li>• APN Selection failures such as: <ul style="list-style-type: none"> <li>• Requested APN/PDP-Type/PDP-Addr not matching the subscription.</li> <li>• Wild card APN requested but multiple subscription records exist for the subscriber.</li> </ul> </li> <li>• APN Access denied, No subscription error was received in Create PDP Context Response from GGSN.</li> </ul> <p><b>Triggers:</b> Increments when the SGSN sends Activate Reject for all the above conditions.  <b>Availability:</b> per SGSN service, per RAI  <b>Type:</b> Counter</p>	Int32
2G-actv-rej-service-not-subscribed	<p><b>Description:</b> Total number of requests sent to MS to activate PDP context for 2G service rejected as subscriber is not subscribed to requested service due to:</p> <ul style="list-style-type: none"> <li>• APN selection failures such as: <ul style="list-style-type: none"> <li>• Requested APN/PDP-Type/PDP-Addr not matching the subscription.</li> <li>• Wild card APN requested but multiple subscription records exist for the subscriber.</li> </ul> </li> <li>• APN Access denied and No subscription error was received in Create PDP Context Response from GGSN.</li> </ul> <p><b>Triggers:</b> Increments when the SGSN sends Activate Reject for the above conditions.  <b>Availability:</b> per GPRS service  <b>Type:</b> Counter</p>	Int32
3G-actv-rej-svc-opt-tmp-out-of-order	Total number of requests to activate PDP context for 3G service rejected as requested service option is temporarily out of order.	Int32
2G-actv-rej-svc-opt-tmp-out-of-order	Total number of requests to activate PDP context for 2G service rejected as requested service option is temporarily out of order.	Int32
3G-actv-rej-apn-restriction-incompatible	Total number of requests to activate PDP context for 3G service rejected due to restriction of APN or incompatibility of APN for service.	Int32
2G-actv-rej-apn-restriction-incompatible	Total number of requests to activate PDP context for 2G service rejected due to restriction of APN or incompatibility of APN for service.	Int32
3G-actv-rej-semanticlly-incorrect	<p><b>Description:</b> Total number of requests sent to MS to activate PDP context for 3G service rejected due to semantically incorrect IE message in Activate PDP Request.  <b>Triggers:</b> Increments when the SGSN sends Activate Reject for the above conditions.  <b>Availability:</b> per SGSN service, per RAI  <b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
2G-actv-rej- semantically- incorrect	<b>Description:</b> Total number of requests sent to MS to activate PDP context for 2G service rejected due to semantically incorrect IE message in Activate PDP Request. <b>Triggers:</b> Increments when the SGSN sends Activate Reject for the above conditions. <b>Availability:</b> per GPRS service, per RAI <b>Type:</b> Counter	Int32
3G-actv-rej-invalid- mandatory-info	<b>Description:</b> Total number of requests sent to MS to activate PDP context for 3G service rejected due to invalid mandatory IE in Activate PDP Request. <b>Triggers:</b> Increments when the SGSN sends Activate Reject for the above conditions. <b>Availability:</b> per SGSN service, per RAI <b>Type:</b> Counter	Int32
2G-actv-rej-invalid- mandatory-info	<b>Description:</b> Total number of requests sent to MS to activate PDP context for 2G service rejected due to invalid mandatory IE in Activate PDP Request. <b>Triggers:</b> Increments when the SGSN sends Activate Reject for the above conditions. <b>Availability:</b> per GPRS service, per RAI <b>Type:</b> Counter	Int32
3G-actv-rej-msg- type-non-existent	Total number of requests to activate PDP context for 3G service rejected due to non-existent type of message.	Int32
2G-actv-rej-msg- type-non-existent	Total number of requests to activate PDP context for 3G service rejected due to non-existent type of message.	Int32
3G-actv-rej-ie-non- existent	<b>Description:</b> Total number of requests sent to MS to activate PDP context for 3G service rejected upon receiving Create PDP Context Response from GGSN with a cause of "Mandatory IE missing". <b>Triggers:</b> Increments when the SGSN sends Activate Reject for the above conditions. <b>Availability:</b> per SGSN service, per RAI <b>Type:</b> Counter	Int32
2G-actv-rej-ie-non- existent	<b>Description:</b> Total number of requests sent to MS to activate PDP context for 2G service rejected upon receiving Create PDP Context Response from GGSN with a cause of "Mandatory IE missing". <b>Triggers:</b> Increments when the SGSN sends Activate Reject for the above conditions. <b>Availability:</b> per GPRS service, per RAI <b>Type:</b> Counter	Int32
3G-actv-rej- conditional-ie-err	<b>Description:</b> Total number of requests sent to MS to activate PDP context for 3G service rejected due to conditional IE (Information Element) error in Activate PDP Request. <b>Triggers:</b> Increments when the SGSN sends Activate Reject for the above conditions. <b>Availability:</b> per SGSN service, per RAI <b>Type:</b> Counter	Int32
2G-actv-rej- conditional-ie-err	<b>Description:</b> Total number of requests sent to MS to activate PDP context for 2G service rejected due to conditional IE (Information Element) error in Activate PDP Request. <b>Triggers:</b> Increments when the SGSN sends Activate Reject for the above conditions. <b>Availability:</b> per GPRS service, per RAI <b>Type:</b> Counter	Int32

Statistic	Description	Data Type
3G-actv-rej-msg-not-compatible-with-prot-state	<b>Description:</b> Total number of requests sent to MS to activate PDP context for 3G service rejected as message type is not compatible with protocol state. <b>Triggers:</b> Increments when the SGSN sends Activate Reject for the above conditions. <b>Availability:</b> per SGSN service, per RAI <b>Type:</b> Counter	Int32
2G-actv-rej-msg-not-compatible-with-prot-state	<b>Description:</b> Total number of requests sent to MS to activate PDP context for 2G service rejected as message type is not compatible with protocol state. <b>Triggers:</b> Increments when the SGSN sends Activate Reject for the above conditions. <b>Availability:</b> per GPRS service, per RAI <b>Type:</b> Counter	Int32
3G-actv-rej-recovery-on-timer-expiry	Total number of requests to activate PDP context for 3G service rejected as timer expired for recovery.	Int32
2G-actv-rej-recovery-on-timer-expiry	Total number of requests to activate PDP context for 2G service rejected as timer expired for recovery.	Int32
3G-actv-rej-prot-err-unspecified	<b>Description:</b> Total number of requests sent to MS to activate PDP context for 3G service rejected upon receiving Create PDP Context Response from GGSN with a cause of "unspecified protocol error". <b>Triggers:</b> Increments when the SGSN sends Activate Reject for the above conditions. <b>Availability:</b> per SGSN service, per RAI <b>Type:</b> Counter	Int32
2G-actv-rej-prot-err-unspecified	<b>Description:</b> Total number of requests sent to MS to activate PDP context for 2G service rejected upon receiving Create PDP Context Response from GGSN with a cause of "unspecified protocol error". <b>Triggers:</b> Increments when the SGSN sends Activate Reject for the above conditions. <b>Availability:</b> per GPRS service, per RAI <b>Type:</b> Counter	Int32
2G-actv-rej-llc-sndcp-fail	This bulkstat is not used and has been obsoleted.	Int32
2G-actv-rej-qos-not-acc	This bulkstat is not used and has been obsoleted.	Int32
3G-actv-rej-semantic-error-tft-operation	This bulkstat is not used and has been obsoleted.	Int32
2G-actv-rej-semantic-error-tft-operation	This bulkstat is not used and has been obsoleted.	Int32
3G-actv-rej-syntax-err-in-tft-operation	This bulkstat is not used and has been obsoleted.	Int32
2G-actv-rej-syntax-err-in-tft-operation	This bulkstat is not used and has been obsoleted.	Int32

## Common Statistics

Statistic	Description	Data Type
3G-actv-rej-unknown-pdp-context	This bulkstat is not used and has been obsolete.	Int32
2G-actv-rej-unknown-pdp-context	This bulkstat is not used and has been obsolete.	Int32
3G-actv-rej-semantic-err-in-pkt-filter	This bulkstat is not used and has been obsolete.	Int32
2G-actv-rej-semantic-err-in-pkt-filter	This bulkstat is not used and has been obsolete.	Int32
3G-actv-rej-syntax-err-in-pkt-filter	This bulkstat is not used and has been obsolete.	Int32
2G-actv-rej-syntax-err-in-pkt-filter	This bulkstat is not used and has been obsolete.	Int32
3G-actv-rej-pdp-notft-actv	This bulkstat is not used and has been obsolete.	Int32
2G-actv-rej-pdp-notft-actv	This bulkstat is not used and has been obsolete.	Int32
3G-sec-actv-rej-odb	Total number of requests to activate secondary PDP context for 3G service rejected due to operator determined barring.	Int32
2G-sec-actv-rej-odb	Total number of requests to activate secondary PDP context for 2G service rejected due to operator determined barring.	Int32
3G-sec-actv-rej-insufficient-resources	Total number of requests to activate secondary PDP context for 3G service rejected due to insufficient resources.	Int32
2G-sec-actv-rej-insufficient-resources	Total number of requests to activate secondary PDP context for 2G service rejected due to insufficient resources.	Int32
3G-sec-actv-rej-by-ggsn	Total number of requests to activate secondary PDP context for 3G service rejected as request rejected by the GGSN.	Int32
2G-sec-actv-rej-by-ggsn	Total number of requests to activate secondary PDP context for 2G service rejected as request rejected by the GGSN.	Int32
3G-sec-actv-rej-unspecified-error	Total number of requests to activate secondary PDP context for 3G service rejected due to error which is not specified in this table or unknown.	Int32
2G-sec-actv-rej-unspecified-error	Total number of requests to activate secondary PDP context for 2G service rejected due to error which is not specified in this table or unknown.	Int32

Statistic	Description	Data Type
3G-sec-actv-rej-service-not-supported	<p><b>Description:</b> Total number of requests sent to MS to activate secondary PDP context for 3G service rejected as requested service is not supported.</p> <p><b>Triggers:</b> Increments when the SGSN sends Activate Secondary Reject due to SGSN operator policy restrictions and the cause code was configured as Service Not Supported. Activations can be rejected due to SGSN operator policy in which the reject cause is configurable.</p> <p><b>Availability:</b> per SGSN service, per RAI</p> <p><b>Type:</b> Counter</p>	Int32
2G-sec-actv-rej-service-not-supported	<p><b>Description:</b> Total number of requests sent to MS to activate secondary PDP context for 2G service rejected as requested service is not supported.</p> <p><b>Triggers:</b> Increments when the SGSN sends Activate Secondary Reject due to SGSN operator policy restrictions and the cause code was configured as Service Not Supported. Activations can be rejected due to SGSN operator policy in which the reject cause is configurable.</p> <p><b>Availability:</b> per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
3G-sec-actv-rej-service-not-subscribed	<p><b>Description:</b> Total number of requests sent to MS to activate secondary PDP context for 3G service rejected as subscriber is not subscribed to requested service due to:</p> <ul style="list-style-type: none"> <li>• APN Selection related errors such as:                             <ul style="list-style-type: none"> <li>• Activate PDP Request without PDP Address/Type and APN, and multiple subscription records present.</li> <li>• Activate PDP Request with PDP Type (and address) and no matching subscription records for the PDP Type.</li> <li>• Activate PDP Request with dynamic addressing but matching subscription records have static address.</li> </ul> </li> <li>• Create PDP Context Response from GGSN is received with error code “Access denied, no subscription”.</li> </ul> <p><b>Triggers:</b> Increments when the SGSN sends Activate Reject for all the above conditions.</p> <p><b>Availability:</b> per SGSN service, per RAI</p> <p><b>Type:</b> Counter</p>	Int32
2G-sec-actv-rej-service-not-subscribed	<p><b>Description:</b> Total number of requests sent to MS to activate secondary PDP context for 2G service rejected as subscriber is not subscribed to requested service due to:</p> <ul style="list-style-type: none"> <li>• APN Selection related errors such as:                             <ul style="list-style-type: none"> <li>• Activate PDP Request without PDP Address/Type and APN, and multiple subscription records present.</li> <li>• Activate PDP Request with PDP Type (and address) and no matching subscription records for the PDP Type.</li> <li>• Activate PDP Request with dynamic addressing but matching subscription records have static address.</li> </ul> </li> <li>• Create PDP Context Response from GGSN is received with error code “Access denied, no subscription”.</li> </ul> <p><b>Triggers:</b> Increments when the SGSN sends Activate Reject for all the above conditions.</p> <p><b>Availability:</b> per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32

## ■ Common Statistics

Statistic	Description	Data Type
3G-sec-actv-rej-svc-opt-tmp-out-of-order	Total number of requests to activate secondary PDP context for 3G service rejected as requested service option is temporarily out of order.	Int32
2G-sec-actv-rej-svc-opt-tmp-out-of-order	Total number of requests to activate secondary PDP context for 3G service rejected as requested service option is temporarily out of order.	Int32
3G-sec-actv-rej-semantically-incorrect	Total number of requests to activate secondary PDP context for 2G service rejected due to semantically incorrect message.	Int32
2G-sec-actv-rej-semantically-incorrect	Total number of requests to activate secondary PDP context for 3G service rejected as mandatory information in message is invalid.	Int32
3G-sec-actv-rej-invalid-mandatory-info	Total number of requests to activate secondary PDP context for 3G service rejected as mandatory information in message is invalid.	Int32
2G-sec-actv-rej-invalid-mandatory-info	Total number of requests to activate secondary PDP context for 2G service rejected as mandatory information in message is invalid.	Int32
3G-sec-actv-rej-msg-type-non-existent	Total number of requests to activate secondary PDP context for 3G service rejected due to non-existent type of message.	Int32
2G-sec-actv-rej-msg-type-non-existent	Total number of requests to activate secondary PDP context for 3G service rejected due to non-existent type of message.	Int32
3G-sec-actv-rej-ie-non-existent	Total number of requests to activate secondary PDP context for 3G service rejected due to non-existence of information element.	Int32
2G-sec-actv-rej-ie-non-existent	Total number of requests to activate secondary PDP context for 2G service rejected due to non-existence of information element.	Int32
3G-sec-actv-rej-conditional-ie-err	Total number of requests to activate secondary PDP context for 3G service rejected due to error in conditional information element.	Int32
2G-sec-actv-rej-conditional-ie-err	Total number of requests to activate secondary PDP context for 2G service rejected due to error in conditional information element.	Int32
3G-sec-actv-rej-msg-not-compat-prot-state	Total number of requests to activate secondary PDP context for 3G service rejected as message type is not compatible with protocol state.	Int32
2G-sec-actv-rej-msg-not-compat-prot-state	Total number of requests to activate secondary PDP context for 2G service rejected as message type is not compatible with protocol state.	Int32
3G-sec-actv-rej-recovery-on-timer-expiry	Total number of requests to activate secondary PDP context for 3G service rejected as timer expired for recovery.	Int32

Statistic	Description	Data Type
2G-sec-actv-rej-recovery-on-timer-expiry	Total number of requests to activate secondary PDP context for 2G service rejected as timer expired for recovery.	Int32
3G-sec-actv-rej-prot-err-unspecified	Total number of requests to activate secondary PDP context for 3G service rejected due to unspecified protocol error.	Int32
2G-sec-actv-rej-prot-err-unspecified	Total number of requests to activate secondary PDP context for 2G service rejected due to unspecified protocol error.	Int32
2G-sec-actv-rej-llc-sndcp-fail	This bulkstat is not used and has been obsoleted.	Int32
2G-sec-actv-rej-qos-not-acc	This bulkstat is not used and has been obsoleted.	Int32
3G-sec-actv-rej-semantic-error-tft-operation	Total number of requests to activate secondary PDP context for 3G service rejected due to semantic error in traffic flow template (TFT) operation.	Int32
2G-sec-actv-rej-semantic-error-tft-operation	Total number of requests to activate secondary PDP context for 3G service rejected due to semantic error in traffic flow template (TFT) operation.	Int32
3G-sec-actv-rej-syntax-err-in-tft-operation	Total number of requests to activate secondary PDP context for 3G service rejected due to syntax error in traffic flow template (TFT) operation.	Int32
2G-sec-actv-rej-syntax-err-in-tft-operation	Total number of requests to activate secondary PDP context for 2G service rejected due to syntax error in traffic flow template (TFT) operation.	Int32
3G-sec-actv-rej-unknown-pdp-context	Total number of requests to activate secondary PDP context for 3G service rejected due to unknown type of PDP context.	Int32
2G-sec-actv-rej-unknown-pdp-context	Total number of requests to activate secondary PDP context for 2G service rejected due to unknown type of PDP context.	Int32
3G-sec-actv-rej-semantic-err-in-pkt-filter	Total number of requests to activate secondary PDP context for 3G service rejected due to semantic error in packet filter.	Int32
2G-sec-actv-rej-semantic-err-in-pkt-filter	Total number of requests to activate secondary PDP context for 3G service rejected due to semantic error in packet filter.	Int32
3G-sec-actv-rej-syntax-err-in-pkt-filter	Total number of requests to activate secondary PDP context for 3G service rejected due to syntax error in packet filter.	Int32
2G-sec-actv-rej-syntax-err-in-pkt-filter	Total number of requests to activate secondary PDP context for 2G service rejected due to syntax error in packet filter.	Int32

Statistic	Description	Data Type
3G-sec-actv-rej-pdp-notft-actv	Total number of requests to activate secondary PDP context for 3G service rejected due to TFT was not active.	Int32
2G-sec-actv-rej-pdp-notft-actv	Total number of requests to activate secondary PDP context for 3G service rejected due to TFT was not active.	Int32
3G-total-actv-fail	<p><b>Description:</b> Total number of PDP context activation (primary and secondary) failed for 3G service due to:</p> <ul style="list-style-type: none"> <li>• GMM procedure collision</li> <li>• Duplicate Activate Requests in non-active states (activation or deactivation in progress)</li> <li>• Detach before activation is over</li> <li>• Handoff to Peer before activation is over</li> <li>• GTP Tunnel deletion in case of Second PDP Activations</li> <li>• IU release before the completion of activation procedure</li> </ul> <p><b>Triggers:</b> Increments when the SGSN drops PDP Activate Request for all the above conditions.  <b>Availability:</b> per SGSN service, per RAI  <b>Type:</b> Counter</p>	Int32
2G-total-actv-fail	<p><b>Description:</b> Total number of PDP context activation (primary and secondary) failed for 2G service due to:</p> <ul style="list-style-type: none"> <li>• GMM procedure collision</li> <li>• Duplicate Activate Requests in non-active states (activation or deactivation in progress)</li> <li>• Detach before activation is over</li> <li>• Handoff to Peer before activation is over</li> <li>• GTP Tunnel deletion in case of Second PDP Activations</li> </ul> <p><b>Triggers:</b> Increments when the SGSN drops PDP Activate Request for all the above conditions.  <b>Availability:</b> per GPRS service  <b>Type:</b> Counter</p>	Int32
3G-primary-actv-fail	Total number of primary PDP context activations that failed in the 3G service.	Int32
2G-primary-actv-fail	<p><b>Description:</b> New counter in release 9.0: Total number of Primary PDP Activation Requests dropped due to:</p> <ol style="list-style-type: none"> <li>1. GMM procedure collision.</li> <li>2. Duplicate Activate Requests in non-active states (activation or deactivation in progress).</li> <li>3. Detach before activation completes.</li> <li>4. Handoff to peer before activation completes.</li> </ol> <p><b>Triggers:</b> Increments when the SGSN drops the Primary PDP Activate Request for indicated condition.  <b>Availability:</b> per GPRS service, per RA  <b>Type:</b> Counter</p>	Int32
3G-secondary-actv-fail	Total number of secondary PDP context activations that failed in the 3G service.	Int32

Statistic	Description	Data Type
2G-secondary-actv-fail	<p><b>Description:</b> New counter in release 9.0: Total number of Secondary PDP Activation Requests dropped due to:</p> <ol style="list-style-type: none"> <li>1. GMM procedure collision.</li> <li>2. Duplicate Activate Requests in non-active states (activation or deactivation in progress).</li> <li>3. Detach before activation completes.</li> <li>4. Handoff to peer before activation completes.</li> <li>5. GTP tunnel deletion.</li> </ol> <p><b>Triggers:</b> Increments when the SGSN drops the Secondary PDP Activate Request for indicated condition.  <b>Availability:</b> per GPRS service, per RA  <b>Type:</b> Counter</p>	Int32
3G-actv-fail-iu-release-before-activate	<p><b>Description:</b> Total number of PDP Activation Requests dropped due to IU release before the completion of activation procedure.  <b>Triggers:</b> Increments when the SGSN drops PDP Activate Request due to IU release before the completion of activation procedure.  <b>Availability:</b> per SGSN service, per RA  <b>Type:</b> Counter</p>	Int32
3G-actv-fail-gaurd-timer-expiry	<p><b>Description:</b> Total number of PDP Activation Requests dropped due to SM Guard Timer Expiry.  <b>Triggers:</b> Increments when the SGSN drops PDP Activate Request due to SM Guard Timer Expiry.  <b>Availability:</b> per SGSN service, per RA  <b>Type:</b> Counter</p>	Int32
3G-actv-fail-duplicate-activation	<p><b>Description:</b> Total number of PDP Activation Requests dropped due to an ongoing PDP Activation.  <b>Triggers:</b> Increments when the SGSN drops PDP Activate Request due to PDP Activation in progress.  <b>Availability:</b> per SGSN service, per RA  <b>Type:</b> Counter</p>	Int32
3G-actv-fail-other-ongoing-procedure	<p><b>Description:</b> Total number of PDP Activation Requests dropped due to other ongoing procedures such as:</p> <ul style="list-style-type: none"> <li>• Activate Request during network initiated detach</li> <li>• Page timer expiry while trying to send Activate Accept/Reject</li> </ul> <p><b>Triggers:</b> Increments when the SGSN drops PDP Activate Request due to other ongoing procedures.  <b>Availability:</b> per SGSN service, per RA  <b>Type:</b> Counter</p>	Int32
3G-actv-fail-tunnel-deactivation	<p><b>Description:</b> Total number of PDP Activation Requests that fail due to tunnel deactivation.  <b>Availability:</b> per SGSN service, per RA  <b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
3G-actv-fail-handoff-before-activate-over	<p><b>Description:</b> Total number of PDP Activation Request dropped due to Handoff request from Peer SGSN for the subscriber.</p> <p><b>Triggers:</b> Increments when the SGSN drops PDP Activate Request due to Handoff request from Peer SGSN for the subscriber.</p> <p><b>Availability:</b> per SGSN Service and per RA</p> <p><b>Type:</b> Counter</p>	Int32
3G-actv-fail-detach-before-activate-over	<p><b>Description:</b> Total number of PDP Activation Requests dropped due to detach request while activation was in progress.</p> <p><b>Triggers:</b> Increments when the SGSN drops PDP Activate Request due to detach request while activation was in progress. SGSN for the subscriber.</p> <p><b>Availability:</b> per SGSN Service and per RA</p> <p><b>Type:</b> Counter</p>	Int32
3G-actv-fail-phase-2-offload	<p><b>Description:</b> This proprietary counter indicates the total number of PDP Activation failures due to Phase 2 offloading in 3G service. This statistics is specific to releases 8.1 and higher.</p> <p><b>Triggers:</b> Increments when PDP Activation fails due to Phase 2 offloading.</p> <p><b>Availability:</b> per SGSN service, per RA, per RNC</p> <p><b>Type:</b> Counter</p>	Int32
3G-actv-fail-invalid-message-content	<p><b>Description:</b> Total number of PDP Activation Requests dropped due to invalid information in activate request such as invalid Ti flag value.</p> <p><b>Triggers:</b> Increments when the SGSN drops PDP Activate Request due to above condition.</p> <p><b>Availability:</b> per SGSN Service and per RA</p> <p><b>Type:</b> Counter</p>	Int32
2G-actv-fail-gaurd-timer-expiry	<p><b>Description:</b> Total number of PDP Activation Requests dropped due to SM Guard Timer Expiry.</p> <p><b>Triggers:</b> Increments when the SGSN drops PDP Activate Request due to SM Guard Timer Expiry.</p> <p><b>Availability:</b> per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
2G-actv-fail-duplicate-activation	<p><b>Description:</b> Total number of PDP Activation Requests dropped due to an ongoing PDP Activation.</p> <p><b>Triggers:</b> Increments when the SGSN drops PDP Activate Request due to PDP Activation in progress.</p> <p><b>Availability:</b> per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
2G-actv-fail-other-ongoing-procedure	<p><b>Description:</b> Total number of PDP Activation Requests dropped due to other ongoing procedures such as:</p> <ol style="list-style-type: none"> <li>(1) Activate Request during network initiated detach.</li> <li>(2) Page timer expiry while trying to send Activate Accept/Reject.</li> </ol> <p><b>Triggers:</b> Increments when the SGSN drops PDP Activate Request due to other ongoing procedures</p> <p><b>Availability:</b> per GPRS service</p> <p><b>Type:</b> Counter</p>	Int32
2G-actv-fail-tunnel-deactivation	<p><b>Description:</b> Total number of PDP Activation Requests that fail due to tunnel deactivation.</p> <p><b>Availability:</b> per GPRS Service and per NSEI</p> <p><b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
2G-actv-fail-handoff-before-activate-over	<b>Description:</b> Total number of PDP Activation Requests dropped due to Handoff request from Peer SGSN for the subscriber. <b>Triggers:</b> Increments when the SGSN drops PDP Activate Request due to Handoff request from Peer SGSN for the subscriber. <b>Availability:</b> per GPRS service <b>Type:</b> Counter	Int32
2G-actv-fail-detach-before-activate-over	<b>Description:</b> Total number of PDP Activation Requests dropped due to detach request while activation was in progress. <b>Triggers:</b> Increments when the SGSN drops PDP Activate Request due to detach request while activation was in progress. SGSN for the subscriber. <b>Availability:</b> per GPRS service <b>Type:</b> Counter	Int32
2G-actv-fail-phase-2-offload	<b>Description:</b> This proprietary counter indicates the total number of PDP Activation failures due to Phase 2 offloading in 2G service. This statistics is specific to releases 8.1 and higher. <b>Triggers:</b> Increments when PDP Activation fails due to Phase 2 offloading. <b>Availability:</b> per GPRS service, per RA <b>Type:</b> Counter	Int32
2G-actv-fail-invalid-msg-content	<b>Description:</b> Total number of PDP Activation Requests dropped due to invalid information in activate request such as invalid Ti flag value <b>Triggers:</b> Increments when the SGSN drops PDP Activate Request due to above condition <b>Availability:</b> per GPRS service <b>Type:</b> Counter	Int32
3G-dupl-ti-pdpactive	Total number of duplicate context activation requests for 3G service with duplicate transaction identifiers (TIs).	Int32
2G-dupl-ti-pdpactive	Total number of duplicate context activation requests for 2G service with duplicate transaction identifiers (TIs).	Int32
3G-dupl-nsapi-pdpactv	Total number of duplicate context activation requests for 3G service with duplicate Network Service Access Point Identifier (NSAPI).	Int32
2G-dupl-nsapi-pdpactv	Total number of duplicate context activation requests for 2G service with duplicate Network Service Access Point Identifier (NSAPI).	Int32
3G-dupl-pdpaddr-apn-pdpactv	Total number of duplicate context activation requests for 3G service with duplicate PDP address or APN name.	Int32
2G-dupl-pdpaddr-apn-pdpactv	Total number of duplicate context activation requests for 2G service with duplicate PDP address or APN name.	Int32
3G-dupl-ti-n-pdpactive	Total number of duplicate context activation requests for 3G service which are not in PDP active state with duplicate transaction identifiers (TIs).	Int32
2G-dupl-ti-n-pdpactive	Total number of duplicate context activation requests for 2G service which are not in PDP active state with duplicate transaction identifiers (TIs).	Int32
3G-dupl-nsapi-n-pdpactv	Total number of duplicate context activation requests for 3G service which are not in PDP active state with duplicate Network Service Access Point Identifier (NSAPI).	Int32
2G-dupl-nsapi-n-pdpactv	Total number of duplicate context activation requests for 2G service which are not in PDP active state with duplicate Network Service Access Point Identifier (NSAPI).	Int32

## Common Statistics

Statistic	Description	Data Type
3G-dupl-pdpaddr-apn-n-pdpactv	Total number of duplicate context activation requests for 3G service which are not in PDP active state with duplicate PDP address and access point name.	Int32
2G-dupl-pdpaddr-apn-n-pdpactv	Total number of duplicate context activation requests for 2G service which are not in PDP active state with duplicate PDP address and access point name.	Int32
3G-ms-modify-req	Total number of MS initiated PDP context modification requests received for 3G service.	Int32
2G-ms-modify-req	Total number of MS initiated PDP context modification requests received for 2G service.	Int32
3G-ms-modify-accept	Total number of MS initiated PDP context modification requests accepted for 3G service.	Int32
2G-ms-modify-accept	Total number of MS initiated PDP context modification requests accepted for 2G service.	Int32
3G-ms-modify-rej	Total number of MS initiated PDP context modification requests rejected for 3G service.	Int32
2G-ms-modify-rej	Total number of MS initiated PDP context modification requests rejected for 2G service.	Int32
3G-nw-modify-req	Total number of network initiated PDP context modification requests received for 3G service.	Int32
2G-nw-modify-req	Total number of network initiated PDP context modification requests received for 2G service.	Int32
3G-nw-ret-modify-req	Total number of retransmitted network initiated PDP context modification requests received for 3G service.	Int32
2G-nw-ret-modify-req	Total number of retransmitted network initiated PDP context modification requests received for 2G service.	Int32
3G-nw-modify-accept	Total number of network initiated PDP context modification requests accepted for 3G service.	Int32
2G-nw-modify-accept	Total number of network initiated PDP context modification requests accepted for 2G service.	Int32
3G-nw-modify-rej	Total number of network initiated PDP context modification requests rejected for 3G service.	Int32
2G-nw-modify-rej	Total number of network initiated PDP context modification requests rejected for 2G service.	Int32
3G-ms-modify-rej-insufficient-resources	Total number of MS initiated modify PDP context requests for 3G service rejected due to insufficient resources.	Int32
2G-ms-modify-rej-insufficient-resources	Total number of MS initiated modify PDP context requests for 2G service rejected due to insufficient resources.	Int32
3G-ms-modify-rej-service-opt-not-supported	Total number of MS initiated modify PDP context requests for 3G service rejected as requested service option is not supported.	Int32
2G-ms-modify-rej-service-opt-not-supported	Total number of MS initiated modify PDP context requests for 2G service rejected as requested service option is not supported.	Int32
3G-ms-modify-rej-semantic-err-tft-operation	Total number of MS initiated modify PDP context requests for 3G service rejected due to semantic error in subscriber traffic flow template processing.	Int32

Statistic	Description	Data Type
2G-ms-modify-rej-semantic-err-tft-operation	Total number of MS initiated modify PDP context requests for 2G service rejected due to semantic error in subscriber traffic flow template processing.	Int32
3G-ms-modify-rej-syntax-err-tft-operation	Total number of MS initiated modify PDP context requests for 3G service rejected due to syntax error in subscriber traffic flow template operation.	Int32
2G-ms-modify-rej-syntax-err-tft-operation	Total number of MS initiated modify PDP context requests for 2G service rejected due to syntax error in subscriber traffic flow template operation.	Int32
3G-ms-modify-rej-semantic-err-pkt-filter	Total number of MS initiated modify PDP context requests for 3G service rejected due to semantic error in packet filter.	Int32
2G-ms-modify-rej-semantic-err-pkt-filter	Total number of MS initiated modify PDP context requests for 2G service rejected due to semantic error in packet filter.	Int32
3G-ms-modify-rej-syntax-err-pkt-filter	Total number of MS initiated modify PDP context requests for 3G service rejected due to syntax error in packet filter.	Int32
2G-ms-modify-rej-syntax-err-pkt-filter	Total number of MS initiated modify PDP context requests for 2G service rejected due to syntax error in packet filter.	Int32
3G-ms-modify-rej-semantic-incorrect-message	Total number of MS initiated modify PDP context requests for 3G service rejected due to semantically incorrect message.	Int32
2G-ms-modify-rej-semantic-incorrect-message	Total number of MS initiated modify PDP context requests for 2G service rejected due to semantically incorrect message.	Int32
3G-ms-modify-rej-invalid-mand-info	Total number of MS initiated modify PDP context requests for 3G service rejected as mandatory information in message is invalid.	Int32
2G-ms-modify-rej-invalid-mand-info	Total number of MS initiated modify PDP context requests for 2G service rejected as mandatory information in message is invalid.	Int32
3G-ms-modify-rej-msg-non-existent	Total number of MS initiated requests to modify PDP context for 3G service rejected due to non-existent type of message.	Int32
2G-ms-modify-rej-msg-non-existent	Total number of MS initiated requests to modify PDP context for 2G service rejected due to non-existent type of message.	Int32
3G-ms-modify-rej-ie-non-existent	Total number of MS initiated modify PDP context requests for 3G service rejected due to non-existence of information element.	Int32
2G-ms-modify-rej-ie-non-existent	Total number of MS initiated modify PDP context requests for 2G service rejected due to non-existence of information element.	Int32
3G-ms-modify-rej-conditional-ie-err	Total number of MS initiated modify PDP context requests for 3G service rejected due to error in conditional information element.	Int32
2G-ms-modify-rej-conditional-ie-err	Total number of MS initiated modify PDP context requests for 2G service rejected due to error in conditional information element.	Int32

## Common Statistics

Statistic	Description	Data Type
3G-ms-modify-rej-msg-not-compatible-prot-state	Total number of MS initiated modify PDP context requests for 3G service rejected as message is not compatible with protocol state.	Int32
2G-ms-modify-rej-msg-not-compatible-prot-state	Total number of MS initiated modify PDP context requests for 2G service rejected as message is not compatible with protocol state.	Int32
3G-ms-modify-rej-rcvry-on-tmr-expiry	Total number of MS initiated modify PDP context requests for 3G service rejected as timer expired for recovery.	Int32
2G-ms-modify-rej-rcvry-on-tmr-expiry	Total number of MS initiated modify PDP context requests for 2G service rejected as timer expired for recovery.	Int32
3G-ms-modify-rej-prot-err-unspec	Total number of MS initiated modify PDP context requests for 3G service rejected due to unspecified protocol error.	Int32
2G-ms-modify-rej-prot-err-unspec	Total number of MS initiated modify PDP context requests for 2G service rejected due to unspecified protocol error.	Int32
3G-modify-rej-insufficient-resources	Total number of requests to modify PDP context for 3G service rejected due to insufficient resources.	Int32
2G-modify-rej-insufficient-resources	Total number of requests to modify PDP context for 2G service rejected due to insufficient resources.	Int32
3G-modify-rej-service-opt-not-supported	Total number of requests to modify PDP context for 3G service rejected as requested service option is not supported.	Int32
2G-modify-rej-service-opt-not-supported	Total number of requests to modify PDP context for 2G service rejected as requested service option is not supported.	Int32
3G-modify-rej-semantic-err-tft-operation	Total number of requests to modify PDP context for 3G service rejected due to semantic error in subscriber traffic flow template processing.	Int32
2G-modify-rej-semantic-err-tft-operation	Total number of requests to modify PDP context for 2G service rejected due to semantic error in subscriber traffic flow template processing.	Int32
3G-modify-rej-syntax-err-tft-operation	Total number of requests to modify PDP context for 3G service rejected due to syntax error in subscriber traffic flow template operation.	Int32
2G-modify-rej-syntax-err-tft-operation	Total number of requests to modify PDP context for 2G service rejected due to syntax error in subscriber traffic flow template operation.	Int32
3G-modify-rej-semantic-err-pkt-filter	Total number of requests to modify PDP context for 3G service rejected due to semantic error in packet filter.	Int32

Statistic	Description	Data Type
2G-modify-rej-semnatic-err-pkt-filter	Total number of requests to modify PDP context for 2G service rejected due to semantic error in packet filter.	Int32
3G-modify-rej-syntax-err-pkt-filter	Total number of requests to modify PDP context for 3G service rejected due to syntax error in packet filter.	Int32
2G-modify-rej-syntax-err-pkt-filter	Total number of requests to modify PDP context for 2G service rejected due to syntax error in packet filter.	Int32
3G-modify-rej-semnatic-incorrect-message	Total number of requests to modify PDP context for 3G service rejected due to semantically incorrect message.	Int32
2G-modify-rej-semnatic-incorrect-message	Total number of requests to modify PDP context for 2G service rejected due to semantically incorrect message.	Int32
3G-modify-rej-invalid-mand-info	Total number of requests to modify PDP context for 3G service rejected as mandatory information in message is invalid.	Int32
2G-modify-rej-invalid-mand-info	Total number of requests to modify PDP context for 2G service rejected as mandatory information in message is invalid.	Int32
3G-modify-rej-msg-non-existent	Total number of MS initiated requests to modify PDP context for 3G service rejected due to non-existent type of message.	Int32
2G-modify-rej-msg-non-existent	Total number of MS initiated requests to modify PDP context for 2G service rejected due to non-existent type of message.	Int32
3G-modify-rej-ie-non-existent	Total number of requests to modify PDP context for 3G service rejected due to non-existence of information element.	Int32
2G-modify-rej-ie-non-existent	Total number of requests to modify PDP context for 2G service rejected due to non-existence of information element.	Int32
3G-modify-rej-conditional-ie-err	Total number of requests to modify PDP context for 3G service rejected due to error in conditional information element.	Int32
2G-modify-rej-conditional-ie-err	Total number of requests to modify PDP context for 2G service rejected due to error in conditional information element.	Int32
3G-modify-rej-msg-not-compatible-prot-state	Total number of requests to modify PDP context for 3G service rejected as message is not compatible with protocol state.	Int32
2G-modify-rej-msg-not-compatible-prot-state	Total number of requests to modify PDP context for 2G service rejected as message is not compatible with protocol state.	Int32
3G-modify-rej-rcvry-on-tmr-expiry	Total number of requests to modify PDP context for 3G service rejected as timer expired for recovery.	Int32
2G-modify-rej-rcvry-on-tmr-expiry	Total number of requests to modify PDP context for 2G service rejected as timer expired for recovery.	Int32

## Common Statistics

Statistic	Description	Data Type
3G-modify-rej-prot-err-unspec	Total number of requests to modify PDP context for 3G service rejected due to unspecified protocol error.	Int32
2G-modify-rej-prot-err-unspec	Total number of requests to modify PDP context for 2G service rejected due to unspecified protocol error.	Int32
3G-ms-deactiv-req	Total number of MS initiated PDP context deactivation requests received for 3G service.	Int32
2G-ms-deactiv-req	Total number of MS initiated PDP context deactivation requests received for 2G service.	Int32
3G-ms-deactiv-accept	<b>Description:</b> Total number of MS initiated PDP context deactivation requests sent to MS accepted for 3G service. <b>Triggers:</b> Increments when the SGSN sends Deactivate Accept in response to MS initiated PDP deactivation. <b>Availability:</b> per SGSN service, per RAI <b>Type:</b> Counter	Int32
2G-ms-deactiv-accept	<b>Description:</b> Total number of MS initiated PDP context deactivation requests sent to MS accepted for 2G service. <b>Triggers:</b> Increments when the SGSN sends Deactivate Accept in response to MS initiated PDP deactivation. <b>Availability:</b> per GPRS service <b>Type:</b> Counter	Int32
3G-ms-deactiv-reject	Total number of MS initiated PDP context deactivation requests rejected for 3G service.	Int32
2G-ms-deactiv-reject	Total number of MS initiated PDP context deactivation requests rejected for 2G service.	Int32
3G-ms-deactiv-rej-rx-odb	Total number of MS initiated PDP context deactivation requests rejected for 3G service due to operator determined barring.	Int32
2G-ms-deactiv-rej-rx-odb	Total number of MS initiated PDP context deactivation requests rejected for 2G service due to operator determined barring.	Int32
3G-ms-deactiv-rej-rx-mbms-cap-insuff-res	Total number of MS initiated PDP context deactivation requests rejected for 3G service due to insufficient resources for Multimedia Broadcast/Multicast Service (MBMS) capability.	Int32
2G-ms-deactiv-rej-rx-mbms-cap-insuff-res	Total number of MS initiated PDP context deactivation requests rejected for 2G service due to insufficient resources for Multimedia Broadcast/Multicast Service (MBMS) capability.	Int32
3G-ms-deactiv-rej-rx-llc-sndcp-fail-gb	Total number of MS initiated PDP context deactivation requests rejected for 3G service due to failure at the logical link control with sub network dependent convergence protocol at Gb interface.	Int32
2G-ms-deactiv-rej-rx-llc-sndcp-fail-gb	Total number of MS initiated PDP context deactivation requests rejected for 2G service due to failure at the logical link control with sub network dependent convergence protocol at Gb interface.	Int32
3G-ms-deactiv-rej-rx-insuff-res	Total number of MS initiated PDP context deactivation requests rejected due to insufficient resources in download direction for 3G service.	Int32
2G-ms-deactiv-rej-rx-insuff-res	Total number of MS initiated PDP context deactivation requests rejected due to insufficient resources in download direction for 2G service.	Int32

Statistic	Description	Data Type
3G-ms-deactiv-rej-rx-miss-unkwn-apn	Total number of MS initiated PDP context deactivation requests rejected due to missing or unknown APN for 3G service.	Int32
2G-ms-deactiv-rej-rx-miss-unkwn-apn	Total number of MS initiated PDP context deactivation requests rejected due to missing or unknown APN for 2G service.	Int32
3G-ms-deactiv-rej-rx-unkwn-pdp-addr	Total number of MS initiated PDP context deactivation requests rejected due to unknown PDP context name or address for 3G service.	Int32
2G-ms-deactiv-rej-rx-unkwn-pdp-addr	Total number of MS initiated PDP context deactivation requests rejected due to unknown PDP context name or address for 2G service.	Int32
3G-ms-deactiv-rej-rx-usr-auth-fail	Total number of MS initiated PDP context deactivation requests rejected as user authentication failed for 3G service.	Int32
2G-ms-deactiv-rej-rx-usr-auth-fail	Total number of MS initiated PDP context deactivation requests rejected as user authentication failed for 2G service.	Int32
3G-ms-deactiv-rej-rx-actv-rej-ggsn	Total number of MS initiated PDP context deactivation requests rejected as request rejected by corresponding GGSN for 3G service.	Int32
2G-ms-deactiv-rej-rx-actv-rej-ggsn	Total number of MS initiated PDP context deactivation requests rejected as request rejected by corresponding GGSN for 2G service.	Int32
3G-ms-deactiv-rej-rx-actv-rej-unspec	Total number of MS initiated PDP context deactivation requests rejected due to unknown or unspecified reasons for 3G service.	Int32
2G-ms-deactiv-rej-rx-actv-rej-unspec	Total number of MS initiated PDP context deactivation requests rejected due to unknown or unspecified reasons for 2G service.	Int32
3G-ms-deactiv-rej-rx-service-opt-no-support	Total number of MS initiated PDP context deactivation requests rejected as requested service option is not supported for 3G service.	Int32
2G-ms-deactiv-rej-rx-service-opt-no-support	Total number of MS initiated PDP context deactivation requests rejected as requested service option is not supported for 2G service.	Int32
3G-ms-deactiv-rej-rx-service-opt-no-subs	Total number of MS initiated PDP context deactivation requests rejected as subscriber is not subscribed requested service option for 3G service.	Int32
2G-ms-deactiv-rej-rx-service-opt-no-subs	Total number of MS initiated PDP context deactivation requests rejected as subscriber is not subscribed requested service option for 2G service.	Int32
3G-ms-deactiv-rej-rx-svc-opt-temp-out-order	Total number of MS initiated PDP context deactivation requests rejected as requested service option is temporarily out of order for 3G service.	Int32
2G-ms-deactiv-rej-rx-svc-opt-temp-out-order	Total number of MS initiated PDP context deactivation requests rejected as requested service option is temporarily out of order for 2G service.	Int32
3G-ms-deactiv-rej-rx-nsapi-already-used	Total number of MS initiated PDP context deactivation requests rejected as requested NSAPI is already in use for 3G service.	Int32

## Common Statistics

Statistic	Description	Data Type
2G-ms-deactiv-rej-rx-nsapi-already-used	Total number of MS initiated PDP context deactivation requests rejected as requested NSAPI is already in use for 2G service.	Int32
3G-ms-deactiv-rej-rx-reg-deactiv	Total number of MS initiated PDP context deactivation requests rejected due to registration of deactivate message for 3G service.	Int32
2G-ms-deactiv-rej-rx-reg-deactiv	Total number of MS initiated PDP context deactivation requests rejected due to registration of deactivate message for 2G service.	Int32
3G-ms-deactiv-rej-rx-qos-not-acc	Total number of MS initiated PDP context deactivation requests rejected as requested QoS is not accepted for 3G service.	Int32
2G-ms-deactiv-rej-rx-qos-not-acc	Total number of MS initiated PDP context deactivation requests rejected as requested QoS is not accepted for 2G service.	Int32
3G-ms-deactiv-rej-rx-nwt-fail	Total number of MS initiated PDP context deactivation requests rejected due to network failure for 3G service.	Int32
2G-ms-deactiv-rej-rx-nwt-fail	Total number of MS initiated PDP context deactivation requests rejected due to network failure for 2G service.	Int32
3G-ms-deactiv-rej-rx-reactivation-req	Total number of MS initiated PDP context deactivation requests rejected due re-activation request arrived before completion of deactivation procedure for 3G service.	Int32
2G-ms-deactiv-rej-rx-reactivation-req	Total number of MS initiated PDP context deactivation requests rejected due re-activation request arrived before completion of deactivation procedure for 2G service.	Int32
3G-ms-deactiv-rej-rx-no-feature-support	Total number of MS initiated PDP context deactivation requests for 3G service rejected as requested feature is not supported.	Int32
2G-ms-deactiv-rej-rx-no-feature-support	Total number of MS initiated PDP context deactivation requests for 2G service rejected as requested feature is not supported.	Int32
3G-ms-deactiv-rej-rx-sem-err-tft-op	Total number of MS initiated PDP context deactivation requests for 3G service rejected due to semantic error in subscriber TFT option.	Int32
2G-ms-deactiv-rej-rx-sem-err-tft-op	Total number of MS initiated PDP context deactivation requests for 2G service rejected due to semantic error in subscriber TFT option.	Int32
3G-ms-deactiv-rej-rx-syn-err-tft-op	Total number of MS initiated PDP context deactivation requests for 3G service rejected due to syntax error in subscriber TFT option.	Int32
2G-ms-deactiv-rej-rx-syn-err-tft-op	Total number of MS initiated PDP context deactivation requests for 2G service rejected due to syntax error in subscriber TFT option.	Int32
3G-ms-deactiv-rej-rx-unknown-ctx	Total number of MS initiated PDP context deactivation requests for 3G service rejected due to unknown context in request.	Int32
2G-ms-deactiv-rej-rx-unknown-ctx	Total number of MS initiated PDP context deactivation requests for 2G service rejected due to unknown context in request.	Int32
3G-ms-deactiv-rej-rx-ctx-no-tft-already-actv	Total number of MS initiated PDP context deactivation requests for 3G service rejected as no TFT is active in this context.	Int32

Statistic	Description	Data Type
2G-ms-deactiv-rej-rx-ctx-no-tft-already-actv	Total number of MS initiated PDP context deactivation requests for 2G service rejected as no TFT is active in this context.	Int32
3G-ms-deactiv-rej-rx-mcast-grp-mem-tout	Total number of MS initiated PDP context deactivation requests for 3G service rejected as multicast group memory is timed-out.	Int32
2G-ms-deactiv-rej-rx-mcast-grp-mem-tout	Total number of MS initiated PDP context deactivation requests for 2G service rejected as multicast group memory is timed-out.	Int32
3G-ms-deactiv-rej-rx-sem-err-pkt-filter	Total number of MS initiated PDP context deactivation requests for 3G service rejected due to semantic error in packet filter.	Int32
2G-ms-deactiv-rej-rx-sem-err-pkt-filter	Total number of MS initiated PDP context deactivation requests for 2G service rejected due to semantic error in packet filter.	Int32
3G-ms-deactiv-rej-rx-syn-err-pkt-filter	Total number of MS initiated PDP context deactivation requests for 3G service rejected due to syntax error in packet filter.	Int32
2G-ms-deactiv-rej-rx-syn-err-pkt-filter	Total number of MS initiated PDP context deactivation requests for 2G service rejected due to syntax error in packet filter.	Int32
3G-ms-deactiv-rej-rx-invalid-trans-id	Total number of MS initiated PDP context deactivation requests for 3G service rejected due to invalid transaction id.	Int32
2G-ms-deactiv-rej-rx-invalid-trans-id	Total number of MS initiated PDP context deactivation requests for 2G service rejected due to invalid transaction id.	Int32
3G-ms-deactiv-rej-rx-sem-incorrect-msg	Total number of MS initiated PDP context deactivation requests for 3G service rejected due to semantically incorrect message.	Int32
2G-ms-deactiv-rej-rx-sem-incorrect-msg	Total number of MS initiated PDP context deactivation requests for 2G service rejected due to semantically incorrect message.	Int32
3G-ms-deactiv-rej-rx-inval-mand-info	Total number of MS initiated PDP context deactivation requests for 3G service rejected as mandatory information in message is invalid.	Int32
2G-ms-deactiv-rej-rx-inval-mand-info	Total number of MS initiated PDP context deactivation requests for 2G service rejected as mandatory information in message is invalid.	Int32
3G-ms-deactiv-rej-rx-msg-non-existent	Total number of MS initiated PDP context deactivation requests for 3G service rejected due to non-existent type of message.	Int32
2G-ms-deactiv-rej-rx-msg-non-existent	Total number of MS initiated PDP context deactivation requests for 2G service rejected due to non-existent type of message.	Int32
3G-ms-deactiv-rej-rx-ie-non-existent	Total number of MS initiated PDP context deactivation requests for 3G service rejected due to non-existence of information element.	Int32
2G-ms-deactiv-rej-rx-ie-non-existent	Total number of MS initiated PDP context deactivation requests for 2G service rejected due to non-existence of information element.	Int32
3G-ms-deactiv-rej-rx-cond-ie-err	Total number of MS initiated PDP context deactivation requests for 3G service rejected due to error in conditional information element.	Int32

## ■ Common Statistics

Statistic	Description	Data Type
2G-ms-deactiv-rej-rx-cond-ie-err	Total number of MS initiated PDP context deactivation requests for 2G service rejected due to error in conditional information element.	Int32
3G-ms-deactiv-rej-rx-prot-err-unspec	Total number of MS initiated PDP context deactivation requests for 3G service rejected due to unspecified protocol error.	Int32
2G-ms-deactiv-rej-rx-prot-err-unspec	Total number of MS initiated PDP context deactivation requests for 2G service rejected due to unspecified protocol error.	Int32
3G-ms-deactiv-rej-rx-apn-rest-incomap-actv-pdp	Total number of MS initiated PDP context deactivation requests for 3G service rejected due to incompatible APN for PDP context activation.	Int32
2G-ms-deactiv-rej-rx-apn-rest-incomap-actv-pdp	Total number of MS initiated PDP context deactivation requests for 2G service rejected due to incompatible APN for PDP context activation.	Int32
3G-ms-deactiv-rej-rx-msg-not-compat-prot-state	Total number of MS initiated PDP context deactivation requests for 3G service rejected as message is not compatible with protocol state.	Int32
2G-ms-deactiv-rej-rx-msg-not-compat-prot-state	Total number of MS initiated PDP context deactivation requests for 2G service rejected as message is not compatible with protocol state.	Int32
3G-ms-deactiv-rej-rx-rcvry-on-tmr-expiry	Total number of MS initiated PDP context deactivation requests for 3G service rejected as timer expired for recovery.	Int32
2G-ms-deactiv-rej-rx-rcvry-on-tmr-expiry	Total number of MS initiated PDP context deactivation requests for 2G service rejected as timer expired for recovery.	Int32
3G-sgsn-init-deact-req	Total number of SGSN initiated PDP context deactivation requests received for 3G service.	Int32
2G-sgsn-init-deact-req	Total number of SGSN initiated PDP context deactivation requests received for 2G service.	Int32
3G-sgsn-init-deact-acc	<b>Description:</b> Total number of SGSN initiated PDP context deactivation requests received from MS accepted for 3G service. <b>Triggers:</b> Increments when the SGSN receives Deactivate Accept corresponding to SGSN initiated Deactivation Request sent to MS. <b>Availability:</b> per SGSN service, per RAI <b>Type:</b> Counter	Int32
2G-sgsn-init-deact-acc	<b>Description:</b> Total number of SGSN initiated PDP context deactivation requests received from MS accepted for 2G service. <b>Triggers:</b> Increments when the SGSN receives Deactivate Accept corresponding to SGSN initiated Deactivation Request sent to MS. <b>Availability:</b> per GPRS service <b>Type:</b> Counter	Int32
3G-sgsn-init-deact-rej	Total number of SGSN initiated PDP context deactivation requests rejected for 3G service.	Int32

Statistic	Description	Data Type
2G-sgsn-init-deact-rej	Total number of SGSN initiated PDP context deactivation requests rejected for 2G service.	Int32
3G-ggsn-init-deact-req	Total number of GGSN initiated PDP context deactivation requests received for 3G service.	Int32
2G-ggsn-init-deact-req	Total number of GGSN initiated PDP context deactivation requests received for 2G service.	Int32
3G-ggsn-init-deact-acc	<b>Description:</b> Total number of GGSN initiated PDP context deactivation requests received from MS accepted for 3G service. <b>Triggers:</b> Increments when the SGSN receives Deactivate Accept corresponding to GGSN initiated Deactivation Request sent to MS. <b>Availability:</b> per SGSN service, per RAI <b>Type:</b> Counter	Int32
2G-ggsn-init-deact-acc	<b>Description:</b> Total number of GGSN initiated PDP context deactivation requests received from MS accepted for 2G service. <b>Triggers:</b> Increments when the SGSN receives Deactivate Accept corresponding to GGSN initiated Deactivation Request sent to MS. <b>Availability:</b> per GPRS service <b>Type:</b> Counter	Int32
3G-ggsn-init-deact-rej	Total number of GGSN initiated PDP context deactivation requests rejected for 3G service.	Int32
2G-ggsn-init-deact-rej	Total number of GGSN initiated PDP context deactivation requests rejected for 2G service.	Int32
3G-hlr-init-deact-req	Total number of HLR initiated PDP context deactivation requests received for 3G service.	Int32
2G-hlr-init-deact-req	Total number of HLR initiated PDP context deactivation requests received for 2G service.	Int32
3G-hlr-init-deact-acc	<b>Description:</b> Total number of HLR initiated PDP context deactivation requests received from MS accepted for 3G service. <b>Triggers:</b> Increments when the SGSN receives Deactivate Accept corresponding to HLR initiated Deactivation Request sent to MS. <b>Availability:</b> per SGSN service, per RAI <b>Type:</b> Counter	Int32
2G-hlr-init-deact-acc	<b>Description:</b> Total number of HLR initiated PDP context deactivation requests received from MS accepted for 2G service. <b>Triggers:</b> Increments when the SGSN receives Deactivate Accept corresponding to HLR initiated Deactivation Request sent to MS. <b>Availability:</b> per GPRS service <b>Type:</b> Counter	Int32
3G-hlr-init-deact-rej	Total number of HLR initiated PDP context deactivation requests rejected for 3G service.	Int32
2G-hlr-init-deact-rej	Total number of HLR initiated PDP context deactivation requests rejected for 2G service.	Int32

## Common Statistics

Statistic	Description	Data Type
3G-nw-deactiv-rej-tx-odb	Total number of MS initiated PDP context deactivation requests rejected for 3G service due to operator determined barring.	Int32
2G-nw-deactiv-rej-tx-odb	Total number of MS initiated PDP context deactivation requests rejected for 2G service due to operator determined barring.	Int32
3G-nw-deactiv-rej-tx-mbms-cap-insuff-res	Total number of MS initiated PDP context deactivation requests rejected for 3G service due to insufficient resources for Multimedia Broadcast/Multicast Service (MBMS) capability.	Int32
2G-nw-deactiv-rej-tx-mbms-cap-insuff-res	Total number of MS initiated PDP context deactivation requests rejected for 2G service due to insufficient resources for Multimedia Broadcast/Multicast Service (MBMS) capability.	Int32
3G-nw-deactiv-rej-tx-llc-sndcp-fail-gb	Total number of MS initiated PDP context deactivation requests rejected for 3G service due to failure at the logical link control with sub network dependent convergence protocol at Gb interface.	Int32
2G-nw-deactiv-rej-tx-llc-sndcp-fail-gb	Total number of MS initiated PDP context deactivation requests rejected for 2G service due to failure at the logical link control with sub network dependent convergence protocol at Gb interface.	Int32
3G-nw-deactiv-rej-tx-insuff-res	Total number of MS initiated PDP context deactivation requests rejected due to insufficient resources in download direction for 3G service.	Int32
2G-nw-deactiv-rej-tx-insuff-res	Total number of MS initiated PDP context deactivation requests rejected due to insufficient resources in download direction for 2G service.	Int32
3G-nw-deactiv-rej-tx-miss-unkwn-apn	Total number of MS initiated PDP context deactivation requests rejected due to missing or unknown APN for 3G service.	Int32
2G-nw-deactiv-rej-tx-miss-unkwn-apn	Total number of MS initiated PDP context deactivation requests rejected due to missing or unknown APN for 2G service.	Int32
3G-nw-deactiv-rej-tx-unkwn-pdp-addr	Total number of MS initiated PDP context deactivation requests rejected due to unknown PDP context name or address for 3G service.	Int32
2G-nw-deactiv-rej-tx-unkwn-pdp-addr	Total number of MS initiated PDP context deactivation requests rejected due to unknown PDP context name or address for 2G service.	Int32
3G-nw-deactiv-rej-tx-usr-auth-fail	Total number of MS initiated PDP context deactivation requests rejected as user authentication failed for 3G service.	Int32
2G-nw-deactiv-rej-tx-usr-auth-fail	Total number of MS initiated PDP context deactivation requests rejected as user authentication failed for 2G service.	Int32
3G-nw-deactiv-rej-tx-actv-rej-ggsn	Total number of MS initiated PDP context deactivation requests rejected as request rejected by corresponding GGSN for 3G service.	Int32
2G-nw-deactiv-rej-tx-actv-rej-ggsn	Total number of MS initiated PDP context deactivation requests rejected as request rejected by corresponding GGSN for 2G service.	Int32
3G-nw-deactiv-rej-tx-actv-rej-unspec	Total number of MS initiated PDP context deactivation requests rejected due to unknown or unspecified reasons for 3G service.	Int32
2G-nw-deactiv-rej-tx-actv-rej-unspec	Total number of MS initiated PDP context deactivation requests rejected due to unknown or unspecified reasons for 2G service.	Int32

Statistic	Description	Data Type
3G-nw-deactiv-rej-tx-service-opt-no-support	Total number of MS initiated PDP context deactivation requests rejected as requested service option is not supported for 3G service.	Int32
2G-nw-deactiv-rej-tx-service-opt-no-support	Total number of MS initiated PDP context deactivation requests rejected as requested service option is not supported for 2G service.	Int32
3G-nw-deactiv-rej-tx-service-opt-no-subs	Total number of MS initiated PDP context deactivation requests rejected as subscriber is not subscribed requested service option for 3G service.	Int32
2G-nw-deactiv-rej-tx-service-opt-no-subs	Total number of MS initiated PDP context deactivation requests rejected as subscriber is not subscribed requested service option for 2G service.	Int32
3G-nw-deactiv-rej-tx-svc-opt-temp-out-order	Total number of MS initiated PDP context deactivation requests rejected as requested service option is temporarily out of order for 3G service.	Int32
2G-nw-deactiv-rej-tx-svc-opt-temp-out-order	Total number of MS initiated PDP context deactivation requests rejected as requested service option is temporarily out of order for 2G service.	Int32
3G-nw-deactiv-rej-tx-nsapi-already-used	Total number of MS initiated PDP context deactivation requests rejected as requested NSAPI is already in use for 3G service.	Int32
2G-nw-deactiv-rej-tx-nsapi-already-used	Total number of MS initiated PDP context deactivation requests rejected as requested NSAPI is already in use for 2G service.	Int32
3G-nw-deactiv-rej-tx-reg-deactiv	Total number of MS initiated PDP context deactivation requests rejected due to registration of deactivate message for 3G service.	Int32
2G-nw-deactiv-rej-tx-reg-deactiv	Total number of MS initiated PDP context deactivation requests rejected due to registration of deactivate message for 2G service.	Int32
3G-nw-deactiv-rej-tx-qos-not-acc	Total number of MS initiated PDP context deactivation requests rejected as requested QoS is not accepted for 3G service.	Int32
2G-nw-deactiv-rej-tx-qos-not-acc	Total number of MS initiated PDP context deactivation requests rejected as requested QoS is not accepted for 2G service.	Int32
3G-nw-deactiv-rej-tx-nwt-fail	Total number of MS initiated PDP context deactivation requests rejected due to network failure for 3G service.	Int32
2G-nw-deactiv-rej-tx-nwt-fail	Total number of MS initiated PDP context deactivation requests rejected due to network failure for 2G service.	Int32
3G-nw-deactiv-rej-tx-reactivation-req	Total number of MS initiated PDP context deactivation requests rejected due re-activation request arrived before completion of deactivation procedure for 3G service.	Int32
2G-nw-deactiv-rej-tx-reactivation-req	Total number of MS initiated PDP context deactivation requests rejected due re-activation request arrived before completion of deactivation procedure for 2G service.	Int32

Statistic	Description	Data Type
3G-nw-deactiv-rej-tx-no-feature-support	Total number of MS initiated PDP context deactivation requests for 3G service rejected as requested feature is not supported.	Int32
2G-nw-deactiv-rej-tx-no-feature-support	Total number of MS initiated PDP context deactivation requests for 2G service rejected as requested feature is not supported.	Int32
3G-nw-deactiv-rej-tx-sem-err-tft-op	Total number of MS initiated PDP context deactivation requests for 3G service rejected due to semantic error in subscriber TFT option.	Int32
2G-nw-deactiv-rej-tx-sem-err-tft-op	Total number of MS initiated PDP context deactivation requests for 2G service rejected due to semantic error in subscriber TFT option.	Int32
3G-nw-deactiv-rej-tx-syn-err-tft-op	Total number of MS initiated PDP context deactivation requests for 3G service rejected due to syntax error in subscriber TFT option.	Int32
2G-nw-deactiv-rej-tx-syn-err-tft-op	Total number of MS initiated PDP context deactivation requests for 2G service rejected due to syntax error in subscriber TFT option.	Int32
3G-nw-deactiv-rej-tx-unknown-ctx	Total number of MS initiated PDP context deactivation requests for 3G service rejected due to unknown context in request.	Int32
2G-nw-deactiv-rej-tx-unknown-ctx	Total number of MS initiated PDP context deactivation requests for 2G service rejected due to unknown context in request.	Int32
3G-nw-deactiv-rej-tx-ctx-no-tft-already-actv	Total number of MS initiated PDP context deactivation requests for 3G service rejected as no TFT is active in this context.	Int32
2G-nw-deactiv-rej-tx-ctx-no-tft-already-actv	Total number of MS initiated PDP context deactivation requests for 2G service rejected as no TFT is active in this context.	Int32
3G-nw-deactiv-rej-tx-mcast-grp-mem-tout	Total number of MS initiated PDP context deactivation requests for 3G service rejected as multicast group memory is timed-out.	Int32
2G-nw-deactiv-rej-tx-mcast-grp-mem-tout	Total number of MS initiated PDP context deactivation requests for 2G service rejected as multicast group memory is timed-out.	Int32
3G-nw-deactiv-rej-tx-sem-err-pkt-filter	Total number of MS initiated PDP context deactivation requests for 3G service rejected due to semantic error in packet filter.	Int32
2G-nw-deactiv-rej-tx-sem-err-pkt-filter	Total number of MS initiated PDP context deactivation requests for 2G service rejected due to semantic error in packet filter.	Int32
3G-nw-deactiv-rej-tx-syn-err-pkt-filter	Total number of MS initiated PDP context deactivation requests for 3G service rejected due to syntax error in packet filter.	Int32
2G-nw-deactiv-rej-tx-syn-err-pkt-filter	Total number of MS initiated PDP context deactivation requests for 2G service rejected due to syntax error in packet filter.	Int32
3G-nw-deactiv-rej-tx-invalid-trans-id	Total number of MS initiated PDP context deactivation requests for 3G service rejected due to invalid transaction id.	Int32

Statistic	Description	Data Type
2G-nw-deactiv-rej-tx-invalid-trans-id	Total number of MS initiated PDP context deactivation requests for 2G service rejected due to invalid transaction id.	Int32
3G-nw-deactiv-rej-tx-sem-incorrect-msg	Total number of MS initiated PDP context deactivation requests for 3G service rejected due to semantically incorrect message.	Int32
2G-nw-deactiv-rej-tx-sem-incorrect-msg	Total number of MS initiated PDP context deactivation requests for 2G service rejected due to semantically incorrect message.	Int32
3G-nw-deactiv-rej-tx-inval-mand-info	Total number of MS initiated PDP context deactivation requests for 3G service rejected as mandatory information in message is invalid.	Int32
2G-nw-deactiv-rej-tx-inval-mand-info	Total number of MS initiated PDP context deactivation requests for 2G service rejected as mandatory information in message is invalid.	Int32
3G-nw-deactiv-rej-tx-msg-non-existent	Total number of MS initiated PDP context deactivation requests for 3G service rejected due to non-existent type of message.	Int32
2G-nw-deactiv-rej-tx-msg-non-existent	Total number of MS initiated PDP context deactivation requests for 2G service rejected due to non-existent type of message.	Int32
3G-nw-deactiv-rej-tx-ie-non-existent	Total number of MS initiated PDP context deactivation requests for 3G service rejected due to non-existence of information element.	Int32
2G-nw-deactiv-rej-tx-ie-non-existent	Total number of MS initiated PDP context deactivation requests for 2G service rejected due to non-existence of information element.	Int32
3G-nw-deactiv-rej-tx-cond-ie-err	Total number of MS initiated PDP context deactivation requests for 3G service rejected due to error in conditional information element.	Int32
2G-nw-deactiv-rej-tx-cond-ie-err	Total number of MS initiated PDP context deactivation requests for 2G service rejected due to error in conditional information element.	Int32
3G-nw-deactiv-rej-tx-prot-err-unspec	Total number of MS initiated PDP context deactivation requests for 3G service rejected due to unspecified protocol error.	Int32
2G-nw-deactiv-rej-tx-prot-err-unspec	Total number of MS initiated PDP context deactivation requests for 2G service rejected due to unspecified protocol error.	Int32
3G-nw-deactiv-rej-tx-apn-rest-incomap-actv-pdp	Total number of MS initiated PDP context deactivation requests for 3G service rejected due to incompatible APN for PDP context activation.	Int32
2G-nw-deactiv-rej-tx-apn-rest-incomap-actv-pdp	Total number of MS initiated PDP context deactivation requests for 2G service rejected due to incompatible APN for PDP context activation.	Int32
3G-nw-deactiv-rej-tx-msg-not-compat-prot-state	Total number of MS initiated PDP context deactivation requests for 3G service rejected as message is not compatible with protocol state.	Int32
2G-nw-deactiv-rej-tx-msg-not-compat-prot-state	Total number of MS initiated PDP context deactivation requests for 2G service rejected as message is not compatible with protocol state.	Int32

## Common Statistics

Statistic	Description	Data Type
3G-nw-deactiv-rej-tx-rcvry-on-tmr-expiry	Total number of MS initiated PDP context deactivation requests for 3G service rejected as timer expired for recovery.	Int32
2G-nw-deactiv-rej-tx-rcvry-on-tmr-expiry	Total number of MS initiated PDP context deactivation requests for 2G service rejected as timer expired for recovery.	Int32
3G-total-sm-status-req-rx	Total number of session management (SM) status request messages received for 3G service.	Int32
2G-total-sm-status-req-rx	Total number of session management (SM) status request messages received for 2G service.	Int32
3G-total-sm-status-req-tx	Total number of session management (SM) status request messages sent for 3G service.	Int32
2G-total-sm-status-req-tx	Total number of session management (SM) status request messages sent for 2G service.	Int32
RNC-rab-modify-req	Total number of Radio Network Controller (RNC) initiated radio access bearer (RAB) modify requests received at the SGSN.	Int32
RNC-rab-rel-req	Total number of RNC initiated RAB release requests received at the SGSN.	Int32
RNC-rab-modify-num	Total number of RNC initiated RAB modified messages received.	Int32
RNC-rab-rel-num	Total number of RNC initiated RAB release requests handled at SGSN.	Int32
rab-assign-req	Total number of SGSN initiated RAB assignment requests sent to all RNCs.	Int32
rab-assign-rsp	Total number of SGSN initiated RAB assignment response received from all RNCs.	Int32
rab-assign-rej	This statistic has been obsoleted.	Int32
rab-setup-reattempt	Total number of radio access bearer (RAB) setup reattempted.	Int32
rab-set/mod-req	Total number of SGSN initiated RAB setup or modify requests sent to all RNCs.	Int32
rab-set/mod-acc	Total number of SGSN initiated RAB setup or modify accept messages received from all RNCs.	Int32
rab-set/mod-tmr-expired	Total events when RAB setup/modify timer expired.	Int32
rab-set/mod-fail	Total events when RAB setup/modify procedure failed	Int32
rab-rel-req	Total number of SGSN initiated RAB release request messages sent to all RNCs.	Int32
rab-rel-accept	Total number of SGSN initiated RAB release accept messages received from all RNCs.	Int32
rab-rel-tmr-expired	Total events when RAB release timer expired.	Int32
rab-rel-fail	Total radio access bearer release requests failed	Int32
rab-queued	Total radio access bearer requests queued for transmission.	Int32
rab-rel-pre-empt	Total number of RAB released due to pre-empted event.	Int32
rab-rel-utran	Total number of RAB released due to initiation from UTRAN.	Int32

Statistic	Description	Data Type
rab-rel-ue-radio-lost	Total number of RAB released due to UE radio connection lost.	Int32
total-rab-rej	Total RAB setup/modify/release requests rejected.	Int32
rab-rej-rab-preempt	<b>Description:</b> Total number of RAB requests rejected due to pre-empted event. <b>Triggers:</b> Increments when RNC initiated RAB release procedure sends RAB Release request with this cause. <b>Availability:</b> per SGSN service, per RAI <b>Type:</b> Counter	Int32
rab-rej-reloc-overall-tmr-exp	<b>Description:</b> Total number of RAB requests for relocation rejected due to expiry of timer TRELOCoverall. This specifies the maximum time for the protection of overall Relocation procedure in the source RNC. <b>Triggers:</b> Increments when the source RNC initiates the Iu Release Request procedure towards the SGSN with a cause value "TRELOCoverall expiry". <b>Availability:</b> per SGSN service, per RAI <b>Type:</b> Counter	Int32
rab-rej-reloc-prep-tmr-exp	<b>Description:</b> Total number of RAB requests for relocation rejected due to expiry of timer TRELOCprep. This specifies the maximum time for expiry of Relocation Preparation procedure in the source RNC. <b>Triggers:</b> Increments when the source RNC cancels the Relocation Preparation procedure by initiating the Relocation Cancel procedure with a cause value "TRELOCprep expiry". <b>Availability:</b> per SGSN service, per RAI <b>Type:</b> Counter	Int32
rab-rej-reloc-complete-tmr-exp	<b>Description:</b> Indicates the maximum time for waiting the relocation completion in the CN. <b>Triggers:</b> Increments when the SGSN initiate release of Iu connections towards the source and the target RNC initiates the Iu Release procedure with a cause value "TRELOCcomplete expiry". <b>Availability:</b> per SGSN service, per RAI <b>Type:</b> Counter	Int32
rab-rej-queuing-tmr-exp	<b>Description:</b> Indicates the maximum time in the RNC for queuing the request of RAB establishment or modification. <b>Triggers:</b> Increments when the RNC sends the RAB assignment response to report unsuccessful establishment/modification of RAB with the failed RAB ID list with the cause "Tqueuing Expiry". <b>Availability:</b> per SGSN service, per RAI <b>Type:</b> Counter	Int32
rab-rej-reloc-triggered	<b>Description:</b> Total number of RAB requests for relocation triggered. The action fails due to relocation of MS to another RNC. <b>Triggers:</b> Increments when the Relocation required message is sent with the cause "Relocation Triggered" to the SGSN. If the relocation becomes necessary during the RAB Assignment procedure, the RNC may interrupt the ongoing RAB Assignment procedure and initiate the Relocation Preparation procedure and send the RAB assignment response as failure cause "relocation required". <b>Availability:</b> per SGSN service, per RAI <b>Type:</b> Counter	Int32

Statistic	Description	Data Type
rab-rej-unable-to-est-reloc	<p><b>Description:</b> Total number of RAB requests rejected because RAB failed to establish during relocation as it cannot be supported in the target RNC or the RAB did not exist in the source RNC.</p> <p><b>Triggers:</b> Increments when the target RNC sends the RELOCATION REQUEST ACKNOWLEDGE message with a value in Cause IE “Unable to Establish During Relocation”, for the RABs rejected and received in RELOCATION REQUEST from SGSN, only if the Relocation Type IE is set to “UE involved in relocation of SRNS” in the request.</p> <p><b>Availability:</b> per SGSN service, per RAI</p> <p><b>Type:</b> Counter</p>	Int32
rab-rej-unknown-target-rnc	<p><b>Description:</b> Total number of RAB requests rejected due to unknown target RNC in request.</p> <p><b>Triggers:</b> Increments when the SGSN rejects the relocation of SRNS by sending a RELOCATION PREPARATION FAILURE message to the source RNC with Cause IE set to “Unknown target RNC”, if the target RNC is unknown to SGSN.</p> <p><b>Availability:</b> per SGSN service, per RAI</p> <p><b>Type:</b> Counter</p>	Int32
rab-rej-reloc-cancel	<p><b>Description:</b> Total number of RAB requests rejected as relocation was cancelled due to interaction with other procedures.</p> <p><b>Triggers:</b> Increments when SGSN issues the IU release command to RNC with the cause “Relocation Cancelled”, if the Relocation Preparation procedure is unsuccessfully terminated.</p> <p><b>Availability:</b> per SGSN service, per RAI</p> <p><b>Type:</b> Counter</p>	Int32
rab-rej-reloc-success	<p><b>Description:</b> Total number of RAB requests rejected due to completion of successful relocation.</p> <p><b>Triggers:</b> Increments when SGSN issues the IU release command to RNC with the cause “Successful Relocation”, if completion of successful relocation of SRNS happened.</p> <p><b>Availability:</b> per SGSN service, per RAI</p> <p><b>Type:</b> Counter</p>	Int32
rab-rej-cypher-algo-no-support	<p><b>Description:</b> Total number of RAB requests rejected as the UTRAN or the UE is unable to support the requested ciphering and/or integrity protection algorithms.</p> <p><b>Triggers:</b> If the target RNC cannot support any of the integrity protection (ciphering respectively) alternatives provided in the Integrity Protection Information IE or Encryption Information IE, in RELOCATION REQUEST from SGSN, it returns a RELOCATION FAILURE message with the cause “Requested Ciphering and/or Integrity Protection algorithms not supported”. RNC also sends the SECURITY MODE REJECT with the same cause for the same reason when receiving the SECURITY MODE COMMAND from SGSN.</p> <p><b>Availability:</b> per SGSN service, per RAI</p> <p><b>Type:</b> Counter</p>	Int32
rab-rej-conflict-cypher-info	<p><b>Description:</b> Total number of RAB requests rejected due to conflict with the requested security mode configuration and the already existing security mode configuration.</p> <p><b>Triggers:</b> If the target RNC receives a source RNC to target RNC Transparent Container IE containing Chosen Integrity Protection (Encryption respectively) Algorithm IE without Integrity Protection (Ciphering respectively) Key IE, it returns a RELOCATION FAILURE message with the cause “Conflict with already existing Integrity protection and/or Ciphering information”. RNC also sends the SECURITY MODE REJECT with the same cause for the same reason when receiving the SECURITY MODE COMMAND from SGSN.</p> <p><b>Availability:</b> per SGSN service, per RAI</p> <p><b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
rab-rej-failure-radio-if-proc	<p><b>Description:</b> Total number of RAB requests rejected due to failure in radio interface procedure.</p> <p><b>Triggers:</b> If the radio interface Security Mode Control procedure fails, a SECURITY MODE REJECT message will be sent to the SGSN with cause value "Failure in the Radio Interface Procedure" from RNC.</p> <p><b>Availability:</b> per SGSN service, per RAI</p> <p><b>Type:</b> Counter</p>	Int32
rab-rej-rel-utran-reason	<p><b>Description:</b> Total number of RAB requests rejected as RAB release is initiated due to UTRAN generated reason.</p> <p><b>Triggers:</b> Increments when RNC initiated RAB release procedure sends RAB Release request with this cause.</p> <p><b>Availability:</b> per SGSN service, per RAI</p> <p><b>Type:</b> Counter</p>	Int32
rab-rej-utran-inactivity	<p><b>Description:</b> Total number of RAB requests rejected as RAB released due to user inactivity at UTRAN on one or more non real time RABs in order to optimize radio resource.</p> <p><b>Triggers:</b> Increments when the source RNC initiates the Iu Release Request procedure towards the SGSN with a cause value "User Inactivity" for a particular MS.</p> <p><b>Availability:</b> per SGSN service, per RAI</p> <p><b>Type:</b> Counter</p>	Int32
rab-rej-time-crit-relocation	<p><b>Description:</b> Total number of RAB requests rejected as relocation is requested for time critical reason. This cause value is reserved to represent all critical cases where the connection is likely to be dropped if relocation is not performed.</p> <p><b>Triggers:</b> Increments when the source RNC initiates relocation preparation procedure by sending a RELOCATION REQUIRED message with the cause "Time Critical Relocation".</p> <p><b>Availability:</b> per SGSN service, per RAI</p> <p><b>Type:</b> Counter</p>	Int32
rab-rej-req-traffic-class-unavail	<p><b>Description:</b> Total number of RAB request rejected as requested traffic class unavailable.</p> <p><b>Triggers:</b> Increments when RNC sends the RAB assignment response to report unsuccessful establishment/modification of a RAB with the failed RAB ID list with the cause "Requested Traffic Class not Available".</p> <p><b>Availability:</b> per SGSN service, per RAI</p> <p><b>Type:</b> Counter</p>	Int32
rab-rej-invalid-rab-param-val	<p><b>Description:</b> Total number of RAB requests rejected due to invalid RAB parameter value.</p> <p><b>Triggers:</b> Increments when RNC sends the RAB assignment response to report unsuccessful establishment/modification of a RAB with the failed RAB ID list with the cause "Invalid RAB Parameters Value".</p> <p><b>Availability:</b> per SGSN service, per RAI</p> <p><b>Type:</b> Counter</p>	Int32
rab-rej-req-max-bit-rate-unavail	<p><b>Description:</b> Total number of RAB requests rejected as requested maximum bit rate is unavailable.</p> <p><b>Triggers:</b> Increments when RNC sends the RAB assignment response to report unsuccessful establishment/modification of a RAB with the failed RAB ID list with the cause "Requested Maximum Bit Rate not Available".</p> <p><b>Availability:</b> per SGSN service, per RAI</p> <p><b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
rab-rej-req-max-bit-rate-dl-unavail	<p><b>Description:</b> Total number of RAB requests rejected as requested maximum bit rate for downlink is unavailable.</p> <p><b>Triggers:</b> Increments when RNC sends the RAB assignment response to report unsuccessful establishment/modification of a RAB with the failed RAB ID list with the cause “Requested Maximum Bit Rate for DL not Available”.</p> <p><b>Availability:</b> per SGSN service, per RAI</p> <p><b>Type:</b> Counter</p>	Int32
rab-rej-req-max-bit-rate-ul-unavail	<p><b>Description:</b> Total number of RAB requests rejected as requested maximum bit rate for uplink is unavailable.</p> <p><b>Triggers:</b> Increments when RNC sends the RAB assignment response to report unsuccessful establishment/modification of a RAB with the failed RAB ID list with the cause “Requested Maximum Bit Rate for DL not Available”.</p> <p><b>Availability:</b> per SGSN service, per RAI</p> <p><b>Type:</b> Counter</p>	Int32
rab-rej-req-gbr-unavail	<p><b>Description:</b> Total number of RAB requests rejected as requested guaranteed bit rate is unavailable.</p> <p><b>Triggers:</b> Increments when RNC sends the RAB assignment response to report unsuccessful establishment/modification of a RAB with the failed RAB ID with the cause “Requested Guaranteed Bit Rate not Available”.</p> <p><b>Availability:</b> per SGSN service, per RAI</p> <p><b>Type:</b> Counter</p>	Int32
rab-rej-req-gbr-dl-unavail	<p><b>Description:</b> Total number of RAB requests rejected as requested guaranteed bit rate for downlink is unavailable.</p> <p><b>Triggers:</b> Increments when RNC sends the RAB assignment response to report unsuccessful establishment/modification of a RAB with the failed RAB ID list with the cause “Requested Guaranteed Bit Rate for DL not Available”.</p> <p><b>Availability:</b> per SGSN service, per RAI</p> <p><b>Type:</b> Counter</p>	Int32
rab-rej-req-gbr-ul-unavail	<p><b>Description:</b> Total number of RAB requests rejected as requested guaranteed bit rate for uplink is unavailable.</p> <p><b>Triggers:</b> Increments when RNC sends the RAB assignment response to report unsuccessful establishment/modification of a RAB with the failed RAB ID list with the cause “Requested Guaranteed Bit Rate for UL not Available”.</p> <p><b>Availability:</b> per SGSN service, per RAI</p> <p><b>Type:</b> Counter</p>	Int32
rab-rej-req-trans-delay-not-achievable	<p><b>Description:</b> Total number of RAB requests rejected as requested transfer delay is not achievable.</p> <p><b>Triggers:</b> Increments when RNC sends the RAB assignment response to report unsuccessful establishment/modification of a RAB with the failed RAB ID list with the cause “Requested Transfer Delay not Achievable”.</p> <p><b>Availability:</b> per SGSN service, per RAI</p> <p><b>Type:</b> Counter</p>	Int32
rab-rej-ival-rab-param-combo	<p><b>Description:</b> Total number of RAB requests rejected due to invalid RAB parameter combination.</p> <p><b>Triggers:</b> Increments when RNC sends the RAB assignment response to report unsuccessful establishment/modification of a RAB with the failed RAB ID list with the cause “Invalid RAB Parameters Combination”.</p> <p><b>Availability:</b> per SGSN service, per RAI</p> <p><b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
rab-rej-violation-for-sdu-param	<p><b>Description:</b> Total number of RAB requests rejected due to occurrence of condition violation for Service Data Unit (SDU) parameters.</p> <p><b>Triggers:</b> Increments when RNC sends the RAB assignment response to report unsuccessful establishment/modification of a RAB with the failed RAB ID list with the cause “Condition Violation for SDU Parameters”.</p> <p><b>Availability:</b> per SGSN service, per RAI</p> <p><b>Type:</b> Counter</p>	Int32
rab-rej-violation-traffic-handle-prio	<p><b>Description:</b> Total number of RAB requests rejected due to occurrence of condition violation for traffic handling priority.</p> <p><b>Triggers:</b> Increments when RNC sends the RAB assignment response to report unsuccessful establishment/modification of a RAB with the failed RAB ID list with the cause “Condition Violation for Traffic Handling Priority”.</p> <p><b>Availability:</b> per SGSN service, per RAI</p> <p><b>Type:</b> Counter</p>	Int32
rab-rej-violation-for-gbr	<p><b>Description:</b> Total number of RAB request rejected due to occurrence of condition violation for guaranteed bit rate.</p> <p><b>Triggers:</b> Increments when RNC sends the RAB assignment response to report unsuccessful establishment/modification of a RAB with the failed RAB ID list with the cause “Condition Violation for Guaranteed Bit Rate”.</p> <p><b>Availability:</b> per SGSN service, per RAI</p> <p><b>Type:</b> Counter</p>	Int32
rab-rej-usr-plane-ver-unsupported	<p><b>Description:</b> Total number of RAB requests rejected as requested user plane version is not supported.</p> <p><b>Triggers:</b> Increments when RNC sends the RAB assignment response to report unsuccessful establishment/modification of a RAB with the failed RAB ID list with the cause “User Plane Versions not Supported”.</p> <p><b>Availability:</b> per SGSN service, per RAI</p> <p><b>Type:</b> Counter</p>	Int32
rab-rej-iu-up-failure	<p><b>Description:</b> Total number of RAB requests rejected due to Iu UP activation failure.</p> <p><b>Triggers:</b> Increments when RNC sends the RAB assignment response to report unsuccessful establishment/modification of a RAB with the failed RAB ID list with the cause “Iu UP Failure”.</p> <p><b>Availability:</b> per SGSN service, per RAI</p> <p><b>Type:</b> Counter</p>	Int32
rab-rej-reloc-alloc-expiry	<p><b>Description:</b> Total number of RAB requests rejected as Relocation Resource Allocation procedure failed due to expiry of the TRELOCalloc timer.</p> <p><b>Triggers:</b> Increments when SGSN is unable to complete the relocation of SRNS before the TRELOCalloc expiry. The SGSN then issues a RELOCATION PREPARATION FAILURE message to the source RNC with the cause “TRELOCalloc expiry”.</p> <p><b>Availability:</b> per SGSN service, per RAI</p> <p><b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
rab-rej-reloc-failure-target-system	<p><b>Description:</b> Total number of RAB request rejected due to relocation failure in target CN/RNC or target system.</p> <p><b>Triggers:</b> Increments when SGSN cannot complete the relocation of SRNS due to failure in the Target CN/RNC or Target System. The SGSN then issues a RELOCATION PREPARATION FAILURE message to the source RNC with the cause “Relocation Failure in Target CN/RNC or Target System”.</p> <p><b>Availability:</b> per SGSN service, per RAI</p> <p><b>Type:</b> Counter</p>	Int32
rab-rej-invalid-rdb-id	<p><b>Description:</b> Total number of RAB requests rejected due to invalid RAB ID in the RNC.</p> <p><b>Triggers:</b> If the RAB ID of a RAB requested to be released is unknown in the RNC, RNC will report as a RAB failed to release with the cause value “Invalid RAB ID” in RAB Assignment Response to SGSN. If RAB ID of RAB requested to be transferred is unknown in RNC, the SRNS CONTEXT RESPONSE message will contain the cause with the RAB ID. The RAB ID IE for each RAB for which UTRAN is not able to transfer a data volume report due to unknown RAB ID is included in the DATA VOLUME REPORT message together with a Cause IE “Invalid RAB ID”.</p> <p><b>Availability:</b> per SGSN service, per RAI</p> <p><b>Type:</b> Counter</p>	Int32
rab-rej-no-remaining-rab	<p><b>Description:</b> Total number of RAB requests rejected as no RAB is available.</p> <p><b>Triggers:</b> Increments when SGSN issues the IU release command to RNC with the cause “No remaining RAB”, if there is no RAB associated with the IU.</p> <p><b>Availability:</b> per SGSN service, per RAI</p> <p><b>Type:</b> Counter</p>	Int32
rab-rej-interaction-with-other-proc	<p><b>Description:</b> Total number of RAB requests rejected as relocation was cancelled due to interaction with other procedure.</p> <p><b>Triggers:</b> If source RNC triggers the RELOCATION CANCEL to SGSN with cause “Interaction with other procedure” when relocation preparation is triggered and it receives another message via the same signalling IU.</p> <p><b>Availability:</b> per SGSN service, per RAI</p> <p><b>Type:</b> Counter</p>	Int32
rab-rej-integrity-check-fail	<p><b>Description:</b> Total number of RAB requests rejected due to repeated failure in integrity checking.</p> <p><b>Triggers:</b> Increments when RNC issues the IU release request to SGSN with the cause “Repeated Integrity Checking Failure”.</p> <p><b>Availability:</b> per SGSN service, per RAI</p> <p><b>Type:</b> Counter</p>	Int32
rab-rej-req-type-not-supported	<p><b>Description:</b> Total number of RAB requests rejected as the RNC is not supporting the requested location request type either because it does not support the requested event or it does not support the requested report area.</p> <p><b>Triggers:</b> If the RNC cannot deliver the location information as requested by the SGSN, due to non-support of the requested event, then it will send location report message indicating the UE location to be “Undetermined” with cause “Requested Request Type not supported”.</p> <p><b>Availability:</b> per SGSN service, per RAI</p> <p><b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
rab-rej-req-superseeded	<p><b>Description:</b> Total number of RAB requests rejected due to a second request on the same RAB.</p> <p><b>Triggers:</b> In case of a request to modify or release a RAB that contains the RAB ID of a RAB being queued, the RAB will be taken out of the queue and treated according to the second request. The first request will be responded to as RAB failed to setup or modify the cause value “Request superseded” by RNC to SGSN in RAB Assignment Response.</p> <p><b>Availability:</b> per SGSN service, per RAI</p> <p><b>Type:</b> Counter</p>	Int32
rab-rej-rel-due-to-ue-sig-con-rel	<p><b>Description:</b> Total number of RAB requests rejected as RAB released due to UE generated signaling connection release.</p> <p><b>Triggers:</b> Increments when RNC issues the IU release request to SGSN with the cause “Release due to UE generated signalling connection release”.</p> <p><b>Availability:</b> per SGSN service, per RAI</p> <p><b>Type:</b> Counter</p>	Int32
rab-rej-res-optimization-reloc	<p><b>Description:</b> Total number of RAB requests rejected as resource optimization for relocation occurred.</p> <p><b>Triggers:</b> Increments when the source RNC initiates relocation preparation procedure by sending a RELOCATION REQUIRED message with the cause “Resource Optimization Relocation”.</p> <p><b>Availability:</b> per SGSN service, per RAI</p> <p><b>Type:</b> Counter</p>	Int32
rab-rej-req-info-unavail	<p><b>Description:</b> Total number of RAB requests rejected as requested information is unavailable.</p> <p><b>Triggers:</b> Increments when the source RNC initiates relocation preparation procedure by sending a RELOCATION REQUIRED message with the cause “Resource Optimization Relocation”.</p> <p><b>Availability:</b> per SGSN service, per RAI</p> <p><b>Type:</b> Counter</p>	Int32
rab-rej-reloc-due-to-radio-reason	<p><b>Description:</b> Total number of RAB requests rejected due to radio related errors/causes.</p> <p><b>Triggers:</b> Increments when the source RNC initiates relocation preparation procedure by sending a RELOCATION REQUIRED message with the cause “Relocation desirable for radio reasons”.</p> <p><b>Availability:</b> per SGSN service, per RAI</p> <p><b>Type:</b> Counter</p>	Int32
rab-rej-reloc-unsupported-target-system	<p><b>Description:</b> Total number of RAB requests rejected as relocation is not supported in target system.</p> <p><b>Triggers:</b> Increments when SGSN is unable to complete the relocation of SRNS due to failure in the Target CN/RNC or Target System. The SGSN then issues a RELOCATION PREPARATION FAILURE message to the source RNC with the cause “Relocation not supported in Target RNC or Target system”.</p> <p><b>Availability:</b> per SGSN service, per RAI</p> <p><b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
rab-rej-directed-retry	<p><b>Description:</b> Total number of RAB requests rejected as retries directed by system.</p> <p><b>Triggers:</b> Directed retry is the process of assigning a User Equipment to a radio resource that does not belong to the serving RNC, for example, in situations of congestion. It is triggered by the RAB Assignment procedure and employs relocation procedures. The RNC may indicate an impending directed retry attempt to GSM by sending a RAB ASSIGNMENT RESPONSE message with a RAB ID included in the list of RABs failed to setup and a cause value of "Directed Retry". The RNC invokes relocation by sending a RELOCATION REQUIRED message to the active SGSN node with the cause "Directed Retry". The source RNC initiates relocation preparation procedure by sending a RELOCATION REQUIRED message with the cause "Time Critical Relocation".</p> <p><b>Availability:</b> per SGSN service, per RAI</p> <p><b>Type:</b> Counter</p>	Int32
rab-rej-radio-con-with-ue-lost	<p><b>Description:</b> Total number of RAB requests rejected as radio connection with UE is lost.</p> <p><b>Triggers:</b> Increments when RNC initiated RAB release procedure sends RAB Release request with this cause.</p> <p><b>Availability:</b> per SGSN service, per RAI</p> <p><b>Type:</b> Counter</p>	Int32
rab-rej-rnc-unable-to-estab-all-rfcs	<p><b>Description:</b> Total number of RAB requests rejected as RNC is unable to establish all RAB subflow combinations indicated within the RAB Parameters IE.</p> <p><b>Triggers:</b> Increments when the RNC cannot initialise the requested user plane mode for any of the user plane mode versions in the UP Mode Versions IE according to the rules for initialization of the respective user plane mode versions. The RAB Assignment Response (failure) with the cause value "RNC unable to establish all RFCs" will be received from RNC. It will be received for the same reason in RELOCATION REQUEST ACKNOWLEDGE message from RNC.</p> <p><b>Availability:</b> per SGSN service, per RAI</p> <p><b>Type:</b> Counter</p>	Int32
rab-rej-deciphering-keys-unavail	<p><b>Description:</b> Total number of RAB requests rejected as RNC is unable to provide the requested deciphering keys.</p> <p><b>Triggers:</b> Increments when the RNC is unable to provide the requested deciphering keys. The RNC will then send a LOCATION RELATED DATA FAILURE message including the Cause IE to the SGSN with the cause "Deciphering Keys Not Available".</p> <p><b>Availability:</b> per SGSN service, per RAI</p> <p><b>Type:</b> Counter</p>	Int32
rab-rej-dedicated-assistance-data-unavail	<p><b>Description:</b> Total number of RAB requests rejected as RNC is unable to successfully deliver the requested dedicated assistance data to the UE.</p> <p><b>Triggers:</b> Increments when the RNC is unable to successfully deliver the requested dedicated assistance data to the UE. The RNC will then send a LOCATION RELATED DATA FAILURE message including the Cause IE to the SGSN with the cause "Dedicated Assistance data Not Available".</p> <p><b>Availability:</b> per SGSN service, per RAI</p> <p><b>Type:</b> Counter</p>	Int32
rab-rej-reloc-target-not-allowed	<p><b>Description:</b> Total number of RAB requests rejected as relocation to the indicated target cell is not allowed for the UE.</p> <p><b>Triggers:</b> Increments when SGSN is unable to complete the relocation of SRNS if the Relocation is not allowed in Target Cell. The SGSN then issues a RELOCATION PREPARATION FAILURE message to the source RNC with the cause "Relocation Target not allowed".</p> <p><b>Availability:</b> per SGSN service, per RAI</p> <p><b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
rab-rej-location-reporting-congestion	<p><b>Description:</b> Total number of RAB requests rejected due to an inability to support location reporting caused by overload.</p> <p><b>Triggers:</b> Increments when the RNC cannot deliver the location information as requested by the SGSN due to non-availability of requested information. It will then send location report message indicating the UE location to be “Undetermined” with cause “Location Reporting Congestion”.</p> <p><b>Availability:</b> per SGSN service, per RAI</p> <p><b>Type:</b> Counter</p>	Int32
rab-rej-reduce-load-in-serving-cell	<p><b>Description:</b> Total number of RAB requests rejected as the load reduction on serving cell needs to be reduced.</p> <p><b>Triggers:</b> Increments when the source RNC initiates relocation preparation procedure by sending a RELOCATION REQUIRED message with the cause “Reduce Load in Serving Cell”.</p> <p><b>Availability:</b> per SGSN service, per RAI</p> <p><b>Type:</b> Counter</p>	Int32
rab-rej-no-radio-res-avail-in-target-cell	<p><b>Description:</b> Total number of RAB requests rejected as radio resource is unavailable in target cell.</p> <p><b>Triggers:</b> Increments when SGSN is unable to complete the relocation of SRNS if the Resource is not available in Target Cell. The SGSN then issues a RELOCATION PREPARATION FAILURE message to the source RNC with the cause “No Radio Resources Available in Target Cell”. Target RNC will send RELOCATION FAILURE message to SGSN with the cause “Radio Resources Available in Target Cell”.</p> <p><b>Availability:</b> per SGSN service, per RAI</p> <p><b>Type:</b> Counter</p>	Int32
rab-rej-geran-iu-mode-failure	<p><b>Description:</b> Total number of RAB requests rejected due to failure in Iu mode in GERAN. The RAB establishment/modification/relocation failed because the GERAN BSC cannot provide an appropriate RAB due to limited capabilities within GERAN.</p> <p><b>Triggers:</b> Increments when the RAB establishment/modification/relocation fails because the GERAN BSC cannot provide an appropriate RAB due to limited capabilities within GERAN. The RNC will then send RAB assignment response with the cause “GERAN Iu-mode failure”.</p> <p><b>Availability:</b> per SGSN service, per RAI</p> <p><b>Type:</b> Counter</p>	Int32
rab-rej-access-restrict-shared-nwtk	<p><b>Description:</b> Total number of RAB requests rejected as access is restricted in the cell due to shared network.</p> <p><b>Triggers:</b> Increments when the source RNC initiates the Iu Release Request procedure towards the SGSN with a cause value “Access Restricted Due to Shared Networks”. The source RNC initiates relocation preparation procedure by sending a RELOCATION REQUIRED message with the cause “Access Restricted Due to Shared Networks”.</p> <p><b>Availability:</b> per SGSN service, per RAI</p> <p><b>Type:</b> Counter</p>	Int32
rab-rej-incoming-reloc-nwt-support-puesbine	<p><b>Description:</b> Total number of RAB requests rejected as the incoming relocation request is not accepted by the target RNC because of the Provision of UE Specific Behavior Information to Network Entities (PUESBINE) feature.</p> <p><b>Triggers:</b> Increments when the target RNC cannot support the relocation due to PUESBINE feature. It sends a RELOCATION FAILURE message with the cause “Incoming Relocation Not Supported Due To PUESBINE Feature” To SGSN.</p> <p><b>Availability:</b> per SGSN service, per RAI</p> <p><b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
rab-rej-traffic-target-more-source-cell	<p><b>Description:</b> Total number of RAB requests rejected as the traffic load in the target cell is higher than that in the source cell.</p> <p><b>Triggers:</b> Increments when SGSN is unable to complete the relocation of SRNS if the Resource is not available in Target Cell. The SGSN will then issue a RELOCATION PREPARATION FAILURE message to the source RNC with the cause “Traffic Load In The Target Cell Higher Than In The Source Cell”. Target RNC sends RELOCATION FAILURE message to SGSN with the cause “Traffic Load In The Target Cell Higher Than In The Source Cell” to SGSN when load at the target cell is higher than that in the source cell.</p> <p><b>Availability:</b> per SGSN service, per RAI</p> <p><b>Type:</b> Counter</p>	Int32
rab-rej-mbms-no-multicat-svc-for-ue	<p><b>Description:</b> Total number of RAB requests rejected for Multimedia Broadcast/Multicast Service (MBMS) feature as multicast service is not supported by user equipment.</p> <p><b>Triggers:</b> Increments when SGSN is unable to process the UPLINK INFORMATION EXCHANGE REQUEST for reason that MS does not have the multicat service. The SGSN then sends the UPLINK INFORMATION EXCHANGE FAILURE message to the RNC about the reason for unsuccessful operation with a cause value “MBMS - No Multicast Service For This UE”.</p> <p><b>Availability:</b> per SGSN service, per RAI</p> <p><b>Type:</b> Counter</p>	Int32
rab-rej-mbms-unknown-ue-id	<p><b>Description:</b> Total number of RAB requests rejected for MBMS feature because the user equipment identification is unknown to the CN.</p> <p><b>Triggers:</b> Increments when SGSN is unable to process the UPLINK INFORMATION EXCHANGE REQUEST for reason that UE is unknown to SGSN. The SGSN then sends the UPLINK INFORMATION EXCHANGE FAILURE message to the RNC about the reason for unsuccessful operation with a cause value “MBMS - Unknown UE ID”.</p> <p><b>Availability:</b> per SGSN service, per RAI</p> <p><b>Type:</b> Counter</p>	Int32
rab-rej-mbms-sess-start-no-data-bearer	<p><b>Description:</b> Total number of RAB requests rejected for MBMS feature as the session starts without any necessary data bearer.</p> <p><b>Triggers:</b> Increments when the RNC decides to wait to establish the MBMS RAB. It then sends the MBMS SESSION START RESPONSE message with the cause value “Successful MBMS Session Start - No Data Bearer Necessary” to SGSN for MBMS SESSION START REQUEST.</p> <p><b>Availability:</b> per SGSN service, per RAI</p> <p><b>Type:</b> Counter</p>	Int32
rab-rej-mbms-superseed-nnsf	<p><b>Description:</b> Total number of RAB requests rejected for MBMS feature as request superseded due to NAS Node Selection Function (NNSF).</p> <p><b>Triggers:</b> Increments when NNSF is active and the RNC is received from several CN nodes for a certain MBMS Bearer Service. The MBMS SESSION START message is also sent by the SGSN, and the RNC informs the SGSN with MBMS SESSION START FAILURE message and cause value “MBMS - Superseded Due To NNSF”.</p> <p><b>Availability:</b> per SGSN service, per RAI</p> <p><b>Type:</b> Counter</p>	Int32
rab-rej-mbms-ue-linking-already-done	<p><b>Description:</b> Total number of RAB requests rejected for MBMS feature as user equipment is already linked to the given Multicast service.</p> <p><b>Triggers:</b> Increments when the RNC sends the MBMS UE LINKING RESPONSE message for unsuccessful linking(s) with cause value “MBMS - UE Linking Already Done”.</p> <p><b>Availability:</b> per SGSN service, per RAI</p> <p><b>Type:</b> Counter</p>	Int32

Statistic	Description	Data Type
rab-rej-mbms-ue-delinking-failure	<b>Description:</b> Total number of RAB requests rejected for MBMS feature as user equipment delinking failed because the UE had not been linked to the given Multicast service. <b>Triggers:</b> Increments when the RNC sends the MBMS UE LINKING RESPONSE message for unsuccessful de-linking(s) with cause value “MBMS - UE De-Linking Failure - No Existing UE Linking”. <b>Availability:</b> per SGSN service, per RAI <b>Type:</b> Counter	Int32
rab-rej-tmgi-unknown	<b>Description:</b> Total number of RAB requests rejected as the indicated Temporary Mobile Group Identifier (TMGI) is unknown. <b>Triggers:</b> Increments when the MBMS REGISTRATION FAILURE message sent from SGSN informs the RNC about the reason for unsuccessful MBMS registration operation with cause value “TMGI Unknown”. <b>Availability:</b> per SGSN service, per RAI <b>Type:</b> Counter	Int32
rab-rej-ms-unspecified-failure	<b>Description:</b> Total number of RAB requests rejected due to unspecified failure at MS. <b>Triggers:</b> <b>Availability:</b> per SGSN service, per RAI <b>Type:</b> Counter	Int32
SRNS-ctxt-req-sent	Total number of Serving Radio Network Subsystem (SRNS) context request sent.	Int32
SRNS-ctxt-rsp-rcvd	Total number of SRNS context request received.	Int32
SRNS-ctxt-req-tmr-expired	Total number of events when SRNS context request timer expired.	Int32
SRNS-ctxt-total-pdp-acc	Total number of PDP context request by SRNS accepted.	Int32
SRNS-ctxt-total-pdp-rej	Total number of PDP context request by SRNS rejected.	Int32
SRNS-data-fwd-cmd-sent	Total number of data forward command sent by SRNS.	Int32
srs-ctx-deny-rab-preempt	Total number of PDP context request by SRNS denied due to RAB preempted procedure.	Int32
srs-ctx-deny-reloc-overall-tmr-exp	Total number of PDP context request by SRNS denied due to overall timer expired for relocation.	Int32
srs-ctx-deny-reloc-prep-tmr-exp	Total number of PDP context request by SRNS denied due to relocation preparation timer expired.	Int32
srs-ctx-deny-reloc-complete-tmr-exp	Total number of PDP context request by SRNS denied due to relocation complete timer expired.	Int32
srs-ctx-deny-reloc-queuing-tmr-exp	Total number of PDP context request by SRNS denied due to relocation queuing timer expired.	Int32
srs-ctx-deny-reloc-triggered	Total number of PDP context request by SRNS denied due to relocation triggered.	Int32
srs-ctx-deny-unable-to-est-reloc	Total number of PDP context request by SRNS denied due to unable to establish relocation.	Int32

## Common Statistics

Statistic	Description	Data Type
srns-ctx-deny-unknown-target-rnc	Total number of PDP context request by SRNS denied due to unknown target RNC.	Int32
srns-ctx-deny-reloc-cancel	Total number of PDP context request by SRNS denied due to relocation cancelled.	Int32
srns-ctx-deny-reloc-success	Total number of PDP context request by SRNS denied due to successful relocation.	Int32
srns-ctx-deny-cypher-algo-no-support	Total number of PDP context request by SRNS denied as requested ciphering algorithm not supported.	Int32
srns-ctx-deny-conflict-cypher-info	Total number of PDP context request by SRNS denied due to conflict with existing ciphering information.	Int32
srns-ctx-deny-failure-radio-if-proc	Total number of PDP context request by SRNS denied due to failure in radio interface procedure.	Int32
srns-ctx-deny-rel-utran-reason	Total number of PDP context request by SRNS denied as release occurred due to UTRAN generated reason.	Int32
srns-ctx-deny-utran-inactivity	Total number of PDP context request by SRNS denied due to inactivity at UTRAN.	Int32
srns-ctx-deny-time-crit-relocation	Total number of PDP context request by SRNS denied due to time critical relocation.	Int32
srns-ctx-deny-req-traffic-class-unavail	Total number of PDP context request by SRNS denied as requested traffic class unavailable.	Int32
srns-ctx-deny-invalid-rab-param-val	Total number of PDP context request by SRNS denied due invalid RAB parameter value.	Int32
srns-ctx-deny-req-max-bit-rate-unavail	Total number of PDP context request by SRNS denied as requested maximum bit rate unavailable.	Int32
srns-ctx-deny-req-max-bit-rate-dl-unavail	Total number of PDP context request by SRNS denied as requested maximum bit rate for downlink unavailable.	Int32
srns-ctx-deny-req-max-bit-rate-ul-unavail	Total number of PDP context request by SRNS denied as requested maximum bit rate for uplink unavailable.	Int32
srns-ctx-deny-req-gbr-unavail	Total number of PDP context request by SRNS denied as requested guaranteed bit rate unavailable.	Int32
srns-ctx-deny-req-gbr-dl-unavail	Total number of PDP context request by SRNS denied as requested guaranteed bit rate for downlink unavailable.	Int32
srns-ctx-deny-req-gbr-ul-unavail	Total number of PDP context request by SRNS denied as requested guaranteed bit rate for uplink unavailable.	Int32

Statistic	Description	Data Type
srsn-ctx-deny-req-trans-delay-not-achieve	Total number of PDP context request by SRNS denied as requested transfer delay is not achievable.	Int32
srsn-ctx-deny-inval-rab-param-combo	Total number of PDP context request by SRNS denied as invalid RAB parameter combination.	Int32
srsn-ctx-deny-violation-for-sdu-param	Total number of PDP context request by SRNS denied as violation for service data unit (SDU) parameters occurred.	Int32
srsn-ctx-deny-violation-traffic-handlde-prio	Total number of PDP context request by SRNS denied as violation for traffic handling priority occurred.	Int32
srsn-ctx-deny-violation-for-gbr	Total number of PDP context request by SRNS denied as violation for guaranteed bit rate occurred.	Int32
srsn-ctx-deny-usr-plane-ver-unsupported	Total number of PDP context request by SRNS denied as user plane version not supported.	Int32
srsn-ctx-deny-ip-up-failure	Total number of PDP context request by SRNS denied as Iu activation failure occurred.	Int32
srsn-ctx-deny-reloc-alloc-expiry	Total number of PDP context request by SRNS denied as allocation timer expired for RAB relocation.	Int32
srsn-ctx-deny-reloc-failure-target-system	Total number of PDP context request by SRNS denied due to relocation failure in target system.	Int32
srsn-ctx-deny-invalid-rdb-id	Total number of PDP context request by SRNS denied due to invalid RAB id in message.	Int32
srsn-ctx-deny-no-remaining-rab	Total number of PDP context request by SRNS denied as no RAB available.	Int32
srsn-ctx-deny-interaction-with-other-proc	Total number of PDP context request by SRNS denied due to interaction with other procedure occurred.	Int32
srsn-ctx-deny-integrity-check-fail	Total number of PDP context request by SRNS denied as repeated integrity check failed.	Int32
srsn-ctx-deny-req-type-not-supported	Total number of PDP context request by SRNS denied as request type not supported.	Int32
srsn-ctx-deny-req-superseded	Total number of PDP context request by SRNS denied as request superseded by new request.	Int32
srsn-ctx-deny-rel-due-to-ue-sig-con-rel	Total number of PDP context request by SRNS denied as RAB released due to UE generated signaling connection release.	Int32
srsn-ctx-deny-res-optimization-reloc	Total number of PDP context request by SRNS denied as resource optimization for relocation occurred.	Int32

## Common Statistics

Statistic	Description	Data Type
sns-ctx-deny-req-info-unavail	Total number of PDP context request by SRNS denied as requested information unavailable.	Int32
sns-ctx-deny-reloc-due-to-radio-reason	Total number of PDP context request by SRNS denied due to radio related errors/causes.	Int32
sns-ctx-deny-reloc-unsupported-target-sys	Total number of PDP context request by SRNS denied as relocation not supported in target system.	Int32
sns-ctx-deny-directed-retry	Total number of PDP context request by SRNS denied as retries directed by system.	Int32
sns-ctx-deny-radio-con-with-ue-lost	Total number of PDP context request by SRNS denied as radio connection with UE lost.	Int32
sns-ctx-deny-rnc-unable-to-estab-all-rfcs	Total number of PDP context request by SRNS denied as RNCs unable to establish all radio frequency communications.	Int32
sns-ctx-deny-deciphering-keys-unavail	Total number of PDP context request by SRNS denied as deciphering keys not available for procedure.	Int32
sns-ctx-deny-dedicated-assist-data-unavail	Total number of PDP context request by SRNS denied as dedicated assistance data not available for procedure.	Int32
sns-ctx-deny-reloc-target-not-allowed	Total number of PDP context request by SRNS denied as relocation is not allowed on target system.	Int32
sns-ctx-deny-location-reporting-congestion	Total number of PDP context request by SRNS denied as congestion reported in specific location.	Int32
sns-ctx-deny-reduce-load-in-serving-cell	Total number of PDP context request by SRNS denied as load reduction occurred in serving cell.	Int32
sns-ctx-deny-no-radio-res-avail-target-cell	Total number of PDP context request by SRNS denied as no radio resource available in target cell.	Int32
sns-ctx-deny-geran-iu-mode-failure	Total number of PDP context request by SRNS denied due to failure in Iu mode in GERAN.	Int32
sns-ctx-deny-access-restrict-shared-nwtk	Total number of PDP context request by SRNS denied as access restricted in shared network.	Int32
sns-ctx-deny-in-reloc-nwt-support-puesbine	Total number of PDP context request by SRNS denied as incoming relocation request is not supported in network due to Provision of UE Specific Behavior Information to Network Entities (PUESBINE) feature.	Int32

Statistic	Description	Data Type
srs-ctx-deny-traffic-target-more-src-cell	Total number of PDP context request by SRNS denied as traffic in target cell is higher than the source cell.	Int32
srs-ctx-deny-mbms-no-multicat-svc-for-ue	Total number of SRNS context request for Multimedia Broadcast/Multicast Service (MBMS) feature denied as multicast service is not supported by user equipment.	Int32
srs-ctx-deny-mbms-unknown-ue-id	Total number of SRNS context request for MBMS feature denied due to user equipment identification is unknown.	Int32
srs-ctx-deny-mbms-sess-start-no-data-bearer	Total number of SRNS context request for MBMS feature denied as session start without any necessary data bearer.	Int32
srs-ctx-deny-mbms-superseed-nnsf	Total number of SRNS context request for MBMS feature denied as request superseded due to NAS node selection function (NNSF).	Int32
srs-ctx-deny-mbms-ue-linking-already-done	Total number of SRNS context request for MBMS feature denied as user equipment is already linked.	Int32
srs-ctx-deny-mbms-ue-delinking-failure	Total number of SRNS context request for MBMS feature denied as user equipment delinking failed due to any reason.	Int32
srs-ctx-deny-tmgi-unknown	Total number of SRNS context request denied as temporary mobile group identifier is unknown.	Int32
srs-ctx-deny-ms-unspecified-failure	Total number of SRNS context request denied due to unspecified failure at MS.	Int32
srs-ctx-deny-no-response-from-rnc	Total number of SRNS context request denied due to no response from RNC.	Int32
map-open-req-tx	Total number of mobile application part (MAP) open requests sent.	Int32
map-open-req-rx	Total number of mobile application part (MAP) open requests received.	Int32
map-open-rsp-tx	Total number of MAP open response sent.	Int32
map-open-rsp-rx	Total number of MAP open response received.	Int32
map-close-tx	Total number of MAP close response sent.	Int32
map-close-rx	Total number of MAP close response received.	Int32
map-abort-tx	Total number of MAP abort request sent.	Int32
map-abort-rx	Total number of MAP abort request received.	Int32
map-auth-req-tx	<b>Description:</b> Total number of Send Authentication Request messages transmitted to HLR. <b>Triggers:</b> Counter increments when a MAP Send Authentication Request is initiated from SGSN. <b>Availability:</b> per SGSN service <b>Type:</b> Counter	Int32

Statistic	Description	Data Type
map-auth-succes	Total number of MAP authentication successful.	Int32
map-auth-fail	<b>Description:</b> Total number of User Error / Provider Error received in response to SAI request. <b>Triggers:</b> Counter increments when User Error / Provider Error is received from HLR. <b>Availability:</b> per SGSN service <b>Type:</b> Counter	Int32
map-auth-timeouts-rcvd	<b>Description:</b> Total number of timeouts that occurred while waiting for response from HLR. <b>Triggers:</b> Counter increments when there is no response from the HLR for map-auth-fail-rep-req-tx message initiated from SGSN. <b>Availability:</b> per SGSN service <b>Type:</b> Counter	Int32
map-imei-req-tx	<b>Description:</b> Total number of MAP Check IMEI requests initiated towards EIR. <b>Triggers:</b> Counter increments when MAP CHECK IMEI Request is sent. <b>Availability:</b> per SGSN service <b>Type:</b> Counter	Int32
map-imei-succes	<b>Description:</b> Total number of successful responses for MAP Check IMEI requests. <b>Triggers:</b> Counter increments when MAP CHECK IMEI Request is sent. <b>Availability:</b> per SGSN service <b>Type:</b> Counter	Int32
map-imei-fail	<b>Description:</b> Total number of failure responses for MAP Check IMEI requests received from EIR. <b>Triggers:</b> Counter increments when MAP Return Error / Provider Error is received in response. <b>Availability:</b> per SGSN service <b>Type:</b> Counter	Int32
map-imei-timeout	<b>Description:</b> Total number of timeouts that occurred while waiting for response from HLR. <b>Triggers:</b> Counter increments when there is no response from HLR. <b>Availability:</b> per SGSN service <b>Type:</b> Counter	Int32
map-gprs-update-loc-req-tx	<b>Description:</b> Total number of UGL (GPRS Update Location) request initiated towards HLR. <b>Triggers:</b> Counter increments when UGL request is sent to HLR. <b>Availability:</b> per SGSN service <b>Type:</b> Counter	Int32
map-gprs-update-loc-rsp-tx	<b>Description:</b> Total number of successful response messages sent in response to UGL request. <b>Triggers:</b> Counter increments when successful response is received from the HLR. <b>Availability:</b> per SGSN service <b>Type:</b> Counter	Int32
map-gprs-update-loc-err-tx	<b>Description:</b> Total number of Failure response (User Error/Provider Error) messages received in response to UGL request. <b>Triggers:</b> Counter increments when MAP Return Error / Provider Error is received to UGL request. <b>Availability:</b> per SGSN service <b>Type:</b> Counter	Int32

Statistic	Description	Data Type
map-gprs-update-loc-timeouts-rx	<b>Description:</b> Total number of timeouts that occurred while waiting for response from HLR. <b>Triggers:</b> Counter increments if there is no response from HLR. <b>Availability:</b> per SGSN service <b>Type:</b> Counter	Int32
map-cancel-loc-req-rx	<b>Description:</b> Total number of Cancel Location Request received from HLR. <b>Triggers:</b> Counter increments when MAP Cancel Location Request is received. <b>Availability:</b> per SGSN service <b>Type:</b> Counter	Int32
map-cancel-loc-rsp-tx	<b>Description:</b> Total number of successful Cancel Location Response messages sent to HLR. <b>Triggers:</b> Counter increments when successful response is sent to HLR. <b>Availability:</b> per SGSN service <b>Type:</b> Counter	Int32
map-cancel-loc-err-tx	<b>Description:</b> Total number of Error response messages sent to HLR. <b>Triggers:</b> Counter increments when MAP Return Error is sent to HLR. <b>Availability:</b> per SGSN service <b>Type:</b> Counter	Int32
map-del-sub-req-rx	<b>Description:</b> Total number of Delete Subscription Data Request received from HLR. <b>Triggers:</b> Counter increments when MAP Delete Subscription Data (DSD) message is received. <b>Availability:</b> per SGSN service <b>Type:</b> Counter	Int32
map-del-sub-rsp-tx	<b>Description:</b> Total number of successful responses for Delete Subscription Data request sent to HLR. <b>Triggers:</b> Counter increments when MAP Delete Subscription Data (DSD) message is received. <b>Availability:</b> per SGSN service <b>Type:</b> Counter	Int32
map-del-sub-ret-tx	<b>Description:</b> Total number of Error responses sent for Delete Subscription Data (DSD) request received. <b>Triggers:</b> Counter increments when failure response is sent to HLR. <b>Availability:</b> per SGSN service <b>Type:</b> Counter	Int32
map-insert-sub-rvcd	Total number of insert subscriber data requests received by MAP.	Int32
map-standalone-isd-rvcd	Total number of standalone insert subscriber data requests received by MAP.	Int32
map-isd-rsp-tx	Total number of insert subscriber data requests sent by MAP.	Int32
map-isd-err-tx	Total number of insert subscriber data failure response sent by MAP.	Int32
map-auth-fail-rept-req-tx	<b>Description:</b> Total number of Authentication Failure Report Request messages transmitted by MAP. <b>Triggers:</b> Counter increments when a message is initiated to inform HLR that certain vectors had problem in authenticating with the MS. <b>Availability:</b> per SGSN service <b>Type:</b> Counter	Int32

Statistic	Description	Data Type
map-auth-fail-rept-rsp-rx	<b>Description:</b> Total number of Authentication Failure Report Request messages received by MAP. <b>Triggers:</b> Counter increments when successful response is received in response to map-auth-fail-rep-req-tx. <b>Availability:</b> per SGSN service <b>Type:</b> Counter	Int32
map-auth-fail-rept-err-rx	<b>Description:</b> Total number of User Error and Provider Error received for the Authentication Failure Report Request sent to HLR. <b>Triggers:</b> Counter increments when MAP Return Error/Provider Error is received in response to map-auth-fail-rep-req-tx message. There will be no effect on the call due to this. <b>Availability:</b> per SGSN service <b>Type:</b> Counter	Int32
map-auth-fail-rept-timeouts-rcvd	<b>Description:</b> Total number of timeouts that occurred while waiting for response from HLR. <b>Triggers:</b> Counter increments when MAP Return Error / Provider Error is received in response to map-auth-fail-rep-req-tx. There will be no effect on the call due to this. <b>Availability:</b> per SGSN service <b>Type:</b> Counter	Int32
map-purge-req-tx	<b>Description:</b> Total number of MAP Purge Request messages initiated towards HLR. <b>Triggers:</b> Counter increments when MAP Purge Request is transmitted. <b>Availability:</b> per SGSN service <b>Type:</b> Counter	Int32
map-purge-success	<b>Description:</b> Total number of successful MAP Purge Request messages sent to HLR. <b>Triggers:</b> Counter increments when successful response is received from HLR. <b>Availability:</b> per SGSN service <b>Type:</b> Counter	Int32
map-purge-fail	<b>Description:</b> Total number of Failure response received from HLR. <b>Triggers:</b> Counter increments when MAP Return Error / Provider Error is received in response. <b>Availability:</b> per SGSN service <b>Type:</b> Counter	Int32
map-purge-timeouts-rcvd	<b>Description:</b> Total number of timeouts that occurred while waiting for response from HLR. <b>Triggers:</b> Counter increments when there is no response from HLR. <b>Availability:</b> per SGSN service <b>Type:</b> Counter	Int32
map-hlr-reset-rcvd	Total number of HLR reset indicator received by MAP.	Int32
map-mo-fwd-req-sent	Total number of mobile originated forward request messages sent to MAP.	Int32
map-mo-fwd-rsp-rcvd	Total number of mobile originated forward response messages received from MAP.	Int32
map-mo-fwd-rsp-failed	Total number of mobile originated forward response messages failed at MAP.	Int32
map-mo-fwd-rsp-time-out	Total number of mobile originated forward response messages timed-out at MAP.	Int32
map-mt-fwd-req-sent	Total number of mobile terminated forward request messages sent to MAP.	Int32

Statistic	Description	Data Type
map-mt-fwd-rsp-rcvd	Total number of mobile terminated forward request messages received from MAP.	Int32
map-mt-fwd-rsp-failed	Total number of mobile terminated forward response messages failed at MAP.	Int32
map-ready-for-sm-req	Total number of MAP ready for session management request received.	Int32
map-ready-for-sm-rsp	Total number of MAP ready for session management request response received.	Int32
map-ready-for-sm-rsp-failed	Total number of MAP ready for session management requests failed.	Int32
map-ready-for-sm-rsp-time-out	Total number of MAP ready for session management requests timed-out.	Int32
tcap-total-active-trans	<b>Description:</b> Total number of active transaction capabilities application part (TCAP) Dialogs in the system. <b>Triggers:</b> Counter increments when a new TCAP Dialog is created. <b>Availability:</b> per SGSN service <b>Type:</b> Gauge	Int32
tcap-total-active-invoks	Total number of active transactions invoked by TCAP. <b>Type:</b> Gauge	Int32
tcap-total-msg-drops	Total number of TCAP message drops.	Int32
tcap-total-msg-rcvd	Total number of TCAP message received.	Int32
tcap-total-msg-sent	Total number of TCAP message sent.	Int32
tcap-uni-dir-msg-rcvd	Total number of TCAP unidirectional messages received.	Int32
tcap-uni-dir-msg-sent	Total number of TCAP unidirectional messages sent.	Int32
tcap-begin-msg-rcvd	Total number of messages received for TCAP begin state.	Int32
tcap-begin-msg-sent	Total number of messages sent for TCAP begin state.	Int32
tcap-continue-msg-rcvd	Total number of messages received for TCAP continue state.	Int32
tcap-continue-msg-sent	Total number of messages sent for TCAP continue state.	Int32
tcap-end-msg-rcvd	Total number of messages received for TCAP end state.	Int32
tcap-end-msg-sent	Total number of messages sent for TCAP end state.	Int32
tcap-total-abort-rcvd	Total number of messages received for TCAP abort state.	Int32

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Statistic	Description	Data Type
tcap-total-abort-sent	Total number of messages sent for TCAP abort state.	Int32
tcap-total-comp-rx	Total number of TCAP components received.	Int32
tcap-total-comp-tx	Total number of TCAP components sent.	Int32
tcap-total-comp- invoke-rx	Total number of invoke messages for TCAP component received.	Int32
tcap-total-comp- invoke-tx	Total number of invoke messages for TCAP component sent.	Int32
tcap-comp- retresult-rx	Total number of return result messages for TCAP component received.	Int32
tcap-comp- retresult-tx	Total number of return result messages for TCAP component sent.	Int32
tcap-comp-reterr-rx	Total number of return error messages for TCAP component received.	Int32
tcap-comp-reterr-tx	Total number of return error messages for TCAP component sent.	Int32
tcap-comp-retrej-rx	Total number of return reject messages for TCAP component received.	Int32
tcap-comp-retrej-tx	Total number of return reject messages for TCAP component sent.	Int32
tcap-tran-unrec- msgtype-rx	Total number of protocol errors in transaction portion (P-ABORT) with unrecognized message type for TCAP received.	Int32
tcap-tran-unrec- msgtype-tx	Total number of protocol errors in transaction portion with unrecognized message type for TCAP sent.	Int32
tcap-tran-incorrect- rx	Total number of protocol errors in transaction portion with incorrect information for TCAP received.	Int32
tcap-tran-incorrect- tx	Total number of protocol errors in transaction portion with incorrect information for TCAP sent.	Int32
tcap-tran- badformed-rx	Total number of protocol errors in transaction portion with badly formatted transaction portion for TCAP received.	Int32
tcap-tran- badformed-tx	Total number of protocol errors in transaction portion with badly formatted transaction portion for TCAP sent.	Int32
tcap-tran- unrecognised-rx	Total number of protocol errors in transaction portion with unrecognized transaction portion for TCAP received.	Int32
tcap-tran- unrecognised-tx	Total number of protocol errors in transaction portion with unrecognized transaction portion for TCAP sent.	Int32
tcap-tran-resource- limit-rx	Total number of protocol errors in transaction portion with resource limit message for TCAP received.	Int32
tcap-tran-resource- limit-tx	Total number of protocol errors in transaction portion with resource limit message for TCAP sent.	Int32
tcap-comp- unrecognised-rx	Total number of errors in component portion with unrecognized information for TCAP received.	Int32

Statistic	Description	Data Type
tcap-comp-unrecognised-tx	Total number of errors in component portion with unrecognized information for TCAP sent.	Int32
tcap-comp-incorrect-rx	Total number of errors in component portion with incorrect information for TCAP received.	Int32
tcap-comp-incorrect-tx	Total number of errors in component portion with incorrect information for TCAP sent.	Int32
tcap-comp-badformed-rx	Total number of errors in component portion with badly formed information for TCAP received.	Int32
tcap-comp-badformed-tx	Total number of errors in component portion with badly formed information for TCAP sent.	Int32
tcap-comp-unrec-linkid-rx	Total number of errors in component portion with unrecognized link id for TCAP received.	Int32
tcap-comp-unrec-linkid-tx	Total number of errors in component portion with unrecognized link id for TCAP sent.	Int32
tcap-comp-unrec-invid-res-rx	Total number of errors in component portion with unrecognized invoke id (return result) for TCAP received.	Int32
tcap-comp-unrec-invid-res-tx	Total number of errors in component portion with unrecognized invoke id (return result) for TCAP sent.	Int32
tcap-comp-unexp-res-rx	Total number of errors in component portion with unexpected return result for TCAP received.	Int32
tcap-comp-unexp-res-tx	Total number of errors in component portion with unexpected return result for TCAP sent.	Int32
tcap-comp-unrec-invid-err-rx	Total number of errors in component portion with unrecognized invoke id (return error) for TCAP received.	Int32
tcap-comp-unrec-invid-err-tx	Total number of errors in component portion with unrecognized invoke id (return error) for TCAP sent.	Int32
tcap-comp-unexp-err-rx	Total number of errors in component portion with unexpected return error for TCAP received.	Int32
tcap-comp-unexp-err-tx	Total number of errors in component portion with unexpected return error for TCAP sent.	Int32
tcap-user-duplicate-invid-rx	Total number of user generated errors of duplicate invoke id for TCAP received.	Int32
tcap-user-duplicate-invid-tx	Total number of user generated errors of duplicate invoke id for TCAP sent.	Int32
tcap-user-unrec-opcode-rx	Total number of user generated errors of unrecognized operation code for TCAP received.	Int32
tcap-user-unrec-opcode-tx	Total number of user generated errors of unrecognized operation code for TCAP sent.	Int32

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Statistic	Description	Data Type
tcap-user-incorr-params-rx	Total number of user generated errors of incorrect invoke parameter for TCAP received.	Int32
tcap-user-incorr-params-tx	Total number of user generated errors of incorrect invoke parameter for TCAP sent.	Int32
tcap-user-resourcelimit-rx	Total number of user generated errors of resource limit invoke error for TCAP received.	Int32
tcap-user-resourcelimit-tx	Total number of user generated errors of resource limit invoke error for TCAP sent.	Int32
tcap-user-initiate-release-rx	Total number of user generated errors of release initiated invoke error for TCAP received.	Int32
tcap-user-initiate-release-tx	Total number of user generated errors of release initiated invoke error for TCAP sent.	Int32
tcap-user-unexp-linked-resp-rx	Total number of user generated errors of unexpected linked response error for TCAP received.	Int32
tcap-user-unexp-linked-resp-tx	Total number of user generated errors of unexpected linked response error for TCAP sent.	Int32
tcap-user-unexp-linked-oper-rx	Total number of user generated errors of unexpected linked operation error for TCAP received.	Int32
tcap-user-unexp-linked-oper-tx	Total number of user generated errors of unexpected linked operation error for TCAP sent.	Int32
tcap-user-res-incorr-params-rx	Total number of user generated errors of result code with incorrect parameter for TCAP received.	Int32
tcap-user-res-incorr-params-tx	Total number of user generated errors of result code with incorrect parameter for TCAP sent.	Int32
tcap-user-res-unrec-errcode-rx	Total number of user generated errors of result code with unrecognized error code for TCAP received.	Int32
tcap-user-res-unrec-errcode-tx	Total number of user generated errors of result code with unrecognized error code for TCAP sent.	Int32
tcap-user-res-unexp-errcode-rx	Total number of user generated errors of result code with unexpected error code for TCAP received.	Int32
tcap-user-res-unexp-errcode-tx	Total number of user generated errors of result code with unexpected error code for TCAP sent.	Int32
tcap-user-err-incorr-params-rx	Total number of user generated errors of error code with incorrect parameter for TCAP received.	Int32
tcap-user-err-incorr-params-tx	Total number of user generated errors of error code with incorrect parameter for TCAP sent.	Int32
mo-sms-in-progress	Total number of mobile originated SMS that are waiting in the SGSN to be delivered. <b>Type:</b> Gauge.	Int32

Statistic	Description	Data Type
mt-sms-in-progress	Total number of mobile terminated (MT) SMS in progress. <b>Type:</b> Gauge.	Int32
mt-sms-in-queue	<b>Description:</b> New gauge in release 9.0: Total number of mobile terminated SMS in the queue. <b>Triggers:</b> If there is already an MT-SMS transaction in progress, then the gauge increments when any new messages are received and queued. <b>Availability:</b> per MAP service <b>Type:</b> Gauge	Int32
sms-memory-available-in-progress	Total number of procedures for retrieval of available SMS memory in progress. <b>Type:</b> Gauge.	Int32
mo-sms-attempted	Total number of mobile originated SMSs attempted.	Int32
mo-sms-successful	Total number of mobile originated SMSs successful.	Int32
mt-sms-attempted	Total number of mobile terminated SMSs attempted.	Int32
mt-sms-successful	Total number of mobile terminated SMSs successful.	Int32
sms-memory-available-attempted	Total number of procedures for retrieval of available SMS memory attempted.	Int32
sms-memory-available-successful	Total number of procedures for retrieval of available SMS memory successful.	Int32
conn-prot-data-tx	Total number of protocol data units sent during connection setup.	Int32
conn-prot-data-rx	Total number of protocol data units received during connection setup.	Int32
conn-prot-ack-tx	Total number of Ack messages sent during connection setup.	Int32
conn-prot-ack-rx	Total number of Ack messages received during connection setup.	Int32
conn-prot-error-tx	Total number of protocol errors during connection setup in Tx message.	Int32
conn-prot-error-rx	Total number of protocol errors during connection setup in Rx message.	Int32
conn-prot-error-nwt-fail-tx	Total number of protocol errors during connection setup due to network failure in Tx message.	Int32
conn-prot-error-nwt-fail-rx	Total number of protocol errors during connection setup due to network failure in Rx message.	Int32
conn-prot-error-congestion-tx	Total number of protocol errors during connection setup due to congestion in Tx message.	Int32
conn-prot-error-congestion-rx	Total number of protocol errors during connection setup due to congestion in Rx message.	Int32
conn-prot-error-invalid-tid-tx	Total number of protocol errors during connection setup due to invalid transaction id (TID) in Tx message.	Int32
conn-prot-error-invalid-tid-rx	Total number of protocol errors during connection setup due to invalid transaction id (TID) in Rx message.	Int32
conn-prot-error-invalid-semantic-tx	Total number of protocol errors during connection setup due to invalid semantics in Tx message.	Int32

Statistic	Description	Data Type
conn-prot-error-invalid-semantic-rx	Total number of protocol errors during connection setup due to invalid semantics in Rx message.	Int32
conn-prot-error-invalid-mand-info-tx	Total number of protocol errors during connection setup as mandatory information in Tx message is invalid.	Int32
conn-prot-error-invalid-mand-info-rx	Total number of protocol errors during connection setup as mandatory information in Rx message is invalid.	Int32
conn-prot-error-invalid-msg-type-tx	Total number of protocol errors during connection setup due to invalid Tx message type.	Int32
conn-prot-error-invalid-msg-type-rx	Total number of protocol errors during connection setup due to invalid Tx message type.	Int32
conn-prot-error-invalid-prot-state-tx	Total number of protocol errors during connection setup as protocol state in Tx message is invalid.	Int32
conn-prot-error-invalid-prot-state-rx	Total number of protocol errors during connection setup as protocol state in Rx message is invalid.	Int32
conn-prot-error-invalid-ie-tx	Total number of protocol errors during connection setup as information element in Tx message is invalid.	Int32
conn-prot-error-invalid-ie-rx	Total number of protocol errors during connection setup as information element in Rx message is invalid.	Int32
conn-prot-error-protocol-error-tx	Total number of protocol errors during connection setup as protocol error in Tx message.	Int32
conn-prot-error-protocol-error-rx	Total number of protocol errors during connection setup as protocol error in Rx message.	Int32
conn-prot-error-undefined-cause-tx	Total number of protocol errors during connection setup due to unspecified error in Tx message.	Int32
conn-prot-error-undefined-cause-rx	Total number of protocol errors during connection setup due to unspecified error in Rx message.	Int32
conn-prot-data-dropped	Total number of data packets dropped during connection setup.	Int32
conn-prot-ack-dropped	Total number of Ack message dropped during connection setup.	Int32
conn-prot-error-dropped	Total number of data packets dropped during connection setup due to error in connection.	Int32
conn-prot-inval-tid-rcvd	Total number of message dropped during connection setup due to invalid transaction id (TID) received.	Int32
relay-prot-data-tx	Total number of protocol data units sent during message relay.	Int32
relay-prot-data-rx	Total number of protocol data units received during message relay.	Int32
relay-prot-ack-tx	Total number of Ack messages sent during message relay.	Int32

Statistic	Description	Data Type
relay-prot-ack-rx	Total number of Ack messages received during message relay.	Int32
relay-prot-err-tx	Total number of protocol errors during message relay in Tx message.	Int32
relay-prot-err-rx	Total number of protocol errors during message relay in Rx message.	Int32
relay-prot-err-unassigned-num	Total number of protocol errors during message relay due to unassigned protocol number.	Int32
relay-prot-err-opr-determ-barring	Total number of protocol errors during message relay due to operator determined barring.	Int32
relay-prot-err-call-barred	Total number of protocol errors during message relay due to call barring.	Int32
relay-prot-err-reserved	Total number of protocol errors during message relay due to reserved resources.	Int32
relay-prot-err-sm-transfer-rej	Total number of protocol errors during message relay due to session manager transfer rejection.	Int32
relay-prot-err-dest-out-of-order	Total number of protocol errors during message relay due to out of order on destination.	Int32
relay-prot-err-unidentified-sub	Total number of protocol errors during message relay due to unidentified subscriber.	Int32
relay-prot-err-facility-rej	Total number of protocol errors during message relay due facility rejection.	Int32
relay-prot-err-unknown-sub	Total number of protocol errors during message relay due to unknown subscriber.	Int32
relay-prot-err-netwk-out-of-order	Total number of protocol errors during message relay as network in out-of-order.	Int32
relay-prot-err-temp-fail	Total number of protocol errors during message relay due to temporary failure in network.	Int32
relay-prot-err-congestion	Total number of protocol errors during message relay due to congestion in network.	Int32
relay-prot-err-not-subscribed	Total number of protocol errors during message relay as this service is not subscribed by subscriber.	Int32
relay-prot-err-not-implemented	Total number of protocol errors during message relay as this service is not yet implemented.	Int32
relay-prot-err-interworking-err	Total number of protocol errors during message relay due to interworking error between two network or technology.	Int32
relay-prot-err-res-unavail	Total number of protocol errors during message relay as resources are not available.	Int32
relay-prot-err-mem-capacity-exceed	Total number of protocol errors during message relay as capacity exceeded.	Int32
relay-prot-err-inval-ref-num-tx	Total number of protocol errors during message relay as invalid reference in Tx message.	Int32

Statistic	Description	Data Type
relay-prot-err-inval-ref-num-rx	Total number of protocol errors during message relay as invalid reference in Rx message.	Int32
relay-prot-err-inval-semantic-tx	Total number of protocol errors during message relay due to invalid semantics in Tx message.	Int32
relay-prot-err-inval-semantic-rx	Total number of protocol errors during message relay due to invalid semantics in Rx message.	Int32
relay-prot-err-inval-mand-info-tx	Total number of protocol errors during message relay as mandatory information in Tx message is invalid.	Int32
relay-prot-err-inval-mand-info-rx	Total number of protocol errors during message relay as mandatory information in Rx message is invalid.	Int32
relay-prot-err-inval-msg-type-tx	Total number of protocol errors during message relay due to invalid Tx message type.	Int32
relay-prot-err-inval-msg-type-rx	Total number of protocol errors during message relay due to invalid Tx message type.	Int32
relay-prot-err-inval-prot-state-tx	Total number of protocol errors during message relay as protocol state in Tx message is invalid.	Int32
relay-prot-err-inval-prot-state-rx	Total number of protocol errors during message relay as protocol state in Rx message is invalid.	Int32
relay-prot-err-inval-ie-tx	Total number of protocol errors during message relay as information element in Tx message is invalid.	Int32
relay-prot-err-inval-ie-rx	Total number of protocol errors during message relay as the information element in Rx message is invalid.	Int32
relay-prot-err-protocol-error-rx	<b>Description:</b> New counter in release 9.0: Total number of RP ERROR messages sent with the cause Protocol Error in the message header. <b>Triggers:</b> Counter increments when receiving an RP ERROR, with cause Protocol Error, from the MS/SMSC. <b>Availability:</b> per MAP service <b>Type:</b> Counter	Int32
relay-prot-err-protocol-error-tx	Total number of protocol errors during message relay when there are protocol errors in the transmitted message.	Int32
relay-prot-err-unidentified-error-tx	Total number of protocol errors during message relay due to unspecified error in Tx message.	Int32
relay-prot-err-unidentified-error-rx	Total number of protocol errors during message relay due to unspecified error in Rx message.	Int32
relay-prot-smma-rx	<b>Description:</b> Counter new in release 9.0: Total number RP SMMA messages received. <b>Triggers:</b> Counter increments when the SGSN receives an RP SMMA message from the MS/UE. <b>Availability:</b> per MAP service <b>Type:</b> Counter	Int32

Statistic	Description	Data Type
relay-prot-data-dropped	Total number of data packets dropped during message relay.	Int32
relay-prot-ack-dropped	Total number of Ack message dropped during message relay.	Int32
relay-prot-error-dropped	Total number of data packets dropped during message relay due to error in connection.	Int32
relay-prot-decode-failure	Total number of message dropped during message relay due to invalid transaction id (TID) received.	Int32
concat-mo-sms	Total number of concatenated mobile originated SMSs.	Int32
conn-prot-timer-expiry	Total number of events when timer expired during connection setup.	Int32
tr1n-timer-expiry	Total number of events when TR1N timer expired during mobile terminated SMS is in wait state for RP-ACK.	Int32
tr2n-timer-expiry	Total number of events when TR2N timer expired during mobile terminated SMS is in wait state to send RP-ACK.	Int32
conn-prot-data-retrans	Total number of protocol data units retransmitted during connection setup.	Int32
relay-prot-msg-encode-fail	Total number of message encoding failed during message relay.	Int32
conn-prot-data-tx-fail	Total number of protocol data units Tx messages failed during connection setup.	Int32
conn-prot-data-inval-tid	Total number of protocol data units with invalid transaction id (ID) during connection setup.	Int32
conn-prot-max-retrans-reached	Total number of events when retransmission limit exhausted during connection setup.	Int32
mt-fail-no-db-rec	Total number of mobile terminated messages failed as not database record available.	Int32
mt-fail-conn-prot-data-no-ack-rcvd	Total number of mobile terminated messages failed as no acknowledgement received during connection setup.	Int32
mt-fail-fwd-busy-subs	Total mobile terminated messages failed due to busy subscriber.	Int32
mt-fail-fwd-detached-subs	Total mobile terminated messages failed due to detached subscriber.	Int32
mt-fail-mt-queue-full	Total mobile terminated messages failed as messaged queue was full.	Int32



**Important:** See Bulk Statistics Overview for statistics that are common to all schema.



# Chapter 36

## SGTP Schema Statistics

The SGTP schema provides the following types of statistics:

- **Counter:** A counter records incremental data cumulatively and rolls over when the counter limit is reached. The limit depends upon the counter data type.
- **Gauge:** A gauge statistic indicates a single value representative of a single instance. This type is often used to track particular events in time.

 **Important:** The format string syntax is described by Schema Format String Syntax in the Bulk Statistics Overview chapter.

 **Important:** Unless otherwise indicated, all statistics are counters. For statistics with the Int32 data type, the roll-over to zero limit is 4,294,967,295. For statistics with the Int64 data type, the roll-over to zero limit is 18,446,744,073,709,551,615. All counter statistics are cumulative and reset only by one of the following methods: roll-over (as described above), after a system restart, or after a clear command is performed. All statistics are considered standards-based unless otherwise noted.

The following variables are supported:

**Table 36. SGTP Schema Statistics**

Statistics	Description	Data Type
vpn-id	Identifier for the VPN context in which this SGTP service is running.	Int32
vpn-name	Name of the VPN context in which this SGTP service is running.	String
service-name	Name of the SGTP service for which this bulk statistics are collected.	String
iups-service	Name of the corresponding Iu-PS interface service for this SGTP service.	String
rnc-address	Address of the corresponding radio network controller (RNC) for this SGTP service.	String
ggsn-address	Address of the corresponding GGSN node for this SGTP service. This statistic is obsoleted in release 9.0.	String
sgtpc-total-cpc-req	Total GTP-C messages for create PDP context requests received.	Int32
sgtpc-cpc-req-v1-pri	Total GTP-Cv1 messages for create primary PDP context requests received.	Int32
sgtpc-cpc-req-v0-pri	Total GTP-Cv0 messages for create primary PDP context requests received.	Int32

## ■ Common Statistics

Statistics	Description	Data Type
sgtpc-cpc-req-sec	Total GTP-C (v1 and v0) messages for create secondary PDP context requests received.	Int32
sgtpc-cpc-req-accept	Total GTP-C (v1 and v0) messages for create PDP context requests accepted.	Int32
sgtpc-cpc-req-denied	This statistics has been obsoleted	Int32
sgtpc-cpc-rsp-v1-pri	Total GTP-Cv1 messages response sent for create primary PDP context requests.	Int32
sgtpc-cpc-rsp-v0-pri	Total GTP-Cv0 messages response sent for create primary PDP context requests.	Int32
sgtpc-cpc-rsp-sec	Total GTP (v1 and v0) message response for create secondary PDP context requests sent.	Int32
sgtpc-total-upc-req	Total GTP-C (v1 and v0) messages for update PDP context requests received.	Int32
sgtpc-upc-req-v1-tx	Total GTP-Cv1 message response for update PDP context requests sent.	Int32
sgtpc-upc-req-v0-tx	Total GTP-Cv0 message response for update PDP context requests sent.	Int32
sgtpc-upc-req-v1-rx	Total GTP-Cv1 messages for update PDP context requests received.	Int32
sgtpc-upc-req-v0-rx	This statistics has been obsoleted.	Int32
sgtpc-upc-req-accept-tx	Total GTP-C update PDP context request accept messages sent.	Int32
sgtpc-upc-req-accept-rx	Total GTP-C update PDP context request accept messages received.	Int32
sgtpc-upc-req-accept-v1-tx	Total GTP-C v1 update PDP context requests accept messages sent.	Int32
sgtpc-upc-req-accept-v1-rx	Total GTP-Cv1 message response for update PDP context requests received.	Int32
sgtpc-upc-req-accept-v0-rx	Total GTP-C v0 update PDP context requests accept messages received.	Int32
sgtpc-upc-req-denied-tx	Total GTP-C (v1 and v0) update PDP context requests denied messages sent.	Int32
sgtpc-upc-req-denied-rx	Total GTP-C (v1 and v0) update PDP context requests denied messages received.	Int32
sgtpc-total-dpc-req	Total GTP-C (v1 and v0) messages for delete PDP context requests received.	Int32
sgtpc-dpc-req-v1-tx	Total GTP-Cv1 message response for delete PDP context requests sent.	Int32
sgtpc-dpc-req-v0-tx	Total GTP-Cv0 message response for delete PDP context requests sent.	Int32
sgtpc-dpc-req-v1-rx	Total GTP-Cv1 messages for update PDP delete requests received.	Int32
sgtpc-dpc-req-v0-rx	Total GTP-Cv0 message response for delete PDP context requests received.	Int32
sgtpc-dpc-req-accept-tx	Total GTP-C delete PDP context request accept messages sent.	Int32
sgtpc-dpc-req-accept-rx	Total GTP-C delete PDP context request accept messages received.	Int32
sgtpc-dpc-req-accept-v1-tx	Total GTP-Cv1 delete PDP context requests accept messages sent.	Int32

Statistics	Description	Data Type
sgtpc-dpc-req-accept-v0-tx	Total GTP-Cv0 delete PDP context requests accept messages received.	Int32
sgtpc-dpc-req-accept-v1-rx	Total GTP-Cv1 delete PDP context requests accept messages received.	Int32
sgtpc-dpc-req-accept-v0-rx	Total GTP-Cv0 delete PDP context requests accept messages received.	sgtpc-dpc-req-accept-v1-rx
sgtpc-dpc-req-denied-tx	Total GTP-C (v1 and v0) delete PDP context requests denied messages sent.	Int32
sgtpc-dpc-req-denied-rx	Total GTP-C (v1 and v0) delete PDP context requests denied messages received.	Int32
sgtpc-total-pdu-not-req	Total number of GTP-C (v1 and v0) PDUs not requested but received for primary PDP context.	Int32
sgtpc-pdu-not-req-v1-pri	Total number of GTP-Cv1 PDUs not requested but received for primary PDP context.	Int32
sgtpc-pdu-not-req-v0-pri	Total number of GTP-Cv0 PDUs not requested but received for primary PDP context.	Int32
sgtpc-pdu-not-req-sec	Total number of GTP-C (v1 and v0) PDUs not requested but received for secondary PDP context.	Int32
sgtpc-pdu-not-req-v1-pri-ret	Total number of GTP-Cv1 PDUs not requested but received for primary PDP context and retried.	Int32
sgtpc-pdu-not-req-v0-pri-ret	Total number of GTP-Cv0 PDUs not requested but received for primary PDP context and retried.	Int32
sgtpc-pdu-not-req-sec-ret	Total number of GTP-C (v1 and v0) PDUs not requested but received for secondary PDP context retried.	Int32
sgtpc-pdu-not-req-accept-v1	Total number of GTP-Cv1 PDUs not requested but received for secondary PDP context and accepted.	Int32
sgtpc-pdu-not-req-accept-v0	Total number of GTP-Cv0 PDUs not requested but received for secondary PDP context accepted.	Int32
sgtpc-pdu_not-req-denied	Total number of GTP-C (v1 and v0) PDUs not requested but received and denied.	Int32
sgtpc-total-pdu-not-rej-req	Total number of GTP-C (v1 and v2) PDUs requested and not rejected.	Int32
sgtpc-pdu-not-rej-req-v1-pri	Total number of GTP-Cv1 PDUs requested and not rejected for primary PDP context.	Int32
sgtpc-pdu-not-rej-req-v0-pri	Total number of GTP-Cv0 PDUs requested and not rejected for primary PDP context.	Int32
sgtpc-pdu-not-rej-req-v1-pri-ret	Total number of GTP-Cv1 PDUs requested and not rejected for primary PDP context but retransmitted.	Int32

## Common Statistics

Statistics	Description	Data Type
sgtpc-pdu-not-rej-req-v0-pri-ret	Total number of GTP-Cv0 PDUs not requested and not rejected for primary PDP context but retransmitted.	Int32
sgtpc-pdu-not-rej-req-accept-v1	Total number of GTP-Cv1 PDUs requested and not rejected for primary PDP context.	Int32
sgtpc-pdu-not-rej-req-accept-v0	Total number of GTP-Cv0 PDUs requested and not rejected for primary PDP context.	Int32
sgtpc-pdu_not-rej-req-denied	Total number of PDU notification requests which were not accepted.	Int32
sgtpc-total-sri-req	Total number of GTP-C (v1 and v0) Send Routing Information (SRI) request messages transmitted to the HLR(s).	
sgtpc-sri-req-v1	Total number of GTP-Cv1 Send Routing Information (SRI) request messages transmitted to the HLR(s).	
sgtpc-sri-req-v0	Total number of GTP-Cv0 Send Routing Information (SRI) request messages transmitted to the HLR(s).	
sgtpc-sri-req-v1-ret	The total number of Total number of GTP-Cv1 Send Routing Information (SRI) request messages retransmitted to the HLR(s).	
sgtpc-sri-req-v0-ret	Total number of GTP-Cv0 Send Routing Information (SRI) request messages retransmitted to the HLR(s).	
sgtpc-sri-req-denied	Total number of GTP-C (v1 and v0) Send Routing Information (SRI) request messages transmitted to the HLR(s) and denied.	
sgtpc-total-fail-rpt-req	Total number of GTP-C (v1 and v0) fail report messages requested.	
sgtpc-fail-rpt-req-v1	Total number of GTP-Cv1 fail report messages requested.	
sgtpc-fail-rpt-req-v0	Total number of GTP-Cv0 fail report messages requested.	
sgtpc-fail-rpt-req-v1-ret	Total number of GTP-Cv1 fail report messages requested and retransmitted.	
sgtpc-fail-rpt-req-v0-ret	Total number of GTP-Cv0 fail report messages requested and retransmitted.	
sgtpc-fail-rpt-req-denied	Total number of GTP-Cv1 fail report messages requested and denied.	
sgtpc-ident-req-v1-tx	Total GTP-C v1 identification request messages sent.	Int32
sgtpc-ident-req-v0-tx	Total GTP-C v0 identification request messages sent.	Int32
sgtpc-ident-req-v1-rx	Total GTP-C v1 identification request messages received.	Int32
sgtpc-ident-req-v0-rx	Total GTP-C v0 identification request messages received.	Int32
sgtpc-ident-req-accept-tx	Total GTP-C identification request accept messages sent.	Int32
sgtpc-ident-req-accept-rx	Total GTP-C identification request accept messages received.	Int32

Statistics	Description	Data Type
sgtpc-ident-req-accept-v1-tx	Total GTP-Cv1 identification request accept messages sent.	Int32
sgtpc-ident-req-accept-v0-tx	Total GTP-Cv0 identification request accept messages sent.	Int32
sgtpc-ident-req-accept-v1-rx	Total GTP-Cv1 identification request accept messages received.	Int32
sgtpc-ident-req-accept-v0-rx	Total GTP-Cv0 identification request accept messages received.	Int32
sgtpc-ident-req-denied-tx	Total GTP-C (v1 and v0) identification request denied messages sent.	Int32
sgtpc-ident-req-denied-rx	Total GTP-C (v1 and v0) identification request denied messages received.	Int32
sgtpc-sgsn-ctxt-req-v1-tx	Total GTP-Cv1 SGSN context request messages sent.	Int32
sgtpc-sgsn-ctxt-req-v0-tx	Total GTP-Cv0 SGSN context request messages sent.	Int32
sgtpc-sgsn-ctxt-req-v1-rx	Total GTP-Cv1 SGSN context request messages received.	Int32
sgtpc-sgsn-ctxt-req-v0-rx	Total GTP-Cv0 SGSN context request messages received.	Int32
sgtpc-sgsn-ctxt-req-accept-tx	Total GTP-C SGSN context request accept messages sent.	Int32
sgtpc-sgsn-ctxt-req-accept-rx	Total GTP-C SGSN context request accept messages received.	Int32
sgtpc-sgsn-ctxt-req-accept-v1-tx	Total GTP-Cv1 SGSN context request accept messages sent.	Int32
sgtpc-sgsn-ctxt-req-accept-v0-tx	Total GTP-Cv0 SGSN context request accept messages sent.	Int32
sgtpc-sgsn-ctxt-req-accept-v1-rx	Total GTP-Cv1 SGSN context request accept messages received.	Int32
sgtpc-sgsn-ctxt-req-accept-v0-rx	Total GTP-Cv0 SGSN context request accept messages received.	Int32
sgtpc-sgsn-ctxt-req-denied-tx	Total GTP-C (v1 and v0) SGSN context request denied messages sent.	Int32
sgtpc-sgsn-ctxt-req-denied-rx	Total GTP-C (v1 and v0) SGSN context request denied messages received.	Int32
sgtpc-sgsn-ctxt-ack-accept-tx	Total GTP-C SGSN context acknowledgement accept messages sent.	Int32
sgtpc-sgsn-ctxt-ack-accept-ex	Total GTP-C SGSN context acknowledgement accept messages sent.	Int32

## Common Statistics

Statistics	Description	Data Type
sgtpc-sgsn-ctxt-ack-accept-v1-tx	Total GTP-Cv1 SGSN context request accept acknowledge messages sent.	Int32
sgtpc-sgsn-ctxt-ack-accept-v0-tx	Total GTP-Cv0 SGSN context request accept acknowledge messages sent.	Int32
sgtpc-sgsn-ctxt-ack-accept-v1_rx	Total GTP-Cv1 SGSN context request accept acknowledge messages received.	Int32
sgtpc-sgsn-ctxt-ack-accept-v0_rx	Total GTP-Cv0 SGSN context request accept acknowledge messages received.	Int32
sgtpc-sgsn-ctxt-ack-denied-tx	Total GTP-C (v1 and v0) SGSN context request denial acknowledge messages sent.	Int32
sgtpc-sgsn-ctxt-ack-denied-rx	Total GTP-C (v1 and v0) SGSN context request denial acknowledge messages received.	Int32
sgtpc-fwd-reloc-req-tx	Total GTP-C (v1 and v0) forward relocation request messages sent.	Int32
sgtpc-fwd-reloc-req-rx	Total GTP-C (v1 and v0) forward relocation request messages received.	Int32
sgtpc-fwd-reloc-discard-tx	This statistics has been obsoleted.	Int32
sgtpc-fwd-reloc-req-accept-tx	Total GTP-C (v1 and v0) forward relocation request accept response messages sent.	Int32
sgtpc-fwd-reloc-req-accept-rx	Total GTP-C (v1 and v0) forward relocation request accept response messages received.	Int32
sgtpc-fwd-reloc-denied-tx	Total GTP-C (v1 and v0) forward relocation request denied response messages sent.	Int32
sgtpc-fwd-reloc-denied-rx	Total GTP-C (v1 and v0) forward relocation request denied response messages received.	Int32
sgtpc-fwd-srnsctxt-req-tx	Total GTP-C (v1 and v0) forward relocation request messages with serving radio network subsystem (SRNS) context request sent.	Int32
sgtpc-fwd-srnsctxt-req-rx	Total GTP-C (v1 and v0) forward relocation request messages with SRNS context request received.	Int32
sgtpc-fwd-srnsctxt-discard-rx	This statistics has been obsoleted.	Int32
sgtpc-fwd-srnsctxt-ack-tx	Total GTP-C (v1 and v0) forward relocation request messages with SRNS context request acknowledge sent.	Int32
sgtpc-fwd-srnsctxt-ack-rx	Total GTP-C (v1 and v0) forward relocation request messages with SRNS context request acknowledge received.	Int32
sgtpc-fwd-srnsctxt-ack-denied-tx	Total GTP-C (v1 and v0) forward relocation request messages with SRNS context request denied sent.	Int32
sgtpc-fwd-srnsctxt-ack-denied-rx	Total GTP-C (v1 and v0) forward relocation request messages with SRNS context request denied received.	Int32

Statistics	Description	Data Type
sgtpc-fwd-reloc-compl-tx	Total GTP-C (v1 and v0) forward relocation request messages with procedure complete message sent.	Int32
sgtpc-fwd-reloc-compl-rx	Total GTP-C (v1 and v0) forward relocation request messages with procedure complete message received.	Int32
sgtpc-fwd-rel-compl-ack-accept-tx	Total GTP-C (v1 and v0) forward relocation request messages for procedure complete acknowledge sent.	Int32
sgtpc-fwd-rel-compl-ack-accept-rx	Total GTP-C (v1 and v0) forward relocation request messages for procedure complete acknowledge received.	Int32
sgtpc-fwd-rel-compl-ack-denied-tx	Total GTP-C (v1 and v0) forward relocation request messages for procedure complete sent with ACK denial.	Int32
sgtpc-fwd-rel-compl-ack-denied-rx	Total GTP-C (v1 and v0) forward relocation request messages for procedure complete received with ACK denial.	Int32
sgtpc-reloc-cncl-req-tx	Total GTP-C (v1 and v0) messages sent with relocation cancel request.	Int32
sgtpc-reloc-cncl-req-rx	Total GTP-C (v1 and v0) message response received for relocation cancel request.	Int32
sgtpc-reloc-cncl-req-accept-tx	Total GTP-C (v1 and v0) messages sent with acceptance for relocation cancel request.	Int32
sgtpc-reloc-cncl-req-accept-rx	Total GTP-C (v1 and v0) message response received with acceptance for relocation cancel request.	Int32
sgtpc-reloc-cncl-denied-tx	Total GTP-C (v1 and v0) messages sent with denial for relocation cancel request.	Int32
sgtpc-reloc-cncl-denied-rx	Total GTP-C (v1 and v0) message response with received with denial for relocation cancel request.	Int32
sgtpc-paket-discarded	Total GTP-C (v1 and v0) packets discarded.	Int32
sgtpc-v1-echo-req-tx	Total GTP-C v1 echo request messages sent.	Int32
sgtpc-v0-echo-req-tx	Total GTP-C v0 echo request messages sent.	Int32
sgtpc-v1-retrnas-echo-req-tx	Total GTP-C v1 echo request messages retransmitted.	Int32
sgtpc-v0-retrnas-echo-req-tx	Total GTP-C v0 echo request messages retransmitted.	Int32
sgtpc-v1-echo-req-rx	Total GTP-C v1 echo request messages received.	Int32
sgtpc-v0-echo-req-rx	Total GTP-C v0 echo request messages received.	Int32
sgtpc-ret-v1-echo-req-rx	Total GTP-C v1 echo request retransmitted messages received.	Int32
sgtpc-ret-v0-echo-req-rx	Total GTP-C v0 echo request retransmitted messages received.	Int32
sgtpc-v1-echo-rsp-tx	Total GTP-C v1 echo response messages sent.	Int32

Statistics	Description	Data Type
sgtpc-v0-echo-rsp-tx	Total GTP-C v0 echo response messages sent.	Int32
sgtpc-v1-echo-rsp-rx	Total GTP-C v1 echo response messages received.	Int32
sgtpc-v0-echo-rsp-rx	Total GTP-C v0 echo response messages received.	Int32
sgtpc-ver-not-supported-rx	Total GTP-C messages of not supported version of GTP received.	Int32
sgtpc-ver-not-supported-tx	Total GTP-C messages of not supported version of GTP messages sent.	Int32
sgtpc-supp-extn-hdr-notif-rx	Total GTP messages with supported extension headers notification received.	Int32
sgtpc-supp-extn-hdr-notif-tx	Total GTP messages with supported extension headers notification sent.	Int32
sgtpu-ggsn-pkt-sent	Total packets for GTP-U messages sent to GGSN.	Int64
sgtpu-ggsn-byts-sent	<b>Description:</b> Total number of GTP-U messages bytes sent to GGSN at a given instance of time. <b>Triggers:</b> Gauge changes every time an uplink packet is sent to the GGSN. <b>Availability:</b> Across all SGTP services, per SGTP service, per GGSN <b>Type:</b> Counter	Int64
sgtpu-rnc-pkt-sent	Total packets for GTP-U messages sent to RNC.	Int64
sgtpu-rnc-byts-sent	<b>Description:</b> Total number of bytes for GTP-U messages sent to the RNC at a given instance in time. <b>Triggers:</b> Gauge changes every time a downlink packet is sent to the RNC. <b>Availability:</b> Across all SGTP services, per SGTP service, per RNC <b>Type:</b> Counter	Int64
sgtpu-sgsn-pkt-sent	Total packets for GTP-U messages sent to SGSN.	Int64
sgtpu-sgsn-byts-sent	<b>Description:</b> Total number of GTP-U message bytes sent to the peer SGSN at a given instance of time. <b>Triggers:</b> Gauge changes every time a packet is sent to a “new” SGSN during an Inter SGSN handoff. <b>Availability:</b> Across all SGTP services, per SGTP service <b>Type:</b> Counter	Int64
sgtpu-ggsn-pkt-rcvd	Total packets for GTP-U messages received from GGSN.	Int64
sgtpu-ggsn-byts-rcvd	<b>Description:</b> Total number of GTP-U message bytes received from the GGSN at a given instance of time. <b>Triggers:</b> Gauge changes every time a downlink packet is received from the GGSN. <b>Availability:</b> Across all SGTP services, per SGTP service, per GGSN <b>Type:</b> Counter	Int64
sgtpu-ggsn-pkt-queued	Total packets queued for GTP-U messages from GGSN.	Int64
sgtpu-ggsn-byts-queued	Total bytes queued for GTP-U messages from GGSN.	Int64

Statistics	Description	Data Type
sgtpu-ggsn-pkt-forwarded	<b>Description:</b> This proprietary counter indicates the total number of packets that are forwarded from the GGSN queue. <b>Triggers:</b> Increments when a packet is forwarded from the GGSN queue. <b>Availability:</b> Per SGTP service <b>Type:</b> Counter	Int64
sgtpu-ggsn-byts-forwarded	<b>Description:</b> This proprietary counter indicates the total number of bytes that are forwarded from the GGSN queue. <b>Triggers:</b> Increments when a byte is forwarded from the GGSN queue. <b>Availability:</b> Per SGTP service <b>Type:</b> Counter	Int64
sgtpu-total-ggsn-pkt-drop	Total packets dropped for GTP-U messages from GGSN.	Int64
sgtpu-total-ggsn-byts-drop	Total bytes dropped for GTP-U messages from GGSN.	Int64
sgtpu-ggsn-pkt-queue-full	Total packets dropped due to queued buffer limit full for GTP-U messages from GGSN.	Int64
sgtpu-ggsn-byts-queue-full	Total bytes dropped due to queued buffer limit full for GTP-U messages from GGSN.	Int64
sgtpu-total-pkt-ctxt-preserved	Total number of GTP packets from GGSN dropped in preserved context.	Int64
sgtpu-total-byts-ctxt-preserved	Total number of GTP bytes from GGSN dropped in preserved with context.	Int64
sgtpu-ggsn-pkt-unkwn-sess	Total number of GTP packets from GGSN dropped in unknown session.	Int64
sgtpu-ggsn-byts-unkwn-sess	Total number of GTP bytes from GGSN dropped in unknown session.	Int64
sgtpu-ggsn-pkt-drop-suspend-dealloc-st	Total number of GTP packets from GGSN dropped due to session de-allocation state was in suspended state.	Int64
sgtpu-ggsn-byts-drop-suspend-dealloc-st	Total number of GTP bytes from GGSN dropped due to session de-allocation state was in suspended state.	Int64
sgtpu-ggsn-pkt-page-fail	Total number of GTP packets dropped due to paging failure when there was downlink data from GGSN.	Int64
sgtpu-ggsn-byts-page-fail	Total number of GTP bytes dropped due to paging failure when there was downlink data from GGSN.	Int64
sgtpu-ggsn-pkt-v0-seq-num-nt-pres	Total number of packets from GGSN dropped as GTP-Uv0 messages received with sequence number flag set to false.	Int64
sgtpu-ggsn-byts-v0-seq-num-nt-pres	Total number of bytes from GGSN dropped as GTP-Uv0 messages received with sequence number flag set to false.	Int64
sgtpu-ggsn-pkt-unknown-version	Total number of GTP-U packets received from GGSN with unknown GTP version.	Int64
sgtpu-ggsn-byts-unknown-version	Total number of GTP-U bytes received from GGSN with unknown GTP version.	Int64

Statistics	Description	Data Type
sgtpu-ggsn-pkt-invalid-msg-length	Total number of GTP packets from GGSN dropped as GTP-U messages received with invalid message length.	Int64
sgtpu-ggsn-byts-invalid-msg-length	Total number of GTP bytes from GGSN dropped due to GTP-U messages received with invalid message length.	Int64
sgtpu-ggsn-pkt-traffic-policing	Total number of GTP-U packets received from GGSN under subscriber traffic policing support.	Int64
sgtpu-ggsn-byts-traffic-policing	Total number of GTP-U bytes received from GGSN under subscriber traffic policing support.	Int64
sgtpu-ggsn-pkt-iu-release	<b>Description:</b> Total number of downlink packets that were queued but dropped due to IU/RAB release. <b>Triggers:</b> Counter at the new SGSN increments when Iu/RAB gets released while inter-SGSN-RAU is in progress and downlink data is queued during RAU. <b>Availability:</b> Per SGTP service <b>Type:</b> Counter	Int64
sgtpu-ggsn-byts-iu-release	<b>Description:</b> Total number of downlink bytes that were queued but dropped due to IU/RAB release. <b>Triggers:</b> Counter at the new SGSN increments when Iu/RAB gets released while inter-SGSN-RAU is in progress and downlink data is queued during RAU. <b>Availability:</b> per SGTP service <b>Type:</b> Counter	Int64
sgtpu-ggsn-pkt-t3-tmr-expiry	<b>Description:</b> Total number of downlink packets that were queued but dropped due to T3-tunnel timer expiry during inter-SGSN RAU procedure. <b>Triggers:</b> During inter-SGSN RAU at the old SGSN, neither Cancel Location or SGSN Context Ack are received when t3-tunnel timer is fired causing the RAU procedure to abort. If old RABs are not available, the data queued during the RAU will be dropped. <b>Availability:</b> per SGTP service <b>Type:</b> Counter	Int64
sgtpu-ggsn-byts-t3-tmr-expiry	<b>Description:</b> Total number of downlink bytes that were queued but dropped due to T3-tunnel timer expiry during inter-SGSN RAU procedure. <b>Triggers:</b> During inter-SGSN RAU at the old SGSN, neither Cancel Location or SGSN Context Ack are received when t3-tunnel timer is fired causing the RAU procedure to abort. If old RABs are not available, the data queued during the RAU will be dropped. <b>Availability:</b> per SGTP service <b>Type:</b> Counter	Int64
sgtpu-ggsn-pkt-bvc-block	<b>Description:</b> This proprietary counter indicates the total number of packets that are dropped from the GGSN queue, because of BVC Block or BVC Reset messages received for the MM context. <b>Triggers:</b> Increments when a packet is dropped from the GGSN queue because of BVC Reset/BVC Block received for the MM context. <b>Availability:</b> per SGTP service <b>Type:</b> Counter	Int64

Statistics	Description	Data Type
sgtpu-ggsn-byts-bvc-block	<b>Description:</b> This proprietary counter indicates the total number of bytes that are dropped from the GGSN queue, because of BVC Block or BVC Reset messages received for the MM context. <b>Triggers:</b> Increments when a byte is dropped from the GGSN queue because of BVC Reset/BVC Block received for the MM context. <b>Availability:</b> per SGTP service <b>Type:</b> Counter	Int64
sgtpu-rnc-pkt-rcvd	Total packets for GTP-U messages received from RNC.	Int64
sgtpu-rnc-byts-rcvd	<b>Description:</b> Total number of GTP-U messages bytes received from the RNC at a given instance of time. <b>Triggers:</b> Increments when SGSN receives an uplink packet from an RNC. <b>Availability:</b> Across all SGTP services, per SGTP service, per RNC <b>Type:</b> Counter	Int64
sgtpu-rnc-pkt-queued	Total packets queued for GTP-U messages from RNC.	Int64
sgtpu-rnc-byts-queued	Total bytes queued for GTP-U messages from RNC.	Int64
sgtpu-total-rnc-pkt-drop	Total packets dropped for GTP-U messages from RNC.	Int64
sgtpu-total-rnc-byts-drop	Total bytes dropped for GTP-U messages from RNC.	Int64
sgtpu-rnc-pkt-queue-full	Total packets dropped due to queued buffer limit full for GTP-U messages from RNC.	Int64
sgtpu-rnc-byts-queue-full	Total bytes dropped due to queued buffer limit full for GTP-U messages from RNC.	Int64
sgtpu-rnc-pkt-unkwn-sess	Total number of GTP packets from RNC dropped in unknown session.	Int64
sgtpu-rnc-byts-unkwn-sess	Total number of GTP bytes from RNC dropped in unknown session.	Int64
sgtpu-rnc-pkt-rau-in-active-reg-st	Total number of GTP packets from RNC dropped due to routing area update procedure in active registration state.	Int64
sgtpu-rnc-byts-rau_in_active-reg-st	Total number of GTP bytes from RNC dropped due to routing area update procedure in active registration state.	Int64
sgtpu-rnc-pkt-drop-suspended-dealloc-st	Total number of GTP packets from RNC dropped due to session de-allocation state was in suspended state.	Int64
sgtpu-rnc-byts-drop-suspended-dealloc-st	Total number of GTP bytes from RNC dropped due to session de-allocation state was in suspended state.	Int64
sgtpu-rnc-pkt-unknown-version	Total number of GTP-U packets received from RNC with unknown GTP version.	Int64
sgtpu-rnc-byts-unknown-version	Total number of GTP-U bytes received from RNC for packets with unknown GTP version.	Int64
sgtpu-rnc-pkt-invalid-msg-length	Total number of GTP packets from RNC dropped due to GTP-Uv0 messages received with invalid message length.	Int64

## Common Statistics

Statistics	Description	Data Type
sgtput-rnc-byts-invalid-msg-length	Total number of GTP bytes from RNC dropped due to TP-Uv0 messages received with invalid message length.	Int64
sgtput-rnc-pkt-source-ip-viol	Total number of GTP packets from RNC dropped as received GTP-Uv0 message shows source IP violation.	Int64
sgtput-rnc-byts-source-ip-viol	Total number of GTP bytes from RNC dropped as received GTP-Uv0 message shows source IP violation.	Int64
sgtput-rnc-pkt-traffic-policing	Total number of GTP-U packets received from RNC under subscriber traffic policing support.	Int64
sgtput-rnc-byts-traffic-policing	Total number of GTP-U bytes received from RNC under subscriber traffic policing support.	Int64
sgtput-sgsn-pkt-rcvd	Total packets for GTP-U messages received from peer SGSN.	Int64
sgtput-sgsn-byts-rcvd	Total bytes for GTP-U messages received from peer SGSN.	Int64
sgtput-sgsn-pkt-queued	Total packets queued for GTP-U messages from peer SGSN.	Int64
sgtput-sgsn-byts-queued	Total bytes queued for GTP-U messages from peer SGSN.	Int64
sgtput-total-sgsn-pkt-drop	Total packets dropped for GTP-U messages from peer SGSN.	Int64
sgtput-total-sgsn-byts-drop	Total bytes dropped for GTP-U messages from peer SGSN.	Int64
sgtput-sgsn-pkt-queue-full	Total packets dropped due to queued buffer limit full for GTP-U messages from peer SGSN.	Int64
sgtput-sgsn-byts-queue-full	Total bytes dropped due to queued buffer limit full for GTP-U messages from peer SGSN.	Int64
sgtput-sgsn-pkt-unkwn-sess	Total number of GTP packets from peer SGSN dropped in unknown session.	Int64
sgtput-sgsn-byts-unkwn-sess	Total number of GTP bytes from peer SGSN dropped in unknown session.	Int64
sgtput-sgsn-pkt-iu-release	Total number of GTP packets from peer SGSN received with Iu release message.	Int64
sgtput-sgsn-byts-iu-release	Total number of GTP bytes from peer SGSN received with Iu release message.	Int64
sgtput-sgsn-pkt-inconsistent-tunnel-state	Total number of GTP packets from peer SGSN received during inconsistent tunnel state.	Int64
sgtput-sgsn-byts-inconsistent-tunnel-state	Total number of GTP bytes from peer SGSN received during inconsistent tunnel state.	Int64
sgtput-sgsn-pkt-sess-dealloc	Total number of GTP packets from peer SGSN received during session deallocation procedure.	Int64

Statistics	Description	Data Type
sgtpu-sgsn-byts-sess-dealloc	Total number of GTP bytes from peer SGSN received during session deallocation procedure.	Int64
sgtpu-sgsn-pkt-unknown-version	Total number of GTP-U packets received from peer SGSN with unknown GTP version.	Int64
sgtpu-sgsn-byts-unknown-version	Total number of GTP-U bytes received from peer SGSN with unknown GTP version.	Int64
sgtpu-sgsn-pkt-invalid-msg-length	Total number of GTP packets from peer SGSN received with invalid message length.	Int64
sgtpu-sgsn-byts-invalid-msg-length	Total number of GTP bytes from peer SGSN received with invalid message length.	Int64
sgtpu-echo-req-tx	Total number of GTP-U echo request messages sent.	Int32
sgtpu-echo-req-rx	Total number of GTP-U echo request messages received.	Int32
sgtpu-echo-res-tx	Total number of GTP-U echo response messages sent.	Int32
sgtpu-echo-res-rx	Total number of GTP-U echo response messages received.	Int32
sgtpu-v1-echo-req-tx	Total GTP-Uv1 echo request messages sent.	Int32
sgtpu-v0-echo-req-tx	Total GTP-Uv0 echo request messages sent.	Int32
sgtpu-v1-echo-req-rx	Total GTP-Uv1 echo request messages received.	Int32
sgtpu-v0-echo-req-rx	Total GTP-Uv0 echo request messages received.	Int32
sgtpu-v1-echo-rsp-tx	Total GTP-Uv1 echo request response messages sent.	Int32
sgtpu-v0-echo-rsp-tx	Total GTP-Uv0 echo request response messages sent.	Int32
sgtpu-v1-echo-rsp-rx	Total GTP-Uv1 echo request response messages received.	Int32
sgtpu-v0-echo-rsp-rx	Total GTP-Uv0 echo request response messages received.	Int32
sgtpu-v1-echo-req-retrans	Total GTP-Uv1 echo request response messages retransmitted.	Int32
sgtpu-v0-echo-req-retrans	Total GTP-Uv0 echo request response messages retransmitted.	Int32
sgtpu-ggsn-errind-sent	Total GTP-U (v1 and v0) messages sent to GGSN with error indication.	Int32
sgtpu-ggsn-errind-rcvd	Total GTP-U (v1 and v0) messages received from GGSN with error indication.	Int32
sgtpu-rnc-errind-sent	Total GTP-U (v1 and v0) messages sent to RNC with error indication.	Int32
sgtpu-rnc-errind-rcvd	Total GTP-U (v1 and v0) messages received from RNC with error indication.	Int32
sgtpu-sgsn-unknown-errind	Total GTP-U (v1 and v0) messages sent to peer SGSN with unknown error indication.	Int32
sgtpu-sgsn-unsolicited-data-pkt	Total GTP-U (v1 and v0) messages received with unsolicited data packets in GTP-U messages.	Int32

## ■ Common Statistics

Statistics	Description	Data Type
sgtpu-sgsn-err-ind-for-unsolicited-pkt	Total GTP-U (v1 and v0) messages received with error indication for unsolicited pata packets in GTP-U messages.	Int32
sgtpu-total-active-ggsn	Total active GGSN nodes. This statistic value is of Gauge.	Int32
sgtpu-total-active-rnc	Total active RNC nodes. This statistic value is of Gauge.	Int32
sgtpu-errors-payload-length-mismatch	<b>Description:</b> Total number of “invalid” packets received from GGSN or RNC with errors due to mismatch in payload length. <b>Triggers:</b> Increments when received GTP-U (v1 and v0) header does not match with the actual payload length field. <b>Availability:</b> Across all SGTP services, per SGTP service <b>Type:</b> Counter	Int32



**Important:** See Bulk Statistics Overview for statistics that are common to all schema.

# Chapter 37

## SS7 Link Schema Statistics

The SS7 Link schema provides the following types of statistics:

- **Counter:** A counter records incremental data cumulatively and rolls over when the counter limit is reached. The limit depends upon the counter data type.
- **Gauge:** A gauge statistic indicates a single value representative of a single instance. This type is often used to track particular events in time.

 **Important:** The format string syntax is described by Schema Format String Syntax in the Bulk Statistics Overview chapter.

 **Important:** Unless otherwise indicated, all statistics are counters. For statistics with the Int32 data type, the roll-over to zero limit is 4,294,967,295. For statistics with the Int64 data type, the roll-over to zero limit is 18,446,744,073,709,551,615. All counter statistics are cumulative and reset only by one of the following methods: roll-over (as described above), after a system restart, or after a clear command is performed. All statistics are considered standards-based unless otherwise noted.

The following variables are supported:

**Table 37. SS7 Link Statistics**

Statistics	Description	Data Type
ss7rd-number	Number identifies the SS7 routing domain.	Int32
ss7-linkset-id	Link set identifier	Int32
ss7-link-id	Link identifier	Int32
ss7-link-mtp3-changeover-order-tx	Changeover order sent per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-mtp3-changeover-order-rx	Changeover order received per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-mtp3-changeover-order-ack-tx	Changeover order acknowledgement sent per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-mtp3-changeover-order-ack-rx	Changeover order acknowledgement received per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32

## ■ Common Statistics

Statistics	Description	Data Type
ss7-link-mtp3-changeback-declaration-tx	Change-back declaration sent per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-mtp3-changeback-declaration-rx	Change-back declaration received per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-mtp3-changeback-ack-tx	Change-back acknowledgement sent per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-mtp3-changeback-ack-rx	Change-back acknowledgement received per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-mtp3-emergency-changeover-tx	Emergency Changeover sent per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-mtp3-emergency-changeover-rx	Emergency Changeover received per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-mtp3-emergency-changeover-ack-tx	Emergency Changeover acknowledgement sent per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-mtp3-emergency-changeover-ack-rx	Emergency Changeover acknowledgement received per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-mtp3-inhibit-tx	Link Inhibit sent per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-mtp3-inhibit-rx	Link Inhibit received per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-mtp3-inhibit-ack-tx	Link Inhibit acknowledgement sent per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-mtp3-inhibit-ack-rx	Link Inhibit acknowledgement received per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-mtp3-uninhibit-tx	Link Uninhibit sent per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-mtp3-uninhibit-rx	Link Uninhibit received per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-mtp3-uninhibit-ack-tx	Link Uninhibit acknowledgement sent per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-mtp3-uninhibit-ack-rx	Link Uninhibit acknowledgement received per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-mtp3-inhibit-deny-tx	Link Inhibit Denied sent per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-mtp3-inhibit-deny-rx	Link Inhibit Denied received per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-mtp3-force-uninhibit-tx	Link force uninhibit sent per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-mtp3-force-uninhibit-rx	Link force uninhibit received per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-mtp3-local-inhibit-test-tx	Link local inhibit test sent per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-mtp3-local-inhibit-test-rx	Link local inhibit test received per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32

Statistics	Description	Data Type
ss7-link-mtp3-remote-inhibit-test-tx	Link remote inhibit test sent per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-mtp3-remote-inhibit-test-rx	Link remote inhibit test received per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-mtp3-connection-order-tx	Link connection order sent per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-mtp3-connection-order-rx	Link connection order received per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-mtp3-connection-order-ack-tx	Link connection order acknowledgement sent per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-mtp3-connection-order-ack-rx	Link connection order acknowledgement received per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-mtp3-test-tx	Link Test sent per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-mtp3-test-rx	Link Test received per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-mtp3-test-ack-tx	Link Test acknowledgement sent per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-mtp3-test-ack-rx	Link Test acknowledgement received per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-mtp3-sif-octet-tx	SIF octets sent per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-mtp3-sif-octet-rx	SIF octets received per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-mtp3-sio-octet-tx	SIO octet sent per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-mtp3-sio-octet-rx	SIO octet received per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-mtp3-sio-msu-tx	MSUs sent per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-mtp3-sio-msu-rx	MSUs received per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-mtp3-tx-msu-dropped	MSUs dropped per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-mtp3-tx-msu-congestion-dropped	MSUs dropped due to congestion per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-mtp3-invalid-pdu-rx	Invalid PDUs received per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-mtp3-congestion-threshold1	Link congestion threshold 1 per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-mtp3-congestion-threshold2	Link congestion threshold 2 per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-mtp3-congestion-threshold3	Link congestion threshold 3 per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-mtp3-unavail-duration	Link unavailable duration per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-mtp3-congested-duration	Link Congested duration per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32

Statistics	Description	Data Type
ss7-link-mtp3-inhibited-duration	<p><b>Description:</b> Total inhibited duration of the SS7 MTP3 link in deci-seconds. This counter is specific to releases 8.1 and higher.</p> <p><b>Triggers:</b></p> <ol style="list-style-type: none"> <li>1. Increments when the SGSN's MTP3 link is inhibited, using a management operation command, for maintenance or testing purposes.</li> <li>2. Increments when the SGSN receives an Inhibit MTP3 message from the remote end.</li> </ol> <p><b>Availability:</b> per MTP3 layer of the SS7 link</p> <p><b>Type:</b> Counter</p>	Int 32
ss7-signalling-link-failure	<p><b>Description:</b> Total number of times the MTP3 link has failed between the SGSN and another network element and caused a loss of link connectivity.</p> <p><b>Triggers:</b> Increments when SS7 signaling link goes to inactive state from active state due to link failure due to:</p> <ul style="list-style-type: none"> <li>- physical link failure</li> <li>- peer restarts</li> <li>- link is put-down by management for maintenance</li> <li>- no response from the peer node and the SSCOP link 'keep-alive- timer timeslot</li> </ul> <p><b>Availability:</b> per SS7 routing domain, per linkset, per link</p> <p><b>Type:</b> Counter</p>	Int32
ss7-dpc-point-code	Destination Point Code	Int32
ss7-dpc-route-set-test-msg-tx	Route set test messages sent per SS7 Routing Domain ID and Destination Point Code.	Int32
ss7-dpc-route-set-congestion-test-msg-tx	Route set congestion test message sent per SS7 Routing Domain ID and Destination Point Code.	Int32
ss7-dpc-transfer-prohibited-tx	Transfer prohibited sent per SS7 Routing Domain ID and Destination Point Code.	Int32
ss7-dpc-transfer-restricted-tx	Transfer restricted sent per SS7 Routing Domain ID and Destination Point Code.	Int32
ss7-dpc-transfer-allowed-tx	Transfer allowed sent per SS7 Routing Domain ID and Destination Point Code.	Int32
ss7-dpc-transfer-controlled-tx	Transfer controlled sent per SS7 Routing Domain ID and Destination Point Code.	Int32
ss7-dpc-sif-octets-tx	Number of SIF octets sent per SS7 Routing Domain ID and Destination Point Code.	Int32
ss7-dpc-sio-octets-tx	Number of SIO octets sent per SS7 Routing Domain ID and Destination Point Code.	Int32
ss7-dpc-route-set-test-msg-rx	Route set test message received per SS7 Routing Domain ID and Destination Point Code.	Int32
ss7-dpc-route-set-congestion-test-msg-rx	Route set congestion test message received per SS7 Routing Domain ID and Destination Point Code.	Int32
ss7-dpc-transfer-prohibited-rx	Transfer prohibited received per SS7 Routing Domain ID and Destination Point Code.	Int32
ss7-dpc-transfer-restricted-rx	Transfer restricted received per SS7 Routing Domain ID and Destination Point Code.	Int32
ss7-dpc-transfer-allowed-rx	Transfer allowed received per SS7 Routing Domain ID and Destination Point Code.	Int32

Statistics	Description	Data Type
ss7-dpc-transfer-controlled-rx	Transfer controlled received per SS7 Routing Domain ID and Destination Point Code.	Int32
ss7-dpc-usn-msg-rx	Number of USN message received per SS7 Routing Domain ID and Destination Point Code.	Int32
ss7-dpc-unavailable-duration	Route Unavailable duration per SS7 Routing Domain ID and Destination Point Code.	Int32
ss7-dpc-unavailable-count	Route unavailable count per SS7 Routing Domain ID and Destination Point Code.	Int32
ss7-link-sscf-mtp3-frames-tx	MTP3 Frames sent per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-sscf-out-of-service-pdu-tx	Out of service Pdu sent per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-sscf-processor-outage-tx	Processor outage Pdu sent per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-sscf-in-service-pdu-tx	In service Pdu sent per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-sscf-normal-pdu-tx	Normal Pdu sent per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-sscf-emergency-pdu-tx	Emergency Pdu sent per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-sscf-alignment-not-successfull-pdu-tx	Alignment not successful Pdu sent per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-sscf-management-initiated-pdu-tx	Management initiated Pdu sent per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-sscf-protocol-error-pdu-tx	Protocol error pdu sent per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-sscf-proving-not-successfull-pdu-tx	Proving not successful Pdu sent per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-sscf-mtp3-frames-rx	MTP3 Frames received per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-sscf-out-of-service-pdu-rx	Out of service Pdu received per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-sscf-processor-outage-rx	Processor outage Pdu received per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-sscf-in-service-pdu-rx	In service Pdu received per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-sscf-normal-pdu-rx	Normal Pdu received per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-sscf-emergency-pdu-rx	Emergency Pdu received per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-sscf-alignment-not-successfull-pdu-rx	Alignment not successful Pdu received per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-sscf-management-initiated-pdu-rx	Management initiated Pdu received per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-sscf-protocol-error-pdu-rx	Protocol error PDU received per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32

## Common Statistics

Statistics	Description	Data Type
ss7-link-sscf-proving-not-successfull-pdu-rx	Proving not successful Pdu received per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-qsaa-vpi	Virtual path identifier per SS7 Routing Domain ID, Linkset ID, and Link ID used for the Quasi Signaling Application Adaptation Layer (QSAAL).	Int32
ss7-link-qsaa-vci	Virtual channel identifier per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-qsaa-req-initialization-tx	Request Initialization (BGN) sent per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-qsaa-req-ack-tx	Request Acknowledgement (BGAK) sent per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-qsaa-connection-reject-tx	Connection Reject (BGREJ) sent per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-qsaa-disconnect-command-tx	Disconnect Command (END) sent per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-qsaa-disconnect-ack-tx	Disconnect Acknowledgement (ENDAK) sent per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-qsaa-resynchronization-command-tx	Resynchronization Command (RS) sent per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-qsaa-resynchronization-ack-tx	Resynchronization Acknowledgement (RSAK) sent per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-qsaa-recovery-command-tx	Recovery Command (ER) sent per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-qsaa-recovery-ack-tx	Recovery Acknowledgement (ERAK) sent per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-qsaa-seq-connection-mode-data-tx	Sequenced Connection-mode Data (SD) sent per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-qsaa-poll-tx	Transmitter State Information with request for Receive State Information (POLL) sent per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-qsaa-stat-tx	Solicited Receiver State Information (STAT) sent per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-qsaa-ustat-tx	Unsolicited Receiver State Information (USTAT) sent per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-qsaa-unnumbered-user-data-tx	Unnumbered User Data (UD) sent per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-qsaa-unnumbered-management-data-tx	Unnumbered Management Data (MD) sent per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-qsaa-unknown-pdu-type-tx	Unknown PDU Type sent per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-qsaa-tx-discarded-sdus	SDUs discarded sent per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-qsaa-tx-pdus-error-pdus	PdUs with error sent per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32

Statistics	Description	Data Type
ss7-link-qaal-tx-discarded-pdus	PDU's discarded sent per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-qaal-tx-buffer-in-use-counter	Buffer in-use counter sent per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-qaal-tx-buffer-in-use-gauge	Buffer in-use gauge sent per SS7 Routing Domain ID, Linkset ID, and Link ID. This statistic value is of Gauge.	Int32
ss7-link-qaal-req-initialization-rx	Request Initialization (BGN) received per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-qaal-req-ack-rx	Request Acknowledgement (BGAK) received per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-qaal-connection-reject-rx	Connection Reject (BGREJ) received per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-qaal-disconnect-command-rx	Disconnect Command (END) received per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-qaal-disconnect-ack-rx	Disconnect Acknowledgement (ENDAK) received per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-qaal-resynchronization-command-rx	Resynchronization Command (RS) received per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-qaal-resynchronization-ack-rx	Resynchronization Acknowledgement (RSAK) received per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-qaal-recovery-command-rx	Recovery Command (ER) received per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-qaal-recovery-ack-rx	Recovery Acknowledgement (ERAK) received per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-qaal-seq-connection-mode-data-rx	Sequenced Connection-mode Data (SD) received per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-qaal-poll-rx	Transmitter State Information with request for Receive State Information (POLL) received per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-qaal-stat-rx	Solicited Receiver State Information (STAT) received per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-qaal-ustat-rx	Unsolicited Receiver State Information (USTAT) received per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-qaal-unnumbered-user-data-rx	Unnumbered User Data (UD) received per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-qaal-unnumbered-management-data-rx	Unnumbered Management Data (MD) received per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-qaal-unknown-pdu-type-rx	Unknown PDU Type received per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-qaal-rx-pdus-error-pdus	PDU's with error received per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-qaal-rx-discarded-pdus	PDU's discarded received per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32

## ■ Common Statistics

Statistics	Description	Data Type
ss7-link-qsaal-rx-buffer-in-use-counter	Buffer in-use counter received per SS7 Routing Domain ID, Linkset ID, and Link ID.	Int32
ss7-link-qsaal-rx-buffer-in-use-gauge	Buffer in-use gauge received per SS7 Routing Domain ID, Linkset ID, and Link ID. This statistic value is of Gauge.	Int32



**Important:** See Bulk Statistics Overview for statistics that are common to all schema.

# Chapter 38

## SS7 Routing Domain Schema Statistics

The SS7RD schema provides the following types of statistics:

- **Counter:** A counter records incremental data cumulatively and rolls over when the counter limit is reached. The limit depends upon the counter data type.
- **Gauge:** A gauge statistic indicates a single value representative of a single instance. This type is often used to track particular events in time.

 **Important:** The format string syntax is described by Schema Format String Syntax in the Bulk Statistics Overview chapter.

 **Important:** Unless otherwise indicated, all statistics are counters. For statistics with the Int32 data type, the roll-over to zero limit is 4,294,967,295. For statistics with the Int64 data type, the roll-over to zero limit is 18,446,744,073,709,551,615. All counter statistics are cumulative and reset only by one of the following methods: roll-over (as described above), after a system restart, or after a clear command is performed. All statistics are considered standards-based unless otherwise noted.

The following variables are supported:

**Table 38. SS7 Routing Domain Statistics**

Statistics	Description	Data Type
ss7rd-number	Number identifying the SS7 routing domain	Int32
ss7rd-asp_instance	The Application Server Process instance in the SS7 Routing domain	Int32
ss7rd-sctp-init-tx	Total number of SCTP Init chunks sent per SS7 Routing Domain.	Int32
ss7rd-sctp-init-rtx	Total number of SCTP Init chunks resent per SS7 Routing Domain.	Int32
ss7rd-sctp-init-rx	Total number of SCTP Init chunks received per SS7 Routing Domain.	Int32
ss7rd-sctp-init-ack-tx	Total number of number INIT_ACKs sent per SS7 Routing Domain.	Int32
ss7rd-sctp-init-ack-rx	Total number of number INIT_ACKs received per SS7 Routing Domain.	Int32
ss7rd-sctp-shutdown-tx	Total number SHUTDOWNs sent per SS7 Routing Domain.	Int32
ss7rd-sctp-shutdown-rtx	Total number SHUTDOWNs resent per SS7 Routing Domain.	Int32

## ■ Common Statistics

Statistics	Description	Data Type
ss7rd-sctp-shutdown-rx	Total Number SHUTDOWNs received per SS7 Routing Domain.	Int32
ss7rd-sctp-shutdown-ack-tx	Total number of SHUTDOWN_ACKs sent per SS7 Routing Domain.	Int32
ss7rd-sctp-shutdown-ack-rtx	Total number of SHUTDOWN_ACKSs resent per SS7 Routing Domain.	Int32
ss7rd-sctp-shutdown-ack-rx	Total number of SHUTDOWN_ACKs received per SS7 Routing Domain.	Int32
ss7rd-sctp-cookie-tx	Total number of COOKIEs sent per SS7 Routing Domain.	Int32
ss7rd-sctp-cookie-rtx	Total number COOKIEs resent per SS7 Routing Domain.	Int32
ss7rd-sctp-cookie-rx	Total number of COOKIEs received per SS7 Routing Domain.	Int32
ss7rd-sctp-cookie-ack-tx	Total number of COOKIE_ACKs sent per SS7 Routing Domain.	Int32
ss7rd-sctp-cookie-ack-rx	Total number COOKIE_ACKs received per SS7 Routing Domain.	Int32
ss7rd-sctp-data-tx	Total number of DATAs sent per SS7 Routing Domain.	Int32
ss7rd-sctp-data-rtx	Total number of DATAs resent per SS7 Routing Domain.	Int32
ss7rd-sctp-data-rx	Total number of DATAs received per SS7 Routing Domain.	Int32
ss7rd-sctp-sack-tx	Total number of SACKs sent per SS7 Routing Domain.	Int32
ss7rd-sctp-sack-rx	Total number of SACKs received per SS7 Routing Domain.	Int32
ss7rd-sctp-shutdown-compl-tx	Total number of Shutdown completed sent per SS7 Routing Domain.	Int32
ss7rd-sctp-shutdown-compl-rx	Total number of Shutdown completed received per SS7 Routing Domain.	Int32
ss7rd-sctp-heartbeat-tx	Total number of HEARTBEATs sent per SS7 Routing Domain.	Int32
ss7rd-sctp-heartbeat-rx	Total number of HEARTBEATs received per SS7 Routing Domain.	Int32
ss7rd-sctp-heartbeat-ack-tx	Total number of HBEAT_ACKs sent per SS7 Routing Domain.	Int32
ss7rd-sctp-heartbeat-ack-rx	Total number of HBEAT_ACKs received per SS7 Routing Domain.	Int32
ss7rd-sctp-abort-tx	Total number of ABORTs sent per SS7 Routing Domain.	Int32
ss7rd-sctp-abort-rx	Total number of ABORTs received per SS7 Routing Domain.	Int32
ss7rd-sctp-error-tx	Total number of Errors sent per SS7 Routing Domain.	Int32
ss7rd-sctp-error-rx	Total number of Errors received per SS7 Routing Domain.	Int32
ss7rd-sctp-bytes-tx	Total number of bytes sent per SS7 Routing Domain.	Int32
ss7rd-sctp-bytes-rx	Total number of bytes received per SS7 Routing Domain.	Int32

Statistics	Description	Data Type
ss7rd-m3ua-data-tx	Total number of M3UA DATA messages sent	Int32
ss7rd-m3ua-duna-tx	Total number of M3UA DUNA messages sent per SS7 Routing Domain.	Int32
ss7rd-m3ua-dava-tx	Total number of M3UA DAVA messages sent per SS7 Routing Domain.	Int32
ss7rd-m3ua-daud-tx	Total number of M3UA DAUD messages sent per SS7 Routing Domain.	Int32
ss7rd-m3ua-scon-tx	Total number of M3UA SCON messages sent per SS7 Routing Domain.	Int32
ss7rd-m3ua-dupu-tx	Total number of M3UA DUPU messages sent per SS7 Routing Domain.	Int32
ss7rd-m3ua-drst-tx	Total number of M3UA DRST messages sent per SS7 Routing Domain.	Int32
ss7rd-m3ua-regreq-tx	Total number of M3UA REG-REQ messages sent per SS7 Routing Domain.	Int32
ss7rd-m3ua-regrsp-tx	Total number of M3UA REG-RSP messages sent per SS7 Routing Domain.	Int32
ss7rd-m3ua-deregreq-tx	Total number of M3UA DEREG-REQ messages sent per SS7 Routing Domain.	Int32
ss7rd-m3ua-deregrsp-tx	Total number of M3UA DEREG-RSP messages sent per SS7 Routing Domain.	Int32
ss7rd-m3ua-aspup-tx	Total number of M3UA ASPUP messages sent per SS7 Routing Domain.	Int32
ss7rd-m3ua-aspup-ack-tx	Total number of M3UA ASPUP ACK messages sent per SS7 Routing Domain.	Int32
ss7rd-m3ua-aspdn-tx	Total number of M3UA ASPDN messages sent per SS7 Routing Domain.	Int32
ss7rd-m3ua-aspdn-ack-tx	Total number of M3UA ASPDN ACK messages sent per SS7 Routing Domain.	Int32
ss7rd-m3ua-aspac-tx	Total number of M3UA ASPAC messages sent per SS7 Routing Domain.	Int32
ss7rd-m3ua-aspac-ack-tx	Total number of M3UA ASPAC ACK messages sent per SS7 Routing Domain.	Int32
ss7rd-m3ua-aspia-tx	Total number of M3UA ASPIA messages sent per SS7 Routing Domain.	Int32
ss7rd-m3ua-aspia-ack-tx	Total number of M3UA ASPIA ACK messages sent per SS7 Routing Domain.	Int32
ss7rd-m3ua-hearbeat-tx	Total number of M3UA HBEAT messages sent per SS7 Routing Domain.	Int32
ss7rd-m3ua-hearbeat-ack-tx	Total number of M3UA HBEAT ACK messages sent per SS7 Routing Domain.	Int32
ss7rd-m3ua-error-tx	Total number of M3UA ERR messages sent per SS7 Routing Domain.	Int32
ss7rd-m3ua-notify-tx	Total number of M3UA NTFY messages sent per SS7 Routing Domain.	Int32
ss7rd-m3ua-data-rx	Total number of M3UA DATA messages received per SS7 Routing Domain.	Int32
ss7rd-m3ua-duna-rx	Total number of M3UA DUNA messages received per SS7 Routing Domain.	Int32
ss7rd-m3ua-dava-rx	Total number of M3UA DAVA messages received per SS7 Routing Domain.	Int32
ss7rd-m3ua-daud-rx	Total number of M3UA DAUD messages received per SS7 Routing Domain.	Int32
ss7rd-m3ua-scon-rx	Total number of M3UA SCON messages received per SS7 Routing Domain.	Int32

## ■ Common Statistics

Statistics	Description	Data Type
ss7rd-m3ua-dupu-rx	Total number of M3UA DUPU messages received per SS7 Routing Domain.	Int32
ss7rd-m3ua-drst-rx	Total number of M3UA DRST messages received per SS7 Routing Domain.	Int32
ss7rd-m3ua-regreq-rx	Total number of M3UA REG-REQ messages received per SS7 Routing Domain.	Int32
ss7rd-m3ua-regrsp-rx	Total number of M3UA REG-RSP messages received per SS7 Routing Domain.	Int32
ss7rd-m3ua-deregrreq-rx	Total number of M3UA DEREG-REQ messages received per SS7 Routing Domain.	Int32
ss7rd-m3ua-deregrsp-rx	Total number of M3UA DEREG-RSP messages received per SS7 Routing Domain.	Int32
ss7rd-m3ua-aspup-rx	Total number of M3UA ASPUP messages received per SS7 Routing Domain.	Int32
ss7rd-m3ua-aspup-ack-rx	Total number of M3UA ASPUP ACK messages received per SS7 Routing Domain.	Int32
ss7rd-m3ua-aspdn-rx	Total number of M3UA ASPDN messages received per SS7 Routing Domain.	Int32
ss7rd-m3ua-aspdn-ack-rx	Total number of M3UA ASPDN ACK messages received per SS7 Routing Domain.	Int32
ss7rd-m3ua-aspac-rx	Total number of M3UA ASPAC messages received per SS7 Routing Domain.	Int32
ss7rd-m3ua-aspac-ack-rx	Total number of M3UA ASPAC ACK messages received per SS7 Routing Domain.	Int32
ss7rd-m3ua-aspia-rx	Total number of M3UA SPIA messages received per SS7 Routing Domain.	Int32
ss7rd-m3ua-aspia-ack-rx	Total number of M3UA SPIA ACK messages received per SS7 Routing Domain.	Int32
ss7rd-m3ua-hearbeat-rx	Total number of M3UA HBEAT messages received per SS7 Routing Domain.	Int32
ss7rd-m3ua-hearbeat-ack-rx	Total number of M3UA HBEAT ACK messages received per SS7 Routing Domain.	Int32
ss7rd-m3ua-error-rx	Total number of M3UA ERR messages received per SS7 Routing Domain.	Int32
ss7rd-m3ua-notify-rx	Total number of M3UA NTFY messages received per SS7 Routing Domain.	Int32
ss7rd-m3ua-lower-intf-pdu-tx	Number of per SS7 Routing Domain.DATA PDUs transmitted on lower interface	Int32
ss7rd-m3ua-lower-intf-pdusize-tx	Size of DATA PDUs transmitted on lower interface per SS7 Routing Domain.	Int32
ss7rd-m3ua-lower-intf-pdu-rx	Number of DATA PDUs received on lower interface per SS7 Routing Domain.	Int32
ss7rd-m3ua-lower-intf-pdusize-rx	Size of DATA PDUs received on lower interface per SS7 Routing Domain.	Int32
ss7rd-m3ua-upper-intf-pdu-tx	Number of DATA PDUs transmitted on upper interface per SS7 Routing Domain.	Int32
ss7rd-m3ua-upper-intf-pdusize-tx	Size of DATA PDUs transmitted on upper interface per SS7 Routing Domain.	Int32

Statistics	Description	Data Type
ss7rd-m3ua-upper-intf-pdu-rx	Number of DATA PDUs received on upper interface per SS7 Routing Domain.	Int32
ss7rd-m3ua-upper-intf-pdusize-rx	Size of DATA PDUs received on upper interface per SS7 Routing Domain.	Int32
ss7rd-m3ua-down-no-route-found	Layer Data Error Statistics downward: no route found per SS7 Routing Domain.	Int32
ss7rd-m3ua-down-pc-unavailable	Layer Data Error Statistics downward: point code unavailable per SS7 Routing Domain.	Int32
ss7rd-m3ua-down-pc-congested	Layer Data Error Statistics downward: point code congested per SS7 Routing Domain.	Int32
ss7rd-m3ua-down-no-ppsp-avail	Layer Data Error Statistics downward: no PSP available per SS7 Routing Domain.	Int32
ss7rd-m3ua-down-no-nsap-avail	Layer Data Error Statistics downward: no NSAP available per SS7 Routing Domain.	Int32
ss7rd-m3ua-down-msg-failed	Layer Data Error Statistics downward: M3UA message failed per SS7 Routing Domain.	Int32
ss7rd-m3ua-down-loadshare-failed	Layer Data Error Statistics downward: load-sharing failed per SS7 Routing Domain.	Int32
ss7rd-m3ua-down-data-conges-q	Layer Data Error Statistics downward: data queued in congested Q per SS7 Routing Domain.	Int32
ss7rd-m3ua-down-data-as-pend-q	Layer Data Error Statistics downward: data queued in AS pending Q per SS7 Routing Domain.	Int32
ss7rd-m3ua-up-no-route-found	Layer Data Error Statistics upward: no route found per SS7 Routing Domain.	Int32
ss7rd-m3ua-up-pc-unavailable	Layer Data Error Statistics upward: point code unavailable per SS7 Routing Domain.	Int32
ss7rd-m3ua-up-pc-congested	Layer Data Error Statistics upward: point code congested per SS7 Routing Domain.	Int32
ss7rd-m3ua-up-no-ppsp-avail	Layer Data Error Statistics upward: no PSP available per SS7 Routing Domain.	Int32
ss7rd-m3ua-up-no-nsap-avail	Layer Data Error Statistics upward: no NSAP available per SS7 Routing Domain.	Int32
ss7rd-m3ua-up-msg-failed	Layer Data Error Statistics upward: M3UA message failed per SS7 Routing Domain.	Int32
ss7rd-m3ua-up-loadshare-failed	Layer Data Error Statistics upward: load-sharing failed per SS7 Routing Domain.	Int32
ss7rd-m3ua-up-data-conges-q	Layer Data Error Statistics upward: data queued in congested Q per SS7 Routing Domain.	Int32

## Common Statistics

Statistics	Description	Data Type
ss7rd-m3ua-up-data-as-pend-q	Layer Data Error Statistics upward: data queued in AS pending Q per SS7 Routing Domain.	Int32
ss7rd-m3ua-ppsp-ps-id	Peer Server Identifier	Int32
ss7rd-m3ua-ppsp-instance	Peer Server Process Instance	Int32
ss7rd-m3ua-ppsp-data-tx	Total number of M3UA PSP DATA messages sent per SS7 Routing Domain, peer server ID, and PSP instance.	Int32
ss7rd-m3ua-ppsp-duna-tx	Total number of M3UA PSP DUNA messages sent per SS7 Routing Domain, peer server ID, and PSP instance.	Int32
ss7rd-m3ua-ppsp-dava-tx	Total number of M3UA PSP DAVA messages sent per SS7 Routing Domain, peer server ID, and PSP instance.	Int32
ss7rd-m3ua-ppsp-daud-tx	Total number of M3UA PSP DAUD messages sent per SS7 Routing Domain, peer server ID, and PSP instance.	Int32
ss7rd-m3ua-ppsp-scon-tx	Total number of M3UA SCON messages sent per SS7 Routing Domain, peer server ID, and PSP instance.	Int32
ss7rd-m3ua-ppsp-dupu-tx	Total number of M3UA PSP DUPU messages sent per SS7 Routing Domain, peer server ID, and PSP instance.	Int32
ss7rd-m3ua-ppsp-drst-tx	Total number of M3UA PSP DRST messages sent per SS7 Routing Domain, peer server ID, and PSP instance.	Int32
ss7rd-m3ua-ppsp-regreq-tx	Total number of M3UA PSP REG-REQ messages sent per SS7 Routing Domain, peer server ID, and PSP instance.	Int32
ss7rd-m3ua-ppsp-regrsp-tx	Total number of M3UA PSP REG-RSP messages sent per SS7 Routing Domain, peer server ID, and PSP instance.	Int32
ss7rd-m3ua-ppsp-deregreq-tx	Total number of M3UA PSP DEREG-REQ messages sent per SS7 Routing Domain, peer server ID, and PSP instance.	Int32
ss7rd-m3ua-ppsp-dereg-rsp-tx	Total number of M3UA PSP DEREG-RSP messages sent per SS7 Routing Domain, peer server ID, and PSP instance.	Int32
ss7rd-m3ua-ppsp-aspup-tx	Total number of M3UA PSP ASPUP messages sent per SS7 Routing Domain, peer server ID, and PSP instance.	Int32
ss7rd-m3ua-ppsp-aspup-ack-tx	Total number of M3UA PSP ASPUP ACK messages sent per SS7 Routing Domain, peer server ID, and PSP instance.	Int32
ss7rd-m3ua-ppsp-aspdn-tx	Total number of M3UA PSP ASPDN messages sent per SS7 Routing Domain, peer server ID, and PSP instance.	Int32
ss7rd-m3ua-ppsp-aspdn-ack-tx	Total number of M3UA PSP ASPDN ACK messages sent per SS7 Routing Domain, peer server ID, and PSP instance.	Int32
ss7rd-m3ua-ppsp-aspac-tx	Total number of M3UA PSP ASPAC messages sent per SS7 Routing Domain, peer server ID, and PSP instance.	Int32
ss7rd-m3ua-ppsp-aspac-ack-tx	Total number of M3UA PSP ASPAC ACK messages sent per SS7 Routing Domain, peer server ID, and PSP instance.	Int32

Statistics	Description	Data Type
ss7rd-m3ua-psp-aspia-tx	Total number of M3UA PSP ASPIA messages sent per SS7 Routing Domain, peer server ID, and PSP instance.	Int32
ss7rd-m3ua-psp-aspia-ack-tx	Total number of M3UA PSP ASPIA ACK messages sent per SS7 Routing Domain, peer server ID, and PSP instance.	Int32
ss7rd-m3ua-psp-hearbeat-tx	Total number of M3UA PSP HBEAT messages sent per SS7 Routing Domain, peer server ID, and PSP instance.	Int32
ss7rd-m3ua-psp-hearbeat-ack-tx	Total number of M3UA PSP HBEAT ACK messages sent per SS7 Routing Domain, peer server ID, and PSP instance.	Int32
ss7rd-m3ua-psp-error-tx	Total number of M3UA PSP ERR messages sent per SS7 Routing Domain, peer server ID, and PSP instance.	Int32
ss7rd-m3ua-psp-notify-tx	Total number of M3UA PSP NTFY messages sent per SS7 Routing Domain, peer server ID, and PSP instance.	Int32
ss7rd-m3ua-psp-data-rx	Total number of M3UA PSP DATA messages received per SS7 Routing Domain, peer server ID, and PSP instance.	Int32
ss7rd-m3ua-psp-duna-rx	Total number of M3UA PSP DUNA messages received per SS7 Routing Domain, peer server ID, and PSP instance.	Int32
ss7rd-m3ua-psp-dava-rx	Total number of M3UA PSP DAVA messages received per SS7 Routing Domain, peer server ID, and PSP instance.	Int32
ss7rd-m3ua-psp-daud-rx	Total number of M3UA PSP DAUD messages received per SS7 Routing Domain, peer server ID, and PSP instance.	Int32
ss7rd-m3ua-psp-scon-rx	Total number of M3UA PSP SCON messages received per SS7 Routing Domain, peer server ID, and PSP instance.	Int32
ss7rd-m3ua-psp-dupu-rx	Total number of M3UA PSP DUPU messages received per SS7 Routing Domain, peer server ID, and PSP instance.	Int32
ss7rd-m3ua-psp-drst-rx	Total number of M3UA PSP DRST messages received per SS7 Routing Domain, peer server ID, and PSP instance.	Int32
ss7rd-m3ua-psp-regreq-rx	Total number of M3UA PSP REG-REQ messages received per SS7 Routing Domain, peer server ID, and PSP instance.	Int32
ss7rd-m3ua-psp-regrsp-rx	Total number of M3UA PSP REG-RSP messages received per SS7 Routing Domain, peer server ID, and PSP instance.	Int32
ss7rd-m3ua-psp-deregreq-rx	Total number of M3UA PSP DEREG-REQ messages received per SS7 Routing Domain, peer server ID, and PSP instance.	Int32
ss7rd-m3ua-psp-deregrsp-rx	Total number of M3UA PSP DEREG-RSP messages received per SS7 Routing Domain, peer server ID, and PSP instance.	Int32
ss7rd-m3ua-psp-aspup-rx	Total number of M3UA PSP ASPUP messages received per SS7 Routing Domain, peer server ID, and PSP instance.	Int32
ss7rd-m3ua-psp-aspup-ack-rx	Total number of M3UA PSP ASPUP ACK messages received per SS7 Routing Domain, peer server ID, and PSP instance.	Int32

## Common Statistics

Statistics	Description	Data Type
ss7rd-m3ua-ppsp-aspdn-rx	Total number of M3UA PSP ASPDN messages received per SS7 Routing Domain, peer server ID, and PSP instance.	Int32
ss7rd-m3ua-ppsp-aspdn-ack-rx	Total number of M3UA PSP ASPDN ACK messages received per SS7 Routing Domain, peer server ID, and PSP instance.	Int32
ss7rd-m3ua-ppsp-aspac-rx	Total number of M3UA PSP ASPAC messages received per SS7 Routing Domain, peer server ID, and PSP instance.	Int32
ss7rd-m3ua-ppsp-aspac-ack-rx	Total number of M3UA PSP ASPAC ACK messages received per SS7 Routing Domain, peer server ID, and PSP instance.	Int32
ss7rd-m3ua-ppsp-aspia-rx	Total number of M3UA PSP ASPIA messages received per SS7 Routing Domain, peer server ID, and PSP instance.	Int32
ss7rd-m3ua-ppsp-aspia-ack-rx	Total number of M3UA PSP ASPIA ACK messages received per SS7 Routing Domain, peer server ID, and PSP instance.	Int32
ss7rd-m3ua-ppsp-heartbeat-rx	Total number of M3UA PSP HBEAT messages received per SS7 Routing Domain, peer server ID, and PSP instance.	Int32
ss7rd-m3ua-ppsp-heartbeat-ack-rx	Total number of M3UA PSP HBEAT ACK messages received per SS7 Routing Domain, peer server ID, and PSP instance.	Int32
ss7rd-m3ua-ppsp-error-rx	Total number of M3UA PSP ERR messages received per SS7 Routing Domain, peer server ID, and PSP instance.	Int32
ss7rd-m3ua-ppsp-notify-rx	Total number of M3UA PSP NTFY messages received per SS7 Routing Domain, peer server ID, and PSP instance.	Int32
ss7rd-m3ua-ppsp-data-pdu-tx	Number of PSP DATA PDUs transmitted per SS7 Routing Domain, peer server ID, and PSP instance.	Int32
ss7rd-m3ua-ppsp-data-pdusize-tx	Size of DATA PDUs transmitted per SS7 Routing Domain, peer server ID, and PSP instance.	Int32
ss7rd-m3ua-ppsp-data-pdu-rx	Number of DATA PDUs received per SS7 Routing Domain, peer server ID, and PSP instance.	Int32
ss7rd-m3ua-ppsp-data-pdusize-rx	Size of DATA PDUs received per SS7 Routing Domain, peer server ID, and PSP instance.	Int32
ss7rd-m3ua-ppsp-up-no-route-found	Layer Data Error Statistics: no route found per SS7 Routing Domain, peer server ID, and PSP instance.	Int32
ss7rd-m3ua-ppsp-up-pc-unavailable	Layer Data Error Statistics: point code unavailable per SS7 Routing Domain, peer server ID, and PSP instance.	Int32
ss7rd-m3ua-ppsp-up-pc-congested	Layer Data Error Statistics: point code congested per SS7 Routing Domain, peer server ID, and PSP instance.	Int32
ss7rd-m3ua-ppsp-up-no-ppsp-avail	Layer Data Error Statistics: no PSP available per SS7 Routing Domain, peer server ID, and PSP instance.	Int32
ss7rd-m3ua-ppsp-up-no-nsap-avail	Layer Data Error Statistics: no NSAP available per SS7 Routing Domain, peer server ID, and PSP instance.	Int32

Statistics	Description	Data Type
ss7rd-m3ua-ppsp-up-msg-failed	Layer Data Error Statistics: M3UA message failed per SS7 Routing Domain, peer server ID, and PSP instance.	Int32
ss7rd-m3ua-ppsp-up-loadshare-failed	Layer Data Error Statistics: load-sharing failed per SS7 Routing Domain, peer server ID, and PSP instance.	Int32
ss7rd-m3ua-ppsp-up-data-conges-q	Layer Data Error Statistics: data queued in congested Q per SS7 Routing Domain, peer server ID, and PSP instance.	Int32
ss7rd-m3ua-ppsp-up-data-as-pend-q	Layer Data Error Statistics: data queued in AS pending Q per SS7 Routing Domain, peer server ID, and PSP instance.	Int32
ss7rd-m3ua-ppsp-congestion-count	Congestion count per SS7 Routing Domain, peer server ID, and PSP instance. This statistic value is of Gauge.	Int32
ss7rd-m3ua-ppsp-congestion-level1	Congestion level 1 per SS7 Routing Domain, peer server ID, and PSP instance.	Int32
ss7rd-m3ua-ppsp-congestion-level2	Congestion level 2 per SS7 Routing Domain, peer server ID, and PSP instance.	Int32
ss7rd-m3ua-ppsp-congestion-level3	Congestion level 3 per SS7 Routing Domain, peer server ID, and PSP instance.	Int32
ss7rd-m3ua-ppsp-congestion-queue-size	Congestion queue size per SS7 Routing Domain, peer server ID, and PSP instance.	Int32
ss7rd-m3ua-ppsp-congestion-queue-hw	Congestion queue Hw per SS7 Routing Domain, peer server ID, and PSP instance.	Int32
ss7rd-m3ua-ppsp-congestion-duration	Duration of Congestion per SS7 Routing Domain, peer server ID, and PSP instance.	Int32
ss7rd-m3ua-ppsp-unavailable-count	Unavailable count per SS7 Routing Domain, peer server ID, and PSP instance.	Int32
ss7rd-m3ua-ppsp-unavailable-duration	Unavailable duration per SS7 Routing Domain, peer server ID, and PSP instance.	Int32
ss7rd-mtp3-user-part-unavail-tx	MTP3 User part unavailable sent per SS7 Routing Domain.	Int32
ss7rd-mtp3-traffic-restart-allowed-tx	MTP3 Traffic restart allowed sent per SS7 Routing Domain.	Int32
ss7rd-mtp3-traffic-restart-waiting-tx	MTP3 Traffic restart waiting sent per SS7 Routing Domain.	Int32
ss7rd-mtp3-user-part-unavail-rx	MTP3 User part unavailable received per SS7 Routing Domain.	Int32
ss7rd-mtp3-traffic-restart-allowed-rx	MTP3 Traffic restart allowed received per SS7 Routing Domain.	Int32
ss7rd-mtp3-traffic-restart-waiting-rx	MTP3 Traffic restart waiting received per SS7 Routing Domain.	Int32

## ■ Common Statistics

Statistics	Description	Data Type
ss7rd-mtp3-msu-dropped-routing-err	MSU dropped due to a routing error per SS7 Routing Domain.	Int32
ss7-adjacent-point-code	Adjacent Point Code	Int32
ss7-adjacent-spc-not-accessible	<p><b>Description:</b> Total number of failures to access the adjacent (directly connected via SS7 link) signaling point code (SPC) element, such as the RNC, HLR, signaling gateway, etc.,</p> <p><b>Triggers:</b> Increments when the adjacent SPC goes to unavailable state from available state, possibly due to:</p> <ul style="list-style-type: none"> <li>- all SS7 links connected to the adjacent SPC are unavailable</li> <li>- the adjacent SPC is made inaccessible by management</li> </ul> <p><b>Availability:</b> per adjacent point code</p> <p><b>Type:</b> Counter</p>	Int32



**Important:** See Bulk Statistics Overview for statistics that are common to all schema.

# Chapter 39

## System Schema Statistics

The System schema provides the following types of statistics:

- **Counter:** A counter records incremental data cumulatively and rolls over when the counter limit is reached. The limit depends upon the counter data type.
- **Gauge:** A gauge statistic indicates a single value representative of a single instance. This type is often used to track particular events in time.

 **Important:** The format string syntax is described by Schema Format String Syntax in the Bulk Statistics Overview chapter.

 **Important:** Unless otherwise indicated, all statistics are counters. For statistics with the Int32 data type, the roll-over to zero limit is 4,294,967,295. For statistics with the Int64 data type, the roll-over to zero limit is 18,446,744,073,709,551,615. All counter statistics are cumulative and reset only by one of the following methods: roll-over (as described above), after a system restart, or after a clear command is performed. All statistics are considered standards-based unless otherwise noted.

The following variables are supported:

**Table 39. System-Level Schema Statistics**

Statistic	Description	Data Type
sess-ttlarrived	The total number of calls for all Session Managers for which registration requests were received.	Int32
sess-ttlrejected	The total number of calls for all Session Managers that were rejected.	Int32
sess-ttlconnected	The total number of calls for all Session Managers that are connected (including active, dormant, being set up, and being torn down).	Int32
sess-ttlfailed	The total number of calls for all Session Managers that failed.	Int32
sess-ttldisconnect	The total number of calls disconnected for all Session Managers.	Int32
sess-ttlhandoff	The total number of handoffs for all Session Managers.	Int64
sess-ttlrenewal	The total number of renewals for all Session Managers.	Int64

## ■ Common Statistics

Statistic	Description	Data Type
sess-ttlcallop	The total number of call operations for all Session Managers. The number of call operations is calculated as the total number of calls that arrived, were rejected, were disconnected, handed-off, and renewed.	Int64
sess-ttlauthsucc	The total number of successful authentications for calls for all Session Managers.	Int32
sess-ttlauthfail	The total number of failed authentications for calls for all Session Managers.	Int32
sess-curaaaactive	The total number of current active AAA sessions.	Int32
sess-curaaaadeleting	The total number of current AAA sessions being deleted.	Int32
sess-curaaaacctpending	The total number of current AAA sessions with accounting pending	Int32
sess-curaaaacctitemsused	sess-curaaaacctitemsused	Int32
sess-curaaaacctitemsmax	sess-curaaaacctitemsmax	Int32
sess-curaaaabuffused	sess-curaaaabuffused	Int32
sess-curaaaabuffmax	sess-curaaaabuffmax	Int32
sess-ttlaaacanauth	sess-ttlaaacanauth	Int32
sess-ttlaaacctpurged	sess-ttlaaacctpurged	Int32
sess-ttlradacctpurged	sess-ttlradacctpurged	Int32
sess-ttlcpup	The total number of calls for all Session Managers that have completed the Link Control Protocol (LCP) phase of the registration process.	Int32
sess-ttlipcpup	The total number of calls for all Session Managers that have completed the Internet Protocol Control Protocol (IPCP) phase of the registration process.	Int32
sess-ttlsrcviol	The total number of source violations experienced for all calls for all Session Managers.	Int32
sess-ttlkeepfail	The total number of keep-alive failures experienced for all calls for all Session Managers.	Int32
sess-ttlempy fwd	The total number of empty forwarded packet sessions.	Int32
sess-ttlempyrev	The total number of empty reverse packet sessions.	Int32
sess-ttlproxydns-redirect	The total number of sessions redirected by Proxy-DNS.	Int32
sess-ttlproxydns-passthr	The total number of sessions passed through by Proxy-DNS.	Int32
sess-ttlproxydns-drop	The total number of sessions dropped by Proxy-DNS.	Int32
sess-curtllcalls	The number of calls for all Session Managers that are currently in progress (active, dormant, being set up, or being torn down).	Int32
sess-curnonanchorconn	Total number of non-anchor session connections on ASN-GW.	Int32
sess-cursipconn	The total number of Simple IP data sessions that are currently being supported for all Session Managers.	Int32
sess-curmipconn	The total number of Mobile IP data sessions that are currently being supported for all Session Managers.	Int32

Statistic	Description	Data Type
sess-curpmpipconn	The total number of Proxy Mobile IP data sessions that are currently being supported for all Session Managers.	Int32
sess-curhaipseconn	The total number of sessions that are in progress in the HA-IPSEC connected state	Int32
sess-curl2tplacconn	The total number of L2TP LAC sessions that are currently being supported for all Session Managers.	Int32
sess-curpdptypeipconn	The total number of sessions that are in progress in the PDP-TYPE-IP Connected State	Int32
sess-curpdtypepppconn	The total number of sessions that are in progress in the PDP-TYPE-PPP Connected State	Int32
sess-curbcmcsconn	The total number of sessions that are in progress in the BCMCS Connected State	Int32
sess-curactcall	The total number of active sessions for all Session Managers.	Int32
sess-curdormcall	The total number of dormant sessions for all Session Managers.	Int32
sess-curalwayson	The total number of in progress always-on calls.	Int32
sess-curarrived	The total number of sessions that are at the onset of the registration process for all Session Managers.	Int32
sess-curlcpnegot	The total number of sessions for all Session Managers that are in the Link Control Protocol (LCP) negotiation phase of the registration process.	Int32
sess-curlcpup	The total number of sessions for all Session Managers that have just completed the Link Control Protocol (LCP) negotiation phase of the registration process.	Int32
sess-curauth	The total number of sessions for all Session Managers that are in the process of being authenticated.	Int32
sess-curbcmcsauth	The total number of sessions in progress that are at the BCMCS Service Authenticating state.	Int32
sess-curauthed	The total number of sessions for all Session Managers that have just completed the authentication phase of the registration process.	Int32
sess-curdhcpping	The total number of session for all Session Managers that are pending for DHCP.	Int32
sess-curl2tplacconnecting	The total number of sessions in progress that are at the L2TP-LAC Connecting state	Int32
sess-curipcpup	The total number of sessions for all Session Managers that have just completed the Internet Protocol Control Protocol (IPCP) phase of the registration process.	Int32
sess-curimsauthorizing	The total number of sessions for all session managers that are currently in the process of being authorized for IMS.	Int32
sess-curimsauthorized	The total number of sessions for all session managers that are currently being authorized for IMS.	Int32
sess-curimmeattached	The total number of MME sessions that are currently attached with this MME. This is a gauge type of statistics which is collected at the per system level.	Int32
sess-curdisc	The total number of sessions for all Session Managers that are in the process of disconnecting.	Int32
sess-ttlprepaid	The total number of pre-paid sessions processed by all Session Managers.	Int32
sess-curprepaid	The current total number of pre-paid sessions being processed by all Session Managers.	Int32

## ■ Common Statistics

Statistic	Description	Data Type
sess-tlonlineauthreq	The total number of 3gpp2 online authentication requests for all Session Managers.	Int32
sess-tlonlineauthsucc	The total number of successful authentications for Online Access Requests for all Session Managers.	Int32
sess-tlonlineauthfail	The total number of failed authentications for Online Access Requests for all Session Managers.	Int32
sess-tlonlineprepaiderr	The total number of 3gpp2 online prepaid errors.	Int32
sess-tlprepaidinitautherr	The total number of 3gpp2 prepaid initial authorization errors.	Int32
sess-tlinterasngwattempt	The total number of sessions attempted for inter-ASN-GW handover.	Int32
sess-tlinterasngwsuccess	The total number of sessions attempts successful for inter-ASN-GW handover.	Int32
sess-tlintraasngwattempt	The total number of sessions attempted for intra-ASN-GW handover.	Int32
sess-tlintraasngwsuccess	The total number of sessions attempts successful for intra-ASN-GW handover.	Int32
sess-rxpkt-16	The total number of packets of less than 17 bytes received by all session managers.	Int64
sess-tpkt-16	The total number of packets of less than 17 bytes transmitted by	Int64
sess-rxpkt-64	The total number of packets from 17 through 64 bytes received by all session managers.	Int64
sess-tpkt-64	The total number of packets from 17 through 64 bytes received by all session managers.	Int64
sess-rxpkt-127	The total number of packets from 65 through 127 bytes received by all session managers.	Int64
sess-tpkt-127	The total number of packets from 65 through 127 bytes received by all session managers.	Int64
sess-rxpkt-255	The total number of packets from 128 through 255 bytes received by all session managers.	Int64
sess-tpkt-255	The total number of packets from 128 through 255 bytes received by all session managers.	Int64
sess-rxpkt-511	The total number of packets from 256 through 511 bytes received by all session managers.	Int64
sess-tpkt-511	The total number of packets from 256 through 511 bytes received by all session managers.	Int64
sess-rxpkt-1023	The total number of packets from 512 through 1023 bytes received by all session managers.	Int64
sess-tpkt-1023	The total number of packets from 512 through 1023 bytes received by all session managers.	Int64
sess-rxpkt-2047	The total number of packets from 1024 through 2047 bytes received by all session managers.	Int64
sess-tpkt-2047	The total number of packets from 1024 through 2047 bytes received by all session managers.	Int64
sess-rxpkt-4095	The total number of packets from 2048 through 4095 bytes received by all session managers.	Int64

Statistic	Description	Data Type
sess-txpkt-4095	The total number of packets from 2048 through 4095 bytes received by all session managers.	Int64
sess-rxpkt-4500	The total number of packets from 4096 through 4500 bytes received by all session managers.	Int64
sess-txpkt-4500	The total number of packets from 4096 through 4500 bytes received by all session managers.	Int64
sess-rxpkt-over4500	The total number of packets greater than 4500 bytes received by all session managers.	Int64
sess-txpkt-over4500	The total number of packets greater than 4500 bytes received by all session managers.	Int64
sess-txbytes	The number of bytes transmitted by all Session Managers.	Int64
sess-rxbytes	The number of bytes received by all Session Managers.	Int64
sess-txpackets	The number of packets transmitted by all Session Managers.	Int64
sess-rxpackets	The number of packets received by all Session Managers.	Int64
sess-ttlconnected-1xrtd	The total number of sessions connected with 1xrtd.	Int32
sess-txbytes-1xrtd	The number to bytes transmitted via 1xrtd.	Int64
sess-rxbytes-1xrtd	The number to bytes received via 1xrtd.	Int64
sess-txpackets-1xrtd	The number to packets transmitted via 1xrtd.	Int64
sess-rxpackets-1xrtd	The number to packets received via 1xrtd.	Int64
sess-ttlconnected-evdorev0	The total number of sessions connected with EvDO Rev 0.	Int32
sess-txbytes-evdorev0	The number to bytes transmitted via EvDO Rev 0.	Int64
sess-rxbytes-evdorev0	The number to bytes received via EvDO Rev 0.	Int64
sess-txpackets-evdorev0	The number to packets transmitted via EvDO Rev 0.	Int64
sess-rxpackets-evdorev0	The number to packets received via EvDO Rev 0.	Int64
sess-ttlconnected-evdoreva	The total number of sessions connected with EvDO Rev A.	Int32
sess-txbytes-evdoreva	The number to bytes transmitted via EvDO Rev A.	Int64
sess-rxbytes-evdoreva	The number to bytes received via EvDO Rev A.	Int64
sess-txpackets-evdoreva	The number to packets transmitted via EvDO Rev A.	Int64
sess-rxpackets-evdoreva	The number to packets received via EvDO Rev A.	Int64
sess-siptxbytes	The number of bytes transmitted for Simple IP-type sessions.	Int64
sess-siprxbytes	The number of bytes received for Simple IP-type sessions.	Int64
sess-miptxbytes	The number of bytes transmitted for Mobile IP-type sessions.	Int64
sess-miprxbytes	The number of bytes received for Mobile IP-type sessions.	Int64
sess-callldur-1min	The total number of sessions for all Session Managers that lasted less than 1 minute.	Int32

## Common Statistics

Statistic	Description	Data Type
sess-calldur-2min	The total number of sessions for all Session Managers that lasted less than 2 minutes but were greater than or equal to 1 minute.	Int32
sess-calldur-5min	The total number of sessions for all Session Managers that lasted less than 5 minutes but were greater than or equal to 2 minutes.	Int32
sess-calldur-15min	The total number of sessions for all Session Managers that lasted less than 15 minutes but were greater than or equal to 5 minutes.	Int32
sess-calldur-1hour	The total number of sessions for all Session Managers that lasted less than 1 hour but greater than or equal to 15 minutes.	Int32
sess-calldur-4hour	The total number of sessions for all Session Managers that lasted less than 4 hours but were greater than or equal to 1 hour.	Int32
sess-calldur-12hour	The total number of sessions for all Session Managers that lasted less than 12 hours but were greater than or equal to 4 hours.	Int32
sess-calldur-24hour	The total number of sessions for all Session Managers that lasted less than 24 hours but were greater than or equal to 12 hours.	Int32
sess-calldur-over24hour	The total number of sessions for all Session Managers that lasted 24 hours or longer.	Int32
sess-setuptime-100ms	The total number of sessions for all Session Managers that were setup in less than 100 milliseconds.	Int32
sess-setuptime-200ms	The total number of sessions for all Session Managers for which the setup time was less than 200 milliseconds but greater than or equal to 100 milliseconds.	Int32
sess-setuptime-300ms	The total number of sessions for all Session Managers for which the setup time was less than 300 milliseconds but greater than or equal to 200 milliseconds.	Int32
sess-setuptime-400ms	The total number of sessions for all Session Managers for which the setup time was less than 400 milliseconds but greater than or equal to 300 milliseconds.	Int32
sess-setuptime-500ms	The total number of sessions for all Session Managers for which the setup time was less than 500 milliseconds but greater than or equal to 400 milliseconds.	Int32
sess-setuptime-600ms	The total number of sessions for all Session Managers for which the setup time was less than 600 milliseconds but greater than or equal to 500 milliseconds.	Int32
sess-setuptime-700ms	The total number of sessions for all Session Managers for which the setup time was less than 700 milliseconds but greater than or equal to 600 milliseconds.	Int32
sess-setuptime-800ms	The total number of sessions for all Session Managers for which the setup time was less than 800 milliseconds but greater than or equal to 700 milliseconds.	Int32
sess-setuptime-900ms	The total number of sessions for all Session Managers for which the setup time was less than 900 milliseconds but greater than or equal to 800 milliseconds.	Int32
sess-setuptime-1sec	The total number of sessions for all Session Managers for which the setup time was less than 1 second but greater than or equal to 200 milliseconds.	Int32
sess-setuptime-2sec	The total number of sessions for all Session Managers for which the setup time was less than 2 seconds but greater than or equal to 1 second.	Int32
sess-setuptime-3sec	The total number of sessions for all Session Managers for which the setup time was less than 3 seconds but greater than or equal to 2 seconds.	Int32

Statistic	Description	Data Type
sess-setuptime-4sec	The total number of sessions for all Session Managers for which the setup time was less than 4 seconds but greater than or equal to 3 seconds.	Int32
sess-setuptime-6sec	The total number of sessions for all Session Managers for which the setup time was less than 6 seconds but greater than or equal to 4 seconds.	Int32
sess-setuptime-8sec	The total number of sessions for all Session Managers for which the setup time was less than 8 seconds but greater than or equal to 6 seconds.	Int32
sess-setuptime-10sec	The total number of sessions for all Session Managers for which the setup time was less than 10 seconds but greater than or equal to 8 seconds.	Int32
sess-setuptime-12sec	The total number of sessions for all Session Managers for which the setup time was less than 12 seconds but greater than or equal to 10 seconds.	Int32
sess-setuptime-14sec	The total number of sessions for all Session Managers for which the setup time was less than 14 seconds but greater than or equal to 12 seconds.	Int32
sess-setuptime-16sec	The total number of sessions for all Session Managers for which the setup time was less than 16 seconds but greater than or equal to 14 seconds.	Int32
sess-setuptime-over16sec	The total number of sessions for all Session Managers for which the setup time was 16 seconds or more.	Int32
sess-setuptime-18sec	Indicates the total number of sessions for all Session Managers for which the setup time was more than 16 seconds but less than or equal to 18 seconds. <b>Triggers:</b> changes every time when a new session takes setup time of more than 16 seconds but less than or equal to 18 seconds. <b>Availability:</b> Across the System. <b>Type:</b> Not Standard, Counter, Static.	Int32
sess-setuptime-over18sec	Indicates the total number of sessions for all Session Managers for which the setup time was more than 18seconds. <b>Triggers:</b> changes every time when a new session takes more than 18 seconds to setup. <b>Availability:</b> Across the System. <b>Type:</b> Not Standard, Counter, Static.	Int32
ggsn-ttlsgsnconn	Total number of connections registered between GGSN and SGSN on this system.	Int32
ggsn-cursgsnact	Total number of SGSNs active with GGSN on this system.	Int32
flow-ttlestab	The total number of flows that were established by the session manager.	Int32
flow-ttldisconn	The total number of flows that were disconnected by the session manager.	Int32
flow-curdynamic	The current number of dynamic flows.	Int32
aaa-ttlreq	The total number of AAA requests.	Int32
aaa-curreq	The number of active AAA requests.	Int32
aaa-ttlauthreq	The total number of AAA authentication requests.	Int32
aaa-curauthreq	The number of active AAA authentication requests.	Int32
aaa-ttlauthprobe	The total number of AAA authentication probes.	Int32
aaa-curauthprobe	The number of active AAA authentication probes.	Int32

## Common Statistics

Statistic	Description	Data Type
aaa-ttlauthkeepalive	The total number of AAA authentication keepalive request sent.	Int32
aaa-curauthkeepalive	The number of current AAA authentication keepalive requests being processed.	Int32
aaa-ttlacctreq	The total number of AAA accounting requests.	Int32
aaa-curacctreq	The number of active AAA accounting requests.	Int32
aaa-ttlacctkeepalive	The total number of AAA accounting keepalive requests sent.	Int32
aaa-curacctkeepalive	The number of current AAA accounting keepalive requests being processed.	Int32
aaa-ttlauthsucc	The total number of successful AAA authentication.	Int32
aaa-ttlauthfail	The total number of AAA authentication failed.	Int32
aaa-ttlauthpurged	The total number of AAA authentication purged.	Int32
aaa-ttlauthcancelled	The total number of AAA authentication requests cancelled.	Int32
aaa-ttlauthkeepalivesuccess	The total number of AAA authentication keepalive successes.	Int32
aaa-ttlauthkeepalivefailure	The total number of AAA authentication keepalive failures.	Int32
aaa-ttlauthkeepalivepurged	The total number of AAA authentication keepalive purges.	Int32
aaa-ttlauthdmuchal	The total number of AAA authentication DMU challenged.	Int32
aaa-curallocreq	The number of current allocation requests being processed.	Int32
aaa-curmaxreq	The number of current max requests being processed.	Int32
aaa-ttldiamauthreq	The total number of Diameter authentication requests.	Int32
aaa-curdiamauthreq	The total number of current Diameter authentication requests.	Int32
aaa-ttldiamauthreqretried	The total number of Diameter authentication requests retried.	Int32
aaa-ttldiamauthreqdrop	The total number of Diameter authentication requests dropped.	Int32
aaa-ttlradauthreq	The total number of AAA authentication requests on RADIUS server.	Int32
aaa-curradauthreq	The number of active AAA authentication requests on RADIUS server.	Int32
aaa-ttlradauthreqretried	The total number of AAA authentication requests retried on RADIUS server.	Int32
aaa-ttlradauthrspdrop	aaa-ttlradauthrspdrop	Int32
aaa-ttllocalauthreq	The total number of AAA authentication requests on local server.	Int32
aaa-curlocalauthreq	The number of active local authentication requests.	Int32
aaa-ttlpseudoauthreq	The total number of pseudo AAA authentication requests.	Int32
aaa-curpseudoauthreq	The number of active pseudo AAA authentication requests.	Int32
aaa-ttlauthnulluser	The total number of unattempted AAA authentication requests.	Int32
aaa-ttlacctsucc	The total number of AAA accounting requests succeeded.	Int32
aaa-ttlacctpurged	The total number of AAA accounting requests purged.	Int32

Statistic	Description	Data Type
aaa-ttlacctcancelled	The total number of AAA accounting requests cancelled.	Int32
aaa-ttlacctkeepalivesuccess	The total number of AAA accounting keepalive successes.	Int32
aaa-ttlacctkeepalivetimeout	The total number of AAA accounting keepalive timeouts	Int32
aaa-ttlacctkeepalivepurged	The total number of AAA accounting keepalive purges.	Int32
aaa-ttlradacctreq	The total number of RADIUS accounting requests.	Int32
aaa-ttlradacctcancelled	The total number of RADIUS accounting requests cancelled.	Int32
aaa-ttlradacctpurged	The total number of RADIUS accounting requests purged.	Int32
aaa-ttlradacctreqretried	The total number of AAA accounting requests retried on RADIUS server.	Int32
aaa-ttlradacctrsdropped	The total number of RADIUS accounting requests dropped.	Int32
aaa-ttlmgrpurgedrequests	The total number of AAAMgr purged requests.	Int32
diamauth-msg-mareq	Diameter Authentication Message Stats - The total number of Multimedia-Auth-Request message sent.	Int32
diamauth-msg-maans	Diameter Authentication Message Stats - The total number of Multimedia-Auth-Answer messages received.	Int32
diamauth-msg-marretry	Diameter Authentication Message Stats - Total number of retries for Multimedia-Auth-Request messages.	Int32
diamauth-msg-maatimeout	Diameter Authentication Message Stats - The total number of timeouts of Multimedia-Auth-Answer messages.	Int32
diamauth-msg-maadropped	Diameter Authentication Message Stats - The total number of Multimedia-Auth-Answer messages dropped.	Int32
diamauth-msg-sareq	Diameter Authentication Message Stats - The total number of Server-Assignment-Request message sent.	Int32
diamauth-msg-saans	Diameter Authentication Message Stats - The total number of Server-Assignment-Answer messages received.	Int32
diamauth-msg-sarretry	Diameter Authentication Message Stats - The total number of retries for Server-Assignment-Request Messages.	Int32
diamauth-msg-saatimeout	Diameter Authentication Message Stats - The total number of timeouts of Server-Assignment-Answer messages.	Int32
diamauth-msg-saadropped	Diameter Authentication Message Stats - The total number of Server-Assignment-Answer messages dropped.	Int32
diamauth-msg-uareq	Diameter Authentication Message Stats - The total number of User-Authorization-Request messages sent.	Int32
diamauth-msg-uaans	Diameter Authentication Message Stats - The total number of User-Authorization-Answer messages received.	Int32

## ■ Common Statistics

Statistic	Description	Data Type
diamauth-msg-uarretry	Diameter Authentication Message Stats - The total number of retries for User-Authorization-Request messages.	Int32
diamauth-msg-uaatimeout	Diameter Authentication Message Stats - The total number of timeouts of User-Authorization-Answer messages.	Int32
diamauth-msg-uaadropped	Diameter Authentication Message Stats - The total number of User-Authorization-Answer messages dropped.	Int32
diamauth-msg-lireq	Diameter Authentication Message Stats - The total number of Location-Info-Request message sent.	Int32
diamauth-msg-lians	Diameter Authentication Message Stats - The total number of Location-Info-Answer messages received.	Int32
diamauth-msg-lirretry	Diameter Authentication Message Stats - The total number of retries for Location-Info-Request messages.	Int32
diamauth-msg-liatimeout	Diameter Authentication Message Stats - The total number of timeouts of Location-Info-Answer messages.	Int32
diamauth-msg-liadropped	Diameter Authentication Message Stats - The total number of Location-Info-Answer messages dropped.	Int32
diamauth-msg-rtreq	Diameter Authentication Message Stats - The total number of Registration-Termination-Request message sent.	Int32
diamauth-msg-rtans	Diameter Authentication Message Stats - The total number of Registration-Termination-Answer messages received.	Int32
diamauth-msg-rtreject	Diameter Authentication Message Stats - The total number of Registration-Termination-Answer messages rejected.	Int32
diamauth-msg-ppreq	Diameter Authentication Message Stats - The total number of Push-Profile-Request message sent.	Int32
diamauth-msg-ppans	Diameter Authentication Message Stats - The total number of Push-Profile-Answer Messages Request received.	Int32
diamauth-msg-ppreject	Diameter Authentication Message Stats - The total number of Push-Profile-Request messages rejected.	Int32
diamauth-msg-dereq	Diameter Authentication Message Stats - The total number of Diameter-EAP-Request message sent.	Int32
diamauth-msg-deans	Diameter Authentication Message Stats - The total number of Diameter-EAP-Answer messages received.	Int32
diamauth-msg-deaaccept	Diameter Authentication Message Stats - The total number of Diameter-EAP-Answer messages accepted.	Int32
diamauth-msg-deareject	Diameter Authentication Message Stats - The total number of Diameter-EAP-Answer messages rejected.	Int32
diamauth-msg-derretry	Diameter Authentication Message Stats - The total number of retries for Diameter-EAP-Request messages.	Int32

Statistic	Description	Data Type
diamauth-msg-deatimeout	Diameter Authentication Message Stats - The total number of timeouts of Diameter-EAP-Answer messages.	Int32
diamauth-msg-deadropped	Diameter Authentication Message Stats - The total number of Diameter-EAP-Answer messages dropped.	Int32
diamauth-msg-asr	Diameter Authentication Message Stats - The total number of Abort-Session-Request messages sent.	Int32
diamauth-msg-asa	Diameter Authentication Message Stats - The total number of Abort-Session-Answer messages received.	Int32
diamauth-msg-rar	Diameter Authentication Message Stats - The total number of Re-Auth-Request messages sent.	Int32
diamauth-msg-raa	Diameter Authentication Message Stats - The total number of Re-Auth-Answer messages received.	Int32
diamauth-msg-str	Diameter Authentication Message Stats - The total number of Session-Termination-Request message sent.	Int32
diamauth-msg-sta	Diameter Authentication Message Stats - The total number of Session-Termination-Answer messages received.	Int32
diamauth-msg-stretry	Diameter Authentication Message Stats - The total number of retries for Session-Termination-Request Messages.	Int32
diamauth-demsgerr-proto	Diameter Authentication DE Message Error Stats - The total number of error messages received with error Diameter Protocol Errors.	Int32
diamauth-demsgerr-badans	Diameter Authentication DE Message Error Stats - The total number of error messages received with error Bad-Answer.	Int32
diamauth-demsgerr-unksessreq	Diameter Authentication DE Message Error Stats - The total number of error messages received with error Session-Id or unknown session values.	Int32
diamauth-demsgerr-unkcmd	Diameter Authentication DE Message Error Stats - The total number of error messages received with error Unknown command code value.	Int32
diamauth-demsgerr-reqtmo	Diameter Authentication DE Message Error Stats - The total number of error messages received with error Request Timeout.	Int32
diamauth-demsgerr-parse	Diameter Authentication DE Message Error Stats - The total number of error messages received with error Parse Errors.	Int32
diamauth-demsgerr-reqretry	Diameter Authentication DE Message Error Stats - The total number of error messages received with error Request Retries.	Int32
diamauth-strterm-logout	Diameter Authentication STR Termination Cause Stats - The total number of Session-Termination-Request messages with termination cause Diameter-Logout.	Int32
diamauth-strterm-noserv	Diameter Authentication STR Termination Cause Stats - The total number of Session-Termination-Request messages with termination cause Service-Not-Provided.	Int32
diamauth-strterm-badans	Diameter Authentication STR Termination Cause Stats - The total number of Session-Termination-Request messages with termination cause Bad-Answer.	Int32

## Common Statistics

Statistic	Description	Data Type
diamauth-strterm-admin	Diameter Authentication STR Termination Cause Stats - The total number of Session-Termination-Request messages with termination cause Administrative.	Int32
diamauth-strterm-linkbroken	Diameter Authentication STR Termination Cause Stats - The total number of Session-Termination-Request messages with termination cause Link-Broken	Int32
diamauth-strterm-authexp	Diameter Authentication STR Termination Cause Stats - The total number of Session-Termination-Request messages with termination cause Auth-Expired.	Int32
diamauth-strterm-usermoved	Diameter Authentication STR Termination Cause Stats - The total number of Session-Termination-Request messages with termination cause User-Moved.	Int32
diamauth-strterm-sesstmo	Diameter Authentication STR Termination Cause Stats - The total number of Session-Termination-Request messages with termination cause Session-Timeout.	Int32
diamauth-strterm-userreq	Diameter Authentication STR Termination Cause Stats - The total number of Session-Termination-Request messages with termination cause User-Request.	Int32
diamauth-strterm-lostcarrier	Diameter Authentication STR Termination Cause Stats - The total number of Session-Termination-Request messages with termination cause Lost Carrier.	Int32
diamauth-strterm-lostsvc	Diameter Authentication STR Termination Cause Stats - The total number of Session-Termination-Request messages with termination cause Lost Service.	Int32
diamauth-strterm-idletmo	Diameter Authentication STR Termination Cause Stats - The total number of Session-Termination-Request messages with termination cause Idle-Timeout.	Int32
diamauth-strterm-nastmo	Diameter Authentication STR Termination Cause Stats - The total number of Session-Termination-Request messages with termination cause NAS Related Session-Timeout.	Int32
diamauth-strterm-adminreset	Diameter Authentication STR Termination Cause Stats - The total number of Session-Termination-Request messages with termination cause Admin-Reset.	Int32
diamauth-strterm-adminreboot	Diameter Authentication STR Termination Cause Stats - The total number of Session-Termination-Request messages with termination cause Admin Reboot.	Int32
diamauth-strterm-port	Diameter Authentication STR Termination Cause Stats - The total number of Session-Termination-Request messages with termination cause Port Error	Int32
diamauth-strterm-naserr	Diameter Authentication STR Termination Cause Stats - The total number of Session-Termination-Request messages with termination cause NAS Error.	Int32
diamauth-strterm-nasreq	Diameter Authentication STR Termination Cause Stats - The total number of Session-Termination-Request messages with termination cause NAS Request.	Int32
diamauth-strterm-nasreboot	Diameter Authentication STR Termination Cause Stats - The total number of Session-Termination-Request messages with termination cause NAS Reboot.	Int32
diamauth-strterm-portunneed	Diameter Authentication STR Termination Cause Stats - The total number of Session-Termination-Request messages with termination cause Port Unneeded.	Int32
diamauth-strterm-portpreempt	Diameter Authentication STR Termination Cause Stats - The total number of Session-Termination-Request messages with termination cause Port Preempted.	Int32
diamauth-strterm-portsusp	Diameter Authentication STR Termination Cause Stats - The total number of Session-Termination-Request messages with termination cause Port Suspended.	Int32

Statistic	Description	Data Type
diamauth-strterm-svcunavail	Diameter Authentication STR Termination Cause Stats - The total number of Session-Termination-Request messages with termination cause Service Unavailable.	Int32
diamauth-strterm-cback	Diameter Authentication STR Termination Cause Stats - The total number of Session-Termination-Request messages with termination cause Callback.	Int32
diamauth-strterm-user	Diameter Authentication STR Termination Cause Stats - The total number of Session-Termination-Request messages with termination cause User-Error.	Int32
diamauth-strterm-hostreq	Diameter Authentication STR Termination Cause Stats - The total number of Session-Termination-Request messages with termination cause Host-Request.	Int32
diamacct-msg-acreq	Diameter Accounting Message Stats - The total number of Accounting-Request message sent.	Int32
diamacct-msg-acans	Diameter Accounting Message Stats - The total number of Accounting-Answer messages received.	Int32
diamacct-msg-acrstart	Diameter Accounting Message Stats - The total number of Accounting-Request Start message sent.	Int32
diamacct-msg-acastart	Diameter Accounting Message Stats - The total number of Accounting-Answer Start messages received.	Int32
diamacct-msg-acrstartretry	Diameter Accounting Message Stats - The total number of retries for Accounting-Request Start messages.	Int32
diamacct-msg-acastarttmo	Diameter Accounting Message Stats - The total number of timeouts of Accounting-Answer Start messages.	Int32
diamacct-msg-acrinterim	Diameter Accounting Message Stats - The total number of Accounting-Request Interim message sent.	Int32
diamacct-msg-acainterim	Diameter Accounting Message Stats - The total number of Accounting-Answer Interim messages received.	Int32
diamacct-msg-acrinterimretry	Diameter Accounting Message Stats - The total number of retries for Accounting-Request Interim messages.	Int32
diamacct-msg-acainterimtmo	Diameter Accounting Message Stats - The total number of timeouts of Accounting-Answer Interim messages.	Int32
diamacct-msg-acrevent	Diameter Accounting Message Stats - The total number of Accounting-Request Event message sent.	Int32
diamacct-msg-acaevent	Diameter Accounting Message Stats - The total number of Accounting-Answer Event messages received.	Int32
diamacct-msg-acrstop	Diameter Accounting Message Stats - The total number of Accounting-Request Stop messages.	Int32
diamacct-msg-acastop	Diameter Accounting Message Stats - The total number of Accounting-Answer Stop messages received.	Int32
diamacct-msg-acrstopretry	Diameter Accounting Message Stats - The total number of retries for Accounting-Request Stop messages.	Int32

## Common Statistics

Statistic	Description	Data Type
diamacct-msg-acastoptmo	Diameter Accounting Message Stats - The total number of timeouts of Accounting-Answer Stop messages.	Int32
diamacct-msg-acadropped	Diameter Accounting Message Stats - The total number of Accounting-Answer messages dropped.	Int32
diamacct-acmsgerr-proto	Diameter Accounting Message Error Stats - The total number of error messages received with error Diameter Protocol Errors.	Int32
diamacct-acmsgerr-badans	Diameter Accounting Message Error Stats - The total number of error messages received with error Bad-Answer.	Int32
diamacct-acmsgerr-unksessreq	Diameter Accounting Message Error Stats - The total number of error messages received with error Session-Id or unknown session values.	Int32
diamacct-acmsgerr-unkcmdcode	Diameter Accounting Message Error Stats - The total number of error messages received with error Unknown command code value.	Int32
diamacct-acmsgerr-reqtmo	Diameter Accounting Message Error Stats - The total number of error messages received with error request timeout happens.	Int32
diamacct-acmsgerr-parse	Diameter Accounting Message Error Stats - The total number of error messages received with error Parse errors happens.	Int32
diamacct-acmsgerr-requery	Diameter Accounting Message Error Stats - The total number of error messages received with error Request Retries.	Int32
a11-ttlarrived	The total number of sessions for all A11 Managers that were received.	Int32
a11-ttlrejected	The total number of sessions for all A11 Managers that were rejected.	Int32
a11-ttl demult	The total number of sessions that were successfully setup for all A11 Managers.	Int32
a11-ttl dereg	The total number of sessions for all A11 Managers that were successfully de-registered, or disconnected.	Int32
a11-curaactive	The total number of active sessions currently being facilitated by all A11 Managers.	Int32
asngw-cursess	The total of ASN-GW sessions currently running on a system.	Gauge32
asngw-curaactive	The total number of active ASN-GW session on a system.	Gauge32
asngw-ttlsetup	The total number of ASN-GW sessions setup on a system.	Ctr32
asngw-retriesexhaust	Total number of retries for R6 connection setup for ASN-GW service on a system.	Ctr32
asngw-sfs	Total number of ASN-GW Sfs	Ctr32
asngw-tidfail	The total number of ASN-GW Transaction id (tid) failures on a system.	Ctr32
asngw-handoffattempt	The total number of intra-ASN Gateway and inter-ASN Gateway hand-offs attempted on a system.	Ctr32
asngw-handoffdenied	The total number of intra-ASN Gateway and inter-ASN Gateway hand-offs denied/failed on a system.	Ctr32
asngw-handoffcomp	The total number of successful intra-ASN Gateway and inter-ASN Gateway hand-offs attempted on a system.	Ctr32
asngw-authsucc	The total number of successful EAP authorization on a system for ASN-GW service.	Ctr32

Statistic	Description	Data Type
asngw-authfailures	The total number of failed EAP authorization on a system for ASN-GW service.	Ctr32
asngw-cur-active-call	The total number of active ASN-GW session on a system.	Int32
asngw-total-sess-setup	The total number of ASN-GW sessions setup on a system.	Int32
asngw-retriesexhaust	Total number of retries for R6 connection setup for ASN-GW service on a system.	Int32
asngw-sfs	Total number of ASN-GW service flows	Int32
asngw-tidfail	The total number of ASN-GW Transaction id (tid) failures on a system.	Int32
asngw-handoffattempt	The total number of intra-ASN Gateway and inter-ASN Gateway hand-offs attempted on a system.	Int32
asngw-handoffdenied	The total number of intra-ASN Gateway and inter-ASN Gateway hand-offs denied/failed on a system.	Int32
asngw-handoffcomp	The total number of successful intra-ASN Gateway and inter-ASN Gateway hand-offs attempted on a system.	Int32
asngw-authsucc	The total number of successful EAP authorization on a system for ASN-GW service.	Int32
asngw-authfailures	The total number of failed EAP authorization on a system for ASN-GW service.	Int32
fa-ttlarrived	The total number of sessions for all FA Managers that were received.	Int32
fa-ttlrejected	The total number of sessions for all FA Managers that were rejected.	Int32
fa-ttldemult	The total number of sessions for all FA Managers that were successfully setup.	Int32
fa-ttldereg	The total number of sessions for all FA Managers that were successfully de-registered, or disconnected.	Int32
fa-curactive	The total number of active sessions currently being facilitated by all FA Managers.	Int32
ha-ttlarrived	The total number of sessions for all HA Managers that were received.	Int32
ha-ttlrejected	The total number of sessions for all HA Managers that were rejected.	Int32
ha-ttldemult	The total number of sessions for all HA Managers that were successfully setup.	Int32
ha-ttldereg	The total number of sessions for all HA Managers that were successfully de-registered, or disconnected.	Int32
ha-curactive	The total number of active sessions currently being facilitated by all HA Managers.	Int32
pdif-cursess	The total number of Credit Control Application (CCA) sessions currently active.	Int32
pdif-curactive	The total number of active sessions currently being facilitated by PDIF.	Int32
pdif-curdormant	The total number of dormant sessions currently being facilitated by PDIF.	Int32
pdif-ttlsetup	The total number of pdif sessions on a system.	Int32
pdif-curchildsa	The number of current child SAs	Int32
sess-15peak-curactcall	The number of current calls (active only). Peak values represent the highest sample seen over the last 15 minutes.	Int32

## Common Statistics

Statistic	Description	Data Type
sess-15peak-curtlcall	The total number of current calls. Peak values represent the highest sample seen over the last 15 minutes.	Int32
sess-cursipactive	The number of Simple IP sessions currently active.	Int32
sess-15peak-cursipactive	The number of Simple IP sessions currently active. Peak values represent the highest sample seen over the last 15 minutes.	Int32
sess-curmipactive	The number of Mobile IP sessions currently active.	Int32
sess-15peak-curmipactive	The number of currently active Mobile IP sessions Peak values represent the highest sample seen over the last 15 minutes.	Int32
all-15peak-curactive	Peak active All sessions (all-curactive) over last 15 minutes.	Int32
crp-curactive	Current number of active ClosedRP calls.	Int32
crp-15peak-curactive	Peak active ClosedRP calls (crp-curactive) over last 15 minutes.	Int32
fa-15peak-curactive	The number of FA sessions currently active. Peak values represent the highest sample seen over the last 15 minutes.	Int32
ha-15peak-curactive	The number of HA sessions currently active. Peak values represent the highest sample seen over the last 15 minutes.	Int32
flow-15peak-curdynamic	Peak flows (flow-curdynamic) over last 15 minutes.	Int32 <sup>c</sup>
sess-15min-usageactive	Total minute usage by all the active sessions over last 15 minutes.	Int32
sess-15min-usageall	Total minute usage by all flows over last 15 minutes.	Int32
pdp-ctx-15peak-active	The number of peak active simultaneous PDP contexts over last 15 minutes. This is sum of both SGSN & GGSN service session on a system. This is a Gauge type of statistic.	Int32
pdp-ctx-5peak-active	The number of peak active simultaneous PDP contexts over last 5 minutes. This is sum of both SGSN & GGSN service session on a system. This is a Gauge type of statistic.	Int32
cc-cursess	The total number of Credit Control Application (CCA) sessions currently active.	Int64
cc-ttlecsadd	The total number of ECS sessions added to CCA.	Int64
cc-ttlstart	The total number of CCA sessions started.	Int64
cc-ttlssupd	The total number of CCA sessions updated.	Int64
cc-ttlterm	The total number of CCA sessions terminated.	Int64
cc-sessfailover	The total CCA sessions failed.	Int64
cc-msg-recv	The total CCA messages received.	Int64
cc-msg-sent	The total CCA messages sent.	Int64
cc-msg-request	The total number of CCRs (Credit Control Request) messages that went out from system to the Diameter Server. The CCR can be Initial/Update or Terminate.	Int64
cc-msg-answer	The total number of CCA (Credit Control Answer) messages that came into system from Diameter Server.	Int64

Statistic	Description	Data Type
cc-msg-ccrinit	The total number of CCR-Initial (Initial Credit Control Request) messages that went out from system to the Diameter Server.	Int64
cc-msg-ccainit	The total number of CCA-Initial (Initial Credit Control Answer) messages that came into system from Diameter Server.	Int64
cc-msg-ccainitaccept	The total number of CCA-Initial-Accept (Initial Credit Control Answer sent and accepted) messages that came into system from Diameter Server.	Int64
cc-msg-ccainitreject	The total number of CCA-Initial-Reject (Initial Credit Control Answer sent and rejected.) messages that came into system from Diameter Server.	Int64
cc-msg-ccainitimeout	The total number of CCA-Initial-Timeouts (Initial Credit Control Answer sent and timed out) messages that came into system from Diameter Server.	Int64
cc-msg-ccrupdate	The total number of CCR-Updates (Credit Control Request with Update) messages that went out from system to the Diameter Server.	Int64
cc-msg-ccaupdate	The total number of CCA-Update (Credit Control Answer for update) messages that came into system from Diameter Server.	Int64
cc-msg-ccaupdatetimeout	The total number of CCA-Update Timeouts (Credit Control Answer for update sent and timed out) messages that came into system from Diameter Server.	Int64
cc-msg-ccrfinal	The total number of CCR-Final (Credit Control Request with Final) messages that went out from system to the Diameter Server.	Int64
cc-msg-ccafinal	The total number of CCA-Final (Credit Control Answer for final update sent) messages that came into system from Diameter Server.	Int64
cc-msg-ccafinaltimeout	The total number of CCA-Final Timeouts (Credit Control Answer for final update sent and time-out) messages that came into system from Diameter Server.	Int64
cc-msg-asr	The total number of Abort Session Request messages came into system from Diameter Server.	Int64
cc-msg-asa	The total number of Abort Session Accept messages sent from system to Diameter. This message will be followed by a CCR- Terminate to terminate the session.	Int64
cc-msg-rar	The total number of ReAuth Request messages came into system from Diameter Server	Int64
cc-msg-raa	The total number of ReAuth Accept messages sent from system to Diameter server. This message is followed by a CCR-Update to update the diameter server about the session.	Int64
cc-msg-ccadropped	The total number of CCA (Credit Control Answers) messages dropped by system.	Int64
cc-msgerr-proto	The total message errors due to Diameter protocol.	Int64
cc-msgerr-badanswer	The total message errors due to invalid response.	Int64
cc-msgerr-unknownsess	The total message errors due to invalid session requests.	Int64
cc-msgerr-unknowncomm	The total message errors due to invalid/unknown command code (ASR, RAR).	Int64
cc-msgerr-reqtimeout	The total message errors due to request timeout.	Int64
cc-msgerr-parse	The total message errors due to parsing errors.	Int64

## ■ Common Statistics

Statistic	Description	Data Type
cc-msgerr-unkratinggrp	The total message errors due to invalid/unknown Rating Groups. Rating group is used to identify a particular type of traffic.	Int64
cc-msgerr-unkrulebase	The total message errors due to invalid/unknown Rulebase applied.	Int64
cc-msgerr-unkfailure	The total message errors due to invalid/unknown reasons.	Int64
cc-upd-threshold	For each Rating group, the Diameter server sends a threshold (this is also configurable in the system) after which an update needs to be sent. For example, a subscriber quota of 1000 bytes with 900 as a threshold is sent to CCA. When 900 bytes have been used by the system, an update message is sent for quota. This counter gives the number of updates sent because of the threshold.	Int64
cc-upd-qht	The total number of updates sent due to expiry of Quota Hold Timer (QHT).	Int64
cc-upd-final	The total number of updates sent due to expiry of final unit of quota.	Int64
cc-upd-quotaexhaust	The total number updates sent due to quota of subscriber was exhausted.	Int64
cc-upd-validitytime	The total number of updates sent because of the session validity time expired.	Int64
cc-upd-otherquota	The total number updates sent due to request for additional quota for subscriber.	Int64
cc-upd-ratingchange	The total number of updates sent due change in RAT/QOS/SGSN/CELLID/LAC.	Int64
cc-upd-forcedreauth	The total number of updates sent because of RAR.	Int64
cc-term-diamlogout	The total number of CCA session terminated due to subscriber logout.	Int64
cc-term-servnotprov	The total number of CCA session terminated as service was not available.	Int64
cc-term-badanswer	The total number of CCA session terminated due to invalid/unknown response received.	Int64
cc-term-admin	The total number of CCA session terminated by an administrative user.	Int64
cc-term-linkbroken	The total number of CCA session terminated due to broken/down link.	Int64
cc-term-authexpired	The total number of CCA session terminated due to authorization of subscriber expired.	Int64
cc-term-usermoved	The total number of CCA session terminated as subscriber moved to out of service area.	Int64
cc-term-sesstimeout	The total number of CCA session terminated due to timeout.	Int64
cc-traf-catcreate	The total traffic categories created.	Int64
cc-traf-catdelete	The total traffic categories deleted.	Int64
cc-traf-catlookup	The total traffic categories available.	Int64
cc-traf-hits	The total traffic categories triggered.	Int64
cc-traf-misses	The total traffic categories triggered and missed.	Int64
cc-traf-triggerevent	The total traffic categories triggered.	Int64
cc-traf-finalunit	The total units consumed by subscriber during session.	Int64
cc-traf-catsuccess	The total number of successful Multiple-Services-Credit-Control sessions.	Int64
cc-traf-ratingfail	The total Rating Groups failed during session.	Int64

Statistic	Description	Data Type
cc-traf-servdenied	The total number of services denied during session.	Int64
cc-traf-limitreached	The total number of events when subscriber reached quota limit.	Int64
cc-traf-authreject	The total number of authorization rejected.	Int64
cc-traf-othererror	The total number of miscellaneous/unknown errors not specified by system.	Int64
url-blacklisting-hits	Total number of blacklisted URL hits of all the configured billing plans.	Int64
url-blacklisting-misses	Total number of blacklisted URL misses of all the configured billing plans.	Int64
cf-static-ratereq	The total number of static rating requests.	Int64
cf-static-ratesucc	The total number of “successful” response for static rating requests.	Int64
cf-static-rateblock	The total number of “blocked” response for static rating requests.	Int64
cf-static-ratefail	The total number of “failed” response for static rating requests.	Int64
cf-static-ratefail-nr	The total number of “failed” response for static requests due to no rating in database.	Int64
cf-static-ratefail-notindb	The total number of “failed” response for static requests due to no listing in database.	Int64
cf-dyn-ratereq	The total number of dynamic rating requests.	Int64
cf-dyn-ratesucc	The total number of “successful” response for dynamic rating requests.	Int64
cf-dyn-rateblock	The total number of "blocked" response for dynamic rating requests.   <b>Important:</b> In StarOS 8.1 and later, this statistics is obsolete.	Int64
cf-dyn-ratefail	The total number of “failed” response for dynamic rating requests.	Int64
cf-cache-hits	The total number of URLs that get a hit (found) in the CF cache.	Int64
cf-cache-misses	The total number of URLs that get a miss (not found) in the CF cache.	Int64
cf-cache-has-path-hits	The total number of URLs whose domain_name entries are found in the CF cache based, and haspath bit was not set in the domain_name entry. I.e., no extended URLs are present in the SRDB for those domain_name URLs, so there is no need to go for rating.	Int64
cf-cache-flushes	The total number of URLs that are flushed from the CF cache.	Int64
cf-ratereq	The total number of rating requests including dynamic and static.	Int64
cf-ratesucc	The total number of “successful” response against all rating requests including dynamic and rating.	Int64
cf-rateblock	The total number of "blocked" response against all rating requests including dynamic and rating.	Int64
cf-ratefail	The total number of “failed” response against all rating requests including dynamic and rating.	Int64
cf-ttlsub	The total number of CF subscribers.	Int32

Statistic	Description	Data Type
cf-cursub	The current number of CF subscribers.	Int32
cf-cat-abor-pkts-hit	Total number of packets from sites with CF category “abortion” accessed.	Int32
cf-cat-abor-pkts-block	Total number of packets from sites with CF category “abortion” blocked.	Int32
cf-cat-adult-pkts-hit	Total number of packets from sites with CF category “adult” accessed.	Int32
cf-cat-adult-pkts-block	Total number of packets from sites with CF category “adult” blocked.	Int32
cf-cat-adv-pkts-hit	Total number of packets from sites with CF category “advertisement” accessed.   <b>Important:</b> In StarOS 8.1 and later, this statistics is obsolete.	Int32
cf-cat-adv-pkts-block	Total number of packets from sites with CF category “advertisement” blocked.   <b>Important:</b> In StarOS 8.1 and later, this statistics is obsolete.	Int32
cf-cat-advert-pkts-hit	Total number of packets from sites with CF category “advertising site” accessed.	Int32
cf-cat-advert-pkts-block	Total number of packets from sites with CF category “advertising site” blocked.	Int32
cf-cat-anon-pkts-hit	Total number of packets from sites with CF category “anonymous” accessed.	Int32
cf-cat-anon-pkts-block	Total number of packets from sites with CF category “anonymous” blocked.	Int32
cf-cat-art-pkts-hit	Total number of packets from sites with CF category “art” accessed.	Int32
cf-cat-art-pkts-block	Total number of packets from sites with CF category “art” blocked.	Int32
cf-cat-auct-pkts-hit	Total number of packets from sites with CF category “auction” accessed.   <b>Important:</b> In StarOS 8.1 and later, this statistics is obsolete.	Int32
cf-cat-auct-pkts-block	Total number of packets from sites with CF category “auction” blocked.   <b>Important:</b> In StarOS 8.1 and later, this statistics is obsolete.	Int32
cf-cat-auto-pkts-hit	Total number of packets from sites with CF category “auto” accessed.	Int32
cf-cat-auto-pkts-block	Total number of packets from sites with CF category “auto” blocked.	Int32
cf-cat-black-pkts-hit	Total number of packets from sites with CF category “black” accessed.	Int32

Statistic	Description	Data Type
cf-cat-black-pkts-block	Total number of packets from sites with CF category “black” blocked.	Int32
cf-cat-blog-pkts-hit	Total number of packets from sites with CF category “blog” accessed.	Int32
cf-cat-blog-pkts-block	Total number of packets from sites with CF category “blog” blocked.	Int32
cf-cat-busi-pkts-hit	Total number of packets from sites with CF category “business” accessed.	Int32
cf-cat-busi-pkts-block	Total number of packets from sites with CF category “business” blocked.	Int32
cf-cat-car-pkts-hit	Total number of packets from sites with CF category “career” accessed.	Int32
cf-cat-car-pkts-block	Total number of packets from sites with CF category “career” blocked.	Int32
cf-cat-chat-pkts-hit	Total number of packets from sites with CF category “chat” accessed.	Int32
cf-cat-chat-pkts-block	Total number of packets from sites with CF category “chat” blocked.	Int32
cf-cat-clean-pkts-hit	Total number of packets from sites with CF category “clean” accessed.   <b>Important:</b> In StarOS 8.1 and later, this statistics is obsolete.	Int32
cf-cat-clean-pkts-block	Total number of packets with CF category “clean” blocked.   <b>Important:</b> In StarOS 8.1 and later, this statistics is obsolete.	Int32
cf-cat-cmc-pkts-hit	Total number of packets with CF category “virtual community” accessed.	Int32
cf-cat-cmc-pkts-block	Total number of packets with CF category “virtual community” blocked.	Int32
cf-cat-cporn-pkts-hit	Total number of packets with CF category “child porn” accessed.   <b>Important:</b> In StarOS 8.1 and later, this statistics is obsolete.	Int32
cf-cat-cporn-pkts-block	Total number of packets from sites with CF category “child porn” blocked.   <b>Important:</b> In StarOS 8.1 and later, this statistics is obsolete.	Int32
cf-cat-crime-pkts-hit	Total number of packets from sites with CF category “crime” accessed.	Int32
cf-cat-crime-pkts-block	Total number of packets from sites with CF category “crime” blocked.	Int32
cf-cat-cult-pkts-hit	Total number of packets from sites with CF category “cult” accessed.	Int32

## ■ Common Statistics

Statistic	Description	Data Type
cf-cat-cult-pkts-block	Total number of packets from sites with CF category “cult” blocked.	Int32
cf-cat-drug-pkts-hit	Total number of packets from sites with CF category “drug” accessed.	Int32
cf-cat-drug-pkts-block	Total number of packets from sites with CF category “drug” blocked.	Int32
cf-cat-dynam-pkts-hit	Total number of packets from sites with CF category “dynamic content” accessed.	Int32
cf-cat-dynam-pkts-block	Total number of packets from sites with CF category “dynamic content” blocked.	Int32
cf-cat-edu-pkts-hit	Total number of packets from sites with CF category “education” accessed.	Int32
cf-cat-edu-pkts-block	Total number of packets from sites with CF category “education” blocked.	Int32
cf-cat-energy-pkts-hit	Total number of packets from sites with CF category “energy” accessed.	Int32
cf-cat-energy-pkts-block	Total number of packets from sites with CF category “energy” blocked.	Int32
cf-cat-ent-pkts-hit	Total number of packets from sites with CF category “entertainment” accessed.	Int32
cf-cat-ent-pkts-block	Total number of packets from sites with CF category “entertainment” blocked.	Int32
cf-cat-esrb-pkts-hit	Total number of packets from sites with CF category “Sites with ESRB ratings” accessed.	Int32
cf-cat-esrb-pkts-block	Total number of packets from sites with CF category “Sites with ESRB ratings” blocked.	Int32
cf-cat-fin-pkts-hit	Total number of packets from sites with CF category “finance” accessed.	Int32
cf-cat-fin-pkts-block	Total number of packets from sites with CF category “finance” blocked.	Int32
cf-cat-forum-pkts-hit	Total number of packets from sites with CF category “forum” accessed.	Int32
cf-cat-forum-pkts-block	Total number of packets from sites with CF category “forum” blocked.	Int32
cf-cat-gamb-pkts-hit	Total number of packets from sites with CF category “gambling” accessed.	Int32
cf-cat-gamb-pkts-block	Total number of packets from sites with CF category “gambling” blocked.	Int32
cf-cat-game-pkts-hit	Total number of packets from sites with CF category “game” accessed.	Int32
cf-cat-game-pkts-block	Total number of packets from sites with CF category “game” blocked.	Int32
cf-cat-glam-pkts-hit	Total number of packets from sites with CF category “glamour” accessed.	Int32
cf-cat-glam-pkts-block	Total number of packets from sites with CF category “glamour” blocked.	Int32
cf-cat-govern-pkts-hit	Total number of packets from sites with CF category “government” accessed.	Int32
cf-cat-govern-pkts-block	Total number of packets from sites with CF category “government” blocked.	Int32
cf-cat-hack-pkts-hit	Total number of packets from sites with CF category “hacker” accessed.	Int32
cf-cat-hack-pkts-block	Total number of packets from sites with CF category “hacker” blocked.	Int32
cf-cat-hate-pkts-hit	Total number of packets from sites with CF category “hate” accessed.	Int32
cf-cat-hate-pkts-block	Total number of packets from sites with CF category “hate” blocked.	Int32
cf-cat-health-pkts-hit	Total number of packets from sites with CF category “health” accessed.	Int32
cf-cat-health-pkts-block	Total number of packets from sites with CF category “health” blocked.	Int32

Statistic	Description	Data Type
cf-cat-hobby-pkts-hit	Total number of packets from sites with CF category “hobby” accessed.	Int32
cf-cat-hobby-pkts-block	Total number of packets from sites with CF category “hobby” blocked.	Int32
cf-cat-hosts-pkts-hit	Total number of packets from sites with CF category “host” accessed.	Int32
cf-cat-hosts-pkts-block	Total number of packets from sites with CF category “host” blocked.	Int32
cf-cat-kids-pkts-hit	Total number of packets from sites with CF category “kids” accessed.	Int32
cf-cat-kids-pkts-block	Total number of packets from sites with CF category “kids” blocked.	Int32
cf-cat-legal-pkts-hit	Total number of packets from sites with CF category “legal” accessed.	Int32
cf-cat-legal-pkts-block	Total number of packets from sites with CF category “legal” blocked.	Int32
cf-cat-lifes-pkts-hit	Total number of packets from sites with CF category “lifes” accessed.	Int32
cf-cat-lifes-pkts-block	Total number of packets from sites with CF category “lifes” blocked.	Int32
cf-cat-mail-pkts-hit	Total number of packets from sites with CF category “mail” accessed.	Int32
cf-cat-mail-pkts-block	Total number of packets from sites with CF category “mail” blocked.	Int32
cf-cat-mil-pkts-hit	Total number of packets from sites with CF category “military” accessed.	Int32
cf-cat-mil-pkts-block	Total number of packets from sites with CF category “military” blocked.	Int32
cf-cat-news-pkts-hit	Total number of packets from sites with CF category “news” accessed.   <b>Important:</b> In StarOS 8.1 and later, this statistics is obsolete.	Int32
cf-cat-news-pkts-block	Total number of packets from sites with CF category “news” blocked.   <b>Important:</b> In StarOS 8.1 and later, this statistics is obsolete.	Int32
cf-cat-occult-pkts-hit	Total number of packets from sites with CF category “occult” accessed.	Int32
cf-cat-occult-pkts-block	Total number of packets from sites with CF category “occult” blocked.	Int32
cf-cat-p2p-pkts-hit	Total number of packets from sites with CF category “p2p” accessed.   <b>Important:</b> In StarOS 8.1 and later, this statistics is obsolete.	Int32

Statistic	Description	Data Type
cf-cat-p2p-pkts-block	Total number of packets from sites with CF category “p2p” blocked.   <b>Important:</b> In StarOS 8.1 and later, this statistics is obsolete.	Int32
cf-cat-peer-pkts-hit	Total number of packets from sites with CF category “peer” accessed	Int32
cf-cat-peer-pkts-block	Total number of packets from sites with CF category “peer” blocked	Int32
cf-cat-pers-pkts-hit	Total number of packets from sites with CF category “pers” accessed	Int32
cf-cat-pers-pkts-block	Total number of packets from sites with CF category “pers” blocked	Int32
cf-cat-phish-pkts-hit	Total number of packets from sites with CF category “phish” accessed.   <b>Important:</b> In StarOS 8.1 and later, this statistics is obsolete.	Int32
cf-cat-phish-pkts-block	Total number of packets from sites with CF category “phish” blocked.   <b>Important:</b> In StarOS 8.1 and later, this statistics is obsolete.	Int32
cf-cat-poltic-pkts-hit	Total number of packets from sites with CF category “poltic” accessed	Int32
cf-cat-poltic-pkts-block	Total number of packets from sites with CF category “poltic” blocked	Int32
cf-cat-porn-pkts-hit	Total number of packets from sites with CF category “porn” accessed	Int32
cf-cat-porn-pkts-block	Total number of packets from sites with CF category “porn” blocked	Int32
cf-cat-portal-pkts-hit	Total number of packets from sites with CF category “portal” accessed	Int32
cf-cat-portal-pkts-block	Total number of packets from sites with CF category “portal” blocked	Int32
cf-cat-proxy-pkts-hit	Total number of packets from sites with CF category “proxy” accessed	Int32
cf-cat-proxy-pkts-block	Total number of packets from sites with CF category “proxy” blocked	Int32
cf-cat-radio-pkts-hit	Total number of packets from sites with CF category “radio” accessed.   <b>Important:</b> In StarOS 8.1 and later, this statistics is obsolete.	Int32

Statistic	Description	Data Type
cf-cat-radio-pkts-block	Total number of packets from sites with CF category “radio” blocked.   <b>Important:</b> In StarOS 8.1 and later, this statistics is obsolete.	Int32
cf-cat-ref-pkts-hit	Total number of packets from sites with CF category “ref” accessed	Int32
cf-cat-ref-pkts-block	Total number of packets from sites with CF category “ref” blocked	Int32
cf-cat-rel-pkts-hit	Total number of packets from sites with CF category “rel” accessed	Int32
cf-cat-rel-pkts-block	Total number of packets from sites with CF category “rel” blocked	Int32
cf-cat-sci-pkts-hit	Total number of packets from sites with CF category “sci” accessed	Int32
cf-cat-sci-pkts-block	Total number of packets from sites with CF category “sci” blocked	Int32
cf-cat-search-pkts-hit	Total number of packets from sites with CF category “search” accessed	Int32
cf-cat-search-pkts-block	Total number of packets from sites with CF category “search” blocked	Int32
cf-cat-sftwre-pkts-hit	Total number of packets from sites with CF category “sftwre” accessed.   <b>Important:</b> In StarOS 8.1 and later, this statistics is obsolete.	Int32
cf-cat-sftwre-pkts-block	Total number of packets from sites with CF category “sftwre” blocked.   <b>Important:</b> In StarOS 8.1 and later, this statistics is obsolete.	Int32
cf-cat-shop-pkts-hit	Total number of packets from sites with CF category “shop” accessed	Int32
cf-cat-shop-pkts-block	Total number of packets from sites with CF category “shop” blocked	Int32
cf-cat-sport-pkts-hit	Total number of packets from sites with CF category “sport” accessed	Int32
cf-cat-sport-pkts-block	Total number of packets from sites with CF category “sport” blocked	Int32
cf-cat-stream-pkts-hit	Total number of packets from sites with CF category “stream” accessed.	Int32
cf-cat-stream-pkts-block	Total number of packets from sites with CF category “stream” blocked.	Int32
cf-cat-spywre-pkts-hit	Total number of packets from sites with CF category “spywre” accessed.   <b>Important:</b> In StarOS 8.1 and later, this statistics is obsolete.	Int32

Statistic	Description	Data Type
cf-cat-spywre-pkts-block	Total number of packets from sites with CF category “spywre” blocked.   <b>Important:</b> In StarOS 8.1 and later, this statistics is obsolete.	Int32
cf-cat-suic-pkts-hit	Total number of packets from sites with CF category “suic” accessed.	Int32
cf-cat-suic-pkts-block	Total number of packets from sites with CF category “suic” blocked.	Int32
cf-cat-susp-pkts-hit	Total number of packets from sites with CF category “susp” accessed.   <b>Important:</b> In StarOS 8.1 and later, this statistics is obsolete.	Int32
cf-cat-susp-pkts-block	Total number of packets from sites with CF category “susp” blocked.   <b>Important:</b> In StarOS 8.1 and later, this statistics is obsolete.	Int32
cf-cat-sxed-pkts-hit	Total number of packets from sites with CF category “sxed” accessed	Int32
cf-cat-sxed-pkts-block	Total number of packets from sites with CF category “sxed” blocked	Int32
cf-cat-tech-pkts-hit	Total number of packets from sites with CF category “tech” accessed	Int32
cf-cat-tech-pkts-block	Total number of packets from sites with CF category “tech” blocked	Int32
cf-cat-trav-pkts-hit	Total number of packets from sites with CF category “trav” accessed	Int32
cf-cat-trav-pkts-block	Total number of packets from sites with CF category “trav” blocked	Int32
cf-cat-viol-pkts-hit	Total number of packets from sites with CF category “viol” accessed	Int32
cf-cat-viol-pkts-block	Total number of packets from sites with CF category “viol” blocked	Int32
cf-cat-voip-pkts-hit	Total number of packets from sites with CF category “voip” accessed.	Int32
cf-cat-voip-pkts-block	Total number of packets from sites with CF category “voip” blocked.	Int32
cf-cat-weap-pkts-hit	Total number of packets from sites with CF category “weap” accessed	Int32
cf-cat-weap-pkts-block	Total number of packets from sites with CF category “weap” blocked	Int32
cf-cat-white-pkts-hit	Total number of packets from sites with CF category “white” accessed	Int32
cf-cat-white-pkts-block	Total number of packets from sites with CF category “white” blocked	Int32
cf-cat-unknow-pkts-hit	Total number of packets from sites with CF category “unknow” accessed	Int32
cf-cat-unknow-pkts-block	Total number of packets from sites with CF category “unknow” blocked	Int32
cf-cat-xcategory-pkts-hit	Total number of packets from sites with CF category “xcategory” accessed.	Int32

Statistic	Description	Data Type
cf-cat-xcategory-pkts-block	Total number of packets from sites with CF category “xcategory” blocked.	Int32
cf-cat-all-pkts-hit	Total number of URLs categorized by default action.	Int32
cf-cat-all-pkts-block	Total number of URLs blocked by default action.	Int32
cf-cat-timer-pkts-hit	Total number of URLs categorized by timeout action.	Int32
cf-cat-timer-pkts-block	Total number of URLs blocked by timeout action.	Int32
cf-cat-pkts-hit-summary	Summary of total packets with CF category accessed.	String
cf-cat-pkts-block-summary	Summary of total packets with CF category blocked.	String
ipsg-total-call-arrived	The total number of IPSG calls arriving on this system.	Int32
ipsg-total-call-rejected	The total number of IPSG calls rejected by this system.	Int32
ipsg-total-call-demult	The total number of IPSG calls de-multiplexed by this system.	Int32
ipsg-total-dereg-rep-sent	The total number of IPSG call de-registered by this system.	Int32
ipsg-cur-active-call	The number of IPSG calls currently active on this system.	Int32
ipsg-total-active-serv	The total number of active IPSG services on this system.	Int32
dpca-cursess	The total number of active DPCA sessions currently running on the node.	Int32
dcca-cursess	The total number of active DCCA sessions currently running on the node.	Int32
asngw-cur-active-call	The total number of active ASN-GW session on a system.	Int32
asngw-total-sess-setup	The total number of ASN-GW sessions setup on a system.	Int32
asngw-retriesexhaust	Total number of retries for R6 connection setup for ASN-GW service on a system.	Int32
asngw-sfs	Total number of ASN-GW service flows	Int32
asngw-tidfail	The total number of ASN-GW Transaction id (tid) failures on a system.	Int32
asngw-handoffattempt	The total number of intra-ASN Gateway and inter-ASN Gateway hand-offs attempted on a system.	Int32
asngw-handoffdenied	The total number of intra-ASN Gateway and inter-ASN Gateway hand-offs denied/failed on a system.	Int32
asngw-handoffcomp	The total number of successful intra-ASN Gateway and inter-ASN Gateway hand-offs attempted on a system.	Int32
asngw-authsucc	The total number of successful EAP authorization on a system for ASN-GW service.	Int32
asngw-authfailures	The total number of failed EAP authorization on a system for ASN-GW service.	Int32
ikev2-cursa	Total number of current security associations with Internet Key Exchange v2 (IKEv2).	Int32
ikev2-cursainit	Total number of current security associations in initialization state with Internet Key Exchange v2 (IKEv2)	Int32

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Statistic	Description	Data Type
ikev2-cursaresp	Total number of response for active security associations with Internet Key Exchange v2 (IKEv2)	Int32
ikev2-ttlsa	Total number of security associations with Internet Key Exchange v2 (IKEv2)	Int32
ikev2-ttlsainit	Total number of security associations in initialization state with Internet Key Exchange v2 (IKEv2)	Int32
ikev2-ttlsaresp	Total number of response for security associations with Internet Key Exchange v2 (IKEv2)	Int32
ikev2-attempt	Total number of attempts for security association tunnel with Internet Key Exchange v2 (IKEv2)	Int32
ikev2-attemptinit	Total number of attempts to initialize the security association tunnel with Internet Key Exchange v2 (IKEv2)	Int32
ikev2-attemptresp	Total number of response against attempts to initialize the security association tunnel with Internet Key Exchange v2 (IKEv2)	Int32
ikev2-rxpacket	Total number of packets received with Internet Key Exchange v2 (IKEv2)	Int32
ikev2-tpacket	Total number of packets transmitted with Internet Key Exchange v2 (IKEv2)	Int32
ikev2-rxoctet	Total number of octets received with Internet Key Exchange v2 (IKEv2)	Int32
ikev2-txoctet	Total number of octets transmitted with Internet Key Exchange v2 (IKEv2)	Int32
ikev2-initfail	Total number of security association initialization failed	Int32
ikev2-initfail-noresp	Total number of security association initialization failed without any response	Int32
ikev2-initfail-resp	Total number of security association initialization failed with response	Int32
ikev2-invcookie	Total number of cookies with session invitation for IKEv2 security association	Int32
ikev2-congrej	Total number of packets rejected due to congestion.	Int32
ikev2-congdrop	Total number of packets dropped due to congestion.	Int32
ikev2-unkxchgspi	Total number of unknown exchange security parameter indexes.	Int32
ikev2-nattkeepalive-recv	Total number of NAT-T Keep-Alive messages received with IKEv2	Int32
ikev2-nattkeepalive-send	Total number of NAT-Keep-Alive messages sent with IKEv2	Int32
ikev2-dpd-recv	Total number of Dead-Peer-Detection (DPD) messages received with IKEv2	Int32
ikev2-dpd-send	Total number of Dead-Peer-Detection (DPD) messages sent with IKEv2	Int32
ikev2-dpd-recv-reply	Total number of reply messages for received Dead-Peer-Detection (DPD) messages	Int32
ikev2-dpd-send-reply	Total number of reply messages for sent Dead-Peer-Detection (DPD) messages	Int32
ikev2-dpd-timeout	Total number of Dead-Peer-Detection (DPD) timed-out	Int32
ikev2-dpd-disconnect	Total number of Dead-Peer-Detection (DPD) disconnected	Int32
ipsec-dpd-p1rekey	Total number of Dead-Peer-Detection (DPD) messages to wait for phase 1 rekey period.	Int32
ikev2-ikesadel	Total number of IKEv2 Security Association Delete Packets sent and received.	Int32

Statistic	Description	Data Type
ikev2-ikesadelreq-sent	Total number of IKEv2 Security Association Delete Requests sent.	Int32
ikev2-ikesadelreq-recv	Total number of IKEv2 Security Association Delete Requests received.	Int32
ikev2-ikesadelrep-sent	Total number of IKEv2 IKE Security Association Delete Responses sent.	Int32
ikev2-ikesadelrep-recv	Total number of IKEv2 Security Association Delete Responses received.	Int32
ikev2-curikev2sa	Total number of current IKEv2 Security Associations.	Gau32
ikev2-curhalfsa	Total number of currently half-open IKEv2 Security Associations.	Gau32
ikev2-curconnsa	Total number of currently connecting IKEv2 Security Associations.	Gau32
ikev2-curestsa	Total number of currently established IKEv2 Security Associations.	Gau32
ikev2-curchildsa	Total number of current Child Security Associations.	Gau32
ikev2-exp-retran	Total number of IKESA retransmission expirations.	Ctr32
ikev2-exp-setupnoxchg	Total number of IKESA setup expirations (no exchange).	Ctr32
ikev2-exp-setup	Total number of IKESA setup expirations.	Ctr32
ikev2-exp-lifesoft	Total number of IKESA lifetime (soft) expirations.	Ctr32
ikev2-exp-lifehard	Total number of IKESA lifetime (hard) expirations.	Ctr32
ikev2-exp-childsetupnoxchg	Total number of Child Security Association setup expirations (no exchange).	Ctr32
ikev2-exp-childlifesoft	Total number of Child Security Association lifetime (soft) expirations.	Ctr32
ikev2-exp-childlifehard	Total number of Child Security Association lifetime (hard) expirations.	Ctr32
ikev2-auth-p1succ	Total number of IKEv2 Phase 1 authentication successes.	Ctr32
ikev2-auth-p1fail	Total number of IKEv2 Phase 1 authentication failures.	Ctr32
ikev2-auth-p1req	Total number of IKEv2 Phase 1 authentication requests sent.	Ctr32
ikev2-auth-p1rsp	Total number of IKEv2 Phase 1 authentication responses received.	Ctr32
ikev2-auth-p2succ	Total number of IKEv2 Phase 2 authentication successes.	Ctr32
ikev2-auth-p2fail	Total number of IKEv2 Phase 2 authentication failures.	Ctr32
ikev2-auth-p2req	Total number of IKEv2 Phase 2 authentication requests sent.	Ctr32
ikev2-auth-p2rsp	Total number of IKEv2 Phase 2 authentication responses received.	Ctr32
ikev2-auth-p2succmd5	Total number of IKEv2 Phase 2 authentication MD5 successes.	Ctr32
ikev2-auth-p2failmd5	Total number of IKEv2 Phase 2 authentication MD5 failures.	Ctr32
ikev2-auth-p2succgtc	Total number of IKEv2 Phase 2 authentication Generic Token Card successes.	Ctr32
ikev2-auth-p2failgtc	Total number of IKEv2 Phase 2 authentication Generic Token Card failures.	Ctr32
ikev2-auth-failhash	Total number of IKEv2 Phase 2 authentication hash match failures.	Ctr32
ikev2-auth-failsign	Total number of IKEv2 Phase 2 authentication signing failures.	Ctr32

## Common Statistics

Statistic	Description	Data Type
ikev2-auth-failmskmiss	Total number of IKEv2 Master Session Keys missing at Phase 1 completion.	Ctr32
ikev2-auth-failmissanother	Total number of IKEv2 authentication that failed because of missing NOTIFY (ANOTHER_AUTH_FOLLOWS) payload.	Ctr32
ikev2-xchg-droprspnoikesa	Total number of IKEv2 exchanges dropped (response packets dropped). No IKE SA.	Ctr32
ikev2-xchg-dropinvrsp	Total number of IKEv2 exchanges dropped (invalid responses).	Ctr32
ikev2-xchg-droprspnoikesa	Total number of IKEv2 exchanges dropped (non-init exchanges dropped). No IKE SA.	Ctr32
ikev2-xchg-dropinvmmsgid	Total number of IKEv2 exchanges dropped (invalid message ID).	Ctr32
ikev2-xchg-dropinvmajver	Total number of IKEv2 exchanges dropped (invalid major version).	Ctr32
ikev2-xchg-dropikesaerr	Total number of IKEv2 exchanges dropped (IKE SA error).	Ctr32
ikev2-xchg-dropunkcrit	Total number of IKEv2 exchanges dropped (unknown critical payload).	Ctr32
ikev2-xchg-droprspretransdisc	Total number of IKEv2 exchanges dropped (retransmitted request).	Ctr32
ikev2-notif-cooksent	Total number of IKEv2 Cookie Notify messages sent.	Ctr32
ikev2-notif-cookrecv	Total number of IKEv2 Cookie Notify messages received.	Ctr32
ikev2-notif-cookmatch	Total number of IKEv2 Cookie Notify messages matched.	Ctr32
ikev2-notif-cooknotmatch	Total number of IKEv2 Cookie Notify messages not matched.	Ctr32
ikev2-notif-multauthsupp	Total number of IKEv2 multiple authentications supported.	Ctr32
ikev2-notif-anothauth	Total number of NOTIFY (ANOTHER_AUTH_FOLLOWS) payloads received.	Ctr32
ikev2-rekey-ikesareqsent	Total IKEv2 IKE SA rekey requests sent.	Ctr32
ikev2-rekey-ikesareqrcvd	Total IKEv2 IKE SA rekey requests received.	Ctr32
ikev2-rekey-ikesarspsent	Total IKEv2 IKE SA rekey responses sent.	Ctr32
ikev2-rekey-ikesarsprcvd	Total IKEv2 IKE SA rekey responses received.	Ctr32
ikev2-rekey-ikesaignored	Total IKEv2 IKE SA rekeys ignored.	Ctr32
ikev2-rekey-childsareqsent	Total IKEv2 Child SA rekey requests sent.	Ctr32
ikev2-rekey-childsareqrcvd	Total IKEv2 Child SA rekey requests received.	Ctr32
ikev2-rekey-childsarspsent	Total IKEv2 Child SA rekey responses sent.	Ctr32
ikev2-rekey-childsarsprcvd	Total IKEv2 Child SA rekey responses received.	Ctr32
ikev2-rekey-childsaignored	Total IKEv2 Child SA rekeys ignored.	Ctr32
ikev2-mobike-sent	Total IKEv2 MOBIKE Notify messages sent.	Ctr32

Statistic	Description	Data Type
ikev2-mobike-recv	Total IKEv2 MOBIKE Notify messages received.	Ctr32
ikev2-mobike-ignored	Total IKEv2 MOBIKE Notify messages ignored.	Ctr32
ikev2-misc-ikesacrefail	Total IKEv2 SA create failures.	Ctr32
ikev2-misc-saflowopfail	Total IKEv2 SA flow operation failures.	Ctr32
ikev2-notifpaysent-invke	Total IKEv2 Notify payloads sent (invalid KE payload).	Ctr32
ikev2-notifpaysent-invmajver	Total IKEv2 Notify payloads sent (invalid major version).	Ctr32
ikev2-notifpaysent-invmsgid	Total IKEv2 Notify payloads sent (invalid message ID).	Ctr32
ikev2-notifpaysent-invsyn	Total IKEv2 Notify payloads sent (invalid syntax).	Ctr32
ikev2-notifpaysent-noaddsa	Total IKEv2 Notify payloads sent (no additional SAs).	Ctr32
ikev2-notifpaysent-noprop	Total IKEv2 Notify payloads sent (no proposal chosen).	Ctr32
ikev2-notifpaysent-tsunaccept	Total IKEv2 Notify payloads sent (TS unacceptable).	Ctr32
ikev2-notifpaysent-unsuppcrit	Total IKEv2 Notify payloads sent (unsupported critical payload).	Ctr32
ikev2-notifpaysent-intfail	Total IKEv2 Notify payloads received (internal failure sent).	Ctr32
ikev2-notifpayrecv-invke	Total IKEv2 Notify payloads received (invalid KE payload).	Ctr32
ikev2-notifpayrecv-invmajver	Total IKEv2 Notify payloads received (invalid major version).	Ctr32
ikev2-notifpayrecv-invmsgid	Total IKEv2 Notify payloads received (invalid message ID).	Ctr32
ikev2-notifpayrecv-invsyn	Total IKEv2 Notify payloads received (invalid syntax).	Ctr32
ikev2-notifpayrecv-noaddsa	Total IKEv2 Notify payloads received (no additional SAs).	Ctr32
ikev2-notifpayrecv-noprop	Total IKEv2 Notify payloads received (no proposal chosen).	Ctr32
ikev2-notifpayrecv-tsunaccept	Total IKEv2 Notify payloads received (TS unacceptable).	Ctr32
ikev2-notifpayrecv-unsuppcrit	Total IKEv2 Notify payloads received (unsupported critical payload).	Ctr32
ikev2-decfail-pktfail	Total IKEv2 exchange decode failures (packet errors).	Ctr32
ikev2-decfail-interr	Total IKEv2 exchange decode failures (internal errors).	Ctr32
ikev2-decfail-iphdr	Total IKEv2 exchange decode failures (invalid IP header).	Ctr32
ikev2-decfail-udphdr	Total IKEv2 exchange decode failures (invalid UDP header).	Ctr32

## Common Statistics

Statistic	Description	Data Type
ikev2-decfail-ikehdr	Total IKEv2 exchange decode failures (invalid IKE header).	Ctr32
ikev2-decfail-ikehdrpay	Total IKEv2 exchange decode failures (invalid IKE header payload).	Ctr32
ikev2-decfail-ikehdrinitspi	Total IKEv2 exchange decode failures (invalid IKE header init Security Parameter Index).	Ctr32
ikev2-decfail-ikehdrrespspi	Total IKEv2 exchange decode failures (invalid IKE header response Security Parameter Index).	Ctr32
ikev2-decfail-ikehdrmajver	Total IKEv2 exchange decode failures (invalid IKE header major version).	Ctr32
ikev2-decfail-ikehdrminorver	Total IKEv2 exchange decode failures (invalid IKE header minor version).	Ctr32
ikev2-decfail-ikehdrxchgtyp	Total IKEv2 exchange decode failures (invalid IKE header exchange type).	Ctr32
ikev2-decfail-ikehdrrecvflag	Total IKEv2 exchange decode failures (invalid IKE header received flag).	Ctr32
ikev2-decfail-ikehdrrlen	Total IKEv2 exchange decode failures (invalid IKE header length).	Ctr32
ikev2-decfail-syn	Total IKEv2 exchange decode failures (invalid syntax).	Ctr32
ikev2-decfail-paysyn	Total IKEv2 exchange decode failures (invalid payload syntax).	Ctr32
ikev2-decfail-paylen	Total IKEv2 exchange decode failures (invalid payload length).	Ctr32
ikev2-decfail-unkcritpay	Total IKEv2 exchange decode failures (invalid critical payload).	Ctr32
ikev2-decfail-toomanypay	Total IKEv2 exchange decode failures (too many payloads).	Ctr32
ikev2-decfail-sapaylen	Total IKEv2 exchange decode failures (invalid SA payload length).	Ctr32
ikev2-decfail-saprophdr	Total IKEv2 exchange decode failures (invalid SA proposal header).	Ctr32
ikev2-decfail-saprophdrrecv	Total IKEv2 exchange decode failures (invalid SA proposal header received).	Ctr32
ikev2-decfail-toomanytrans	Total IKEv2 exchange decode failures (too many transforms).	Ctr32
ikev2-decfail-saprophdrrlen	Total IKEv2 exchange decode failures (invalid SA proposal header length).	Ctr32
ikev2-decfail-toomanyprop	Total IKEv2 exchange decode failures (too many proposals).	Ctr32
ikev2-decfail-1stsapropnum	Total IKEv2 exchange decode failures (invalid first SA proposal).	Ctr32
ikev2-decfail-saprotid	Total IKEv2 exchange decode failures (invalid first SA proposal).	Ctr32
ikev2-decfail-sapropnum	Total IKEv2 exchange decode failures (invalid SA proposal number).	Ctr32
ikev2-decfail-translen	Total IKEv2 exchange decode failures (invalid transform length).	Ctr32
ikev2-decfail-transhdr	Total IKEv2 exchange decode failures (invalid transform header).	Ctr32

Statistic	Description	Data Type
ikev2-decfail-transhdrrecv	Total IKEv2 exchange decode failures (invalid transform header received).	Ctr32
ikev2-decfail-transtype	Total IKEv2 exchange decode failures (invalid transform type).	Ctr32
ikev2-decfail-transid	Total IKEv2 exchange decode failures (invalid transform ID).	Ctr32
ikev2-decfail-kepaylen	Total IKEv2 exchange decode failures (invalid KE payload length).	Ctr32
ikev2-decfail-kedhgrp	Total IKEv2 exchange decode failures (invalid KE DH group).	Ctr32
ikev2-decfail-kedhgrplen	Total IKEv2 exchange decode failures (invalid KE DH group length).	Ctr32
ikev2-decfail-idpaylen	Total IKEv2 exchange decode failures (invalid ID payload length).	Ctr32
ikev2-decfail-idpaytype	Total IKEv2 exchange decode failures (invalid ID payload type).	Ctr32
ikev2-decfail-authpaylen	Total IKEv2 exchange decode failures (invalid authentication payload length).	Ctr32
ikev2-decfail-noncepaylen	Total IKEv2 exchange decode failures (invalid nonce payload length).	Ctr32
ikev2-decfail-notifpaylen	Total IKEv2 exchange decode failures (invalid Notify payload length).	Ctr32
ikev2-decfail-notifpayspilen	Total IKEv2 exchange decode failures (invalid Notify payload Security Parameter Index length).	Ctr32
ikev2-decfail-notifpaynat	Total IKEv2 exchange decode failures (invalid Notify payload NAT).	Ctr32
ikev2-decfail-notifpayprotid	Total IKEv2 exchange decode failures (invalid Notify payload protocol ID).	Ctr32
ikev2-decfail-eappaylen	Total IKEv2 exchange decode failures (invalid EAP payload length).	Ctr32
ikev2-decfail-notifpayrekey	Total IKEv2 exchange decode failures (invalid Notify payload rekey).	Ctr32
ikev2-decfail-cppaylen	Total IKEv2 exchange decode failures (invalid CP payload length).	Ctr32
ikev2-decfail-notifpaycook	Total IKEv2 exchange decode failures (invalid Notify payload cookie).	Ctr32
ikev2-decfail-tspaylen	Total IKEv2 exchange decode failures (invalid TS payload length).	Ctr32
ikev2-decfail-cppayattrlen	Total IKEv2 exchange decode failures (invalid CP payload attribute length).	Ctr32
ikev2-decfail-tspayrecv	Total IKEv2 exchange decode failures (invalid TS payload received).	Ctr32
ikev2-decfail-encrpaylen	Total IKEv2 exchange decode failures (invalid encrypted payload length).	Ctr32
ikev2-decfail-tspaytstype	Total IKEv2 exchange decode failures (invalid TS payload TS type).	Ctr32
ikev2-decfail-unsuppcritpay	Total IKEv2 exchange decode failures (unsupported critical payload).	Ctr32
ikev2-decfail-unsuppcertpay	Total IKEv2 exchange decode failures (unsupported certificate payload).	Ctr32
ikev2-decfail-unsupprotah	Total IKEv2 exchange decode failures (unsupported Notify protocol authentication header).	Ctr32
ikev2-decfail-unsuppauthmeth	Total IKEv2 exchange decode failures (unsupported Notify protocol authentication header).	Ctr32

## Common Statistics

Statistic	Description	Data Type
ikev2-decfail-unsuppacritvid	Total IKEv2 exchange decode failures (unsupported payload critical VID).	Ctr32
ikev2-decfail-unsuppmeth	Total IKEv2 exchange decode failures (unsupported method).	Ctr32
ikev2-decfail-unkerr	Total IKEv2 exchange decode failures (unknown error).	Ctr32
ikev2-decfail-unsupsapayprotah	Total IKEv2 exchange decode failures (unsupported SA payload protocol authentication header).	Ctr32
ikev2-decfail-unsuptspaytsnum	Total IKEv2 exchange decode failures (unsupported TS payload TS number).	Ctr32
ikev2-decfail-unsuptspaytstype	Total IKEv2 exchange decode failures (unsupported TS payload TS type).	Ctr32
ikev2-decfail-unsuptspaytsprot	Total IKEv2 exchange decode failures (unsupported TS payload TS protocol).	Ctr32
ikev2-decfail-cppaynoipaddr	Total IKEv2 exchange decode failures (invalid CP payload—no IP address).	Ctr32
ikev2-decfail-cppayunkattr	Total IKEv2 exchange decode failures (invalid CP payload—unknown attribute).	Ctr32
ikev2-decryptfail	Total IKEv2 decryption failures (packets failure).	Ctr32
ikev2-decryptfail-hmac	Total IKEv2 decryption failures (HMAC mismatch).	Ctr32
ikev2-decryptfail-pad	Total IKEv2 decryption failures (PAD length error).	Ctr32
ikev2-xchg-badmsgid	Total IKEv2 exchange statistics (bad message ID).	Ctr32
ikev2-xchg-badresp	Total IKEv2 exchange statistics (bad response).	Ctr32
ikev2-xchg-stalemsgid	Total IKEv2 exchange statistics (stale message ID).	Ctr32
ikev2-xchg-unkerr	Total IKEv2 exchange statistics (unknown error).	Ctr32
ikev2-xchg-statelookfail	Total IKEv2 exchange statistics (state lookup failure).	Ctr32
ikev2-notifrecv-unsuppcriipay	Total IKEv2 Notify message receive statistics (unsupported critical payload).	Ctr32
ikev2-notifrecv-invikespi	Total IKEv2 Notify message receive statistics (invalid IKE Security Parameter Index).	Ctr32
ikev2-notifrecv-invmajver	Total IKEv2 Notify message receive statistics (invalid major version).	Ctr32
ikev2-notifrecv-invsyn	Total IKEv2 Notify message receive statistics (invalid syntax).	Ctr32
ikev2-notifrecv-invmmsgid	Total IKEv2 Notify message receive statistics (invalid message ID).	Ctr32
ikev2-notifrecv-invspi	Total IKEv2 Notify message receive statistics (invalid Security Parameter Index).	Ctr32
ikev2-notifrecv-nopropchosen	Total IKEv2 Notify message receive statistics (no proposal chosen).	Ctr32
ikev2-notifrecv-invkepay	Total IKEv2 Notify message receive statistics (invalid KE payload).	Ctr32
ikev2-notifrecv-authfail	Total IKEv2 Notify message receive statistics (authentication failure).	Ctr32

Statistic	Description	Data Type
ikev2-notifrecv-singpairreq	Total IKEv2 Notify message receive statistics (single pair required).	Ctr32
ikev2-notifrecv-noaddsa	Total IKEv2 Notify message receive statistics (no additional SAs).	Ctr32
ikev2-notifrecv-intaddrfail	Total IKEv2 Notify message receive statistics (internal address failure).	Ctr32
ikev2-notifrecv-failcpreq	Total IKEv2 Notify message receive statistics (failed CP required).	Ctr32
ikev2-notifrecv-tsunaccept	Total IKEv2 Notify message receive statistics (TS unacceptable).	Ctr32
ikev2-notifrecv-invsel	Total IKEv2 Notify message receive statistics (invalid selectors).	Ctr32
ikev2-notifrecv-unacceptaddr	Total IKEv2 Notify message receive statistics (unacceptable addresses).	Ctr32
ikev2-notifrecv-multiauthsupp	Total IKEv2 Notify message receive statistics (multiple authentication supported).	Ctr32
ikev2-notifrecv-anothauthfoll	Total IKEv2 Notify message receive statistics (another authentication follows).	Ctr32
ikev2-notifrecv-unexpectnat	Total IKEv2 Notify message receive statistics (unexpected NAT detected).	Ctr32
ikev2-notifrecv-macauthfail	Total IKEv2 Notify message receive statistics (MAC address authentication failed).	Ctr32
ikev2-notifrecv-hsserrusrunk	Total IKEv2 Notify message receive statistics (HSS error—user unknown).	Ctr32
ikev2-notifrecv-initcont	Total IKEv2 Notify message receive statistics (initial contact).	Ctr32
ikev2-notifrecv-windsiz	Total IKEv2 Notify message receive statistics (set window size).	Ctr32
ikev2-notifrecv-addtsposs	Total IKEv2 Notify message receive statistics (additional TS possible).	Ctr32
ikev2-notifrecv-ipcompsupp	Total IKEv2 Notify message receive statistics (IPCOMP supported).	Ctr32
ikev2-notifrecv-natdetsrcip	Total IKEv2 Notify message receive statistics (NAT detection—source IP).	Ctr32
ikev2-notifrecv-natdstdstip	Total IKEv2 Notify message receive statistics (NAT detection—destination IP).	Ctr32
ikev2-notifrecv-cookie	Total IKEv2 Notify message receive statistics (cookie).	Ctr32
ikev2-notifrecv-usetransmode	Total IKEv2 Notify message receive statistics (use transport mode).	Ctr32
ikev2-notifrecv-httpcertsupp	Total IKEv2 Notify message receive statistics (HTTP certificate lookup supported).	Ctr32
ikev2-notifrecv-rekeysa	Total IKEv2 Notify message receive statistics (rekey SA).	Ctr32
ikev2-notifrecv-nonfirstfragalso	Total IKEv2 Notify message receive statistics (non-first fragment also).	Ctr32

## ■ Common Statistics

Statistic	Description	Data Type
ikev2-notifrecv-mobikesupp	Total IKEv2 Notify message receive statistics (MOBIKE supported).	Ctr32
ikev2-notifrecv-addip4addr	Total IKEv2 Notify message receive statistics (additional IPv4 address).	Ctr32
ikev2-notifrecv-addip6addr	Total IKEv2 Notify message receive statistics (additional IPv6 address).	Ctr32
ikev2-notifrecv-noaddaddr	Total IKEv2 Notify message receive statistics (no additional address).	Ctr32
ikev2-notifrecv-updsaaddr	Total IKEv2 Notify message receive statistics (update SA addresses).	Ctr32
ikev2-notifrecv-cookie2	Total IKEv2 Notify message receive statistics (cookie 2).	Ctr32
ikev2-notifrecv-nonatallow	Total IKEv2 Notify message receive statistics (no NAT allowed).	Ctr32
ikev2-notifrecv-other	Total IKEv2 Notify message receive statistics (others or unknown).	Ctr32
ikev2-notifrecv-sipfallbnotallow	Total IKEv2 Notify message receive statistics (SIP fallback not allowed).	Ctr32
ikev2-notifrecv-esptfcpadnotsupp	Total IKEv2 Notify message receive statistics (ESP TFC padding not supported).	Ctr32
ikev2-notifrecv-congrejrecv	Total IKEv2 Notify message receive statistics (congestion rejections received).	Ctr32
ikev2-cert-reqsent	Total IKEv2 certification statistics (certificate requests sent).	Ctr32
ikev2-cert-reqrecv	Total IKEv2 certification statistics (certificate requests received).	Ctr32
ikev2-cert-sent	Total IKEv2 certification statistics (certificates sent).	Ctr32
ikev2-cert-recv	Total IKEv2 certification statistics (certificates received).	Ctr32
ike-udpflows	Total IKE statistics (current UDP flows).	Ctr32
ike-cookieflows	Total IKE statistics (current cookie flows).	Ctr32
ike-txpackets	Total IKE Transmit statistics (IKE packets transmitted).	Ctr32
ike-rxpackets	Total IKE Receive statistics (IKE packets received).	Ctr32
ike-reqrecv	Total IKE Receive statistics (new IKE requests).	Ctr32
ike-udpflowpackets	Total IKE Receive statistics (UDP flow packets).	Ctr32
ike-cookieflowpackets	Total IKE Receive statistics (cookie flow packets).	Ctr32
crypto-txesppacket	Total Transmit statistics (ESP encoded packets).	Ctr32
crypto-txespoctet	Total Transmit statistics (ESP encoded bytes).	Ctr32
crypto-txahpacket	Total Transmit statistics (Authentication Header encoded packets).	Ctr32
crypto-txahoctet	Total Transmit statistics (Authentication Header encoded bytes).	Ctr32
crypto-rxesppacket	Total Receive statistics (ESP decoded packets).	Ctr32

Statistic	Description	Data Type
crypto-rxespoctet	Total Receive statistics (ESP decoded bytes).	Ctr32
crypto-rxahpacket	Total Receive statistics (Authentication Header encoded packets).	Ctr32
crypto-rxahoctet	Total Receive statistics (Authentication Header encoded bytes).	Ctr32
crypto-errauthpacket	Total Receive statistics (error counter—authentication packets).	Ctr32
crypto-errauthoctet	Total Receive statistics (error counter—authentication packets).	Ctr32
crypto-errbadrecpacket	Total Receive statistics (error counter—authentication bytes).	Ctr32
crypto-errbadrecoctet	Total Receive statistics (error counter—bad record packets).	Ctr32
crypto-errdispacket	Total Receive statistics (error counter—discarded packets).	Ctr32
crypto-errdiscoctet	Total Receive statistics (error counter—discarded bytes).	Ctr32
crypto-errignpacket	Total Receive statistics (error counter—ignored packets).	Ctr32
crypto-errignoctet	Total Receive statistics (error counter—ignored bytes).	Ctr32
crypto-errunderrunpacket	Total Receive statistics (error counter—input under-run packets).	Ctr32
crypto-errunderrunoctet	Total Receive statistics (error counter—input under-run bytes).	Ctr32
crypto-errinvpacket	Total Receive statistics (error counter—invalid packets).	Ctr32
crypto-errinvoctet	Total Receive statistics (error counter—invalid bytes).	Ctr32
crypto-errreplaypacket	Total Receive statistics (error counter—replay packets).	Ctr32
crypto-errreplayoctet	Total Receive statistics (error counter—replay bytes).	Ctr32
ikev2-notifpaysent-noaddsa	Total number of IKEv2 NOTIFY payloads sent of the NOTIFY type No Additional SAs.	Int32
ikev2-notifpayrecv-noaddsa	Total number of IKEv2 NOTIFY payloads received of the NOTIFY type No Additional SAs.	Int32
ssl-cursess	The total number of SSL sessions currently running on the system. This is a customer-specific statistic.	Gau64
ssl-curconninit	Number of current SSL connections that have been initiated. This is a customer-specific statistic.	Gau64
ssl-curconnresp	Number of current SSL connections that have been responded to. This is a customer-specific statistic.	Gau64
ssl-curconnected	Number of current SSL connections that are connected. This is a customer-specific statistic.	Gau64
ssl-curconnfail	Number of current SSL connections that have failed. This is a customer-specific statistic.	Gau64
ssl-curconnecting	Number of current SSL connections that are connecting. This is a customer-specific statistic.	Gau64
ssl-conclosesent	Number of SSL connection closes sent. This is a customer-specific statistic.	Ctr64

## ■ Common Statistics

Statistic	Description	Data Type
ssl-conclosercvd	Number of SSL connection closes received. This is a customer-specific statistic.	Ctr64
ssl-cachehits	SSL session cache statistics - number of hits. This is a customer-specific statistic.	Ctr64
ssl-cachemiss	SSL session cache statistics - number of misses. This is a customer-specific statistic.	Ctr64
ssl-cachetimeout	SSL session cache statistics - number of timeouts. This is a customer-specific statistic.	Ctr64
ssl-cachefull	SSL session cache statistics - full. This is a customer-specific statistic.	Ctr64
ssl-cachetotalsess	SSL session cache statistics - total current sessions. This is a customer-specific statistic.	Ctr64
ssl-txrecord	SSL transmit statistics - number of sent records. This is a customer-specific statistic.	Ctr64
ssl-txmsg	SSL transmit statistics - number of sent messages. This is a customer-specific statistic.	Ctr64
ssl-txbyte	SSL transmit statistics - number of sent bytes. This is a customer-specific statistic.	Ctr64
ssl-rxrecord	SSL transmit statistics - number of received records. This is a customer-specific statistic.	Ctr64
ssl-rxmsg	SSL transmit statistics - number of received messages. This is a customer-specific statistic.	Ctr64
ssl-rxbyte	SSL transmit statistics - number of received bytes. This is a customer-specific statistic.	Ctr64
ssl-encerr	SSL error statistics - number of encryption errors. This is a customer-specific statistic.	Ctr64
ssl-decerr	SSL error statistics - number of decode errors. This is a customer-specific statistic.	Ctr64
ssl-decryerr	SSL error statistics - number of decryption errors. This is a customer-specific statistic.	Ctr64
ssl-autherr	SSL error statistics - number of authentication errors. This is a customer-specific statistic.	Ctr64
ssl-failinithserr	SSL error statistics - number of failed initiated handshakes with errors. This is a customer-specific statistic.	Ctr64
ssl-failtimeouthserr	SSL error statistics - number of failed handshakes with timeouts. This is a customer-specific statistic.	Ctr64
ssl-failresphserr	SSL error statistics - number of failed responded handshakes with errors. This is a customer-specific statistic.	Ctr64

Statistic	Description	Data Type
ssl-alertrecv	Total number of SSL alerts received. This is a customer-specific statistic.	Ctr64
ssl-alertrecv-unexpmsg	Number of SSL alerts received - unexpected message. This is a customer-specific statistic.	Ctr64
ssl-alertrecv-badrecmac	Number of SSL alerts received - bad record MAC. This is a customer-specific statistic.	Ctr64
ssl-alertrecv-decryfail	Number of SSL alerts received - decryption failure. This is a customer-specific statistic.	Ctr64
ssl-alertrecv-compfail	Number of SSL alerts received - decompression failure. This is a customer-specific statistic.	Ctr64
ssl-alertrecv-recoflow	Number of SSL alerts received - record overflow. This is a customer-specific statistic.	Ctr64
ssl-alertrecv-handshake	Number of SSL alerts received - handshake failure. This is a customer-specific statistic.	Ctr64
ssl-alertrecv-illparm	Number of SSL alerts received - illegal parameter. This is a customer-specific statistic.	Ctr64
ssl-alertrecv-certunsupp	Number of SSL alerts received - unsupported certificate. This is a customer-specific statistic.	Ctr64
ssl-alertrecv-certbad	Number of SSL alerts received - bad certificate. This is a customer-specific statistic.	Ctr64
ssl-alertrecv-certexpir	Number of SSL alerts received - certificate expired. This is a customer-specific statistic.	Ctr64
ssl-alertrecv-certrevok	Number of SSL alerts received - certificate revoked. This is a customer-specific statistic.	Ctr64
ssl-alertrecv-certunk	Number of SSL alerts received - certificate unknown. This is a customer-specific statistic.	Ctr64
ssl-alertrecv-accdeny	Number of SSL alerts received - access denied. This is a customer-specific statistic.	Ctr64
ssl-alertrecv-decode	Number of SSL alerts received - decode error. This is a customer-specific statistic.	Ctr64
ssl-alertrecv-decryerr	Number of SSL alerts received - decryption error. This is a customer-specific statistic.	Ctr64
ssl-alertrecv-export	Number of SSL alerts received - export restricted. This is a customer-specific statistic.	Ctr64
ssl-alertrecv-protover	Number of SSL alerts received - protocol version. This is a customer-specific statistic.	Ctr64
ssl-alertrecv-interr	Number of SSL alerts received - internal error. This is a customer-specific statistic.	Ctr64

## Common Statistics

Statistic	Description	Data Type
ssl-alertrecv-insuffsec	Number of SSL alerts received - insufficient security. This is a customer-specific statistic.	Ctr64
ssl-alertrecv-usercanc	Number of SSL alerts received - user canceled. This is a customer-specific statistic.	Ctr64
ssl-alertrecv-noreneg	Number of SSL alerts received - no renegotiation. This is a customer-specific statistic.	Ctr64
ssl-alertrecv-unknownca	Number of SSL alerts received - unknown certificate authority. This is a customer-specific statistic.	Ctr64
ssl-alertsent	Total number of SSL alerts sent. This is a customer-specific statistic.	Ctr64
ssl-alertsent-unexpmsg	Number of SSL alerts sent - unexpected message. This is a customer-specific statistic.	Ctr64
ssl-alertsent-badrecmac	Number of SSL alerts sent - bad record MAC. This is a customer-specific statistic.	Ctr64
ssl-alertsent-decryfailed	Number of SSL alerts sent - decryption failed. This is a customer-specific statistic.	Ctr64
ssl-alertsent-recoflow	Number of SSL alerts sent - record overflow. This is a customer-specific statistic.	Ctr64
ssl-alertsent-handshake	Number of SSL alerts sent - handshake failure. This is a customer-specific statistic.	Ctr64
ssl-alertsent-illparam	Number of SSL alerts sent - illegal parameter. This is a customer-specific statistic.	Ctr64
ssl-alertsent-accdenied	Number of SSL alerts sent - access denied. This is a customer-specific statistic.	Ctr64
ssl-alertsent-decodeerror	Number of SSL alerts sent - decode error. This is a customer-specific statistic.	Ctr64
ssl-alertsent-decrypterror	Number of SSL alerts sent - decryption error. This is a customer-specific statistic.	Ctr64
ssl-alertsent-export	Number of SSL alerts sent - export restriction. This is a customer-specific statistic.	Ctr64
ssl-alertsent-protover	Number of SSL alerts sent - protocol version. This is a customer-specific statistic.	Ctr64
ssl-alertsent-interr	Number of SSL alerts sent - internal error. This is a customer-specific statistic.	Ctr64
ssl-alertsent-noregen	Number of SSL alerts sent - no renegotiation. This is a customer-specific statistic.	Ctr64
ssl-alertsent-unknown	Number of SSL alerts sent - unknown. This is a customer-specific statistic.	Ctr64
hamipv6-totalsubscriber	Total number of system-wide HAMIPv6 subscribers.	Int32

Statistic	Description	Data Type
disc-reason-0 through disc-reason-xxx	Refer to the separate table for disconnect reasons System-level Schema Statistics for Disconnect Reasons	Int64
enddate	The date at which data ceased to be gathered in YYYYMMDD format where YYYY represents the year, MM represents the month and DD represents the day.	String
endtime	The time at which data ceased to be gathered in HHMMSS format where HH represents the hours, MM represents the minutes, and SS represents the seconds.	String
localenddate	The date (adjusted for the local timezone) at which data ceased to be gathered in YYYYMMDD format where YYYY represents the year, MM represents the month and DD represents the day.	String
localendtime	The time (adjusted for the local timezone) at which data ceased to be gathered in HHMMSS format where HH represents the hours, MM represents the minutes, and SS represents the seconds.	String
swversion	The system software version in a string of the form "5.0"	String
swbuild	The system software build number in a string of the form "12345"	String
uptimestr	The system uptime as a string that shows days, hours, and minutes.	String
sess-max-lastreset-time	The number of Last Reset of Max usage counters.	String
sess-maxpdsn	The maximum number of PDSN sessions.	Int32
sess-maxpdsn-time	The timestamp for max PDSN sessions.	String
sess-maxha	The maximum number of HA sessions.	Int32
sess-maxha-time	The timestamp for max HA sessions.	String
sess-maxl2tplns	The maximum number of L2TP LNS sessions.	Int32
sess-maxl2tplns-time	The timestamp for max L2TP sessions.	String
sess-maxecsv2	The maximum number of ECSv2 sessions.	Int32
sess-maxecsv2-time	The timestamp for max ECSv2 sessions.	String
sess-maxevdoreva-pdsn	The maximum number of EVDO Rev A sessions.	Int32
sess-maxevdoreva-pdsn-time	The timestamp for max EVDO Rev A Sessions.	String
sess-maxipsg	The maximum number of IPSG sessions.	Int32
sess-maxipsg-time	The timestamp for max IPSG sessions.	String
sess-maxasngw	The maximum number of ASNGW sessions.	Int32
sess-maxasngw-time	The timestamp for max ASNGW sessions.	String
sess-maxasnlr	The maximum number of ASNLR sessions.	Int32
sess-maxasnlr-time	The timestamp for max ASNLR sessions.	String
lic-pdsn	The number of licensed PDSN sessions supported by the system.	Int32
lic-ha	The number of licensed HA sessions supported by the system.	Int32

## Common Statistics

Statistic	Description	Data Type
lic-ggsn	The number of licensed GGSN sessions supported by the system.	Int32
lic-l2tplns	The number of licensed L2TP LNS sessions supported by the system.	Int32
lic-combo-phone	The number of licensed combo phone sessions supported by the system	Int32
lic-ecsv2	The number of licensed Enhanced Charging Service version 2 sessions supported by the system.	Int32
lic-ipservices-gateway	The number of licensed IP Services Gateway sessions supported by the system.	Int32
lic-evdoreva-pdsn	The number of licensed EVDO rev. A PDSN sessions supported by the system.	Int32
lic-scm-proxyregistrar-ietfrfc3261	The number of licensed SCM proxy server IETF RFC3261 sessions supported by the system.	Int32
lic-scm-proxypcscf	The number of licensed SCM proxy Call Service Control Function (CSCF) sessions supported by the system	Int32
lic-scm-servingscscf	The number of licensed SCM serving CSCF sessions supported by the system.	Int32
lic-scm-interrogatingcscf	The number of licensed SCM interrogating CSCF sessions supported by the system.	Int32
lic-asngw	The number of licensed Access Service Network (ASN) Gateway sessions supported by the system.	Int32
lic-asnlr	The number of ASN Location Register sessions supported by the system.	Int32
lic-ipsg	The number of IPSG Location Register sessions supported by the system.	Int32
lic-combo-3g4g-gw	The number of licensed sessions supported for generic 3G and 4G combined subscribers by the system.	Int32
sess-total-curr	Total number of sessions currently registered with system.	Int32
curr-proxy	Total number of current DHCP proxy sessions.	Ctr32
curr-relay-agent	Total number of current DHCP relay agent sessions.	Ctr32
dhcp-curservsess	Total number of DHCP service sessions active on this system.	Ctr32
sess-total-setup	Total number of DHCP setup sessions.	Ctr32
setup-proxy	Total number of setup DHCP proxy sessions.	Ctr32
setup-relay-agent	Total number of DHCP setup relay agent sessions.	Ctr32
dhcp-ttlservsess	Total number of DHCP service sessions registered on this system.	Ctr32
total-released	Total number of DHCP sessions released.	Ctr32
proxy-bearer-call-term	Total number of DHCP proxy session calls terminated by bearer.	Ctr32
proxy-lease-exp-policy	Total number of DHCP proxy session released due to lease expiry policy.	Ctr32
proxy-lease-renew-failure	Total number of DHCP proxy session released due to lease renew failure.	Ctr32
proxy-ip-mis-match	Total number of DHCP proxy session released due to IP address mis-match.	Ctr32
proxy-lease-time-mis-match	Total number of DHCP proxy session released due to lease time mis-match.	Ctr32

Statistic	Description	Data Type
proxy-other-reasons	Total number of DHCP proxy session released due reasons not mentioned in this table.	Ctr32
relay-admin-releases	Total number of DHCP relay session released due administrative reasons.	Ctr32
relay-bearer-call-term	Total number of DHCP relay session calls terminated by bearer.	Ctr32
relay-lease-time-out	Total number of DHCP relay session released due to lease timeout.	Ctr32
relay-other-reasons	Total number of DHCP relay session released due reasons not mentioned in this table.	Ctr32
dhcp-servdisc-admin	Total number of DHCP servers disconnected due administrative reasons.	Ctr32
dhcp-servdisc-callterm	Total number of DHCP session calls terminated by bearer.	Ctr32
dhcp-servdisc-leaseimo	Total number of DHCP session released due to lease timeout.	Ctr32
dhcp-servdisc-other	Total number of DHCP session released due reasons not mentioned in this table.	Ctr32
dhcp-msg-discover-tx	Total number of DHCP discover messages transmitted.	Ctr32
dhcp-msg-discover-retransmitted	Total number of DHCP discover messages retransmitted.	Ctr32
dhcp-msg-discover-rx	Total number of DHCP discover messages received.	Ctr32
dhcp-msg-discover-retried-rx	Total number of DHCP discover messages received after retry.	Ctr32
dhcp-msg-discover-relayed	Total number of DHCP discover messages relayed.	Ctr32
dhcp-msg-discover-retried-relayed	Total number of DHCP discover messages retried and relayed.	Ctr32
dhcp-msg-offer-rx	Total number of DHCP offer messages received.	Ctr32
dhcp-msg-offer-discarded	Total number of DHCP offer messages received and discarded.	Ctr32
dhcp-msg-offer-tx	Total number of DHCP offer messages transmitted.	Ctr32
dhcp-msg-offer-relayed	Total number of DHCP offer messages relayed.	Ctr32
dhcp-msg-request-tx	Total number of DHCP request messages transmitted.	Ctr32
dhcp-msg-request-retransmitted	Total number of DHCP request messages retransmitted.	Ctr32
dhcp-msg-request-rx	Total number of DHCP request messages received.	Ctr32
dhcp-msg-request-renewal-rx	Total number of DHCP request messages received for renewal.	Ctr32
dhcp-msg-request-requesting-relayed	Total number of DHCP request messages relayed while requesting.	Ctr32
dhcp-msg-request-renewing-relayed	Total number of DHCP request messages relayed while renewing.	Ctr32
dhcp-msg-ack-rx	Total number of DHCP Ack messages received.	Ctr32
dhcp-msg-ack-for-inform	Total number of DHCP Ack messages received for information.	Ctr32

## ■ Common Statistics

Statistic	Description	Data Type
dhcp-msg-ack-renewing-rx	Total number of DHCP Ack messages for renewing received.	Ctr32
dhcp-msg-ack-tx	Total number of DHCP Ack messages transmitted.	Ctr32
dhcp-msg-ack-renewing-tx	Total number of DHCP Ack messages for renewing transmitted.	Ctr32
dhcp-msg-ack-relayed	Total number of DHCP Ack messages relayed.	Ctr32
dhcp-msg-ack-renewing-relayed	Total number of DHCP Ack messages for renewing relayed.	Ctr32
dhcp-msg-nak-rx	Total number of DHCP NACK messages received.	Ctr32
dhcp-msg-nak-for-inform	Total number of DHCP NACK messages received for information.	Ctr32
dhcp-msg-nak-tx	Total number of DHCP NACK messages transmitted.	Ctr32
dhcp-msg-nak-relayed	Total number of DHCP NACK messages relayed.	Ctr32
dhcp-msg-decline-tx	Total number of DHCP decline messages transmitted.	Ctr32
dhcp-msg-decline-rx	Total number of DHCP decline messages received.	Ctr32
dhcp-msg-decline-relayed	Total number of DHCP decline messages relayed.	Ctr32
dhcp-msg-release-tx	Total number of DHCP release messages transmitted.	Ctr32
dhcp-msg-release-rx	Total number of DHCP release messages received.	Ctr32
dhcp-msg-release-relayed	Total number of DHCP release messages relayed.	Ctr32
dhcp-msg-release-for-relay-call	Total number of DHCP release messages for relay calls.	Ctr32
dhcp-msg-inform-tx	Total number of DHCP inform messages transmitted.	Ctr32
dhcp-msg-inform-retransmitted	Total number of DHCP inform messages retransmitted.	Ctr32
dhcp-msg-inform-rx	Total number of DHCP inform messages received.	Ctr32
dhcp-msg-inform-relayed	Total number of DHCP inform messages relayed.	Ctr32
offer-dis-parse-err	Total number of DHCP offer messages discarded due to parse error.	Ctr32
offer-dis-lease-less-than-min	Total number of DHCP offer messages discarded due to lease time was less than the minimum duration.	Ctr32
offer-dis-lease-greater-than-max	Total number of DHCP offer messages discarded due to lease time was greater than the maximum duration.	Ctr32
offer-dis-ip-val-failed	Total number of DHCP offer messages discarded due to IP validation failed.	Ctr32
offer-dis-xid-mis-match	Total number of DHCP offer messages discarded due to exchange id mismatch.	Ctr32
ack-dis-parse-err	Total number of DHCP Ack messages discarded due to parse error.	Ctr32
ack-dis-xid-mis-match	Total number of DHCP Ack messages discarded due to exchange id mismatch.	Ctr32
decline-dis-ip-mis-match	Total number of DHCP decline messages discarded due to IP address mismatch.	Ctr32

Statistic	Description	Data Type
ip-lease-renewal	Total number of DHCP IP lease renewals.	Ctr32
failed-ip-lease-renew	Total number of DHCP IP lease renewals failed.	Ctr32
no-reply-from-server	Total number of replies from DHCP server.	Ctr32
server-nak	Total number of NACK replies from DHCP server.	Ctr32
ip-addr-mis-match	Total number of IP address mis-match in DHCP session.	Ctr32
lease-mis-match	Total number of lease time mis-match in DHCP session.	Ctr32
discover-dis-parse-err	Total number of discover messages discarded due to a parsing error.	Ctr32
request-dis-parse-err	Total number of request messages discarded due to a parsing error.	Ctr32
release-dis-parse-err	Total number of release messages discarded due to a parsing error.	Ctr32
storage-name	Name of the Harddisk Storage available on SMC card on system. This statistic is available with St40 only.	String
storage-curavail	Total storage space currently remained (in bytes) on HDD available on SMC card on system. This statistic is available with St40 only.	Int64
storage-ttlavail	Total storage capacity (in bytes) of HDD available on SMC card on system. This statistic is available with St40 only.	Int64



**Important:** See Bulk Statistics Overview for statistics that are common to all schema.

Another bulk-stats for “Disconnect Reasons” under system-level schema is available to export system wide counts for disconnect reasons.

In the following table, the indicator number at the end of the statistic name will vary depending upon the software build in which the show command is issued. To ensure that you have the correct reason, issue the **show session disconnect-reasons verbose** command.

A special field “disc-reason-summary” contains all of the disconnect reason counters at once in following semi-colon separated format:

```
code = count; code = count; code = count; ..... code = count
```

The following variables are supported:

**Table 40. System-level Schema Statistics for Disconnect Reasons**

Statistic	Description	Data Type
disc-reason-0	The total number of sessions disconnected due to unknown reason.	Int64

Statistic	Description	Data Type
disc-reason-1	The total number of sessions disconnected Administratively.	Int64
disc-reason-2	The total number of sessions disconnected by remote system	Int64
disc-reason-3	The total number of sessions disconnected by local system.	Int64
disc-reason-4	The total number of sessions disconnected due to non-availability of resources.	Int64
disc-reason-5	The total number of sessions disconnected due to exceed in service limit.	Int64
disc-reason-6	The total number of sessions disconnected due to LCP negotiation failed.	Int64
disc-reason-7	The total number of sessions disconnected due to no response in PPP-LCP session.	Int64
disc-reason-8	The total number of sessions disconnected due to loop back detected in PPP-LCP.	Int64
disc-reason-9	The total number of sessions disconnected due to maximum retries in PPP-LCP session.	Int64
disc-reason-10	The total number of sessions disconnected due to PPP-LCP echo not received.	Int64
disc-reason-11	The total number of sessions disconnected due to authorization failed in PPP.	Int64
disc-reason-12	The total number of sessions disconnected due to authorization failed by no response on AAA server.	Int64
disc-reason-13	The total number of sessions disconnected due to PPP authorization failed on no peer response.	Int64
disc-reason-14	The total number of sessions disconnected due to PPP authorization failed and reaching maximum retries limit.	Int64
disc-reason-15	The total number of sessions disconnected due to invalid AAA attributes in authorization response.	Int64
disc-reason-16	The total number of sessions disconnected due to inability in applying subscriber's Access Control List (ACL).	Int64
disc-reason-17	The total number of sessions disconnected due to service is not available.	Int64
disc-reason-18	The total number of sessions disconnected due to return IP address from AAA server is invalid.	Int64
disc-reason-19	The total number of sessions disconnected due to IP address in pool is invalid.	Int64

Statistic	Description	Data Type
disc-reason-20	The total number of sessions disconnected due to PPP-IPCP negotiation failed.	Int64
disc-reason-21	The total number of sessions disconnected due to no response in PPP-IPCP.	Int64
disc-reason-22	The total number of sessions disconnected due to maximum retries in PPP-IPCP session.	Int64
disc-reason-23	The total number of sessions disconnected due to no IPv4 address are available for subscriber.	Int64
disc-reason-24	The total number of sessions disconnected due to system time out limit for silence (ideal) reached.	Int64
disc-reason-25	The total number of sessions disconnected due to timeout in complete session.	Int64
disc-reason-26	The total number of sessions disconnected due to maximum data limit exceeded.	Int64
disc-reason-27	The total number of sessions disconnected due to invalid IPv4 address of subscriber.	Int64
disc-reason-28	The total number of sessions disconnected due to MSID authentication failed.	Int64
disc-reason-29	The total number of sessions disconnected due to MSID authentication failed and/or no response from AAA server.	Int64
disc-reason-30	The total number of sessions disconnected due to maximum limit for retries reached for A11 interface.	Int64
disc-reason-31	The total number of sessions disconnected due to A11 interface lifetime expired.	Int64
disc-reason-32	The total number of sessions disconnected due to failure in message integrity in A11 interface.	Int64
disc-reason-33	The total number of sessions disconnected due to PPP-LCP remote disconnect.	Int64
disc-reason-34	The total number of sessions disconnected due to timeout in setting up of session.	Int64
disc-reason-35	The total number of sessions disconnected due to PPP keepalive attribute failure.	Int64
disc-reason-36	The total number of sessions disconnected due to fail in adding flow to session.	Int64
disc-reason-37	The total number of sessions disconnected due to failure in call type detection.	Int64
disc-reason-38	The total number of sessions disconnected due to IPCP parameters are wrong.	Int64

Statistic	Description	Data Type
disc-reason-39	The total number of sessions disconnected due to de-registration of Mobile IP on remote system.	Int64
disc-reason-40	The total number of sessions disconnected due to expiry of Mobile IP life time.	Int64
disc-reason-41	The total number of sessions disconnected due to protocol error in Mobile IP.	Int64
disc-reason-42	The total number of sessions disconnected due to Mobile IP authentication failure.	Int64
disc-reason-43	The total number of sessions disconnected due to registration request timeout.	Int64
disc-reason-44	The total number of sessions disconnected due to invalid destination context.	Int64
disc-reason-45	The total number of sessions disconnected due to source context is removed from system.	Int64
disc-reason-46	The total number of sessions disconnected due to destination context is removed from system.	Int64
disc-reason-47	The total number of sessions disconnected due to unavailability of required service address.	Int64
disc-reason-48	The total number of sessions disconnected due to failure in demux-mgr.	Int64
disc-reason-49	The total number of sessions disconnected due to some internal system error.	Int64
disc-reason-50	The total number of sessions disconnected due to AAA context is removed from system.	Int64
disc-reason-51	The total number of sessions disconnected due to invalid service type.	Int64
disc-reason-52	The total number of sessions disconnected due to failure in Mobile IP relay request.	Int64
disc-reason-53	The total number of sessions disconnected due to failure in Mobile IP received.	Int64
disc-reason-54	The total number of sessions disconnected due to restart in inter PDSN handoff.	Int64
disc-reason-55	The total number of sessions disconnected due to mismatch in Generic Routing Encapsulation (GRE) key.	Int64
disc-reason-56	The total number of sessions disconnected due to invalid Tunnel context.	Int64
disc-reason-57	The total number of sessions disconnected due to no peer LNS address	Int64

Statistic	Description	Data Type
disc-reason-58	The total number of sessions disconnected due to failure in Tunnel connect.	Int64
disc-reason-59	The total number of sessions disconnected due to tunnel disconnected by remote system.	Int64
disc-reason-60	The total number of sessions disconnected due to tunnel timeout.	Int64
disc-reason-61	The total number of sessions disconnected due to protocol error on remote system.	Int64
disc-reason-62	The total number of sessions disconnected due to protocol error on local system.	Int64
disc-reason-63	The total number of sessions disconnected due to authorization failed on remote system.	Int64
disc-reason-64	The total number of sessions disconnected due to authorization failed on local system	Int64
disc-reason-65	The total number of sessions disconnected due to remote system tried for another LNS.	Int64
disc-reason-66	The total number of sessions disconnected due to non-availability of resource on local system.	Int64
disc-reason-67	The total number of sessions disconnected due to non-availability of resource on remote system.	Int64
disc-reason-68	The total number of sessions disconnected due to tunnel disconnected on local system.	Int64
disc-reason-69	The total number of sessions disconnected by administrator on remote system.	Int64
disc-reason-70	The total number of sessions disconnected due to L2TP Manager logging facility reached to maximum logging capacity.	Int64
disc-reason-71	The total number of sessions disconnected due to a failure in Mobile IP registration revocation.	Int64
disc-reason-72	The total number of sessions disconnected due to path failure in connecting session.	Int64
disc-reason-73	The total number of sessions disconnected due to a failure with the validation of the IP addresses with DHCP relay method.	Int64
disc-reason-74	The total number of sessions disconnected due to unknown PDP address or PDP type.	Int64
disc-reason-75	The total number of sessions disconnected due to all dynamic PDP addresses are occupied and no PDP address is available to allocate.	Int64
disc-reason-76	The total number of sessions disconnected due to out of memory problem.	Int64

Statistic	Description	Data Type
disc-reason-77	The total number of sessions disconnected due to the mobile requesting the use of a static IP address when static IP address requests are not allowed.	Int64
disc-reason-78	The total number of sessions disconnected as no IP address is allocated on DHCP Server.	Int64
disc-reason-79	The total number of sessions disconnected due to time expired for IP address allocation on DHCP Server.	Int64
disc-reason-80	The total number of sessions disconnected due to a failure with the validation of the IP address. This occurs because the IP address returned by DHCP Server is not present in the static pool in the destination context.	Int64
disc-reason-81	The total number of sessions disconnected due to a failure with IP address in the static pool on destination context is not allowed by DHCP Server.	Int64
disc-reason-82	The total number of sessions disconnected due to non availability of IP address on DHCP Server.	Int64
disc-reason-83	The total number of sessions disconnected due to expiration of IP address lease time.	Int64
disc-reason-84	The total number of sessions disconnected due to validation failure of IP address in IP pool.	Int64
disc-reason-85	The total number of sessions disconnected due to specified static IP address is not allowed in IP pool.	Int64
disc-reason-86	The total number of sessions disconnected due to a failure in validation of static IP address on remote system.	Int64
disc-reason-87	The total number of sessions disconnected due to allocated static address is removed or not available.	Int64
disc-reason-88	The total number of sessions disconnected due to prohibition of defined static IP address.	Int64
disc-reason-89	The total number of sessions disconnected due to a failure in IP address validation on RADIUS.	Int64
disc-reason-90	The total number of sessions disconnected due to IP address is not provided by RADIUS.	Int64
disc-reason-91	The total number of sessions disconnected due to invalid IP address received from SGSN.	Int64
disc-reason-92	The total number of sessions disconnected due to sessions cleared in AAA.	Int64
disc-reason-93	The total number of sessions disconnected due to authentication request failure between GGSN and AAA server.	Int64
disc-reason-94	The total number of sessions disconnected due to conflict in IP address assignment.	Int64
disc-reason-95	The total number of sessions disconnected due to APN removed during session.	Int64

Statistic	Description	Data Type
disc-reason-96	The total number of sessions disconnected due to exceeding the incoming data/bytes credit.	Int64
disc-reason-97	The total number of sessions disconnected due to exceeding the outgoing data/bytes credit.	Int64
disc-reason-98	The total number of sessions disconnected due to exceeding the total data/bytes credit.	Int64
disc-reason-99	The total number of sessions disconnected due to a failure in processing prepaid account information.	Int64
disc-reason-100	The total number of sessions disconnected due to the IPSec tunnel being failed to connect.	Int64
disc-reason-101	The total number of sessions disconnected due to the IPSec tunnel being disconnected.	Int64
disc-reason-102	The total number of sessions disconnected due to in active security association (sa) of IPSec for specific Mobile IP address.	Int64
disc-reason-103	The total number of sessions disconnected due to the expiration of the configured long-duration timer.	Int64
disc-reason-104	The total number of Proxy Mobile IP sessions disconnected due to Registration failures.	Int64
disc-reason-105	The total number of Proxy Mobile IP sessions disconnected due to errors occurring during binding updates.	Int64
disc-reason-106	The total number of Proxy Mobile IP sessions disconnected due to the mobile not providing the IP address it was assigned during IPCP negotiations resulting from inter-PDSN handoffs.	Int64
disc-reason-107	The total number of Proxy Mobile IP sessions disconnected due to the mobile providing an IP address other than what it was assigned during IPCP negotiations resulting from inter-PDSN handoffs.	Int64
disc-reason-108	The total number of sessions disconnected due to a locally-initiated purge.	Int64
disc-reason-109	The total number of sessions disconnected due to failure in update handoff.	Int64
disc-reason-110	The total number of sessions disconnected due to handoff completed.	Int64
disc-reason-111	The total number of sessions disconnected due to duplicate session.	Int64
disc-reason-112	The total number of sessions disconnected due to hand off session not found.	Int64
disc-reason-113	The total number of sessions disconnected due to handoff failed for session.	Int64
disc-reason-114	The total number of sessions disconnected due to the expiration of the configured max-inactivity timer indicating that the PCF was unavailable.	Int64

Statistic	Description	Data Type
disc-reason-115	The total number of sessions disconnected due to call rejected internally.	Int64
disc-reason-116	The total number of sessions disconnected due to call restarted on unknown reason.	Int64
disc-reason-117	The total number of sessions disconnected due to failure in authentication between Mobile node and Home Agent (HA).	Int64
disc-reason-118	The total number of sessions disconnected as A11 interface is formed badly.	Int64
disc-reason-119	The total number of sessions disconnected due to t-bit is not set in interface.	Int64
disc-reason-120	The total number of sessions disconnected due to unsupported vendor Id in interface.	Int64
disc-reason-121	The total number of sessions disconnected due to mismatched Id in A11 interface.	Int64
disc-reason-122	The total number of sessions disconnected due to duplicate home address request on HA.	Int64
disc-reason-123	The total number of sessions disconnected due to duplicate IMSI in session on HA.	Int64
disc-reason-124	The total number of sessions disconnected due to unreachable HA.	Int64
disc-reason-125	The total number of sessions disconnected due to IP Pool Sharing Protocol address is in use/not free on HA.	Int64
disc-reason-126	The total number of sessions disconnected due to duplicate home address request on FA.	Int64
disc-reason-127	The total number of sessions disconnected due to IP pool busyout.	Int64
disc-reason-128	The total number of sessions disconnected due to inter-PDSN handoff failure.	Int64
disc-reason-129	The total number of sessions disconnected due to system enters to dormant state from active state.	Int64
disc-reason-130	The total number of sessions disconnected due to failure/conflict in PPP renegotiation.	Int64
disc-reason-131	The total number of sessions disconnected due to change in start parameters.	Int64
disc-reason-132	The total number of sessions disconnected due to the closure of an accounting record based configured tariff time.	Int64
disc-reason-133	The total number of sessions disconnected due to A11 interface is not active or stopped.	Int64

Statistic	Description	Data Type
disc-reason-134	The total number of sessions disconnected due to failure in network reachability and request rejected.	Int64
disc-reason-135	The total number of sessions disconnected due to failure in network reachability and request redirected.	Int64
disc-reason-136	The total number of sessions disconnected due to the closure of an accounting record based on the configured maximum number of container changes being exceeded.	Int64
disc-reason-137	The total number of sessions disconnected due to static IP address is not allowed in APN.	Int64
disc-reason-138	The total number of sessions disconnected due to static IP address required by RADIUS.	Int64
disc-reason-139	The total number of sessions disconnected due to static IP address is not allowed by RADIUS.	Int64
disc-reason-140	The total number of sessions disconnected due to registration dropped for Mobile IP address.	Int64
disc-reason-141	The total number of sessions disconnected due to counter rollover.	Int64
disc-reason-142	The total number of sessions disconnected due to authentication failure in subscriber's Network Access Identifier (NAI).	Int64
disc-reason-143	The total number of sessions disconnected due to disabled inter-PDSN service optimization handoff.	Int64
disc-reason-144	The total number of sessions disconnected due to collision in Generic Routing Encapsulation (GRE) key.	Int64
disc-reason-145	The total number of sessions disconnected when inter PDSN service optimization handoff triggered.	Int64
disc-reason-146	The total number of sessions disconnected when intra-PDSN service optimization handoff triggered.	Int64
disc-reason-147	The total number of sessions disconnected due to abort timer duration expired.	Int64
disc-reason-148	The total number of sessions disconnected as AAA server disconnected Administratively.	Int64
disc-reason-149	The total number of sessions disconnected due to AAA handoff disconnected Administratively.	Int64
disc-reason-150	The total number of sessions disconnected due to IPv6CP negotiation failed.	Int64
disc-reason-151	The total number of sessions disconnected due to no response during IPv6CP negotiation.	Int64
disc-reason-152	The total number of sessions disconnected due to maximum retries failed on IPv6CP negotiation.	Int64

Statistic	Description	Data Type
disc-reason-153	The total number of sessions disconnected due to PPP restarted by invalid Pv4 address of source.	Int64
disc-reason-154	The total number of sessions disconnected due to handoff in A11 interface is not active or stopped.	Int64
disc-reason-155	The total number of sessions disconnected due to call restarted during inter PDSN handoff.	Int64
disc-reason-156	The total number of sessions disconnected due to call restarted on PPP termination.	Int64
disc-reason-157	The total number of sessions disconnected due to resource conflict on FA.	Int64
disc-reason-158	The total number of sessions disconnected due to authentication failure in charging services.	Int64
disc-reason-159	The total number of sessions disconnected due to clearing of duplicate IMSI in session on HA.	Int64
disc-reason-160	The total number of sessions disconnected due to revival of pending new calls.	Int64
disc-reason-161	The total number of sessions disconnected due to allocated data quota volume reached.	Int64
disc-reason-162	The total number of sessions disconnected due to time-out reached.	Int64
disc-reason-163	The total number of sessions disconnected due to a failure in user/subscriber authentication.	Int64
disc-reason-164	The total number of sessions disconnected due to termination of an MIP Session for a Revocation being received from the HA and the PDSN is not configured to send a LCP Terminate Request.	Int64
disc-reason-165	The total number of sessions disconnected due to no reverse tunnel for MIP.	Int64
disc-reason-166	The total number of sessions disconnected due to invalid Prepaid attribute in authentication response.	Int64
disc-reason-167	The total number of MIP HA sessions disconnected due to receiving MIP registration with a home address of 0.0.0.0.	Int64
disc-reason-168	The total number of RP sessions disconnected due to the PCF not removing flow control for a specified amount of time if GRE flow control for RP sessions is enabled.	Int64
disc-reason-169	The total number of sessions that were disconnected because the binding cache was not found.	Int64
disc-reason-170	The total number of MIP HA sessions that were disconnected because a dynamic IP address was not available.	Int64
disc-reason-171	The total number of sessions disconnected due to a mismatched ID in the A11 interface during a handoff.	Int64

Statistic	Description	Data Type
disc-reason-172	The total number of sessions disconnected because the A11 interface is formed badly during a handoff.	Int64
disc-reason-173	The total number of sessions disconnected due to unsupported vendor Id in the A11 interface during a handoff.	Int64
disc-reason-174	The total number of sessions disconnected due to t-bit is not set in the A11 interface during a handoff.	Int64
disc-reason-175	The total number of Mobile IP sessions disconnected at the PDSN/FA due to Revocation received from HA (with I bit set).	Int64
disc-reason-176	The total number of sessions disconnected due to failures in processing A11-Registration-Request despite retries of the message by the PCF.	Int64
disc-reason-177	The total number of sessions disconnected because they entered the dormant state during session setup.	Int64
disc-reason-178	The total number of PPP sessions disconnected because they were renegotiated by the remote side by sending LCP Conf-req/nak/ack and the “always” option was used for the <b>remote-renegotiation disconnect</b> command/attribute.	Int64
disc-reason-179	The total number of PPP sessions disconnected because they were renegotiated by the remote side by sending LCP Conf-req/nak/ack and the “nai-prefix-msid-mismatch” option was used for the <b>remote-renegotiation disconnect</b> command/attribute.	Int64
disc-reason-180	The total number of subscribers disconnected because the IPSec tunnel facilitating their sessions went down.	Int64
disc-reason-181	The total number of subscribers disconnected because an IPSec tunnel failed to be established.	Int64
disc-reason-182	The total number of subscribers disconnected because the IPSec Manager software task facilitating their sessions crashed.	Int64
disc-reason-183	The total number of sessions disconnected because their respective flow was deactivated.	Int64
disc-reason-184	The total number of sessions disconnected because the licensed session capacity for the Enhanced Charging Service feature has been exceeded.	Int64
disc-reason-185	The total number of sessions disconnected because IPSG authentication failed.	Int64
disc-reason-186	The total number of sessions disconnected due to driver initiation.	Int64
disc-reason-187	The total number of sessions disconnected because of IMS authorization failures.	Int64
disc-reason-188	The total number of sessions disconnected because they were released by the service instances facilitating them.	Int64
disc-reason-189	The total number of sessions disconnected because their respective flows were released.	Int64
disc-reason-190	The total number of sessions disconnect because no HA address was supplied during PPP renegotiation.	Int64

Statistic	Description	Data Type
disc-reason-191	The total number of sessions disconnected during an intra-PDSN service handoff.	Int64
disc-reason-192	The total number of sessions disconnected because the configured overload-disconnect threshold has been exceeded.	Int64
disc-reason-193	The total number of sessions because the CSS service specified for handling the session was not found.	Int64
disc-reason-194	This is not supported at this time.	Int64
disc-reason-195	The total number of sessions disconnected because the DHCP client sent a release.	Int64
disc-reason-196	The total number of sessions disconnected because the DHCP client sent a negative acknowledge message.	Int64
disc-reason-197	The total number of sessions disconnected because the DHCP Client Hardware (MAC) Address (CHADDR) does not match with MSID of the ASN-GW session.	Int64
disc-reason-198	The total number of sessions disconnected because the link between the SGSN and the GGSN is broken resulting in the termination of ongoing Diameter Credit-Control sessions with the DIAMETER_LINK_BROKEN termination-cause.	Int64
disc-reason-199	The total number of sessions disconnected because the allowed BCMCS program limit time expires.	Int64
disc-reason-200	The total number of sessions disconnected because the PDSN failed to update QoS for them.	Int64
disc-reason-201	The total number of sessions disconnected because the session-audit between the ACS Manager task and Session Manager disconnects any dangling sessions in the Session Manager.	Int64
disc-reason-202	The total number of sessions disconnected due to GTP context replacement.	Int64
disc-reason-203	The total number of sessions disconnected due to PDIF authentication process unable to set up a secure IPSec tunnel to subscriber.	Int64
disc-reason-204	The total number of sessions disconnected due to unknown APN in L2TP message.	Int64
disc-reason-205	The total number of sessions disconnected due unexpected network reentry by MS in Wimax network.	Int64
disc-reason-206	The total number of sessions disconnected due invalid NAI in R6 message in WiMAX network.	Int64
disc-reason-207	The total number of sessions disconnected due maximum retry limit for EAP authentication exhausted in Wimax network.	Int64
disc-reason-208	vbm-hoa-session-disconnected	Int64
disc-reason-209	vbm-voa-session-disconnected	Int64

Statistic	Description	Data Type
disc-reason-210	in-acl-disconnect-on-violation	Int64
disc-reason-211	The total number of sessions disconnected due to EAP Master Session Key lifetime expiry in Wimax network.	Int64
disc-reason-212	The total number of sessions disconnected due to EAP Master Session Key lifetime is too less to allow session.	Int64
disc-reason-213	The total number of sessions disconnected due to inter-service handoff in Wimax network.	Int64
disc-reason-214	The total number of sessions disconnected due to maximum retry limit for R6 message exhausted in Wimax network.	Int64
disc-reason-215	The total number of sessions disconnected due to network exit message received on R6 interface in Wimax network.	Int64
disc-reason-216	The total number of sessions disconnected due to de-registration message received on R6 interface in Wimax network.	Int64
disc-reason-217	The total number of sessions disconnected due to remote peer failure on R6 interface in Wimax network.	Int64
disc-reason-218	The total number of sessions disconnected due to protocol error on R6 and/or R4 interface in Wimax network.	Int64
disc-reason-219	The total number of sessions disconnected due to invalid AAA attributes for QoS to a subscriber in Wimax network.	Int64
disc-reason-220	The total number of sessions disconnected due to requested NPU GRE flow is not available for a subscriber in Wimax network.	Int64
disc-reason-221	The total number of sessions disconnected due to maximum retry limit for R4 message exhausted in Wimax network.	Int64
disc-reason-222	The total number of sessions disconnected due to network exit message received on R4 interface in Wimax network.	Int64
disc-reason-223	The total number of sessions disconnected due to de-registration message received on R4 interface in Wimax network.	Int64
disc-reason-224	The total number of sessions disconnected due to remote peer failure on R4 interface in Wimax network.	Int64
disc-reason-225	The total number of sessions disconnected due to IMS authorization revoked.	Int64
disc-reason-226	The total number of sessions disconnected due to IMS authorization released.	Int64
disc-reason-227	The total number of sessions disconnected due to invalid IMS authorization decision.	Int64
disc-reason-228	The total number of sessions disconnected due to MAC address validation failure in WiMAX network.	Int64

Statistic	Description	Data Type
disc-reason-229	The total number of sessions disconnected due to excessive packet data flows configured in WiMAX network.	Int64
disc-reason-230	The total number of sessions disconnected due to request for location substitution withdrawn was cancelled.	Int64
disc-reason-231	The total number of sessions disconnected because the location update was cancelled.	Int64
disc-reason-232	The total number of sessions disconnected due to manager expiry.	Int64
disc-reason-233	The total number of sessions disconnected due to identity check failure.	Int64
disc-reason-234	The total number of sessions disconnected due to security verification failure.	Int64
disc-reason-235	The total number of sessions disconnected due to authentication failure.	Int64
disc-reason-236	The total number of sessions disconnected due to GLU failure.	Int64
disc-reason-237	The total number of sessions disconnected due to an implicit detach.	Int64
disc-reason-238	The total number of sessions disconnected due to subscriber moving to a different SMGR instance.	Int64
disc-reason-239	The total number of sessions disconnected due to subscriber moving to a peer SGSN.	Int64
disc-reason-240	The total number of sessions disconnected due to DNS failure during Inter-RAU.	Int64
disc-reason-241	The total number of sessions disconnected due to context response failure.	Int64
disc-reason-242	The total number of sessions disconnected due to HLR not found for particular IMSI.	Int64
disc-reason-243	The total number of sessions disconnected due to MS initiated detach.	Int64
disc-reason-244	The total number of sessions disconnected because MS was not allowed to roam.	Int64
disc-reason-245	The total number of sessions disconnected due to duplicate context.	Int64
disc-reason-246	The total number of sessions disconnected due to failure of profile update.	Int64
disc-reason-247	The total number of sessions disconnected where session is inactive and no PDP context is activated from this session.	Int64

Statistic	Description	Data Type
disc-reason-248	The total number of sessions disconnected due to configured idle mode timeout duration is exhausted for ASN paging controller in WiMAX network.	Int64
disc-reason-249	The total number of sessions disconnected due to idle mode exit message for ASN paging controller in WiMAX network.	Int64
disc-reason-250	The total number of sessions disconnected due to authentication failure during idle mode entry for ASN paging controller in WiMAX network.	Int64
disc-reason-251	The total number of sessions disconnected due to invalid QoS configuration for subscriber in WiMAX network.	Int64
disc-reason-252	The total number of sessions disconnected due to primary master key change failure on R6 interface in WiMAX network.	Int64
disc-reason-253	The total number of sessions disconnected due to ipsecmgr failure	Int64
disc-reason-254	The total number of sessions disconnected due to non-availability of IP address from dynamic address pool.	Int64
disc-reason-255	The total number of sessions disconnected due to failure monitored through BS monitor keep-alive probe.	Int64
disc-reason-256	The total number of sessions disconnected due to error in SGSN attachment in registration state.	Int64
disc-reason-257	The total number of sessions disconnected due to error in SGSN inbound SRNS in registration state.	Int64
disc-reason-258	The total number of sessions disconnected due to error in Update PDP Context Response message for direct tunnel functionality. Direct tunnel functionality at GGSN was expecting some fields which were not received in the Update PDP Context Response message. Hence, GGSN was not able to establish tunnel appropriately with SGSN or RNC.	Int64
disc-reason-259	The total number of sessions disconnected at SGSN due to unknown PDP context.	Int64
disc-reason-260	The total number of sessions disconnected at SGSN due to PDP authentication failed.	Int64
disc-reason-261	The total number of sessions disconnected at SGSN due to duplicate PDP context	Int64
disc-reason-262	The total number of sessions disconnected at SGSN due to no response from GGSN.	Int64
disc-reason-263	The total number of sessions disconnected at SGSN due to failed response from GGSN.	Int64
disc-reason-264	The total number of sessions disconnected at SGSN due to unknown APN.	Int64
disc-reason-265	The total number of sessions disconnected at SGSN due to service request initiated deactivation.	Int64
disc-reason-266	The total number of sessions disconnected at SGSN due to attachment procedure initiated abort.	Int64

Statistic	Description	Data Type
disc-reason-267	The total number of sessions disconnected at SGSN due to ISRAU initiated abort procedure.	Int64
disc-reason-268	The total number of sessions disconnected at SGSN due to unknown APN.	Int64
disc-reason-269	The total number of sessions disconnected at SGSN due to MM context cleanup initiated abort procedure.	Int64
disc-reason-270	The total number of sessions disconnected at SGSN due to unknown abort procedure.	Int64
disc-reason-271	The total number of sessions disconnected at SGSN due to abort procedure started by guard timeout.	Int64
disc-reason-272	The total number of sessions disconnected at SGSN due to abort procedure initiated on DHCP IP validate request.	Int64
disc-reason-273	The total number of sessions disconnected due to id mismatch in MIPv6 session.	Int64
disc-reason-274	The total number of sessions disconnected as AAA session id not-found	Int64
disc-reason-275	The total number of sessions disconnected due to security associate rekeying failure.	Int64
disc-reason-276	The total number of sessions disconnected due to failure in relocation in ASN-PC service.	Int64
disc-reason-277	The total number of sessions disconnected due to failure in paging controller relocation in ASN PC service.	Int64
disc-reason-278	The total number of sessions disconnected due to mismatch in authentication policy.	Int64
disc-reason-279	The total number of sessions disconnected as DELETE MS ENTRY message received by the ASN Paging Controller.	Int64
disc-reason-280	The total number of sessions disconnected due to non-anchor ASN GW being prohibited.	Int64
disc-reason-281	The total number of sessions disconnected due to unknown reason.	Int64
disc-reason-282	The total number of sessions disconnected Administratively.	Int64
disc-reason-283	The total number of sessions disconnected by remote system	Int64
disc-reason-284	The total number of sessions disconnected by local system.	Int64
disc-reason-285	The total number of sessions disconnected due to non-availability of resources.	Int64

Statistic	Description	Data Type
disc-reason-286	The total number of sessions disconnected due to exceed in service limit.	Int64
disc-reason-287	The total number of sessions disconnected due to LCP negotiation failed.	Int64
disc-reason-288	The total number of sessions disconnected due to no response in PPP-LCP session.	Int64
disc-reason-289	The total number of sessions disconnected due to loop back detected in PPP-LCP.	Int64
disc-reason-290	The total number of sessions disconnected due to maximum retries in PPP-LCP session.	Int64
disc-reason-291	The total number of SGSN sessions disconnected due to an error in the SGSN attachment during the registration state. The field indicator number will vary depending upon the build of the software.	Int64
disc-reason-292	The total number of SGSN sessions disconnected due to an error in the SGSN inbound SRNS in a registration state. The field indicator number will vary depending upon the build of the software.	Int64
disc-reason-293	The total number of SGSN sessions disconnected due to error in Update PDP Context Response message for direct tunnel functionality. Direct tunnel functionality at GGSN was expecting some fields which were not received in the Update PDP Context Response message. Hence, the GGSN was not able to establish a tunnel appropriately with the SGSN or the RNC. The field indicator number will vary depending upon the build of the software.	Int64
disc-reason-294	The total number of SGSN sessions disconnected due to an unknown PDP context. The field indicator number will vary depending upon the build of the software.	Int64
disc-reason-295	The total number of SGSN sessions disconnected because the PDP authentication failed. The field indicator number will vary depending upon the build of the software.	Int64
disc-reason-296	The total number of SGSN sessions disconnected because the PDP authentication failed. The field indicator number will vary depending upon the build of the software.	Int64
disc-reason-297	The total number of SGSN sessions disconnected because the SGSN does not receive a response from the GGSN. The field indicator number will vary depending upon the build of the software.	Int64
disc-reason-298	The total number of SGSN sessions disconnected due to failed response from the GGSN. The field indicator number will vary depending upon the build of the software.	Int64
disc-reason-299	The total number of SGSN sessions disconnected due to an unknown APN. The field indicator number will vary depending upon the build of the software.	Int64
disc-reason-300	The total number of SGSN sessions disconnected due to deactivation initiated by a service request. The field indicator number will vary depending upon the build of the software.	Int64
disc-reason-301	The total number of SGSN sessions disconnected due to an attachment procedure-initiated abort. The field indicator number will vary depending upon the build of the software.	Int64
disc-reason-302	The total number of SGSN sessions disconnected due to an ISRAU-initiated abort procedure. The field indicator number will vary depending upon the build of the software.	Int64
disc-reason-303	The total number of SGSN sessions disconnected because the SessMgr initiates an abort. The field indicator number will vary depending upon the build of the software.	Int64

Statistic	Description	Data Type
disc-reason-304	The total number of SGSN sessions disconnected due to the MM context cleanup-initiated abort procedure. The field indicator number will vary depending upon the build of the software.	Int64
disc-reason-305	The total number of SGSN sessions disconnected due to an unknown abort procedure. The field indicator number will vary depending upon the build of the software.	Int64
disc-reason-306	The total number of SGSN sessions disconnected because the abort procedure was started by the guard timer timeout. The field indicator number will vary depending upon the build of the software.	Int64
disc-reason-307	The total number of SGSN sessions disconnected because the abort procedure was initiated upon receiving a DHCP IP validate request. The field indicator number will vary depending upon the build of the software.	Int64
disc-reason-308	The total number of sessions disconnected due to id mismatch in MIPv6 session.	Int64
disc-reason-309	The total number of sessions disconnected as AAA session id not-found	Int64
disc-reason-310	The total number of sessions disconnected due to security associate rekeying failure.	Int64
disc-reason-311	The total number of sessions disconnected due to failure in relocation in ASN-PC service.	Int64
disc-reason-312	The total number of sessions disconnected due to failure in paging controller relocation in ASN PC service.	Int64
disc-reason-313	The total number of sessions disconnected due to mismatch in authentication policy.	Int64
disc-reason-314	The total number of sessions disconnected as DELETE MS ENTRY message received by the ASN Paging Controller.	Int64
disc-reason-315	The total number of sessions disconnected because the ASNGW TID entry was not found.	Int64
disc-reason-316	The total number of sessions disconnected due to network exit message received on X2 interface in PHS network.	Int64
disc-reason-317	The total number of sessions disconnected due to deregistration request received on X2 interface in PHS network.	Int64
disc-reason-318	The total number of sessions disconnected by remote system due to failure on X2 interface in PHS network.	Int64
disc-reason-319	The total number of sessions disconnected due to primary master key change failure on X1 interface in PHS network.	Int64
disc-reason-320	The total number of sessions disconnected because of an IKE SA rekeying failure.	Int64
disc-reason-321	The total number of sessions disconnected due to session sleep mode entry timeout on PHS GW.	Int64
disc-reason-322	The total number of sessions disconnected due to non-anchor PHS GW being prohibited.	Int64

Statistic	Description	Data Type
disc-reason-323	The total number of sessions disconnected due to failure in paging controller relocation in ASN PC service.	Int64
disc-reason-324	The total number of sessions disconnected due to paging controller relocation in ASN PC service.	Int64
disc-reason-325	The total number of sessions disconnected due to authorization policy mismatch.	Int64
disc-reason-326	The total number of sessions disconnected due to IKE/IPsec security associate lifetime timer expiration.	Int64
disc-reason-327	The total number of sessions disconnected as DELETE MS ENTRY message received by the ASN Paging Controller.	Int64
disc-reason-328	The total number of sessions disconnected due to sleep mode timeout by the PHS Paging Controller.	Int64
disc-reason-329	The total number of sessions disconnected due to sleep mode exit by the PHS Paging Controller.	Int64
disc-reason-330	The total number of sessions disconnected due to failed sleep mode entry authorization by the PHS Paging Controller.	Int64
disc-reason-331	The total number of sessions disconnected due to ms power down network exit message received by the PHS Paging Controller.	Int64
disc-reason-332	The total number of PHS Paging Controller sessions disconnected due to network exit message received from X2 interface in PHS network.	Int64
disc-reason-333	The total number of sessions disconnected due to the following reasons: 1. When SessMgr and ACSMgr are running in non-optimized mode. 2. When an undefined NAT pool is configured for subscriber. NAT must be disabled if ACS is not running in optimized mode.	Int64
disc-reason-334	The total number of sessions disconnected because the ASNGW TID entry was not found.	Int64
disc-reason-335	The total number of sessions disconnected due to NAT IP address being unavailable during call setup for allocation to a subscriber.	Int64
disc-reason-336	The total number of sessions disconnected due to configuration of excessive PHS pd flows.	Int64
disc-reason-337	The total number of sessions disconnected due to invalid QoS configuration for subscriber in PHS network.	Int64
disc-reason-338	The total number of sessions disconnected due to Interim Update.	Int64
disc-reason-339	The total number of SGSN sessions disconnected because the inbound attach requests aborted due to poor radio status or lost radio connections. The field indicator number will vary depending upon the build of the software.	Int64
disc-reason-340	The total number of SGSN sessions disconnected due to inbound IRAU requests aborting as the radio status was poor or the radio connection lost. The field indicator number will vary depending upon the build of the software.	Int64

Statistic	Description	Data Type
disc-reason-341	The total number of sessions disconnected due to IKE keepalive failure.	Int64
disc-reason-342	The total number of SGSN sessions disconnected due to attach requests aborting because MS was in suspend mode. The field indicator number will vary depending upon the build of the software.	Int64
disc-reason-343	The total number of SGSN sessions disconnected due to IRAU requests aborted when MS was in suspend mode. The field indicator number will vary depending upon the build of the software.	Init64
disc-reason-344	The total number of sessions disconnected due to detection of duplicate sessions for the same session id. The field indicator number will vary depending upon the build of the software.	Int64
disc-reason-345	The total number of SGSN sessions disconnected due to XID response failure. The field indicator number will vary depending upon the build of the software.	Init64
disc-reason-346	The total number of SGSN sessions disconnected due to record cleanup or reset on the network service entity (NSE). The field indicator number will vary depending upon the build of the software.	Int64
disc-reason-347	The total number of SGSN sessions disconnected due to failure of the GTPP request. The field indicator number will vary depending upon the build of the software.	Int64
disc-reason-348	The total number of SGSN sessions disconnected due to mismatches of the IMSIs. The field indicator number will vary depending upon the build of the software.	Int64
disc-reason-349	The total number of SGSN sessions disconnected because the BSSGP Virtual Connection (BVC) was blocked. The field indicator number will vary depending upon the build of the software.	Init64
disc-reason-350	The total number of SGSN sessions disconnected as the session was attached on inbound IRAU requests. The field indicator number will vary depending upon the build of the software.	Init64
disc-reason-351	The total number of SGSN sessions disconnected while the session was attached on outbound IRAU requests. The field indicator number will vary depending upon the build of the software.	Init64
disc-reason-352	The total number of SGSN sessions disconnected due to incorrect state of network elements. The field indicator number will vary depending upon the build of the software.	Int64
disc-reason-353	The total number of SGSN sessions disconnected due to expiry of the T-3350 timer. The field indicator number will vary depending upon the build of the software.	Int64
disc-reason-354	The total number of SGSN sessions disconnected due to expiry of the paging timer. The field indicator number will vary depending upon the build of the software.	Int64
disc-reason-355	The total number of SGSN sessions disconnected due to local purging of PDP contexts. The field indicator number will vary depending upon the build of the software.	Init64
disc-reason-356	The total number of sessions disconnected as DELETE MS ENTRY message received by the PHS Paging Controller.	Int64
disc-reason-357	The total number of SGSN sessions disconnected due to local purging of PDP contexts. The field indicator number will vary depending upon the build of the software. The field indicator number will vary depending upon the build of the software	Int64
disc-reason-358	The total number of sessions disconnected due to invalid NAI in PHS network.	Int64
disc-reason-359	The total number of sessions disconnected due to sleep mode exit timeout for PHS paging controller in PHS network.	Init64

Statistic	Description	Data Type
disc-reason-360	The total number of SGSN sessions disconnected as off-loading reaches in phase 2 of session disconnect procedure. The field indicator number will vary depending upon the build of the software	Int64
disc-reason-361	The total number of sessions disconnected due to third party authorization failure in PHS network.	Int64
disc-reason-362	The total number of sessions disconnected due to remote error notifications.	Int64
disc-reason-363	The total number of sessions disconnected due to no response from any of the network entity.	Int64
disc-reason-364	The total number of sessions disconnected due re-authorization failure at any stage.	Int64
disc-reason-365	The total number of sessions disconnected because of a MME and sIAP send failure.	Int64
disc-reason-366	The total number of sessions disconnected because of a MME-eGTPC connection failure.	Int64
disc-reason-367	The total number of sessions disconnected because of the MME-eGTPC create session failed.	Int64
disc-reason-368	The total number of sessions disconnected because of a MME authentication failure.	Int64
disc-reason-369	The total number of sessions disconnected because of MME and UE detach.	Int64
disc-reason-370	The total number of sessions disconnected because of MME to MME detach.	Int64
disc-reason-371	The total number of sessions disconnected because of a MME HSS detach.	Int64
disc-reason-372	The total number of sessions disconnected because of a MME and P-GW detach.	Int64
disc-reason-373	The total number of sessions disconnected because of a MME sub validation failure.	Int64
disc-reason-374	The total number of sessions disconnected because of a MME HSS connection failure.	Int64
disc-reason-375	The total number of sessions disconnected because the MME HSS user is unknown.	Int64
disc-reason-376	The total number of sessions disconnected due to mismatch in DHCP lease time mismatch.	Int64
disc-reason-377	The total number of disconnected sessions due to the NEMO link layer being down.	Int64
disc-reason-378	The total number of sessions disconnected because of eapol-max-retry-reached.	Int64

Statistic	Description	Data Type
disc-reason-379	The total number of SGSN sessions disconnected as offloading reaches phase 3 of the session disconnect procedure. The field indicator number will vary depending upon the build of the software.	Int64
disc-reason-380	The total number of sessions disconnected due to disconnect in MBMS bearer service.	Int64
disc-reason-381	The total number of sessions disconnected due to violation on Operator Determined Barring (ODB) of services.	Init64
disc-reason-382	The total number of sessions disconnected due to violation on Operator Determined Barring (ODB) of Free-of-Charge service (FOCS).	Int64
disc-reason-383	The total number of CSCF sessions disconnected through CLI registration clearing by administrator.	Int64
disc-reason-384	The total number of CSCF sessions disconnected by UE with an explicit deregister message.	Int64
disc-reason-385	The total number of CSCF sessions disconnected due to registration expiry.	Init64
disc-reason-386	The total number of CSCF sessions disconnected due to network-initiated deregistration.	Int64
disc-reason-387	The total number of CSCF sessions disconnected through CLI call clearing by administrator.	Int64
disc-reason-388	The total number of CSCF sessions disconnected by UE using BYE message.	Int64
disc-reason-389	The total number of CSCF sessions disconnected locally due to some processing failure, task death, recovery failure, etc.	Init64
disc-reason-390	The total number of CSCF sessions disconnected because locally due to congestion caused by max calline/flow usage from high cpu/memory utilization in sessmgr.	Int64
disc-reason-391	The total number of CSCF sessions disconnected due to response timeout (SIP response code 408).	Int64
disc-reason-392	The total number of CSCF sessions disconnected due to session timer timeout	Int64
disc-reason-393	The total number of CSCF sessions disconnected due to media authorization failure.	Init64
disc-reason-394	The total number of CSCF sessions disconnected because register message is rejected due to congestion caused by max calline/flow usage from high cpu/memory utilization in sessmgr.	Int64
disc-reason-395	The total number of disconnects due to ms-unexpected-idle-mode-entry.	Int64
disc-reason-396	The total number of disconnects due to Re-Auth-failed.	Int64
disc-reason-397	The total number of SGSN sessions disconnected because the NSE configured in the GPRS service is removed and there are PDP contexts associated with the subscribers attached in this NSE. The field indicator number will vary depending upon the build of the software.	Int64

Statistic	Description	Data Type
disc-reason-398	The total number of SGSN sessions disconnected because an SGTP service could not be assigned to an MM context. The field indicator number will vary depending upon the build of the software	Int64
disc-reason-399	The total number of disconnects due to an unknown-apn.	Int64
disc-reason-400	The total number of disconnects due to a gtpc-path-failure.	Int64
disc-reason-401	The total number of disconnects due to a gtpi-path-failure.	Int64
disc-reason-402	The total number of disconnects due to a actv-rejected-by-ggsn.	Int64
disc-reason-403	The total number of PDP activation failures due to release from CAMEL. This counter is visible but not yet fully supported. The field indicator number will vary depending upon the build of the software. ❖	Int64
disc-reason-404	The total number of of Attaches / RAUs rejected due to failure in the IMEI checking (i.e. due either to black listing or to grey listing and an SGSN operator policy is configured with deny-grey-list). The field indicator number will vary depending upon the build of the software. This counter is available in releases 9.0 and higher.	Int64
disc-reason-405	The total number of PDP contexts deactivated upon receiving a cleanup indication from the SNDCCP layer. The field indicator number may vary depending upon the build of the software.	Int64
disc-reason-406	The total number of subscribers detached or PDP context(s) deactivated due to subscriber inactivity during a configured (in the SGSN operator policy) time. The field indicator number may vary depending upon the build of the software.	Int64
disc-reason-407	The total number of NAT-enabled sessions dropped due to Firewall-and-NAT policy updates in mid session.	Int64
disc-reason-409	The total number of disconnects due to an ha-stale-key.	Int64
disc-reason-410	The total number of disconnects due to No-IPv6-address-for-subscriber.	Int64
disc-reason-411	The total number of disconnects due to prefix-registration-failure.	Int64
disc-reason-summary	Contain all of the disconnect reason counters at once in following format: <i>code = count; code = count; ..... ;code = count</i> all non-zero disconnect counters will be exported in a semi-colon separated format. If no disconnect stats are available, the value of this statistics will be a zero-length string.	String
 <b>Important:</b> See Bulk Statistics Overview for statistics that are common to all schema.		



# Chapter 40

## Show Command Output Descriptions

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Show command syntax and descriptions are located in the Exec Mode Commands chapter of the Command Line Interface Reference. Actual output examples are not provided in this reference. Refer to the individual chapters in this guide for outputs relating to your command.



**Important:** The commands or keywords/variables that are available are dependent on platform type, product version, and installed license(s).

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# Chapter 41

## show aaa group name

Table 41. show aaa group name Command Output Descriptions

Field	Description
Group name	The AAA server group name.
Context	The context name.
<b>Diameter config:</b>	
<b>Authentication:</b>	
Dictionary	The Diameter dictionary used for authentication.
Endpoint name	The Diameter endpoint used for authentication.
Max-transmissions	The maximum number of transmission attempts for Diameter authentication.
Max-retries	The number of retry attempts for Diameter authentication requests.
Request-timeout	The Diameter authentication request timeout period.
Redirect-host-avp	Indicates whether to use just one returned AVP, or use the first returned AVP as selecting the primary host and the second returned AVP as selecting the secondary host.
<b>Accounting:</b>	
Dictionary	The Diameter dictionary used for accounting.
Endpoint name	The Diameter endpoint used for accounting.
Max-transmissions	The maximum number of transmission attempts for Diameter accounting.
Max-retries	The number of retry attempts for Diameter accounting requests.
Request-timeout	The Diameter accounting request timeout period.
<b>Radius Config:</b>	
Dictionary	The RADIUS dictionary.
Strip-domain	Indicates whether the domain is stripped from the user name prior to authentication or accounting.
Authenticator-validation	Indicates whether the MD5 authentication of RADIUS user is enabled.
Allow authentication-down	Indicates whether the system allows subscriber sessions when RADIUS authentication is unavailable.

## ■ Common Statistics

Field	Description
Allow accounting-down	Indicates whether the system allows subscriber sessions when RADIUS accounting is unavailable.
<b>Attributes:</b>	
Nas-identifier	The attribute name by which the system is identified in Access-Request messages.
Nas-ip	The AAA interface IP address(es) used to identify the system.
Nas-ip backup	The IP address of the secondary interface to use in the current context.
Nexthop	The next hop IP address for this NAS IP address.
MPLS-label	Indicates the MPLS label used for traffic from the specified RADIUS client NAS IP address.
<b>Authentication:</b>	
Algorithm	The RADIUS authentication server selection algorithm for the current context.
Deadtime	The time period to wait before changing the state of a RADIUS server from “Down” to “Active”, in minutes.
Max-outstanding	The maximum number of messages a AAA manager will queue.
Max-retries	The maximum number of times communication with a AAA server is attempted before it is marked as “Not Responding” and the detect dead server’s consecutive failures count is incremented.
Max-transmissions	The maximum number of re-transmissions for RADIUS authentication requests.
Timeout	The time period to wait for a response from the RADIUS server before re-sending the messages, in seconds.
Apn-to-be-included	The APN name included for RADIUS authentication.
Authenticate null-username	Indicates whether authentication of user names that are blank or empty is enabled.
<b>Probe:</b>	
Interval	The time period between two RADIUS authentication probes.
Timeout	The timeout period for HAGR to wait for a response for RADIUS authentication probes.
Max-retries	The maximum number of retries for RADIUS authentication probe response.
<b>Keepalive:</b>	
Interval	The time period between two keepalive access requests.
Timeout	The time period between two keepalive access request retries.
Retries	The number of times the keepalive access request is sent before marking the server as unreachable.
consecutive-response	The number of consecutive authentication responses after which the server is marked as reachable.
Username	The user name used for authentication.
Calling-station-id	The calling station ID used for keepalive authentication.
Password	The password used for authentication.

Field	Description
Allow access-reject	Indicates whether both access-accept and access-reject are considered as success for the keepalive authentication request.
<b>Detect-dead-server:</b>	
Consecutive-failures	The number of consecutive failures, for any AAA manager, before a server's state is changed from "Active" to "Down".
Response-timeout	The time period for any AAA manager to wait for a response to any message before a server's state is changed from "Active" to "Down", in seconds.
Keepalive	Indicates whether the AAA server alive-dead detect mechanism based on sending keepalive authentication messages to all authentication servers is enabled.
<b>Accounting:</b>	
Algorithm	The RADIUS accounting server selection algorithm for the current context.
Deadtime	The time period to wait before changing the state of a RADIUS server from "Down" to "Active", in minutes.
Max-outstanding	The maximum number of messages a AAA manager will queue.
Max-retries	The maximum number of times communication with a AAA server will be attempted before it is marked as "Not Responding" and the detect dead server's consecutive failures count is incremented.
Max-transmissions	The maximum number of re-transmissions for RADIUS accounting requests.
Max-pdu-size	The maximum sized packet data unit which can be accepted/generated, in bytes.
Interim-timeout	The timeout period for sending accounting INTERIM-UPDATE records, in seconds.
Interim-downlink-volume	The downlink volume limit that triggers RADIUS interim accounting, in bytes.
Interim-uplink-volume	The uplink volume limit that triggers RADIUS interim accounting, in bytes.
Interim-total-volume	The total volume limit for RADIUS interim accounting, in bytes.
Timeout	The time period to wait for a response from a RADIUS server before retransmitting a request.
Remote-address	Indicates whether remote IP address lists are configured, and collection of accounting data for the addresses in those lists on a per-subscriber basis is enabled.
Archive	Indicates whether archiving of RADIUS Accounting messages in the system after the accounting message has exhausted retries to all available RADIUS Accounting servers is enabled.
Apn-to-be-included	The APN name included for RADIUS accounting.
<b>R-P originated:</b>	
Trigger active-start	Indicates whether when an Active-Start is received from the PCF and there has been a parameter change, an R-P event occurs.
Trigger active-handoff	Indicates whether when an Active PCF-to-PFC Handoff occurs, a single or two R-P events will occur (one for the Connection Setup, and the second for the Active-Start).
Trigger active-stop	Indicates whether when an Active-Stop is received from the PCF, an R-P event occurs.
Trigger policy	the overall accounting policy for R-P sessions.

## ■ Common Statistics

Field	Description
Trigger stop-start	Indicates whether a stop/start RADIUS accounting pair is sent to the RADIUS server when an applicable R-P event occurs.
Handoff policy	The overall accounting policy for R-P sessions.
TOD	The time of day a RADIUS event is generated for accounting.
<b>GTP originated:</b>	
Trigger policy	The RADIUS accounting policy for GTP.
<b>MIP HA:</b>	
Policy	The RADIUS accounting policy for Mobile IP HA calls.
<b>Keepalive:</b>	
Interval	The time period between the two keepalive access requests.
Timeout	The time period between each keepalive access request retries.
Retries	The number of times the keepalive access request is sent before marking the server as unreachable.
consecutive-response	The number of consecutive authentication response after which the server is marked as reachable.
Username	The user name used for authentication.
Calling-station-id	The calling station ID used for keepalive authentication.
Framed-ip-address	The framed-ip-address used for keepalive accounting.
<b>Detect-dead-server:</b>	
Consecutive-failures	The number of consecutive failures, for any AAA manager, before a server's state is changed from "Active" to "Down".
Response-timeout	The time period for any AAA manager to wait for a response to any message before a server's state is changed from "Active" to "Down", in seconds.
Keepalive	Indicates whether the AAA server alive-dead detect mechanism based on sending keepalive authentication messages to all authentication servers is enabled.
<b>Charging:</b>	
Auth-algorithm	The RADIUS authentication algorithm.
Acct-algorithm	The RADIUS accounting algorithm.
Deadtime	The time period to wait before changing the state of a RADIUS server from "Down" to "Active", in minutes.
Max-outstanding	The maximum number of messages a AAA manager will queue.
Max-retries	The maximum number of times communication with a AAA server will be attempted before it is marked as "Not Responding" and the detect dead server's consecutive failures count is incremented.
Max-transmissions	The maximum number of re-transmissions for RADIUS requests.
Timeout	The time period to wait for a response from a RADIUS server before retransmitting a request.
<b>Detect-dead-server:</b>	

Field	Description
Consecutive-failures	The number of consecutive failures, for any AAA manager, before a server's state is changed from "Active" to "Down".
Response-timeout	The time period for any AAA manager to wait for a response to any message before a server's state is changed from "Active" to "Down", in seconds.



# Chapter 42

## show active-charging

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This chapter includes the `show active-charging` command output tables.

## show active-charging analyzer statistics name dns

Table 42. show active-charging analyzer statistics name dns Command Output Descriptions

Field	Description
<b>ACS DNS Session Stats:</b>	
Total Uplink Bytes	The total number of DNS bytes detected in uplink direction.
Total Downlink Bytes	The total number of DNS bytes detected in downlink direction.
Total Uplink Pkts	The total number of DNS packets detected in uplink direction.
Total Downlink Pkts	The total number of DNS packets detected in downlink direction.
Unknown OPCODE	The total number of DNS packets with an unknown operational code.
Invalid Pkts	The total number of invalid DNS packets detected.
<b>DNS Over TCP:</b>	
Uplink Bytes	The total number of DNS uplink bytes that were detected over TCP.
Downlink Bytes	The total number of DNS downlink bytes that were detected over TCP.
Uplink Pkts	The total number of DNS uplink packets that were detected over TCP.
Downlink Pkts	The total number of DNS downlink packets that were detected over TCP.
<b>Request:</b>	
A Query Type	The total number of DNS requests received for A query types.
CNAME Query Type	The total number of DNS requests received for CNAME query types.
NS Query Type	The total number of DNS requests received for NS query types.
PTR Query Type	The total number of DNS requests received for PTR query types.
SRV Query Type	The total number of DNS requests received for SRV query types.
Unknown Query Type	The total number of DNS requests received for unknown query types.
AAAA Query Type	The total number of DNS requests received for AAAA query types.
<b>Response:</b>	
A Query Type	The total number of DNS responses received for A query types.
CNAME Query Type	The total number of DNS responses received for CNAME query types.
NS Query Type	The total number of DNS responses received for NS query types.
PTR Query Type	The total number of DNS responses received for PTR query types.
SRV Query Type	The total number of DNS responses received for SRV query types.
Unknown Query Type	The total number of DNS responses received for unknown query types.

Field	Description
AAAA Query Type	The total number of DNS responses received for AAAA query types.

## show active-charging analyzer statistics name icmpv6

Table 43. show active-charging analyzer statistics name icmpv6 Command Output Descriptions

Field	Description
<b>ACS ICMPv6 Session Stats:</b>	
Total Uplink Bytes	Total number of bytes uplinked.
Total Downlink Bytes	Total number of bytes downlinked.
Total Uplink Pkts	Total number of packets uplinked.
Total Downlink Pkts	Total number of packets downlinked.
Uplink Bytes Fragmented	Total number of uplink bytes that were fragmented.
Downlink Bytes Fragmented	Total number of downlink bytes that were fragmented.
Uplink Pkts Fragmented	Total number of uplink packets that were fragmented.
Downlink Pkts Fragmented	Total number of downlink packets that were fragmented.
Uplink Bytes Invalid	Total number of invalid uplink bytes.
Downlink Bytes Invalid	Total number of invalid downlink bytes.
Uplink Pkts Invalid	Total number of invalid uplink packets.
Downlink Pkts Invalid	Total number of invalid downlink packets.

## show active-charging analyzer statistics name ip verbose

Table 44. show active-charging analyzer statistics name ip verbose Command Output Descriptions

Field	Description
<b>ACS IP Session Stats:</b>	
Total Uplink Bytes	Total number of bytes uplinked.
Total Downlink Bytes	Total number of bytes downlinked.
Total Uplink Pkts	Total number of packets uplinked.
Total Downlink Pkts	Total number of packets downlinked.
Uplink Bytes Fragmented	Total number of uplink bytes that were fragmented.
Downlink Bytes Fragmented	Total number of downlink bytes that were fragmented.
Uplink Pkts Fragmented	Total number of uplink packets that were fragmented.
Downlink Pkts Fragmented	Total number of downlink packets that were fragmented.
Uplink Bytes Invalid Length	Total number of uplink bytes of invalid length.
Downlink Bytes Invalid Length	Total number of downlink bytes of invalid length.
Uplink Pkts Invalid Length	Total number of uplink packets of invalid length.
Downlink Pkts Invalid Length	Total number of downlink packets of invalid length.
Uplink Bytes Invalid Length (After Reassembly)	Total number of uplink bytes of invalid length after reassembly.
Downlink Bytes Invalid Length (After Reassembly)	Total number of downlink bytes of invalid length after reassembly.
Uplink Pkts Invalid Length (After Reassembly)	Total number of uplink packets of invalid length after reassembly.
Downlink Pkts Invalid Length (After Reassembly)	Total number of downlink packets of invalid length after reassembly.
Uplink Bytes Invalid Version	Total number of uplink bytes of invalid version.
Downlink Bytes Invalid Version	Total number of downlink bytes of invalid version.
Uplink Pkts Invalid Version	Total number of uplink packets of invalid version.
Downlink Pkts Invalid Version	Total number of downlink packets of invalid version.
Uplink Bytes Invalid Checksum	Total number of bytes received in uplink direction with invalid checksum errors.
Downlink Bytes Invalid Checksum	Total number of bytes received in downlink direction with invalid checksum errors.
Uplink Pkts Invalid Checksum	Total number of packets received in uplink direction with invalid checksum errors.

```
■ show active-charging analyzer statistics name ip verbose
```

Field	Description
Downlink Pkts Invalid Checksum	Total number of packets received in downlink direction with invalid checksum errors.
Uplink Bytes IP reassembly Timeout	Total number of bytes in uplink traffic dropped due to IP reassembly timeout.
Uplink Pkts IP reassembly Timeout	Total number of packets in uplink traffic dropped due to IP reassembly timeout.
Downlink Bytes IP reassembly Timeout	Total number of bytes in downlink traffic dropped due to IP reassembly timeout.
Downlink Pkts IP reassembly Timeout	Total number of packets in downlink traffic dropped due to IP reassembly timeout.
Uplink Bytes IP reassembly Max. Fragments reached	Total number of times Max fragments was reached in uplinked bytes reassembly.
Uplink Pkts IP reassembly Max. Fragments reached	Total number of times Max fragments was reached in uplinked packets reassembly.
Downlink Bytes IP reassembly Max. Fragments reached	Total number of times Max fragments was reached in downlinked bytes reassembly.
Downlink Pkts IP reassembly Max. Fragments reached	Total number of times Max fragments was reached in downlinked packets reassembly.
Uplink Bytes received after reassembly	Total number of uplink bytes received after reassembly.
Uplink Pkts received after reassembly	Total number of uplink packets received after reassembly.
Downlink Bytes received after reassembly	Total number of downlink bytes received after reassembly.
Downlink Pkts received after reassembly	Total number of downlink packets received after reassembly.

## show active-charging analyzer statistics name ipv6

Table 45. show active-charging analyzer statistics name ipv6 Command Output Descriptions

Field	Description
<b>ACS IPv6 Session Stats:</b>	
Total Uplink Bytes	Total number of bytes uplinked.
Total Downlink Bytes	Total number of bytes downlinked.
Total Uplink Pkts	Total number of packets uplinked.
Total Downlink Pkts	Total number of packets downlinked.
Uplink Bytes Fragmented	Total number of uplink bytes that were fragmented.
Downlink Bytes Fragmented	Total number of downlink bytes that were fragmented.
Uplink Pkts Fragmented	Total number of uplink packets that were fragmented.
Downlink Pkts Fragmented	Total number of downlink packets that were fragmented.
Uplink Bytes Invalid	Total number of invalid uplink bytes.
Downlink Bytes Invalid	Total number of invalid downlink bytes.
Uplink Pkts Invalid	Total number of invalid uplink packets.
Downlink Pkts Invalid	Total number of invalid downlink packets.

## show active-charging analyzer statistics name ipv6 verbose

Table 46. show active-charging analyzer statistics name ipv6 verbose Command Output Descriptions

Field	Description
<b>ACS IPv6 Session Stats:</b>	
Total Uplink Bytes	Total number of bytes uplinked.
Total Downlink Bytes	Total number of bytes downlinked.
Total Uplink Pkts	Total number of packets uplinked.
Total Downlink Pkts	Total number of packets downlinked.
Uplink Bytes Fragmented	Total number of uplink bytes that were fragmented.
Downlink Bytes Fragmented	Total number of downlink bytes that were fragmented.
Uplink Pkts Fragmented	Total number of uplink packets that were fragmented.
Downlink Pkts Fragmented	Total number of downlink packets that were fragmented.
Uplink Bytes Invalid Length	Total number of uplink bytes of invalid length.
Downlink Bytes Invalid Length	Total number of downlink bytes of invalid length.
Uplink Pkts Invalid Length	Total number of uplink packets of invalid length.
Downlink Pkts Invalid Length	Total number of downlink packets of invalid length.
Uplink Bytes Invalid Length (After Reassembly)	Total number of uplink bytes of invalid length after reassembly.
Downlink Bytes Invalid Length (After Reassembly)	Total number of downlink bytes of invalid length after reassembly.
Uplink Pkts Invalid Length (After Reassembly)	Total number of uplink packets of invalid length after reassembly.
Downlink Pkts Invalid Length (After Reassembly)	Total number of downlink packets of invalid length after reassembly.
Uplink Bytes IP reassembly Timeout	Total number of bytes in uplink traffic dropped due to IP reassembly timeout.
Uplink Pkts IP reassembly Timeout	Total number of packets in uplink traffic dropped due to IP reassembly timeout.
Downlink Bytes IP reassembly Timeout	Total number of bytes in downlink traffic dropped due to IP reassembly timeout.
Downlink Pkts IP reassembly Timeout	Total number of packets in downlink traffic dropped due to IP reassembly timeout.
Uplink Bytes IP reassembly Max. Fragments reached	Total number of times Max fragments was reached in uplinked bytes reassembly.
Uplink Pkts IP reassembly Max. Fragments reached	Total number of times Max fragments was reached in uplinked packets reassembly.

Field	Description
Downlink Bytes IP reassembly Max. Fragments reached	Total number of times Max fragments was reached in downlinked bytes reassembly.
Downlink Pkts IP reassembly Max. Fragments reached	Total number of times Max fragments was reached in downlinked packets reassembly.

## show active-charging analyzer statistics name p2p verbose

Table 47. show active-charging analyzer statistics name p2p verbose Command Output Descriptions

Field	Description
<b>Non-P2P</b>	
Uplink Bytes:	The total number of bytes uplinked.
Downlink Bytes:	The total number of bytes downlinked.
Uplink Pkts:	The total number of packets uplinked.
Downlink Pkts:	The total number of packets downlinked.
<b>Skype non-voice</b>	
Uplink Bytes:	The total number of bytes uplinked.
Downlink Bytes:	The total number of bytes downlinked.
Uplink Pkts:	The total number of packets uplinked.
Downlink Pkts:	The total number of packets downlinked.
<b>Skype voice</b>	
Uplink Bytes:	The total number of bytes uplinked.
Downlink Bytes:	The total number of bytes downlinked.
Uplink Pkts:	The total number of packets uplinked.
Downlink Pkts:	The total number of packets downlinked.
<b>Bittorrent</b>	
Uplink Bytes:	The total number of bytes uplinked.
Downlink Bytes:	The total number of bytes downlinked.
Uplink Pkts:	The total number of packets uplinked.
Downlink Pkts:	The total number of packets downlinked.
<b>Edonkey</b>	
Uplink Bytes:	The total number of bytes uplinked.
Downlink Bytes:	The total number of bytes downlinked.
Uplink Pkts:	The total number of packets uplinked.
Downlink Pkts:	The total number of packets downlinked.
<b>Msn-non-voice</b>	
Uplink Bytes:	The total number of bytes uplinked.

Field	Description
Downlink Bytes:	The total number of bytes downlinked.
Uplink Pkts:	The total number of packets uplinked.
Downlink Pkts:	The total number of packets downlinked.
<b>Msn-voice</b>	
Uplink Bytes:	The total number of bytes uplinked.
Downlink Bytes:	The total number of bytes downlinked.
Uplink Pkts:	The total number of packets uplinked.
Downlink Pkts:	The total number of packets downlinked.
<b>Yahoo-non-voice</b>	
Uplink Bytes:	The total number of bytes uplinked.
Downlink Bytes:	The total number of bytes downlinked.
Uplink Pkts:	The total number of packets uplinked.
Downlink Pkts:	The total number of packets downlinked.
<b>Yahoo-voice</b>	
Uplink Bytes:	The total number of bytes uplinked.
Downlink Bytes:	The total number of bytes downlinked.
Uplink Pkts:	The total number of packets uplinked.
Downlink Pkts:	The total number of packets downlinked.
<b>Orb</b>	
Uplink Bytes:	The total number of bytes uplinked.
Downlink Bytes:	The total number of bytes downlinked.
Uplink Pkts:	The total number of packets uplinked.
Downlink Pkts:	The total number of packets downlinked.
<b>Gnutella</b>	
Uplink Bytes:	The total number of bytes uplinked.
Downlink Bytes:	The total number of bytes downlinked.
Uplink Pkts:	The total number of packets uplinked.
Downlink Pkts:	The total number of packets downlinked.
<b>Jabber</b>	
Uplink Bytes:	The total number of bytes uplinked.
Downlink Bytes:	The total number of bytes downlinked.
Uplink Pkts:	The total number of packets uplinked.

Field	Description
Downlink Pkts:	The total number of packets downlinked.
<b>Slingbox</b>	
Uplink Bytes:	The total number of bytes uplinked.
Downlink Bytes:	The total number of bytes downlinked.
Uplink Pkts:	The total number of packets uplinked.
Downlink Pkts:	The total number of packets downlinked.
<b>Winy</b>	
Uplink Bytes:	The total number of bytes uplinked.
Downlink Bytes:	The total number of bytes downlinked.
Uplink Pkts:	The total number of packets uplinked.
Downlink Pkts:	The total number of packets downlinked.
<b>Fasttrack</b>	
Uplink Bytes:	The total number of bytes uplinked.
Downlink Bytes:	The total number of bytes downlinked.
Uplink Pkts:	The total number of packets uplinked.
Downlink Pkts:	The total number of packets downlinked.
<b>Manolito</b>	
Uplink Bytes:	The total number of bytes uplinked.
Downlink Bytes:	The total number of bytes downlinked.
Uplink Pkts:	The total number of packets uplinked.
Downlink Pkts:	The total number of packets downlinked.
<b>Pando</b>	
Uplink Bytes:	The total number of bytes uplinked.
Downlink Bytes:	The total number of bytes downlinked.
Uplink Pkts:	The total number of packets uplinked.
Downlink Pkts:	The total number of packets downlinked.
<b>Filetopia</b>	
Uplink Bytes:	The total number of bytes uplinked.
Downlink Bytes:	The total number of bytes downlinked.
Uplink Pkts:	The total number of packets uplinked.
Downlink Pkts:	The total number of packets downlinked.
<b>Soulseek</b>	

Field	Description
Uplink Bytes:	The total number of bytes uplinked.
Downlink Bytes:	The total number of bytes downlinked.
Uplink Pkts:	The total number of packets uplinked.
Downlink Pkts:	The total number of packets downlinked.
<b>Ppstream</b>	
Uplink Bytes:	The total number of bytes uplinked.
Downlink Bytes:	The total number of bytes downlinked.
Uplink Pkts:	The total number of packets uplinked.
Downlink Pkts:	The total number of packets downlinked.
<b>Qq</b>	
Uplink Bytes:	The total number of bytes uplinked.
Downlink Bytes:	The total number of bytes downlinked.
Uplink Pkts:	The total number of packets uplinked.
Downlink Pkts:	The total number of packets downlinked.
<b>Qqlive</b>	
Uplink Bytes:	The total number of bytes uplinked.
Downlink Bytes:	The total number of bytes downlinked.
Uplink Pkts:	The total number of packets uplinked.
Downlink Pkts:	The total number of packets downlinked.
<b>Mute</b>	
Uplink Bytes:	The total number of bytes uplinked.
Downlink Bytes:	The total number of bytes downlinked.
Uplink Pkts:	The total number of packets uplinked.
Downlink Pkts:	The total number of packets downlinked.
<b>Gadugadu</b>	
Uplink Bytes:	The total number of bytes uplinked.
Downlink Bytes:	The total number of bytes downlinked.
Uplink Pkts:	The total number of packets uplinked.
Downlink Pkts:	The total number of packets downlinked.
<b>Feidian</b>	
Uplink Bytes:	The total number of bytes uplinked.
Downlink Bytes:	The total number of bytes downlinked.

Field	Description
Uplink Pkts:	The total number of packets uplinked.
Downlink Pkts:	The total number of packets downlinked.
<b>Applejuice</b>	
Uplink Bytes:	The total number of bytes uplinked.
Downlink Bytes:	The total number of bytes downlinked.
Uplink Pkts:	The total number of packets uplinked.
Downlink Pkts:	The total number of packets downlinked.
<b>Zattoo</b>	
Uplink Bytes:	The total number of bytes uplinked.
Downlink Bytes:	The total number of bytes downlinked.
Uplink Pkts:	The total number of packets uplinked.
Downlink Pkts:	The total number of packets downlinked.
<b>Skinny</b>	
Uplink Bytes:	The total number of bytes uplinked.
Downlink Bytes:	The total number of bytes downlinked.
Uplink Pkts:	The total number of packets uplinked.
Downlink Pkts:	The total number of packets downlinked.
<b>Sopcast</b>	
Uplink Bytes:	The total number of bytes uplinked.
Downlink Bytes:	The total number of bytes downlinked.
Uplink Pkts:	The total number of packets uplinked.
Downlink Pkts:	The total number of packets downlinked.
<b>Ares</b>	
Uplink Bytes:	The total number of bytes uplinked.
Downlink Bytes:	The total number of bytes downlinked.
Uplink Pkts:	The total number of packets uplinked.
Downlink Pkts:	The total number of packets downlinked.
<b>Directconnect</b>	
Uplink Bytes:	The total number of bytes uplinked.
Downlink Bytes:	The total number of bytes downlinked.
Uplink Pkts:	The total number of packets uplinked.
Downlink Pkts:	The total number of packets downlinked.

Field	Description
<b>Imesh</b>	
Uplink Bytes:	The total number of bytes uplinked.
Downlink Bytes:	The total number of bytes downlinked.
Uplink Pkts:	The total number of packets uplinked.
Downlink Pkts:	The total number of packets downlinked.
<b>Pplive</b>	
Uplink Bytes:	The total number of bytes uplinked.
Downlink Bytes:	The total number of bytes downlinked.
Uplink Pkts:	The total number of packets uplinked.
Downlink Pkts:	The total number of packets downlinked.
<b>Oscar</b>	
Uplink Bytes	The total number of bytes uplinked.
Downlink Bytes	The total number of bytes downlinked.
Uplink Pkts	The total number of packets uplinked.
Downlink Pkts	The total number of packets downlinked.
<b>Popo</b>	
Uplink Bytes	The total number of bytes uplinked.
Downlink Bytes	The total number of bytes downlinked.
Uplink Pkts	The total number of packets uplinked.
Downlink Pkts	The total number of packets downlinked.
<b>Irc</b>	
Uplink Bytes	The total number of bytes uplinked.
Downlink Bytes	The total number of bytes downlinked.
Uplink Pkts	The total number of packets uplinked.
Downlink Pkts	The total number of packets downlinked.
<b>Steam</b>	
Uplink Bytes	The total number of bytes uplinked.
Downlink Bytes	The total number of bytes downlinked.
Uplink Pkts	The total number of packets uplinked.
Downlink Pkts	The total number of packets downlinked.
<b>Ddlink</b>	
Uplink Bytes	The total number of bytes uplinked.

Field	Description
Downlink Bytes	The total number of bytes downlinked.
Uplink Pkts	The total number of packets uplinked.
Downlink Pkts	The total number of packets downlinked.
<b>Halfife2</b>	
Uplink Bytes	The total number of bytes uplinked.
Downlink Bytes	The total number of bytes downlinked.
Uplink Pkts	The total number of packets uplinked.
Downlink Pkts	The total number of packets downlinked.
<b>Hamachivpn</b>	
Uplink Bytes	The total number of bytes uplinked.
Downlink Bytes	The total number of bytes downlinked.
Uplink Pkts	The total number of packets uplinked.
Downlink Pkts	The total number of packets downlinked.
<b>Tvants</b>	
Uplink Bytes	The total number of bytes uplinked.
Downlink Bytes	The total number of bytes downlinked.
Uplink Pkts	The total number of packets uplinked.
Downlink Pkts	The total number of packets downlinked.
<b>Tvuplayer</b>	
Uplink Bytes	The total number of bytes uplinked.
Downlink Bytes	The total number of bytes downlinked.
Uplink Pkts	The total number of packets uplinked.
Downlink Pkts	The total number of packets downlinked.
<b>Uusee</b>	
Uplink Bytes	The total number of bytes uplinked.
Downlink Bytes	The total number of bytes downlinked.
Uplink Pkts	The total number of packets uplinked.
Downlink Pkts	The total number of packets downlinked.
<b>Vpnx</b>	
Uplink Bytes	The total number of bytes uplinked.
Downlink Bytes	The total number of bytes downlinked.
Uplink Pkts	The total number of packets uplinked.

Field	Description
Downlink Pkts	The total number of packets downlinked.
<b>Vtun</b>	
Uplink Bytes	The total number of bytes uplinked.
Downlink Bytes	The total number of bytes downlinked.
Uplink Pkts	The total number of packets uplinked.
Downlink Pkts	The total number of packets downlinked.
<b>Winmx</b>	
Uplink Bytes	The total number of bytes uplinked.
Downlink Bytes	The total number of bytes downlinked.
Uplink Pkts	The total number of packets uplinked.
Downlink Pkts	The total number of packets downlinked.
<b>Wofwarcraft</b>	
Uplink Bytes	The total number of bytes uplinked.
Downlink Bytes	The total number of bytes downlinked.
Uplink Pkts	The total number of packets uplinked.
Downlink Pkts	The total number of packets downlinked.
<b>Xbox</b>	
Uplink Bytes	The total number of bytes uplinked.
Downlink Bytes	The total number of bytes downlinked.
Uplink Pkts	The total number of packets uplinked.
Downlink Pkts	The total number of packets downlinked.
<b>Iskoot</b>	
Uplink Bytes	The total number of bytes uplinked.
Downlink Bytes	The total number of bytes downlinked.
Uplink Pkts	The total number of packets uplinked.
Downlink Pkts	The total number of packets downlinked.
<b>Fring</b>	
Uplink Bytes	The total number of bytes uplinked.
Downlink Bytes	The total number of bytes downlinked.
Uplink Pkts	The total number of packets uplinked.
Downlink Pkts	The total number of packets downlinked.
<b>Oovoo</b>	

Field	Description
Uplink Bytes	The total number of bytes uplinked.
Downlink Bytes	The total number of bytes downlinked.
Uplink Pkts	The total number of packets uplinked.
Downlink Pkts	The total number of packets downlinked.
<b>Gtalk-non-voice</b>	
Uplink Bytes	The total number of bytes uplinked.
Downlink Bytes	The total number of bytes downlinked.
Uplink Pkts	The total number of packets uplinked.
Downlink Pkts	The total number of packets downlinked.
<b>Gtalk-voice</b>	
Uplink Bytes	The total number of bytes uplinked.
Downlink Bytes	The total number of bytes downlinked.
Uplink Pkts	The total number of packets uplinked.
Downlink Pkts	The total number of packets downlinked.
<b>Freenet</b>	
Uplink Bytes	The total number of bytes uplinked.
Downlink Bytes	The total number of bytes downlinked.
Uplink Pkts	The total number of packets uplinked.
Downlink Pkts	The total number of packets downlinked.
<b>Aimini</b>	
Uplink Bytes	The total number of bytes uplinked.
Downlink Bytes	The total number of bytes downlinked.
Uplink Pkts	The total number of packets uplinked.
Downlink Pkts	The total number of packets downlinked.
<b>Battlefld</b>	
Uplink Bytes	The total number of bytes uplinked.
Downlink Bytes	The total number of bytes downlinked.
Uplink Pkts	The total number of packets uplinked.
Downlink Pkts	The total number of packets downlinked.
<b>Openft</b>	
Uplink Bytes	The total number of bytes uplinked.
Downlink Bytes	The total number of bytes downlinked.

Field	Description
Uplink Pkts	The total number of packets uplinked.
Downlink Pkts	The total number of packets downlinked.
<b>Qqgame</b>	
Uplink Bytes	The total number of bytes uplinked.
Downlink Bytes	The total number of bytes downlinked.
Uplink Pkts	The total number of packets uplinked.
Downlink Pkts	The total number of packets downlinked.
<b>Quake</b>	
Uplink Bytes	The total number of bytes uplinked.
Downlink Bytes	The total number of bytes downlinked.
Uplink Pkts	The total number of packets uplinked.
Downlink Pkts	The total number of packets downlinked.
<b>Secondlife</b>	
Uplink Bytes	The total number of bytes uplinked.
Downlink Bytes	The total number of bytes downlinked.
Uplink Pkts	The total number of packets uplinked.
Downlink Pkts	The total number of packets downlinked.
<b>Actsyc</b>	
Uplink Bytes	The total number of bytes uplinked.
Downlink Bytes	The total number of bytes downlinked.
Uplink Pkts	The total number of packets uplinked.
Downlink Pkts	The total number of packets downlinked.
<b>Nimbuzz</b>	
Uplink Bytes	The total number of bytes uplinked.
Downlink Bytes	The total number of bytes downlinked.
Uplink Pkts	The total number of packets uplinked.
Downlink Pkts	The total number of packets downlinked.
<b>Iax</b>	
Uplink Bytes	The total number of bytes uplinked.
Downlink Bytes	The total number of bytes downlinked.
Uplink Pkts	The total number of packets uplinked.
Downlink Pkts	The total number of packets downlinked.

Field	Description
<b>Paltalk</b>	
Uplink Bytes	The total number of bytes uplinked.
Downlink Bytes	The total number of bytes downlinked.
Uplink Pkts	The total number of packets uplinked.
Downlink Pkts	The total number of packets downlinked.
<b>Warcraft3</b>	
Uplink Bytes	The total number of bytes uplinked.
Downlink Bytes	The total number of bytes downlinked.
Uplink Pkts	The total number of packets uplinked.
Downlink Pkts	The total number of packets downlinked.
<b>Rdp</b>	
Uplink Bytes	The total number of bytes uplinked.
Downlink Bytes	The total number of bytes downlinked.
Uplink Pkts	The total number of packets uplinked.
Downlink Pkts	The total number of packets downlinked.
<b>Iptv</b>	
Uplink Bytes	The total number of bytes uplinked.
Downlink Bytes	The total number of bytes downlinked.
Uplink Pkts	The total number of packets uplinked.
Downlink Pkts	The total number of packets downlinked.
Uplink Bytes	The total number of bytes uplinked.
<b>Pandora</b>	
Uplink Bytes	The total number of bytes uplinked.
Downlink Bytes	The total number of bytes downlinked.
Uplink Pkts	The total number of packets uplinked.
Downlink Pkts	The total number of packets downlinked.

## show active-charging analyzer statistics name tcp verbose

Table 48. show active-charging analyzer statistics name tcp verbose Command Output Descriptions

Field	Description
<b>ACS TCP Session Stats:</b>	
Total Uplink Bytes	The total number of bytes uplinked.
Total Downlink Bytes	The total number of bytes downlinked.
Total Uplink Pkts	The total number of packets uplinked.
Total Downlink Pkts	The total number of packets downlinked.
Uplink Bytes Retrans	The number of uplink bytes that were retransmitted.
Downlink Bytes Retrans	The number of downlink bytes that were retransmitted.
Uplink Pkts Retrans	The number of uplink packets that were retransmitted.
Downlink Pkts Retrans	The number of downlink packets that were retransmitted.
Uplink Out of Order Pkts Successfully Analyzed	The number of uplink out of order packets that were successfully analyzed.
Downlink Out of Order Pkts Successfully Analyzed	The number of downlink out of order packets that were successfully analyzed.
Uplink Out of Order Pkts Failure	The number of uplink out of order packets that failed.
Downlink Out of Order Pkts Failure	The number of downlink out of order packets that failed.
Uplink Out of Order Pkts Retransmitted	The number of uplink out of order packets that retransmitted.
Downlink Out of Order Pkts Retransmitted	The number of downlink out of order packets that retransmitted.
Uplink Bytes Invalid Length	The number of uplink bytes of invalid length.
Downlink Bytes Invalid Length	The number of downlink bytes of invalid length.
Uplink Pkts Invalid Length	The number of uplink packets of invalid length.
Downlink Pkts Invalid Length	The number of downlink packets of invalid length.
Uplink Bytes Out of Sequence	The number of uplink bytes out of sequence.
Downlink Bytes Out of Sequence	The number of downlink bytes out of sequence.
Uplink Pkts Out of Sequence	The number of uplink packets that were out of sequence.
Downlink Pkts Out of Sequence	The number of downlink packets that were out of sequence.
Uplink Bytes Invalid Close Wait	The total number of bytes received in uplink direction while system is in invalid wait state to close connection.

■ show active-charging analyzer statistics name tcp verbose

Field	Description
Downlink Bytes Invalid Close Wait	The total number of bytes received in downlink direction while system is in invalid wait state to close connection.
Uplink Pkts Invalid Close Wait	The total number of packets received in uplink direction while system is in invalid wait state to close connection.
Downlink Pkts Invalid Close Wait	The total number of bytes received in downlink direction while system is in invalid wait state to close connection.
Uplink Bytes Invalid Close State	The total number of bytes received in uplink direction while connection is in invalid closed state.
Downlink Bytes Invalid Close State	The total number of bytes received in downlink direction while connection is in invalid closed state.
Uplink Pkts Invalid Close State	The total number of packets received in uplink direction while connection is in invalid closed state.
Downlink Pkts Invalid Close State	Total number of packets received in downlink direction while connection is in invalid closed state.
Uplink Bytes Out of Order Timeout Failure	The total number of bytes received in uplink direction while timeout duration to wait for out of order packets is exhausted.
Downlink Bytes Out of Order Timeout Failure	The total number of bytes received in downlink direction while timeout duration to wait for out of order packets is exhausted.
Uplink Pkts Out of Order Timeout Failure	The total number of packets received in uplink direction while timeout duration to wait for out of order packets is exhausted.
Downlink Pkts Out of Order Timeout Failure	The total number of bytes received in downlink direction while timeout duration to wait for out of order packets is exhausted.
Uplink Bytes Out of Order Failure in Allocation	The total number of bytes received in uplink direction while allocation of out of order packet is failed.
Downlink Bytes Out of Order Failure in Allocation	The total number of bytes received in downlink direction while allocation of out of order packet is failed.
Uplink Pkts Out of Order Failure in Allocation	The total number of packets received in uplink direction while allocation of out of order packet is failed.
Downlink Pkts Out of Order Failure in Allocation	The total number of packets received in downlink direction while allocation of out of order packet is failed.
Uplink Pkts Invalid Window Size	The total number of packets received in uplink direction with invalid window size for buffer.
Uplink Bytes Invalid Window Size	The total number of bytes received in uplink direction with invalid window size for buffer.
Downlink Pkts Invalid Window Size	The total number of packets received in downlink direction with invalid window size for buffer.
Downlink Bytes Invalid Window Size	Total total number of bytes received in downlink direction with invalid window size for buffer.
Uplink Pkts Invalid Checksum	The total number of packets received in uplink direction with invalid checksum errors.
Uplink Bytes Invalid Checksum	The total number of bytes received in uplink direction with invalid checksum errors.

Field	Description
Downlink Pkts Invalid Checksum	The total number of packets received in downlink direction with invalid checksum errors.
Downlink Bytes Invalid Checksum	The total number of bytes received in downlink direction with invalid checksum errors.

## show active-charging bandwidth-policy name

Table 49. show active-charging bandwidth-policy name Command Output Descriptions

Field	Description
Service Name	Name of the Active Charging Service.
Bandwidth Policy Name	Name of the bandwidth policy.
<b>Flow Limit-for-Bandwidth ID and Group-ID Associations:</b>	
Flow Limit-for-Bandwidth ID	The ACS flow limit-for-bandwidth ID.
Group-ID	The ACS Bandwidth Policy Group ID.
Total number of bw-ids configured in Bandwidth-Policy <policy>	The total number of bandwidth IDs configured in the specified bandwidth policy.
Group-Limits for Group-ID	The group limits set for the group ID.
Rates & Actions	Lists the following rates and actions: <ul style="list-style-type: none"> <li>• Peak Data Rate</li> <li>• Peak Burst Size</li> <li>• Violate Action</li> <li>• Committed Data Rate</li> <li>• Committed Burst Size</li> <li>• Exceed Action</li> </ul>
Uplink	For bandwidth control in uplink direction indicates: <ul style="list-style-type: none"> <li>• Peak data rate in bits per second</li> <li>• Peak burst size in bytes</li> <li>• Violate action configured: discard/lower-ip-precedence</li> <li>• Committed data rate in bits per second</li> <li>• Committed burst size in bytes</li> <li>• Exceed action configured: discard/lower-ip-precedence</li> </ul>
Downlink	For bandwidth control in downlink direction indicates: <ul style="list-style-type: none"> <li>• Peak data rate in bits per second</li> <li>• Peak burst size in bytes</li> <li>• Violate action configured: discard/lower-ip-precedence</li> <li>• Committed data rate in bits per second</li> <li>• Committed burst size in bytes</li> <li>• Exceed action configured: discard/lower-ip-precedence</li> </ul>

Field	Description
Total number of group-limits configured in Bandwidth-Policy <policy>	The total number of group limits configured in the specified bandwidth policy.
Total bandwidth-policies found	The total number of bandwidth policies matching the specified criteria.

## show active-charging charging-action all

Table 50. show active-charging charging-action all Command Output Descriptions

Field	Description
Service Name	Name of the Active Charging Service.
Charging Action Name	Name of the charging action. There may be several charging actions configured per charging service.
Content ID	The content ID to use in the generated billing records as the Rating-Group Attribute Value Pair (AVP) for this charging action.
Service ID	Service identifier value configured in the Charging Action mode.
EDRs	Indicates whether Event Detail Record billing action for packets matching this charging action is enabled, and the EDR format.
EGCDRs	Indicates whether eG-CDRs for billing of the packets matching with this charging action is enabled.
UDRs	Indicates whether UDR generation is enabled.
Flow Idle Timeout	Displays the idle-timeout for flows inspected by ECS.
Limit For Flow Type	Indicates whether Limit For Flow Type is enabled/disabled.
Limit For Uplink Bandwidth	Indicates whether Limit For Uplink Bandwidth is enabled/disabled.
QoS Renegotiate Traffic-Class	Indicates whether QoS Renegotiate Traffic-Class is enabled/disabled.
Limit For Downlink Bandwidth	Indicates whether Limit For Downlink Bandwidth is enabled/disabled.
QoS Class Identifier	Indicates whether QoS Class Identifier is configured.
IP Type of Service	Indicates whether IP Type of Service is configured.
Count Retransmissions	Indicates whether Count Retransmissions is enabled.
Content Filtering	Indicates whether Content Filtering is enabled.
Type of Service	Displays the service type (PDSN, GGSN, etc.)
Count Retries	Indicates if the ECS service is counting retransmitted packets per subscriber.
GCDRs	Indicates if G-CDRs are enabled or disabled.
Discard	Specifies if the packets that match the flow should be discarded.
Credit Control	Specifies if credit control is being used in this charging action
<b>Flow Action</b>	

Field	Description
Redirect URL	Indicates whether the redirection of URL for packets that matches a ruledef is enabled/disabled. If enabled, redirects the HTTP packets matched to this Ruledef to the specified URL.
Clear Quota Retry Timer	Indicates whether Clear Quota Retry Timer is enabled/disabled. If enabled, resets the Credit Control Application quota retry timer for specific subscriber upon redirection.
Conditional Redirect	Indicates whether Conditional Redirect end token action is enabled/disabled. If enabled, conditionally redirects the HTTP packets matched to a configured user-agent to a specified URL.
Discard	Indicates whether discard action is enabled/disabled. If enabled, discards the packet associated with the charging action.
Terminate-Flow	Indicates whether terminate flow action is enabled/disabled. If enabled, terminates the TCP connection gracefully between the subscriber and external server and sends a TCP FIN to the subscriber and a TCP RST to the server. If the flow does not use TCP, this option simply discard the packets. This option is used for flows that use TCP only.
<b>Billing Action</b>	
Event Data Record	Indicates whether EDRs are enabled/disabled.
GGSN charging Data Record	Indicates whether GGSN CDRs are enabled/disabled.
User Data Record	Indicates whether UDRs are enabled/disabled.
Radius Accounting Record	Indicates whether RADIUS accounting records is enabled/disabled.
Charge Volume	Indicates the charge volume for packet-length (payload).
Total charging action(s) found	The number of charging actions that matched the criteria.

## show active-charging charging-action statistics name

Table 51. show active-charging charging-action statistics name Command Output Descriptions

Field	Description
Service Name	Name of the Active Charging Service.
Charging Action Name	Name of the charging action. There are be several charging actions per charging service.
Uplink Pkts Retrans	Total number of uplink packets that were retransmitted.
Downlink Pkts Retrans	Total number of downlink packets that were retransmitted.
Uplink Bytes Retrans	Total number of uplink bytes that were retransmitted.
Downlink Bytes Retrans	Total number of downlink bytes that were retransmitted.
Upl Pkts Readdressed	Total number of readdressed uplink packets.
Dnl Pkts Readdressed	Total number of readdressed downlink packets.
Upl Bytes Readdressed	Total number of readdressed uplink bytes.
Dnl Bytes Readdressed	Total number of readdressed downlink bytes.
PP Upl Pkts Readdressed	Total number of post-processed uplink packets readdressed.
PP Dnl Pkts Readdressed	Total number of post-processed downlink packets readdressed.
PP Upl Bytes Readdressed	Total number of post-processed uplink bytes readdressed.
PP Dnl Bytes Readdressed	Total number of post-processed downlink bytes readdressed.
<b>XHeader Information:</b>	
XHeader Bytes Injected	Total number of x-header bytes injected.
XHeader Pkts Injected	Total number of x-header packets injected.
<b>NCQoS Discarded Packets:</b>	
Rule Bound elsewhere	Total number of rules bound elsewhere.
Rule Binding pending	Total number of rule binding pending.
Unbound Rule hit	Total number of unbound rule hits.
Statistic	Statistic type.
flow-action	Total number of matching flows/sessions/packets for the statistic.
pp-flow-action	Total number of matching flows/sessions/packets for the statistic.
flow-limit	Total number of matching flows/sessions/packets for the statistic.
bandwidth-limit	Total number of matching flows/sessions/packets for the statistic.
Total Charging Action(s) matched	Total number of charging actions matching the criteria.



## show active-charging content-filtering category policy-id all

Table 52. show active-charging content-filtering category policy-id all Command Output Descriptions

Field	Description
Service Name	Name of the Active Charging Service.
Content Filtering Policy	The Content Filtering Policy ID.
<b>Content Filtering Categories</b>	
Category	Category of the content rated.
Priority	Priority of the CF category in the CF Policy.
Action	Action taken for the indicated result of CF analysis.
Content Insert	The content string inserted in place of message returned from prohibited or restricted site or content server.
Redirect	The URL to redirect subscribers.
Reply Code	The reply code specified for www-reply-code-and-terminate-flow action.
EDR	The EDR file format name to generate separate CF EDRs based on action and content category.
Failure Action	The failure end condition if rating cannot be performed.
Discarded-Flow-Content-ID	The content ID for the discarded flows. If not configured, this field is not displayed.

## show active-charging content-filtering category statistics rulebase name

Table 53. show active-charging content-filtering category statistics rulebase name Command Output Descriptions

Field	Description
Service Name	Name of the Active Charging Service in which category-based content filtering application is configured.
Rulebase Name	Name of rulebase for category-based content filtering application.
<b>Content Filtering Statistics</b>	
Flows discarded	Total number of flows discarded in content filtering application.
Flows redirected	Total number of flows redirected in content filtering application.
Flows allowed	Total number of flows allowed in content filtering application.
Flows terminated	Total number of flows terminated in content filtering application.
Flows discarded with content insertion	Total number of flows discarded and information content inserted in header of flow in content filtering application.
Total Flows blocked	Total number of flows blocked in content filtering application.
Total Number of dynamic DB lookups	Total number of lookups in dynamic database for Category-based Content Filtering application. This counter is not available in StarOS 9.0 and later releases.
Total number of static DB lookups	Total number of lookups in static URL database for category based content filtering application.
Total number of successful Cache lookups	The total number of successful lookups in cache memory for URLs.
Total number of unknown URLs	Total number of flows/requests with unknown URL.
<b>Actions For Rating Attempts Not Completed</b>	
Flows discarded	Total number of flows discarded in content filtering application.
Flows redirected	Total number of flows redirected in content filtering application.
Flows allowed	Total number of flows allowed in content filtering application.
Flows terminated	Total number of flows terminated in content filtering application.
Flows discarded with content insertion	Total number of flows discarded and information content inserted in header of flow in content filtering application.
Total Flows blocked	Total number of flows blocked in content filtering application.

■ show active-charging content-filtering category statistics rulebase name

Field	Description
Time taken for rating	A URL is classified (rated) as belonging to a distinct category (search, portal, etc.). This column displays the time taken to rate the URL in ms, in time slots of 100 ms, up to 1000 ms, and above 1000 ms.
Number of URLs	Indicates the number of URLs rated in each time slot.
Number of URLs (SRDB)	Indicates the number of URLs rated in a specific time slot from static rating database (SRDB).
Number of URLs (Cache)	Indicates the number of URLs rated in a specific time slot from the cached list of URLs in memory.
Attempts not completed	Indicates the number of URL rating attempts not completed.
Total rulebases matched	Total number of rulebases that matched the criteria.

## show active-charging content-filtering category statistics

Table 54. show active-charging content-filtering category statistics Command Output Descriptions

Field	Description
Service Name	Name of the Active Charging Service in which category-based content filtering application is configured.
<b>Cumulative Content Filtering Statistics:</b>	
Flows discarded	Total number of flows discarded.
Flows redirected	Total number of flows redirected.
Flows allowed	Total number of flows allowed.
Flows terminated	Total number of flows terminated.
Flows discarded with content insertion	Total number of flows discarded and content inserted in header of flow.
Total Flows blocked	Total number of flows blocked.
Total Number of dynamic DB lookups	Total number of lookups in dynamic database. This counter is not available in StarOS 9.0 and later releases.
Total number of static DB lookups	Total number of lookups in static URL database.
Total number of successful Cache lookups	Total number of successful URL lookups in cache memory.
Total number of unknown URLs	Total number of flows/requests with unknown URL.
<b>Failure Action (Rating Attempts Not Completed):</b>	
Flows discarded	Total number of flows discarded due to failure action.
Flows redirected	Total number of flows redirected due to failure action.
Flows allowed	Total number of flows allowed due to failure action.
Flows terminated	Total number of flows terminated due to failure action.
Flows discarded with content insertion	Total number of flows discarded and information content inserted in header of flow due to failure action.
Total Flows blocked	Total number of flows blocked due to failure action.
Time taken for rating	A URL is classified (rated) as belonging to a distinct category (search, portal, etc.). This column displays the time taken to rate the URL in ms, in time slots of 100 ms, up to 1000 ms, and above 1000 ms.
Number of URLs	Total number of URLs rated in each time slot.
Attempts not completed	Total number of URL rating attempts not completed.

Field	Description
<b>Cumulative Dynamic Content Filtering Statistics</b>	
Dynamic Flows discarded	Total number of dynamic flows discarded.
Dynamic Flows redirected	Total number of dynamic flows redirected.
Dynamic Flows allowed	Total number of dynamic flows allowed.
Dynamic Flows terminated	Total number of dynamic flows terminated.
Dynamic Flows discarded with content insertion	Total number of dynamic flows discarded and content inserted in header of flow.
Total Dynamic Flows blocked	Total number of dynamic flows blocked.
Total Number of dynamic lookups	Total number of dynamic lookups.
Total number of unknown URLs	Total number of flows/requests with unknown URLs.
Response codes not in range 2xx	Number of responses that were not sent for dynamic rating as the response was not in the 2xx range.
<b>Dynamic Failure Action (Rating Attempts Not Completed):</b>	
Flows discarded	Total number of flows discarded due to failure action.
Flows redirected	Total number of flows redirected due to failure action.
Flows allowed	Total number of flows allowed due to failure action.
Flows terminated	Total number of flows terminated due to failure action.
Flows discarded with content insertion	Total number of flows discarded and information content inserted in header of flow due to failure action.
Total Flows blocked	Total number of flows blocked due to failure action.
Time taken for Dynamic rating	A URL is classified (rated) as belonging to a distinct category (search, portal, etc.). This column displays the time taken to rate the URL in ms, in time slots of 100 ms, up to 1000 ms, and above 1000 ms.
Number of URLs	Total number of URLs rated in each time slot.
Attempts not completed	Total number of URL rating attempts not completed.
Number of Packets Hit per Category	Indicates the specific category and the number of packets hit per category. If during runtime, an x-category was added, the x-category is also displayed.
Number of Packets Blocked per Category	Indicates the specific category and the number of packets blocked per category. If during runtime, an x-category was added, the x-category is also displayed.

## show active-charging content-filtering server-group name

Table 55. show active-charging content-filtering server-group name Command Output Descriptions

Field	Description
Content Filtering Group	Name of the Content Filtering Server Group (CFSG).
Context	The context in which the CFSG is configured.
Origin Address	IP address of the origin endpoint or ICAP client.
Response Timeout	The response-timeout duration configured to wait for response.
Connection Retry Timeout	The connection retry timeout duration configured to check the TCP connection status between ICAP sever and client.
Dictionary	The dictionary used for encoding requests to the server(s).
Timeout Action	The action configured for connection timeout.
Deny Message	The text string message that is returned to the subscriber in a deny response.
URI-extraction	The ICAP URL extraction mode: <ul style="list-style-type: none"> <li>• after-parsing: Percent-encoded hex characters in URLs sent from the ACF client to the ICAP server are converted to corresponding ASCII characters and sent.</li> <li>• raw: The URLs contain percent-encoded hex characters as is.</li> </ul>
Content Filtering Group Connections	The total number of CF server group connections open.
Priority	Displays the priority of the CF server for which statistics has to be displayed.
ICAP Address (Port)	Displays the IP address and port number of ICAP server within CF Server Group.
Max Outstanding	The total number of unanswered outstanding messages to this ICAP server.
ACSMgr Instance	Number of ACS Manager instance.
Connection State	Status of ACS Manager instance for CF server group connection.
Total content filtering groups matching specified criteria	The total number of CFSG matching the criteria.

## show active-charging content-filtering server-group statistics verbose

Table 56. show active-charging content-filtering server-group statistics verbose Command Output Descriptions

Field	Description
Content Filtering Group	Name of the Content Filtering Server Group (CFSG).
<b>Connection Statistics</b>	
Current Open Connections	Total number of open connections.
Connection DHOST requests	Total number of DHOST requests.
Successful Connections	Total number of successful connections.
Connections DHOST remove	Total number of connections removed from DHOST.
Connection SHUTDOWN req	Total number of requests for SHUTDOWN.
ACF Unreachable(read)	Total number of attempts for Active Content Filter server (ICAP server) to read.
ACF Unreachable(write)	Total number of attempts for Active Content Filter server (ICAP server) to write.
Reconnect attempts	Total number of reconnect attempts for ACF server (ICAP server).
Connection Timeout	Total number of connections timeout after reconnect attempts for ACF server (ICAP server).
<b>Connection Failure Statistics</b>	
Connection DHOST errors	Total number of DHOST errors in connection.
Connection CONNECT error	Total number of CONNECT errors in connection.
Socket open errors	Total number of errors due to SOCKET open in connection.
Connection bind errors	Total number of BIND errors in connection.
Connection setvr errors	Total number of SETVER errors in connection.
Connection NONBLOCK errors	Total number of NONBLOCK errors in connection.
Connection SHUTDOWN errors	Total number of SHUTDOWN errors in connection.
Incomplete 3-way handshaking	Total number of errors due to incomplete 3-way handshaking in TCP connection.
<b>ACF Statistics</b>	
ACF Requests Created	Total number of requests created for ACF.
Response Timeout	Total number of response timeout for requests to ACF.
Write request success	Total number of successful WRITE requests.
Write request failed	Total number of failed WRITE requests.

Field	Description
Read response success	Total number of successful READ response.
Read response failed	Total number of failed READ response.
HTTP Permit	Total number of HTTP URLs permitted from ACF.
WAP Permit	Total number of WAP URLs permitted from ACF.
HTTP Denny	Total number of HTTP URLs denied from ACF.
WAP Denny	Total number of WAP URLs denied from ACF.
HTTP Redirect	Total number of HTTP URLs redirected from ACF.
WAP Redirect	Total number of WAP URLs redirected from ACF.
Invalid ACTION	Total number of invalid ACTION message from ACF.
Redirect URL not defined	Total number of errors due to undefined redirect URL.
Buffer List Empty	Total number of errors due to empty buffer list.
<b>Failure Action (communication failure with server-group):</b>	
Permit	Total number of connections permitted after connection failure.
Content Insertion	Total number of connections with content inserted after connection failure.
Discard	Total number of connections discarded after connection failure.
Terminate Flow	Total number of connections terminated after connection failure.
Redirect URL	Total number of connections redirected after connection failure.
Total action taken	Total number of actions taken after connection failure.
Num pkts dropped for DENY	Total number of packets dropped after denying the connection due to failure in connection.
Num pkts dropped for REDIRECT	Total number of packets dropped after redirecting the connection due to failure in connection.
Num pkts dropped for DENY Timeout action	Total number of packets dropped after denying the connection due to timeout action.
Num pkts dropped for REDIRECT Timeout action	Total number of packets dropped after redirecting the connection due to timeout action.
<b>Failure Action (communication with server-group not attempted):</b>	
Permit	Total number of connections permitted after connection failure.
Content Insertion	Total number of connections with content inserted after connection failure.
Discard	Total number of connections discarded after connection failure.
Terminate Flow	Total number of connections terminated after connection failure.
Redirect URL	Total number of connections redirected after connection failure.
<b>ACF Req Error Statistics</b>	Statistics related to ACF request errors.

Field	Description
Host field Null	Total number of HTTP GET requests which has the host field NULL.
URL Invalid	Total number of nonblank URLs with strlen != 0 but URL having “ “, \t, \n characters only.
Host same as ICAP server:port	Total number of HTTP GET requests with host same as the configured ICAP server port.
<b>ACF Resp Parse Statistics</b>	Statistics related to ACF response parsing.
Parse ACF resp success	Total number of successful ACF parse response.
Parse ACF resp ver err	Total number of successful ACF parse response version error.
<b>Misc Statistics</b>	Miscellaneous statistics.
Total pkts sent	Total number of packets sent through ICAP connection.
Invalid ACF group config	Total number of errors due to invalid CF Server Group (Active Content Filter server groups) configuration.
Invalid bind address	Total number of errors due to invalid binding address configuration.
Invalid ICAP address	Total number of errors due to invalid ICAP server addresses.
<b>ICAP queue length statistics</b>	
SessionMgr ID	Session Manager ID.
ICAP queue length	Queue size of outstanding ICAP requests per Session Manager.
<b>Histogram of ICAP Server's Response time</b>	
Response Time(ms)	Response time slots, in milliseconds.
No Of Responses	Number of responses per time slot.

## show active-charging credit-control statistics

Table 57. show active-charging credit-control statistics Command Output Descriptions

Field	Description
Active Charging Service	Name of the Active Charging Service.
Credit Control Group	Name of the Credit Control Group. This field is displayed only if there are credit control group(s) configured.
<b>CC Session Stats</b>	
Total Current Sessions	The total number of Credit Control sessions active.
Total ECS Adds	The total number of ECS sessions added to Credit Control application.
Total CC Starts	The total number of Credit Control sessions started.
Total Session Updates	The total number of Credit Control sessions updated.
Total Terminated	The total number of Credit Control sessions terminated.
CC Session Failovers	The total Credit Control sessions failed.
<b>CC Message Stats</b>	
Total Messages Received	The total Credit Control messages received.
Total Messages Sent	The total Credit Control messages sent.
Total CC Requests	The total number of CCRs (Credit Control Request) messages that went out from system to the Credit Control Server. The CCR can be Initial/Update or Terminate.
Total CC Answers	The total number of CCA (Credit Control Answer) messages that came into system from Credit Control Server.
CCR-Initial	The total number of CCR-Initial (Initial Credit Control Request) messages that went out from system to the Credit Control Server.
CCA-Initial	The total number of CCA-Initial (Initial Credit Control Answer) messages that came into system from Diameter Server.
CCA-Initial Accept	The total number of CCA-Initial-Accept (Initial Credit Control Answer sent and accepted) messages that came into system from Credit Control Server.
CCA-Initial Reject	The total number of CCA-Initial-Reject (Initial Credit Control Answer sent and rejected.) messages that came into system from Credit Control Server.
CCA-Initial Timeouts	The total number of CCA-Initial-Timeouts (Initial Credit Control Answer sent and timed out) messages that came into system from Credit Control Server.

Field	Description
CCR-Update	The total number of CCR-Updates (Credit Control Request with Update) messages that went out from system to the Credit Control Server.
CCA-Update	The total number of CCA-Update (Credit Control Answer for update) messages that came into system from Credit Control Server.
CCA-Update Timeouts	The total number of CCA-Update Timeouts (Credit Control Answer for update sent and timed out) messages that came into system from Credit Control Server.
CCR-Final	The total number of CCR-Final (Credit Control Request with Final) messages that went out from system to the Credit Control Server.
CCA-Final	The total number of CCA-Final (Credit Control Answer for final update sent) messages that came into system from Credit Control Server.
CCA-Final Timeouts	The total number of CCA-Final Timeouts (Credit Control Answer for final update sent and time-out) messages that came into system from Credit Control Server.
ASR	The total number of Abort-Session Request messages came into system from Credit Control Server.
ASA	The total number of Abort-Session Accept messages sent from system to Credit Control server. This message will be followed by a CCR-Terminate to terminate the session.
RAR	The total number of ReAuth Request messages came into system from Diameter Server
RAA	The total number of ReAuth Accept messages sent from system to Credit Control server. This message is followed by a CCR-Update to update the Credit Control server about the session.
CCA Dropped	The total number of CCA (Credit Control Answers) messages dropped by system.
<b>CC Message Error Stats</b>	
Diameter Protocol Errs	The total message errors due to Diameter protocol.
Bad Answers	The total message errors due to invalid response.
Unknown Session Reqs	The total message errors due to invalid session requests.
Unknown Command Code	The total message errors due to invalid/unknown command code (ASR, RAR).
Request Timeouts	The total message errors due to request timeout.
Parse Errors	The total message errors due to parsing errors.
Unknown Rating Group	The total message errors due to invalid/unknown Rating Groups. Rating group is used to identify a particular type of traffic.
Unknown Rulebase	The total message errors due to invalid/unknown Rulebase applied.
Unk Failure Handling	The total message errors due to invalid/unknown reasons.
<b>CC Update Reporting Reason Stats</b>	

Field	Description
Threshold	For each of the Rating group, the Credit Control server send a threshold (this is also configurable in a system) after which a update needs to be sent. For example, a subscriber quota of 1000 bytes with 900 as threshold is sent to Credit Control Application. When 900 bytes have consumed by the system, an update message is sent for quota. This counter gives the number of updates sent because of threshold.
QHT	The total number of updates sent due to expiry of Quota Hold Timer (QHT).
Final	The total number of updates sent due to expiry of final unit of quota.
Quota Exhausted	The total number updates sent due to quota of subscriber was exhausted.
Validity Time	The total number of updates sent because of the session validity time expired.
Other Quota	The total number updates sent due to request for additional quota for subscriber.
Rating Condition Change	The total number of updates sent due change in RAT/QOS/SGSN/CELLID/LAC.
Forced Reauthorization	The total number of updates sent because of RAR.
<b>CC Termination Cause Stats</b>	
Diameter Logout	The total number of Credit Control Application session terminated due to subscriber logout.
Service Not Provided	The total number of Credit Control Application session terminated as service was not available.
Bad Answer	The total number of Credit Control Application session terminated due to invalid/unknown response received.
Administrative	The total number of Credit Control Application session terminated by administrator.
Link Broken	The total number of Credit Control Application session terminated due to broken/down link.
Auth Expired	The total number of Credit Control Application session terminated due to authorization of subscriber expired.
User Moved	The total number of Credit Control Application session terminated as subscriber moved to out of service area.
Session Timeout	The total number of Credit Control Application session terminated due to timeout.
<b>CC Traffic Category Stats</b>	
Category Creates	The total traffic categories created.
Category Deletes	The total traffic categories deleted.
Category Lookups	The total traffic categories available.
Hits	The total traffic categories triggered.
Misses	The total traffic categories triggered and missed.
Trigger Events	The total traffic categories triggered.
Final Unit Consumed	The total units consumed by subscriber during session.

## ■ show active-charging credit-control statistics

Field	Description
Category Success	The total number of successful traffic category sessions.
Rating Failed	The total Rating Groups failed during session.
Service Denied	The total number of services denied during session.
Limit Reached	The total number of events when subscriber reached quota limit.
Auth Rejected	The total number of authorization rejected.
Other Errors	The total number of miscellaneous/unknown errors not specified by system.

## show active-charging edr-format all

Table 58. *show active-charging edr-format all* Command Output Descriptions

Field	Description
Service Name	Name of the Active Charging Service.
EDR Format Name	Name of the configured EDR format.
Attribute	Attribute information configured in specific EDR format.
Total edr-format(s) found	The total number of configured existing EDR formats.

## show active-charging edr-format statistics

Table 59. *show active-charging edr-format statistics* Command Output Descriptions

Field	Description
Total edr-formats	The total number of EDR formats configured.
Total edrs generated	The total number of EDRs generated.
Total NAT bind records generated	The total number of Network Address Translation (NAT) bind records generated. This field is only displayed, if configured, in StarOS 8.3 and later.

## show active-charging edr-udr-file flow-control-counters

Table 60. *show active-charging edr-udr-file flow-control-counters* Command Output Descriptions

Field	Description
Num of Times Flow Control initiated	Total number of times the flow control initiated.
Num of Outstanding Messages	Total number outstanding messages for flow control.
Num of unsent Messages	Total number unsent messages for flow control.
Num of CDR records Discarded due to flow control	Total number of charging detail records (CDRs) discarded due to flow control action.
Last flow control occurrence	Date and time of the last occurrence of flow control action.

## show active-charging edr-udr-file statistics

Table 61. show active-charging edr-udr-file statistics Command Output Descriptions

Field	Description
<b>EDR-UDR file Statistics</b>	
CDRMOD Instance Id	The CDRMOD instance identifier.
<b>Overall Statistics</b>	
Files rotated	Total number of EDR and UDR files rotated.
Files rotated due to volume limit	Total number of EDR and UDR files rotated due to volume limit.
Files rotated due to time limit	Total number of EDR and UDR files rotated due to time limit.
Files rotated due to records limit	Total number of files rotated because of record limits.
File rotation failures	Total number of rotation failed for EDR and UDR file.
Files deleted	Total number of EDR and UDR files deleted.
Records deleted	Total number of records deleted.
Records received	Total number of records received.
Files received	Total number of EDR and UDR files received by service.
Current open files	Total number of EDR and UDR files open.
Time of last file deletion	Date and time of last EDR/UDR file deleted.
<b>EDR Specific Statistics</b>	
EDR files rotated	Total number of EDR files rotated.
EDR files rotated due to volume limit	Total number of EDR files rotated due to volume limit.
EDR files rotated due to time limit	Total number of EDR files rotated due to time limit.
EDR files rotated due to records limit	Total number of EDR files rotated due to records limit
EDR file rotation failures	Total number of rotation failed for EDR file.
EDR files deleted	Total number of EDR files deleted.
EDR records deleted	Total number of EDR records deleted.
EDR records received	Total number of EDR records received.
Current open EDR files	Total number of EDR files open.
Time of last EDR file deletion	Date and time of last EDR file deleted.
<b>UDR Specific Statistics</b>	
UDR files rotated	Total number of UDR files rotated.

Field	Description
UDR files rotated due to volume limit	Total number of UDR files rotated due to volume limit.
UDR files rotated due to time limit	Total number of UDR files rotated due to time limit.
UDR files rotated due to records limit	Total number of UDR files rotated due to records limit.
UDR files rotation failures	Total number of rotation failed for UDR file.
UDR files deleted	Total number of UDR files deleted.
UDR records deleted	Total number of UDR records deleted.
UDR records received	Total number of UDR records received.
Current open UDR files	Total number of UDR files open.
Time of last UDR file deletion	Date and time of last UDR file deletion.
<b>EDR-UDR PUSH Statistics</b>	
<b>Overall Statistics</b>	
<b>Primary Server Statistics</b>	
<b>Secondary Server Statistics</b>	
Successful File Transfers	Total number of successful file transfers.
Failed File Transfers	Total number of failed file transfers.
Num of times PUSH initiated	Total number of times an EDR/UDR PUSH attempt was initiated.
Num of periodic PUSH	Total number of periodic PUSH.
Num of manual PUSH	Total number of manual PUSH.
Current status of PUSH	Current status of PUSH: Running/Not Running
Last completed PUSH time	The date and time the last PUSH completed.

## show active-charging firewall statistics

Table 62. show active-charging firewall statistics Command Output Descriptions

Field	Description
Firewall Statistics for context	Name of the context.
<b>Data Stats:</b>	
Total Packets Received	Total number of packets received by Stateful Firewall.
Total Bytes Received	Total number of bytes received by Stateful Firewall.
Total Packets Sent	Total number of packets sent by Stateful Firewall.
Total Bytes Sent	Total number of bytes sent by Stateful Firewall.
Total Packets Injected	Total number of packets injected by Stateful Firewall.
Total Bytes Injected	Total number of bytes injected by Stateful Firewall.
Uplink Packets Dropped	Total number of uplink packets dropped by Stateful Firewall.
Uplink Bytes Dropped	Total number of uplink bytes dropped by Stateful Firewall.
Downlink Packets Dropped	Total number of downlink packets dropped by Stateful Firewall.
Downlink Bytes Dropped	Total number of downlink bytes dropped by Stateful Firewall.
Total Malformed Packets	Total number of malformed packets detected by Stateful Firewall.
Total DOS Attacks	Total number of Denial-of-Service attacks detected by Stateful Firewall.
Total Flows Processed by Firewall	Total number of flows processed by Stateful Firewall.

## show active-charging firewall statistics nat-realm

Table 63. show active-charging firewall statistics nat-realm Command Output Descriptions

Field	Description
Firewall Statistics for NAT-realm	The NAT realm name for which the statistics are displayed.
<b>Data Stats:</b>	
Total Packets Received	Total number of packets received by the NAT realm.
Total Bytes Received	Total number of bytes received by the NAT realm.
Total Packets Sent	Total number of packets sent by the NAT realm.
Total Bytes Sent	Total number of bytes sent by the NAT realm.
Total Packets Injected	Total number of packets injected by the NAT realm.
Total Bytes Injected	Total number of bytes injected by the NAT realm.
Uplink Packets Dropped	Total number of uplink packets dropped by the NAT realm.
Uplink Bytes Dropped	Total number of uplink bytes dropped by the NAT realm.
Downlink Packets Dropped	Total number of downlink packets dropped by the NAT realm.
Downlink Bytes Dropped	Total number of downlink bytes dropped by the NAT realm.
Total Malformed Packets	Total number of malformed packets detected by the NAT realm.
Total DOS Attacks	Total number of Denial-of-Service attacks detected by the NAT realm.
Total Flows Processed by NAT-realm	Total number of flows processed by the NAT realm.

## show active-charging firewall statistics verbose

Table 64. show active-charging firewall statistics verbose Command Output Descriptions

Field	Description
Firewall Statistics for Context	Name of the context.
<b>IP Stats:</b>	
Land Attacks	Total number of Land attacks detected by Stateful Firewall.
Jolt Attacks	Total number of Jolt attacks detected by Stateful Firewall.
Teardrop Attacks	Total number of Teardrop attacks detected by Stateful Firewall.
Zero Length IP Option	Total number of Zero-length IP option attacks detected by Stateful Firewall.
IP Source-router Attacks	Total number of IP Source-router attacks detected by Stateful Firewall.
Packets with IP-Unaligned-Timestamp	Total number of packets with IP unaligned timestamps detected by Stateful Firewall.
Packets with Short IP Header Length	Total number of packets with short IP header length detected by Stateful Firewall.
Packets Dropped due to IP Checksum Errors	Total number of packets dropped due to IP Checksum error.
Downlink Dropped Bytes on IP Reassembly Failure	Total number of downlink bytes dropped on IP Reassembly failure.
Uplink Dropped Bytes on IP Reassembly Failure	Total number of uplink bytes dropped on IP Reassembly failure.
<b>TCP Stats:</b>	
Data Packets Received After RST/FIN	Total number of data packets received after receiving RST (reset) request by Stateful Firewall.
Invalid SEQ Number Received with RST	Total number of invalid sequence-number received with RST (reset) request by Stateful Firewall.
Data without Connection Established	Total number of data packets received before the establishment of connection by Stateful Firewall.
Invalid TCP Connection Requests	Total number of invalid TCP connection requests received by Stateful Firewall.
Invalid TCP pre-connection Requests	Total number of invalid TCP pre-connection requests received by Stateful Firewall.
Invalid ACK Value (Cookie Enabled)	Total number of invalid ACK values (to enable cookies) received by Stateful Firewall.
Invalid TCP Packet Length	Total number of TCP packets with invalid length received by Stateful Firewall.

Field	Description
Packets with Short TCP Header Length	Total number of TCP packets with invalid/short header length received by Stateful Firewall.
Packets Dropped due to TCP Checksum Errors	Total number of packets dropped due to TCP Checksum error.
Packets with SEQ/ACK Out-of-range	Total number of packets with out of range SEQ/ACK.
TCP Null Scan Attacks	Total number of TCP Null Scan attacks detected by Stateful Firewall.
Post Connection SYN	Total number of Post Connection SYN attacks detected by Stateful Firewall.
Unable to Send SYN Packet	Total number of attempts detected by Stateful Firewall when node failed to send SYN packets.
Send Final ACK to Target Failed	Total number of attempts detected by Stateful Firewall when node failed to send Final ACK packet to target node.
Invalid TCP Packet: SYN-ACK Expected	Total number of invalid TCP packets received by Stateful Firewall in place of SYN+ACK packets.
No TCP Flags Set	Total number of TCP packets received with no flags set.
All TCP Flags Set	Total number of TCP flags received with all flags set.
Invalid TCP Packets	Total number of invalid TCP packets including all type of errors and attacks received by Stateful Firewall.
Flows Closed by RST before 3-Way Handshake	Total number flows closed by RST (reset) message before the 3-way handshaking.
Flows Timed-out in SYN_RCVD1 State	Total number of flows timed out in SYN_RCVD1 state.
Flows Timed-out in SYN_RCVD2 State	Total number of flows timed out in SYN_RCVD2 state.
Flows Terminated due to WinNuke Attack	Total number of flows terminated due to WinNuke attacks by Stateful Firewall.
TCP-SYN Flood Attacks	Total number of TCP-SYN Flood attacks detected by Stateful Firewall.
Packets Dropped on TCP-SYN Flood Attack	Total number of packets dropped by Stateful Firewall in TCP-SYN Flood attacks.
FTP-Bounce Attacks	Total number of FTP-Bounce attacks detected by Stateful Firewall.
Mime-Flood Attacks	Total number of Mime-Flood attacks detected by Stateful Firewall.
Proxy Handshakes Completed	Total number of times proxy handshake was completed.
Packets Dropped due to source port zero	Total number of packets dropped due to source port zero error.
SYN Packets Dropped due to ECE/CWR Set	Total number of SYN packets dropped due to ECE/CWR Flags Set.
<b>UDP Stats:</b>	
Invalid UDP Echo Response	Total number of invalid UDP echo responses.
Invalid UDP Packet Length	Total number of invalid UDP packet length.
Packets Dropped due to UDP Checksum Errors	Total number of packets dropped due to UDP Checksum errors.
Packets with Short UDP Header Length	Total number of packets with short UDP header length.

Field	Description
Packets Dropped on UDP Flood Attack	Total number of packets dropped by Stateful Firewall in UDP flood attacks.
Packets Dropped due to exceeding ICMP dest unreachable threshold	Total number of packets dropped due to exceeding ICMP destination unreachable threshold.
<b>ICMP Stats:</b>	
Invalid ICMP Response	Total number of invalid ICMP responses.
ICMP Reply Error	Total number of ICMP reply errors.
Invalid ICMP Type Packet	Total number of invalid ICMP type packets.
ICMP Error Message Replay Attacks	Total number of ICMP error message replay attacks detected by Stateful Firewall.
ICMP Packets with Duplicate Sequence Number	Total number of ICMP packets with duplicate sequence numbers.
Packets with Short ICMP Header Length	Total number of packets with short ICMP header length.
Packets Dropped on ICMP Flood Attack	Total number of packets dropped by Stateful Firewall in ICMP flood attacks.
Ping Of Death Attacks	Total number of Ping-of-Death attacks detected by Stateful Firewall.
Packets Dropped due to ICMP Checksum Errors	Total number of packets dropped due to ICMP Checksum error.
ICMP Packets With Destination Unreachable Message	Total number of ICMP packets with destination unreachable message.
<b>General Stats:</b>	
Packets without Any Data Received	Total number of packets received without any data.
No Matching Uplink Ruledef	Total number of uplink packets with no matching ruledef.
No Matching Downlink Ruledef	Total number of downlink packets with no matching ruledef.
Deny Ruledef Matched	Total number of times deny ruledef was matched.
Packets Dropped due to No Ruledef in Rulebase	Total number of packets dropped due to no ruledef in rulebase.
Packets Dropped due to Miscellaneous Errors	Total number of packets dropped due to miscellaneous errors.
Flows Timed-out	Total number of flows that timed out.
Flows Not Established from External Network	Total number of flows from external networks that were not established.
Max Flows Limit Reached	Total number of times the maximum flows limit was reached.
<b>Data Stats:</b>	
Total Packets Received	Total number of packets received in uplink and downlink flows.
Total Bytes Received	Total number of bytes received by Stateful Firewall.
Total Packets Sent	Total number of packets sent by Stateful Firewall.
Total Bytes Sent	Total number of bytes sent by Stateful Firewall.
Total Packets Injected	Total number of packets injected by Stateful Firewall.
Total Bytes Injected	Total number of bytes injected by Stateful Firewall.

Field	Description
Uplink Packets Dropped	Total number of packets in uplink flow dropped by Stateful Firewall.
Uplink Bytes Dropped	Total number of bytes in uplink flow dropped by Stateful Firewall.
Downlink Packets Dropped	Total number of packets in downlink flow dropped by Stateful Firewall.
Downlink Bytes Dropped	Total number of bytes in downlink flow dropped by Stateful Firewall.
Total Malformed Packets	Total number of malformed packets detected by Stateful Firewall.
Total DOS Attacks	Total number of Denial-of-Service attacks detected by Stateful Firewall.
Total Flows Processed by Firewall	Total number of flows processed by Stateful Firewall.

## show active-charging firewall statistics protocol icmp verbose

Table 65. show active-charging firewall statistics protocol icmp verbose Command Output Descriptions

Field	Description
Firewall Statistics for Protocol: ICMP	
<b>ICMP Stats</b>	
Invalid ICMP Response	Total number of invalid ICMP responses.
ICMP Reply Error	Total number of ICMP reply errors.
Invalid ICMP Type Packet	Total number of invalid ICMP type packets.
ICMP Error Message Replay Attacks	Total number of ICMP error message replay attacks detected by Stateful Firewall.
ICMP Packets with Duplicate Sequence Number	Total number of ICMP packets with duplicate sequence numbers.
Packets with Short ICMP Header Length	Total number of packets with short ICMP header length.
Invalid ICMP Packet Length	Total number of packets with invalid ICMP packet length.
Packets Dropped on ICMP Flood Attack	Total number of packets dropped by Stateful Firewall in ICMP flood attacks.
Ping Of Death Attacks	Total number of Ping-of-Death attacks detected by Stateful Firewall.
Packets Dropped due to ICMP Checksum Errors	Total number of packets dropped due to ICMP Checksum error.
ICMP Packets With Destination Unreachable Message	Total number of ICMP packets with destination unreachable message.
<b>Data Stats</b>	
Total Packets Received	Total number of packets received in uplink and downlink flows.
Total Bytes Received	Total number of bytes received by Stateful Firewall.
Total Packets Sent	Total number of packets sent by Stateful Firewall.
Total Bytes Sent	Total number of bytes sent by Stateful Firewall.
Total Packets Injected	Total number of packets injected by Stateful Firewall.
Total Bytes Injected	Total number of bytes injected by Stateful Firewall.
Uplink Packets Dropped	Total number of packets in uplink flow dropped by Stateful Firewall.
Uplink Bytes Dropped	Total number of bytes in uplink flow dropped by Stateful Firewall.
Downlink Packets Dropped	Total number of packets in downlink flow dropped by Stateful Firewall.
Downlink Bytes Dropped	Total number of bytes in downlink flow dropped by Stateful Firewall.
Total Malformed Packets	Total number of malformed packets detected by Stateful Firewall.

Field	Description
Total DOS Attacks	Total number of Denial-of-Service attacks detected by Stateful Firewall.
Total Flows Processed by Firewall	Total number of flows processed by Stateful Firewall.

## show active-charging firewall statistics protocol ip verbose

Table 66. show active-charging firewall statistics protocol ip verbose Command Output Descriptions

Field	Description
Firewall Statistics for Protocol IP in Context	Name of the context.
<b>IP Stats:</b>	
Land Attacks	Total number of Land attacks detected.
Jolt Attacks	Total number of Jolt attacks detected.
Teardrop Attacks	Total number of Teardrop attacks detected.
Zero Length IP Option	Total number of Zero-length IP Option attacks detected.
IP Source-router Attacks	Total number of IP Source-router attacks detected.
Packets with IP-Unaligned-Timestamp	Total number of packets with IP-Unaligned-Timestamp.
Packets with Short IP Header Length	Total number of packets with short IP header length.
Packets Dropped due to IP Checksum Errors	Total number of packets dropped due to checksum errors.
Downlink Dropped Bytes on IP Reassembly Failure	Total number of bytes dropped in downlink flow on IP Reassembly failure.
Uplink Dropped Bytes on IP Reassembly Failure	Total number of bytes dropped in uplink flow on IP Reassembly failure.
<b>Data Stats:</b>	
Total Packets Received	Total number of packets received by Stateful Firewall.
Total Bytes Received	Total number of bytes received by Stateful Firewall.
Total Packets Sent	Total number of packets sent by Stateful Firewall.
Total Bytes Sent	Total number of bytes sent by Stateful Firewall.
Total Packets Injected	Total number of packets injected by Stateful Firewall.
Total Bytes Injected	Total number of bytes injected by Stateful Firewall.
Uplink Packets Dropped	Total number of uplink packets dropped by Stateful Firewall.
Uplink Bytes Dropped	Total number of uplink bytes dropped by Stateful Firewall.
Downlink Packets Dropped	Total number of downlink packets dropped by Stateful Firewall.
Downlink Bytes Dropped	Total number of downlink bytes dropped by Stateful Firewall.
Total Malformed Packets	Total number of malformed packets detected by Stateful Firewall.
Total DOS Attacks	Total number of Denial-of-Service attacks detected by Stateful Firewall.
Total Flows Processed by Firewall	Total number of flows processed by Stateful Firewall.

## show active-charging firewall statistics protocol udp verbose

Table 67. show active-charging firewall statistics protocol udp verbose Command Output Descriptions

Field	Description
Firewall Statistics for Protocol: UDP	
<b>UDP Stats</b>	
Invalid UDP Echo Response	Total number of invalid UDP echo responses.
Invalid UDP Packet Length	Total number of invalid UDP packet length.
Packets Dropped due to UDP Checksum Errors	Total number of packets dropped due to UDP Checksum errors.
Packets with Short UDP Header Length	Total number of packets with short UDP header length.
Packets Dropped on UDP Flood Attack	Total number of packets dropped by Stateful Firewall in UDP flood attacks.
Packets Dropped due to exceeding ICMP dest unreachable threshold	Total number of packets dropped due to exceeding ICMP destination unreachable threshold.
<b>Data Stats</b>	
Total Packets Received	Total number of packets received in uplink and downlink flows.
Total Bytes Received	Total number of bytes received by Stateful Firewall.
Total Packets Sent	Total number of packets sent by Stateful Firewall.
Total Bytes Sent	Total number of bytes sent by Stateful Firewall.
Total Packets Injected	Total number of packets injected by Stateful Firewall.
Total Bytes Injected	Total number of bytes injected by Stateful Firewall.
Uplink Packets Dropped	Total number of packets in uplink flow dropped by Stateful Firewall.
Uplink Bytes Dropped	Total number of bytes in uplink flow dropped by Stateful Firewall.
Downlink Packets Dropped	Total number of packets in downlink flow dropped by Stateful Firewall.
Downlink Bytes Dropped	Total number of bytes in downlink flow dropped by Stateful Firewall.
Total Malformed Packets	Total number of malformed packets detected by Stateful Firewall.
Total DOS Attacks	Total number of Denial-of-Service attacks detected by Stateful Firewall.
Total Flows Processed by Firewall	Total number of flows processed by Stateful Firewall.

## show active-charging firewall statistics callid <call\_id> verbose

Table 68. show active-charging firewall statistics callid <call\_id> verbose Command Output Descriptions

Field	Description
Firewall Statistics for Callid: <call_id>	
<b>IP Stats:</b>	
Land Attacks	Total number of Land attacks detected by Stateful Firewall.
Jolt Attacks	Total number of Jolt attacks detected by Stateful Firewall.
Teardrop Attacks	Total number of Teardrop attacks detected by Stateful Firewall.
Invalid IP Option Length	Total number of Invalid IP Option Length attacks detected by Stateful Firewall.
IP Source-router Attacks	Total number of IP Source-router attacks detected by Stateful Firewall.
Packets with IP-Unaligned-Timestamp	Total number of packets with IP unaligned timestamps detected by Stateful Firewall.
Packets with Short IP Header Length	Total number of packets with short IP header length detected by Stateful Firewall.
Packets Dropped due to IP Checksum Errors	Total number of packets dropped due to IP Checksum error.
Downlink Dropped Bytes on IP Reassembly Failure	Total number of downlink bytes dropped on IP Reassembly failure.
Uplink Dropped Bytes on IP Reassembly Failure	Total number of uplink bytes dropped on IP Reassembly failure.
<b>TCP Stats:</b>	
Data Packets Received After RST/FIN	Total number of data packets received after receiving RST (reset) request by Stateful Firewall.
Invalid SEQ Number Received with RST	Total number of invalid sequence-number received with RST (reset) request by Stateful Firewall.
Data without Connection Established	Total number of data packets received before the establishment of connection by Stateful Firewall.
Invalid TCP Connection Requests	Total number of invalid TCP connection requests received by Stateful Firewall.
Invalid TCP pre-connection Requests	Total number of invalid TCP pre-connection requests received by Stateful Firewall.
Invalid ACK Value (Cookie Enabled)	Total number of invalid ACK values (to enable cookies) received by Stateful Firewall.
Invalid TCP Packet Length	Total number of TCP packets with invalid length received by Stateful Firewall.

Field	Description
Packets with Short TCP Header Length	Total number of TCP packets with invalid/short header length received by Stateful Firewall.
Packets Dropped due to TCP Checksum Errors	Total number of packets dropped due to TCP Checksum error.
Packets with SEQ/ACK Out-of-range	Total number of packets with out of range SEQ/ACK.
TCP Null Scan Attacks	Total number of TCP Null Scan attacks detected by Stateful Firewall.
Post Connection SYN	Total number of Post Connection SYN attacks detected by Stateful Firewall.
Unable to Send SYN Packet	Total number of attempts detected by Stateful Firewall when node failed to send SYN packets.
Send Final ACK to Target Failed	Total number of attempts detected by Stateful Firewall when node failed to send Final ACK packet to target node.
Invalid TCP Packet: SYN-ACK Expected	Total number of invalid TCP packets received by Stateful Firewall in place of SYN+ACK packets.
No TCP Flags Set	Total number of TCP packets received with no flags set.
All TCP Flags Set	Total number of TCP flags received with all flags set.
Invalid TCP Packets	Total number of invalid TCP packets including all type of errors and attacks received by Stateful Firewall.
Flows Closed by RST before 3-Way Handshake	Total number flows closed by RST (reset) message before the 3-way handshaking.
Flows Timed-out in SYN_RCVD1 State	Total number of flows timed out in SYN_RCVD1 state.
Flows Timed-out in SYN_RCVD2 State	Total number of flows timed out in SYN_RCVD2 state.
Flows Terminated due to WinNuke Attack	Total number of flows terminated due to WinNuke attacks by Stateful Firewall.
TCP-SYN Flood Attacks	Total number of TCP-SYN Flood attacks detected by Stateful Firewall.
Packets Dropped on TCP-SYN Flood Attack	Total number of packets dropped by Stateful Firewall in TCP-SYN Flood attacks.
FTP-Bounce Attacks	Total number of FTP-Bounce attacks detected by Stateful Firewall.
Mime-Flood Attacks	Total number of Mime-Flood attacks detected by Stateful Firewall.
Proxy Handshakes Completed	Total number of times proxy handshake was completed.
Packets Dropped during Proxy Handshake	Total number of packets dropped during proxy handshake.
<b>UDP Stats:</b>	
Invalid UDP Echo Response	Total number of invalid UDP echo responses.
Invalid UDP Packet Length	Total number of invalid UDP packet length.
Packets Dropped due to UDP Checksum Errors	Total number of packets dropped due to UDP Checksum errors.
Packets with Short UDP Header Length	Total number of packets with short UDP header length.
Packets Dropped on UDP Flood Attack	Total number of packets dropped by Stateful Firewall in UDP flood attacks.

```
■ show active-charging firewall statistics callid <call_id> verbose
```

Field	Description
Packets Dropped due to exceeding ICMP dest unreachable threshold	Total number of packets dropped due to exceeding ICMP destination unreachable threshold.
<b>ICMP Stats:</b>	
Invalid ICMP Response	Total number of invalid ICMP responses.
ICMP Reply Error	Total number of ICMP reply errors.
Invalid ICMP Type Packet	Total number of invalid ICMP type packets.
ICMP Error Message Replay Attacks	Total number of ICMP error message replay attacks detected by Stateful Firewall.
ICMP Packets with Duplicate Sequence Number	Total number of ICMP packets with duplicate sequence numbers.
Packets with Short ICMP Header Length	Total number of packets with short ICMP header length.
Invalid ICMP Packet Length	Total number of packets with invalid ICMP packet length.
Packets Dropped on ICMP Flood Attack	Total number of packets dropped by Stateful Firewall in ICMP flood attacks.
Ping Of Death Attacks	Total number of Ping-of-Death attacks detected by Stateful Firewall.
Packets Dropped due to ICMP Checksum Errors	Total number of packets dropped due to ICMP Checksum errors.
ICMP Packets With Destination Unreachable Message	Total number of ICMP packets with Destination Unreachable Message.
<b>General Stats:</b>	
Packets without Any Data Received	Total number of packets received without any data.
No Matching Uplink Ruledef	Total number of uplink packets with no matching ruledef.
No Matching Downlink Ruledef	Total number of downlink packets with no matching ruledef.
Deny Ruledef Matched	Total number of times deny ruledef was matched.
Packets Dropped due to No Ruledef in Rulebase	Total number of packets dropped due to no ruledef in rulebase.
Packets Dropped due to Miscellaneous Errors	Total number of packets dropped due to miscellaneous errors.
Flows Timed-out	Total number of flows that timed out.
Flows Not Established from External Network	Total number of flows from external networks that were not established.
Max Flows Limit Reached	Total number of times the maximum flows limit was reached.
IP Retransmitted Packets Dropped	Total number of IP retransmitted packets dropped.
<b>Data Stats:</b>	
Total Packets Received	Total number of packets received in uplink and downlink flows.
Total Bytes Received	Total number of bytes received by Stateful Firewall.
Total Packets Sent	Total number of packets sent by Stateful Firewall.
Total Bytes Sent	Total number of bytes sent by Stateful Firewall.
Total Packets Injected	Total number of packets injected by Stateful Firewall.

Field	Description
Total Bytes Injected	Total number of bytes injected by Stateful Firewall.
Uplink Packets Dropped	Total number of packets in uplink flow dropped by Stateful Firewall.
Uplink Bytes Dropped	Total number of bytes in uplink flow dropped by Stateful Firewall.
Downlink Packets Dropped	Total number of packets in downlink flow dropped by Stateful Firewall.
Downlink Bytes Dropped	Total number of bytes in downlink flow dropped by Stateful Firewall.
Total Malformed Packets	Total number of malformed packets detected by Stateful Firewall.
Total DOS Attacks	Total number of Denial-of-Service attacks detected by Stateful Firewall.
Total Flows Processed by Firewall	Total number of flows processed by Stateful Firewall.

```
show active-charging firewall statistics domainname <domain_name> verbose
```

## show active-charging firewall statistics domainname <domain\_name> verbose

Table 69. show active-charging firewall statistics domainname <domain\_name> verbose Command Output Descriptions

Field	Description
Firewall Statistics for 2 Sessions with Domain-name: <domain_name>	
<b>IP Stats:</b>	
Land Attacks	Total number of Land attacks detected by Stateful Firewall.
Jolt Attacks	Total number of Jolt attacks detected by Stateful Firewall.
Teardrop Attacks	Total number of Teardrop attacks detected by Stateful Firewall.
Invalid IP Option Length	Total number of Invalid IP Option Length attacks detected by Stateful Firewall.
IP Source-router Attacks	Total number of IP Source-router attacks detected by Stateful Firewall.
Packets with IP-Unaligned-Timestamp	Total number of packets with IP unaligned timestamps detected by Stateful Firewall.
Packets with Short IP Header Length	Total number of packets with short IP header length detected by Stateful Firewall.
Packets Dropped due to IP Checksum Errors	Total number of packets dropped due to IP Checksum error.
Downlink Dropped Bytes on IP Reassembly Failure	Total number of downlink bytes dropped on IP Reassembly failure.
Uplink Dropped Bytes on IP Reassembly Failure	Total number of uplink bytes dropped on IP Reassembly failure.
<b>TCP Stats:</b>	
Data Packets Received After RST/FIN	Total number of data packets received after receiving RST (reset) request by Stateful Firewall.
Invalid SEQ Number Received with RST	Total number of invalid sequence-number received with RST (reset) request by Stateful Firewall.
Data without Connection Established	Total number of data packets received before the establishment of connection by Stateful Firewall.
Invalid TCP Connection Requests	Total number of invalid TCP connection requests received by Stateful Firewall.
Invalid TCP pre-connection Requests	Total number of invalid TCP pre-connection requests received by Stateful Firewall.
Invalid ACK Value (Cookie Enabled)	Total number of invalid ACK values (to enable cookies) received by Stateful Firewall.

Field	Description
Invalid TCP Packet Length	Total number of TCP packets with invalid length received by Stateful Firewall.
Packets with Short TCP Header Length	Total number of TCP packets with invalid/short header length received by Stateful Firewall.
Packets Dropped due to TCP Checksum Errors	Total number of packets dropped due to TCP Checksum error.
Packets with SEQ/ACK Out-of-range	Total number of packets with out of range SEQ/ACK.
TCP Null Scan Attacks	Total number of TCP Null Scan attacks detected by Stateful Firewall.
Post Connection SYN	Total number of Post Connection SYN attacks detected by Stateful Firewall.
Unable to Send SYN Packet	Total number of attempts detected by Stateful Firewall when node failed to send SYN packets.
Send Final ACK to Target Failed	Total number of attempts detected by Stateful Firewall when node failed to send Final ACK packet to target node.
Invalid TCP Packet: SYN-ACK Expected	Total number of invalid TCP packets received by Stateful Firewall in place of SYN+ACK packets.
No TCP Flags Set	Total number of TCP packets received with no flags set.
All TCP Flags Set	Total number of TCP flags received with all flags set.
Invalid TCP Packets	Total number of invalid TCP packets including all type of errors and attacks received by Stateful Firewall.
Flows Closed by RST before 3-Way Handshake	Total number flows closed by RST (reset) message before the 3-way handshaking.
Flows Timed-out in SYN_RCVD1 State	Total number of flows timed out in SYN_RCVD1 state.
Flows Timed-out in SYN_RCVD2 State	Total number of flows timed out in SYN_RCVD2 state.
Flows Terminated due to WinNuke Attack	Total number of flows terminated due to WinNuke attacks by Stateful Firewall.
TCP-SYN Flood Attacks	Total number of TCP-SYN Flood attacks detected by Stateful Firewall.
Packets Dropped on TCP-SYN Flood Attack	Total number of packets dropped by Stateful Firewall in TCP-SYN Flood attacks.
FTP-Bounce Attacks	Total number of FTP-Bounce attacks detected by Stateful Firewall.
Mime-Flood Attacks	Total number of Mime-Flood attacks detected by Stateful Firewall.
Proxy Handshakes Completed	Total number of times proxy handshake was completed.
Packets Dropped during Proxy Handshake	Total number of packets dropped during proxy handshake.
<b>UDP Stats:</b>	
Invalid UDP Echo Response	Total number of invalid UDP echo responses.
Invalid UDP Packet Length	Total number of invalid UDP packet length.
Packets Dropped due to UDP Checksum Errors	Total number of packets dropped due to UDP Checksum errors.
Packets with Short UDP Header Length	Total number of packets with short UDP header length.

```
show active-charging firewall statistics domainname <domain_name> verbose
```

Field	Description
Packets Dropped on UDP Flood Attack	Total number of packets dropped by Stateful Firewall in UDP flood attacks.
Packets Dropped due to exceeding ICMP dest unreachable threshold	Total number of packets dropped due to exceeding ICMP destination unreachable threshold.
<b>ICMP Stats:</b>	
Invalid ICMP Response	Total number of invalid ICMP responses.
ICMP Reply Error	Total number of ICMP reply errors.
Invalid ICMP Type Packet	Total number of invalid ICMP type packets.
ICMP Error Message Replay Attacks	Total number of ICMP error message replay attacks detected by Stateful Firewall.
ICMP Packets with Duplicate Sequence Number	Total number of ICMP packets with duplicate sequence numbers.
Packets with Short ICMP Header Length	Total number of packets with short ICMP header length.
Invalid ICMP Packet Length	Total number of packets with invalid ICMP packet length.
Packets Dropped on ICMP Flood Attack	Total number of packets dropped by Stateful Firewall in ICMP flood attacks.
Ping Of Death Attacks	Total number of Ping-of-Death attacks detected by Stateful Firewall.
Packets Dropped due to ICMP Checksum Errors	Total number of packets dropped due to ICMP Checksum errors.
ICMP Packets With Destination Unreachable Message	Total number of ICMP packets with Destination Unreachable Message.
<b>General Stats:</b>	
Packets without Any Data Received	Total number of packets received without any data.
No Matching Uplink Ruledef	Total number of uplink packets with no matching ruledef.
No Matching Downlink Ruledef	Total number of downlink packets with no matching ruledef.
Deny Ruledef Matched	Total number of times deny ruledef was matched.
Packets Dropped due to No Ruledef in Rulebase	Total number of packets dropped due to no ruledef in rulebase.
Packets Dropped due to Miscellaneous Errors	Total number of packets dropped due to miscellaneous errors.
Flows Timed-out	Total number of flows that timed out.
Flows Not Established from External Network	Total number of flows from external networks that were not established.
Max Flows Limit Reached	Total number of times the maximum flows limit was reached.
IP Retransmitted Packets Dropped	Total number of IP retransmitted packets dropped.
<b>Data Stats:</b>	
Total Packets Received	Total number of packets received in uplink and downlink flows.
Total Bytes Received	Total number of bytes received by Stateful Firewall.
Total Packets Sent	Total number of packets sent by Stateful Firewall.
Total Bytes Sent	Total number of bytes sent by Stateful Firewall.

Field	Description
Total Packets Injected	Total number of packets injected by Stateful Firewall.
Total Bytes Injected	Total number of bytes injected by Stateful Firewall.
Uplink Packets Dropped	Total number of packets in uplink flow dropped by Stateful Firewall.
Uplink Bytes Dropped	Total number of bytes in uplink flow dropped by Stateful Firewall.
Downlink Packets Dropped	Total number of packets in downlink flow dropped by Stateful Firewall.
Downlink Bytes Dropped	Total number of bytes in downlink flow dropped by Stateful Firewall.
Total Malformed Packets	Total number of malformed packets detected by Stateful Firewall.
Total DOS Attacks	Total number of Denial-of-Service attacks detected by Stateful Firewall.
Total Flows Processed by Firewall	Total number of flows processed by Stateful Firewall.

■ show active-charging firewall statistics username &lt;user\_name&gt; verbose

## show active-charging firewall statistics username <user\_name> verbose

Table 70. show active-charging firewall statistics username <user\_name> verbose Command Output Descriptions

Field	Description
Firewall Statistics for Username: <user_name>	
<b>IP Stats:</b>	
Land Attacks	Total number of Land attacks detected by Stateful Firewall.
Jolt Attacks	Total number of Jolt attacks detected by Stateful Firewall.
Teardrop Attacks	Total number of Teardrop attacks detected by Stateful Firewall.
Invalid IP Option Length	Total number of Invalid IP Option Length attacks detected by Stateful Firewall.
IP Source-router Attacks	Total number of IP Source-router attacks detected by Stateful Firewall.
Packets with IP-Unaligned-Timestamp	Total number of packets with IP unaligned timestamps detected by Stateful Firewall.
Packets with Short IP Header Length	Total number of packets with short IP header length detected by Stateful Firewall.
Packets Dropped due to IP Checksum Errors	Total number of packets dropped due to IP Checksum error.
Downlink Dropped Bytes on IP Reassembly Failure	Total number of downlink bytes dropped on IP Reassembly failure.
Uplink Dropped Bytes on IP Reassembly Failure	Total number of uplink bytes dropped on IP Reassembly failure.
<b>TCP Stats:</b>	
Data Packets Received After RST/FIN	Total number of data packets received after receiving RST (reset) request by Stateful Firewall.
Invalid SEQ Number Received with RST	Total number of invalid sequence-number received with RST (reset) request by Stateful Firewall.
Data without Connection Established	Total number of data packets received before the establishment of connection by Stateful Firewall.
Invalid TCP Connection Requests	Total number of invalid TCP connection requests received by Stateful Firewall.
Invalid TCP pre-connection Requests	Total number of invalid TCP pre-connection requests received by Stateful Firewall.
Invalid ACK Value (Cookie Enabled)	Total number of invalid ACK values (to enable cookies) received by Stateful Firewall.

Field	Description
Invalid TCP Packet Length	Total number of TCP packets with invalid length received by Stateful Firewall.
Packets with Short TCP Header Length	Total number of TCP packets with invalid/short header length received by Stateful Firewall.
Packets Dropped due to TCP Checksum Errors	Total number of packets dropped due to TCP Checksum error.
Packets with SEQ/ACK Out-of-range	Total number of packets with out of range SEQ/ACK.
TCP Null Scan Attacks	Total number of TCP Null Scan attacks detected by Stateful Firewall.
Post Connection SYN	Total number of Post Connection SYN attacks detected by Stateful Firewall.
Unable to Send SYN Packet	Total number of attempts detected by Stateful Firewall when node failed to send SYN packets.
Send Final ACK to Target Failed	Total number of attempts detected by Stateful Firewall when node failed to send Final ACK packet to target node.
Invalid TCP Packet: SYN-ACK Expected	Total number of invalid TCP packets received by Stateful Firewall in place of SYN+ACK packets.
No TCP Flags Set	Total number of TCP packets received with no flags set.
All TCP Flags Set	Total number of TCP flags received with all flags set.
Invalid TCP Packets	Total number of invalid TCP packets including all type of errors and attacks received by Stateful Firewall.
Flows Closed by RST before 3-Way Handshake	Total number flows closed by RST (reset) message before the 3-way handshaking.
Flows Timed-out in SYN_RCVD1 State	Total number of flows timed out in SYN_RCVD1 state.
Flows Timed-out in SYN_RCVD2 State	Total number of flows timed out in SYN_RCVD2 state.
Flows Terminated due to WinNuke Attack	Total number of flows terminated due to WinNuke attacks by Stateful Firewall.
TCP-SYN Flood Attacks	Total number of TCP-SYN Flood attacks detected by Stateful Firewall.
Packets Dropped on TCP-SYN Flood Attack	Total number of packets dropped by Stateful Firewall in TCP-SYN Flood attacks.
FTP-Bounce Attacks	Total number of FTP-Bounce attacks detected by Stateful Firewall.
Mime-Flood Attacks	Total number of Mime-Flood attacks detected by Stateful Firewall.
Proxy Handshakes Completed	Total number of times proxy handshake was completed.
Packets Dropped during Proxy Handshake	Total number of packets dropped during proxy handshake.
<b>UDP Stats:</b>	
Invalid UDP Echo Response	Total number of invalid UDP echo responses.
Invalid UDP Packet Length	Total number of invalid UDP packet length.
Packets Dropped due to UDP Checksum Errors	Total number of packets dropped due to UDP Checksum errors.
Packets with Short UDP Header Length	Total number of packets with short UDP header length.

```
show active-charging firewall statistics username <user_name> verbose
```

Field	Description
Packets Dropped on UDP Flood Attack	Total number of packets dropped by Stateful Firewall in UDP flood attacks.
Packets Dropped due to exceeding ICMP dest unreachable threshold	Total number of packets dropped due to exceeding ICMP destination unreachable threshold.
<b>ICMP Stats:</b>	
Invalid ICMP Response	Total number of invalid ICMP responses.
ICMP Reply Error	Total number of ICMP reply errors.
Invalid ICMP Type Packet	Total number of invalid ICMP type packets.
ICMP Error Message Replay Attacks	Total number of ICMP error message replay attacks detected by Stateful Firewall.
ICMP Packets with Duplicate Sequence Number	Total number of ICMP packets with duplicate sequence numbers.
Packets with Short ICMP Header Length	Total number of packets with short ICMP header length.
Invalid ICMP Packet Length	Total number of packets with invalid ICMP packet length.
Packets Dropped on ICMP Flood Attack	Total number of packets dropped by Stateful Firewall in ICMP flood attacks.
Ping Of Death Attacks	Total number of Ping-of-Death attacks detected by Stateful Firewall.
Packets Dropped due to ICMP Checksum Errors	Total number of packets dropped due to ICMP Checksum errors.
ICMP Packets With Destination Unreachable Message	Total number of ICMP packets with Destination Unreachable Message.
<b>General Stats:</b>	
Packets without Any Data Received	Total number of packets received without any data.
No Matching Uplink Ruledef	Total number of uplink packets with no matching ruledef.
No Matching Downlink Ruledef	Total number of downlink packets with no matching ruledef.
Deny Ruledef Matched	Total number of times deny ruledef was matched.
Packets Dropped due to No Ruledef in Rulebase	Total number of packets dropped due to no ruledef in rulebase.
Packets Dropped due to Miscellaneous Errors	Total number of packets dropped due to miscellaneous errors.
Flows Timed-out	Total number of flows that timed out.
Flows Not Established from External Network	Total number of flows from external networks that were not established.
Max Flows Limit Reached	Total number of times the maximum flows limit was reached.
IP Retransmitted Packets Dropped	Total number of IP retransmitted packets dropped.
<b>Data Stats:</b>	
Total Packets Received	Total number of packets received in uplink and downlink flows.
Total Bytes Received	Total number of bytes received by Stateful Firewall.
Total Packets Sent	Total number of packets sent by Stateful Firewall.
Total Bytes Sent	Total number of bytes sent by Stateful Firewall.

Field	Description
Total Packets Injected	Total number of packets injected by Stateful Firewall.
Total Bytes Injected	Total number of bytes injected by Stateful Firewall.
Uplink Packets Dropped	Total number of packets in uplink flow dropped by Stateful Firewall.
Uplink Bytes Dropped	Total number of bytes in uplink flow dropped by Stateful Firewall.
Downlink Packets Dropped	Total number of packets in downlink flow dropped by Stateful Firewall.
Downlink Bytes Dropped	Total number of bytes in downlink flow dropped by Stateful Firewall.
Total Malformed Packets	Total number of malformed packets detected by Stateful Firewall.
Total DOS Attacks	Total number of Denial-of-Service attacks detected by Stateful Firewall.
Total Flows Processed by Firewall	Total number of flows processed by Stateful Firewall.

## show active-charging firewall track-list attacking-servers

Table 71. *show active-charging firewall track-list attacking-servers* Command Output Descriptions

Field	Description
<b>Attacking Servers:</b>	
Server IP address	IP address of server being tracked for involvement in Denial-of-Service (DOS) attacks.
Time of last attack	Date and time of last attack from the server.
Time of first attack	Date and time of first attack from the server.
Total attacks	Total number of attacks from the server.
Last Attack Type	The last DOS attack type from the server.
Total attacking servers found	Total number of attacking servers found.

## show active-charging fw-and-nat policy name

Table 72. show active-charging fw-and-nat policy name Command Output Descriptions

Field	Description
Service Name	Name of the Active Charging Service.
Firewall Policy Name	Name of the Firewall-and-NAT Policy.
Firewall Status	Indicates whether Stateful Firewall is enabled or disabled in the Firewall-and-NAT policy.
NAT Status	Indicates whether NAT is enabled or disabled in the Firewall-and-NAT policy.
<b>Firewall and NAT Action Priorities</b>	
Ruledef Name	Name of the access ruledef.
Type	Indicates the ruledef type. <ul style="list-style-type: none"> <li>• FD: Firewall Dynamic Ruledef — Predefined and disabled rules that can be enabled/disabled by the policy server.</li> <li>• FS: Firewall Static Ruledef — Predefined and enabled rules that cannot be modified by the policy server.</li> <li>• FSDP: Firewall Static &amp; Dynamic Ruledef —Predefined and enabled rules that can be enabled/disabled by the policy server.</li> </ul>
Priority	Priority of the access ruledef in the Firewall-and-NAT policy.
Charging-action	The charging action configured with the access ruledef.
Port-trigger aux-ports:direction	The auxiliary ports open for traffic, and the direction from which the auxiliary connection is initiated.
NAT-Realm	Name of the NAT realm.
<b>Firewall Configuration</b>	
<b>Dos-Protection</b>	
Source-Route	Indicates status of protection against IP Source Route IP Option attacks.
Win-Nuke	Indicates status of protection against Win Nuke attacks.
Mime-Flood	Indicates status of protection against MIME Flood attacks.
FTP-Bounce	Indicates status of protection against FTP Bounce attacks.
IP-Unaligned-Timestamp	Indicates status of protection against IP Unaligned Timestamp attacks.
TCP-Window-Containment	Indicates status of protection against TCP Window Containment.
Teardrop	Indicates status of protection against Teardrop attacks.
UDP Flooding	Indicates status of protection against UDP Flooding attacks.

■ show active-charging fw-and-nat policy name

Field	Description
ICMP Flooding	Indicates status of protection against ICMP Flooding attacks.
SYN Flooding	Indicates status of protection against SYN Flooding attacks.
Port Scan	Indicates status of protection against Port Scan attacks.
<b>Max-Packet-Size</b>	
ICMP	For ICMP protocol, the maximum IP packet size (after IP reassembly) allowed over Stateful Firewall.
Non-ICMP	For non-ICMP protocol, the maximum IP packet size (after IP reassembly) allowed over Stateful Firewall.
<b>Flooding</b>	
ICMP limit	The maximum number of ICMP packets allowed during a sampling interval.
UDP limit	The maximum number of UDP packets allowed during a sampling interval.
TCP-SYN limit	The maximum number of TCP-SYN packets allowed during a sampling interval.
Sampling Interval	The flooding sampling interval, in seconds.
<b>TCP-SYN Flood Intercept</b>	
Mode	The TCP SYN flood intercept mode. <ul style="list-style-type: none"> <li>• none</li> <li>• intercept</li> <li>• watch</li> </ul>
Watch-timeout	The TCP intercept watch timeout, in seconds.
<b>Mime-Flood Params</b>	
HTTP Header-Limit	The maximum number of headers allowed in an HTTP packet.
HTTP Max-Header-Field-Size	The maximum header field size allowed in an HTTP header, in bytes.
<b>No Firewall Ruledef Match Action</b>	
Uplink Action	Action configured for uplink packets with no access ruledef matches.
Uplink Charging-Action	Charging action configured for uplink packets with no access ruledef matches.
Downlink Action	Action configured for downlink packets with no access ruledef matches.
Downlink Charging-Action	Charging action configured for downlink packets with no access ruledef matches.
ICMP Dest-Unreachable Threshold	Indicates whether a threshold limit is set on the number of ICMP error messages sent by the subscriber for a particular data flow.
ICMP Dest-Unreachable Threshold Value	The threshold value set for the number of ICMP error messages sent by the subscriber for a particular data flow.
Action upon receiving TCP SYN packet with ECN/CWR Flag set	Indicates the action to be taken on receiving a TCP SYN packet with ECN/CWR Flag set.
Action upon receiving a malformed packet	Indicates the action to be taken on receiving a malformed packet.

Field	Description
Action upon IP Reassembly Failure	Indicates the action to be taken on IP reassembly failure.
Action upon receiving an IP packet with invalid Options	Indicates the action to be taken on receiving an IP packet with invalid options.
Action upon receiving a TCP packet with invalid Options	Indicates the action to be taken on receiving a TCP packet with invalid options.
Action upon receiving an ICMP packet with invalid Checksum	Indicates the action to be taken on receiving an ICMP packet with invalid checksum.
Action upon receiving a TCP packet with invalid Checksum	Indicates the action to be taken on receiving a TCP packet with invalid checksum.
Action upon receiving an UDP packet with invalid Checksum	Indicates the action to be taken on receiving a UDP packet with invalid checksum.
TCP Stateful Checks	Indicates whether stateful checks for TCP is enabled or disabled.
First Packet Non-SYN Action	Indicates the action to be taken on flows with first packet Non-SYN.
ICMP Stateful Checks	Indicates whether Stateful checks for ICMP is enabled or disabled.
<b>NAT Configuration</b>	
NBR Format	Displays the NAT Binding Record format.
Private IP NPU Flow Timeout	The time period for private IP NPU Flow, in seconds.
Suppress sending NAT bind update to AAA	Indicates if the NAT bind update sent to AAA is suppressed or not.

## show active-charging flows full

For a TCP flow.

**Table 73. show active-charging flows full Command Output Descriptions**

Field	Description
Flow-ID	Identifier for flows.
Session-ID	Identifier for ACS session.
Uplink Packets	Total number of packets uplinked.
Uplink Bytes	Total number of bytes uplinked.
Downlink Packets	Total number of packets downlinked.
Downlink Bytes	Total number of bytes downlinked.
MS IP	The MS IP address.
MS NAT IP	The MS NAT IP address.
Server IP	The server IP address.
Transport Protocol	The transport protocol: TCP, UDP, ICMP
Application Protocol	The application protocol.
TCP MS Port	The TCP MS port number.
TCP MS NAT Port	The TCP MS NAT port number. This field is not displayed for one-to-one NAT.
TCP Server Port	The TCP server port number.
TCP State	Indicates the TCP state.
TCP Prev State	Indicates the previous TCP state.
MS Window Size	The mobile window size.
Server Window Size	The server window size.
MS Retries	Total number of mobile subscriber retries.
Server Retries	Total number of server retries.
ITC Action Applied	Indicates the ITC action applied.
<b>Buffering Statistics:</b>	
Buffered Uplink Packets	Total buffered uplink packets.
Buffered Uplink Bytes	Total buffered uplink bytes.
Buffered Downlink Packets	Total buffered downlink packets.

Field	Description
Buffered Downlink Bytes	Total buffered downlink bytes.
Uplink Packets in Buffer	Total uplink packets in the buffer.
Uplink Bytes in Buffer	Total uplink bytes in the buffer.
Downlink Packets in Buffer	Total downlink packets in the buffer.
Downlink Bytes in Buffer	Total downlink bytes in the buffer.
Buff Over-limit Uplink Pkts	Total number of uplink packets that are over the limit in the buffer.
Buff Over-limit Uplink Bytes	Total number of uplink bytes that are over the limit in the buffer.
Buff Over-limit Downlink Pkts	Total number of downlink packets that are over the limit in the buffer.
Buff Over-limit Downlink Bytes	Total number of downlink bytes that are over the limit in the buffer.

## show active-charging flows full type p2p

Table 74. show active-charging flows full type p2p Command Output Descriptions

Field	Description
Flow-ID	Identifier for flows.
Session-ID	Identifier for Active Charging session with P2P.
Uplink Packets	Total packets uplinked .
Downlink Packets	Total packets downlinked.
Uplink Bytes	Total bytes uplinked .
Downlink Bytes	Total bytes downlinked.
Transport Protocol	The protocol used for data transport.
Application Protocol	The type of application protocol used for this session.
UDP Client Port	UDP port on client communication.
UDP Server Port	UDP port on server for communication.
ITC Action Applied	Status of Intelligent Traffic Control (ITC) on this session traffic.

## show active-charging flows type p2p

Table 75. show active-charging flows type p2p Command Output Descriptions

Field	Description
Flow-ID	Identifier for Flows.
Session-ID	Identifier for Active Charging session with P2P.
Flow-num	Identifies the flow number.
Application Protocol (VV)	<p>The protocol used for application. Supported application protocols are:</p> <ul style="list-style-type: none"> <li>• HT - HTTP</li> <li>• HS - HTTPS</li> <li>• SM - SMTP</li> <li>• P3 - POP3</li> <li>• WT - WTP</li> <li>• WS - WSP</li> <li>• DN - DNS</li> <li>• RT - RTP</li> <li>• EM - EMAIL</li> <li>• MM - MMS</li> <li>• FT - FTP</li> <li>• SI - SIP</li> <li>• WW - WWW</li> <li>• RS - RTSP</li> <li>• IM - IMAP</li> <li>• P2 - P2P</li> <li>• WC - WSP Connection Oriented</li> <li>• WX - WSP Connection-less</li> <li>• XX - Unknown</li> </ul>
Transport Protocol (v)	<p>The protocol used for data transport. Supported data transport protocols are:</p> <ul style="list-style-type: none"> <li>• T - TCP</li> <li>• U - UDP</li> <li>• I - ICMP</li> <li>• X - Unknown</li> </ul>

Field	Description
Bytes-Up	Total bytes uplinked .
Bytes-Down	Total bytes downlinked.
Packets-Up	Total packets uplinked .
Packets-Down	Total packets downlinked.
Uplink Bytes	Total bytes uplinked .
Downlink Bytes	Total bytes downlinked.
Transport Protocol	The protocol used for data transport.
Application Protocol	The type of application protocol used for this session.
UDP Client Port	UDP port on client communication.
UDP Server Port	UDP port on server for communication.
ITC Action Applied	Status of intelligent traffic control (ITC) on this session traffic.

## show active-charging group-of-ruledefs name

Table 76. *show active-charging group-of-ruledefs name* Command Output Descriptions

Field	Description
Service Name	The service in which the specified group-of-ruledefs is configured.
Group-of-Ruledefs Name	Name of the group-of-ruledefs.
Ruledef Name	Names of the ruledefs added to the group-of-ruledefs.
Priority	The priorities configured for each of the ruledefs in the group-of-ruledefs.
Total group(s)-of-ruledefs found	The total number of group(s)-of-ruledefs matching the specified criteria.

## show active-charging nat statistics

Table 77. show active-charging nat statistics Command Output Descriptions

Field	Description
<b>NAT Realm Utilization:</b>	
Realm Name	Name of the NAT realm.
Context	Context in which the NAT realm is configured.
Current IP Address-In-Use	The number of IP addresses from the NAT realm currently in use.
Total IP Address	The total number of IP addresses for the NAT realm.
Current Calls Using-Realm	The number of current calls using the NAT realm.
Current Port-Chunks Available	The number of port chunks currently available.
Current Port-Chunks-In-Use	The number of port chunks currently in use.
Total Port-Chunks	The total number of port chunks for the NAT realm.
<b>Statistics:</b>	
Total AAA alloc msgs sent	The total number of AAA allocation messages sent.
Total AAA dealloc msgs sent	The total number of AAA deallocation messages sent.
Total flows denied IP	The total number of subscriber flows that were denied NAT IP address.
Total flows denied port	The total number of subscriber flows that were denied a port.
Total bytes Transferred	The total number of bytes transferred.
Total flows processed	The total number of flows processed.

## show active-charging p2p-dynamic-rules verbose

Table 78. *show active-charging p2p-dynamic-rules verbose* Command Output Descriptions

Field	Description
Version	The signature file's version number.
Description	Description of the signature file.
Sessions	Number of subscribers using the signature file.
Status	Indicates whether the signature file is active or inactive.
Rule Count	Total number of rules in the signature file.
Protocol	Number of protocols for which rules are available.
Hooks	Number of hooks instrumented in the signature file. For debugging purpose.
Flow Spec	Number of flow descriptions across all hooks. For debugging purpose.
Stage	Number of stages. For debugging purpose.
Rules	Number of rules. For debugging purpose.

# show active-charging rulebase name

Table 79. show active-charging rulebase name Command Output Descriptions

Field	Description
Service Name	Name of the Active Charging Service.
Rule Base Name	Name of the rulebase.
<b>Charging Action Priorities</b>	
Name	Name of the charging ruledef / group-of-ruledefs.
Type	The ruledef / group-of-ruledefs type. <ul style="list-style-type: none"> <li>• RD: Dynamic ruledef</li> <li>• RS: Static ruledef</li> <li>• RSD: Static and dynamic ruledef</li> <li>• GD: Dynamic group-of-ruledefs</li> <li>• GS: Static group-of-ruledefs</li> <li>• GSD: Static and dynamic group-of-ruledefs</li> </ul>
Priority	Priority of the ruledef / group-of-ruledefs in the rulebase.
Charging-action	The charging action configured with the ruledef / group-of-ruledefs.
Timedef	The time definition configured with the ruledef / group-of-ruledefs.
Description	Description of the charging ruledef / group-of-ruledefs configuration.
<b>Post-processing Action Priorities</b>	
Name	Name of the Post-processing ruledef.
Type	The Post-processing ruledef type.
Priority	Priority of the Post-processing ruledef in the rulebase.
Charging-action	The charging action configured.
Description	Description of the Post-processing ruledef configuration.
<b>Routing Action Priorities</b>	
Ruledef Name	Name of the routing action ruledef.
Priority	Priority of the routing action ruledef in the rulebase.
Analyzer	Name of the applicable analyzer to routing action ruledef.
Description	Description of the routing ruledef configuration.
<b>Firewall Action Priorities</b>	
Ruledef Name	Name of the Stateful Firewall ruledef.

Field	Description
Type	Indicates the Stateful Firewall ruledef type. <ul style="list-style-type: none"> <li>• FD: Firewall Dynamic Ruledef—Predefined and disabled Stateful Firewall rules that can be enabled/disabled by the policy server.</li> <li>• FS: Firewall Static Ruledef—Predefined and enabled Stateful Firewall rules that cannot be modified by the policy server.</li> <li>• FSDP: Firewall Static &amp; Dynamic Ruledef—Predefined and enabled Stateful Firewall rules that can be disabled/enabled by the policy server.</li> </ul>
Priority	Priority of the Stateful Firewall ruledef in the rulebase.
Charging-action	The charging action configured.
Port-trigger aux-ports:direction	The auxiliary ports open for traffic, and the direction from which the auxiliary connection is initiated.
<b>EGCDR Fields</b>	
Tariff Time thresholds (min:hrs)	Threshold for tariff in minutes and hours.
Internal Threshold	Internal threshold to generate eG-CDRs in seconds.
Uplink Octets	Total number of octets uplinked.
Downlink Octets	Total number of octets downlinked.
Total Octets	Total number of octets uplinked and downlinked.
Time Based Metering	Status of time based metering.
Content Filtering Group	Status of Content Filtering Server Group support for offline content filtering server (ICAP) support.
Content Filtering Flow Any Error	Indicates whether Content Filtering packets are allowed/discarded in case of ACS error scenarios. This field is displayed only if either the Content Filtering mode or, ICAP server-group is configured.
Content Filtering Policy	The Content Filtering policy.
Content Filtering Mode	Indicates the Content Filtering mode. <ul style="list-style-type: none"> <li>• Static</li> <li>• Static-and-dynamic</li> </ul>
URL-Blacklisting Action	Indicates action to be taken on URL Blacklisting match.
<b>UDR Fields</b>	
Tariff Time thresholds (min:hrs)	Threshold for tariff, in minutes and hours.
Internal Threshold	Internal threshold to generate UDRs, in seconds.
Uplink Octets	Total number of octets uplinked.
Downlink Octets	Total number of octets downlinked.
Total Octets	Total number of octets uplinked and downlinked.

■ show active-charging rulebase name

Field	Description
<b>CCA Fields</b>	Information regarding Credit Control Application for prepaid charging.
RADIUS charging context	Name of the RADIUS charging context.
RADIUS Charging Group	Name of RADIUS charging server group.
RADIUS interim interval	Interim interval for RADIUS charging generation.
DIAMETER Requested Service Unit	Information regarding requested service unit for prepaid charging through Diameter.
Uplink Octets	Total number of octets uplinked in Diameter charging.
Downlink Octets	Total number of octets downlinked in Diameter charging.
Total Octets	Total number of octets uplinked and downlinked in Diameter charging.
Quota Retry Time	Duration set to retry for prepaid credit limit.
Quota Holding Time (QHT)	Status of quota holding time configuration.
Quota Time Duration Algorithms	Applicable algorithm for quota time duration.
Flow End Condition	Status of flow end condition configuration.
Handoff	Indicates whether EDRs are generated for handoffs.
Timeout	Indicates whether EDRs are generated for timeouts.
Normal-end-signaling	Indicates whether EDRs are generated for normal end signaling.
Session-end	Indicates whether EDRs are generated for session ends.
Hagr	Indicates whether EDRs are generated for HAGR.
Content-Filtering	Indicates whether EDRs are generated for Content Filtering.
edr-format	Name of the EDR format.
Flow Any Error Charging Action	Indicates the charging action configured for accounting action on packets dropped by Firewall due to any error. If disabled, no accounting is performed on such packets.
Billing Records	Status of billing record generation.
Limit For Total Flows	Status of flow limit setting across all applications.
Limit For TCP Flows	Status of TCP flow limit setting.
Limit For Non-TCP Flows	Status of non-TCP flow limit setting.
Charging Rule Optimization	Type of optimization rule setting for charging.
<b>Firewall Configuration</b>	
<b>Dos-Protection</b>	
Source-Route	Indicates status of protection against IP Source Route IP Option attacks.
Win-Nuke	Indicates status of protection against Win Nuke attacks.
Mime-Flood	Indicates status of protection against MIME Flood attacks.

Field	Description
FTP-Bounce	Indicates status of protection against FTP Bounce attacks.
IP-Unaligned-Timestamp	Indicates status of protection against IP Unaligned Timestamp attacks.
Seq-Number-Prediction	Indicates status of protection against Sequence Number Prediction attacks.
TCP-Window-Containment	Indicates status of protection against TCP Window Containment.
Teardrop	Indicates status of protection against Teardrop attacks.
UDP Flooding	Indicates status of protection against UDP Flooding attacks.
ICMP Flooding	Indicates status of protection against ICMP Flooding attacks.
SYN Flooding	Indicates status of protection against SYN Flooding attacks.
Port Scan	Indicates status of protection against Port Scan attacks.
<b>Max-Packet-Size</b>	
ICMP	For ICMP protocol, the maximum IP packet size (after IP reassembly) allowed over Stateful Firewall.
Non-ICMP	For non-ICMP protocol, the maximum IP packet size (after IP reassembly) allowed over Stateful Firewall.
<b>Flooding</b>	
ICMP limit	The maximum number of ICMP packets allowed during a sampling interval.
UDP limit	The maximum number of UDP packets allowed during a sampling interval.
TCP-SYN limit	The maximum number of TCP-SYN packets allowed during a sampling interval.
Sampling Interval	The flooding sampling interval, in seconds.
<b>TCP-SYN Flood Intercept</b>	
Mode	The TCP SYN flood intercept mode. <ul style="list-style-type: none"> <li>• none</li> <li>• intercept</li> <li>• watch</li> </ul>
Max-Attempts	The maximum number of attempts for sending proxy SYN to the target.
Retrans-timeout	The SYN-Proxy retransmit timeout, in seconds.
Watch-timeout	The TCP intercept watch timeout, in seconds.
<b>Mime-Flood Params</b>	
HTTP Header-Limit	The maximum number of headers allowed in an HTTP packet.
HTTP Max-Header-Field-Size	The maximum header field size allowed in an HTTP header, in bytes.
<b>No Firewall Ruledef Match Action</b>	
Uplink Action	Action configured for uplink packets with no Stateful Firewall ruledef matches.

■ show active-charging rulebase name

Field	Description
Uplink Charging-Action	Charging action configured for uplink packets with no Stateful Firewall ruledef matches.
Downlink Action	Action configured for downlink packets with no Stateful Firewall ruledef matches.
Downlink Charging-Action	Charging action configured for downlink packets with no Stateful Firewall ruledef matches.
ICMP Dest-Unreachable Threshold	Indicates whether a threshold limit is set on the number of ICMP error messages sent by the subscriber for a particular data flow.
ICMP Dest-Unreachable Threshold Value	The threshold value set for the number of ICMP error messages sent by the subscriber for a particular data flow.
QoS Renegotiation Timeout	The timeout setting for the Quality of Service (QoS) Renegotiation feature.
EDR Suppress zero byte records	Indicates whether EDR suppression of zero byte records is enabled.
EDR Timestamp Rounding	Type of timestamp rounding set for Event Detail Records.
EGCDR Timestamp Rounding	Type of timestamp rounding set for eG-CDRs.
RTP Dynamic Routing	Status of RTP dynamic routing configuration.
Ignore port no. in application headers	Status of ignoring port numbers in application headers.
Delayed Charging	Status of charging configuration to exclude initial handshaking TCP packets from charging.
IP Reassembly-Timeout	IP reassembly timeout period in milliseconds.
IP Reset ToS field	Status of IP Reset ToS field.
TCP Out-of-Order-Timeout	TCP out-of-order timeout period in milliseconds.
TCP 2MSL Timeout	TCP 2MSL timeout period in seconds.
WTP Out-of-Order-Timeout	WTP out-of-order timeout period in milliseconds.
TCP transmit-out-of-order-packets	Status of transmitting TCP out-of-order packets.
Verify TCP checksum	Status of verifying TCP checksum errors.
Verify UDP checksum	Status of verifying UDP checksum errors.
P2P Dynamic Routing	Status of P2P dynamic routing.
Total rulebase(s) found	Total number of rulebases matching the criteria.

## show active-charging rulebase statistics

Table 80. show active-charging rulebase statistics Command Output Descriptions

Field	Description
Service Name	Name of the Active Charging Service.
Rulebase Name	Name of the rulebase.
Uplink Pkts	Total number of packets uplinked.
Uplink Bytes	Total number of bytes uplinked.
Downlink Pkts	Total number of packets downlinked.
Downlink Bytes	Total number of bytes downlinked.
Readdressed Upl Pkts	Total number of readdressed uplinked packets.
Readdressed Upl Bytes	Total number of readdressed uplinked bytes.
Readdressed Dnl Pkts	Total number of readdressed downlinked packets.
Readdressed Dnl Bytes	Total number of readdressed downlinked bytes.
TCP MSS Inserted Pkts	Total number of TCP Maximum Segment Size (MSS) inserted packets.
TCP MSS Limited Pkts	Total number of TCP MSS limited packets.
ITC Terminated Flows	Total number of ITC terminated flows.
Total PP Dropped Packets	Total number of packets dropped.
Total PP Dropped Packet Bytes	Total number of bytes dropped.
<b>R7Gx Rule-Matching Failure Stats:</b>	
Total Dropped Packets	Total number of packets dropped by R7Gx due to rule matching failure, for the rulebase.
Total Dropped Packet Bytes	Total number of bytes dropped by R7Gx due to rule matching failure, for the rulebase.
<b>EDRs</b>	
Total EDRs generated	Total number of EDRs generated.
EDRs generated for handoff	Total number of EDRs generated for handoffs.
EDRs generated for timeout	Total number of EDRs generated for timeouts.
EDRs generated for normal-end-signaling	Total number of EDRs generated for normal end signalling.
EDRs generated for session end	Total number of EDRs generated for session ending.
EDRs generated for rule match	Total number of EDRs generated for rule matches.
EDRs generated for hagr	Total number of EDRs generated for HAGR.

Field	Description
EDRs generated for flow-end content-filtering	Total number of EDRs generated for flow-end content filtering.
EDRs generated for content-filtering	Total number of EDRs generated for Category-based Content Filtering.
EDRs generated for url-blacklisting	Total number of EDRs generated for URL Blacklisting.
EDRs generated for any-error packets	Total number of EDRs generated for any-error packets.
EDRs generated for firewall deny rule match	Total number of EDRs generated for firewall deny rule match.
EDRs generated for transaction completion	Total number of EDRs generated for completion of transactions.
EDRs generated for voip call end	Total number of EDRs generated on completion of voice calls.
<b>UDRs</b>	
Total UDRs generated	Total number of UDRs generated.
UDRs generated for handoff	Total number of UDRs generated for handoffs.
UDRs generated for time limit	Total number of UDRs generated for time limits.
UDRs generated for volume limit	Total number of UDRs generated for volume limits.
UDRs generated for call end	Total number of UDRs generated for call endings.
UDRs generated for hagr	Total number of UDRs generated for HAGR.
<b>GCDRs</b>	
Total EGCDRs generated	Total number of eG-CDRs generated.
GCDRs for Normal Release	Total number of G-CDRs generated for normal releases.
GCDRs for Abnormal Release	Total number of G-CDRs generated for abnormal releases.
GCDRs for Volume Limit	Total number of G-CDRs generated for volume limits.
GCDRs for Time Limit	Total number of G-CDRs generated for time limits.
GCDRs for SGSN Change	Total number of G-CDRs generated for SGSN change.
GCDRs for Max Change Cond	Total number of G-CDRs generated for maximum change condition.
GCDRs for Mgmt Intervention	Total number of G-CDRs generated for management interventions.
GCDRs for RAT Change	Total number of G-CDRs generated for RAT changes.
GCDRs for MS Timezone Change	Total number of G-CDRs generated for MS timezone changes.
GCDRs for SGSN PLMN ID Change	Total number of G-CDRs generated for SGSN PLMN ID changes.
PGWCDRs for Normal Release	Total number of PGW-CDRs generated for normal releases.
PGWCDRs for Abnormal Release	Total number of PGW-CDRs generated for abnormal releases.
PGWCDRs for Volume Limit	Total number of PGW-CDRs generated for volume limits.
PGWCDRs for Time Limit	Total number of PGW-CDRs generated for time limits.
PGWCDRs for ServingNode Change	Total number of PGW-CDRs generated for Serving Node change.

Field	Description
PGWCDRs for Max Change Cond	Total number of PGW-CDRs generated for maximum change condition.
PGWCDRs for Mgmt Intervention	Total number of PGW-CDRs generated for management interventions.
PGWCDRs for RAT Change	Total number of PGW-CDRs generated for RAT changes.
PGWCDRs for MS Timezone Change	Total number of PGW-CDRs generated for MS timezone changes.
PGWCDRs for SGSN PLMN ID Change	Total number of PGW-CDRs generated for SGSN PLMN ID changes.
<b>NBRs</b>	NAT Binding Record (NBR) statistics. These fields are displayed, only if configured, in StarOS 8.3 and later releases.
Total NBRs generated	Total number of NBRs generated.
NBRs generated for port chunk allocation	Total number of NBRs generated for port chunk allocation.
NBRs generated for port chunk release	Total number of NBRs generated for port chunk release.
Total rulebases matched	The total number of rulebases that matched the specified criteria.

## show active-charging rulebase statistics name

Table 81. show active-charging rulebase statistics name Command Output Descriptions

Field	Description
Service Name	Name of the Active Charging Service.
Rulebase Name	Name of the rulebase.
Uplink Pkts	Total number of packets uplinked.
Uplink Bytes	Total number of bytes uplinked.
Downlink Pkts	Total number of packets downlinked.
Downlink Bytes	Total number of bytes downlinked.
Readdressed Upl Pkts	Total number of readdressed uplink packets.
Readdressed Upl Bytes	Total number of readdressed uplink bytes.
Readdressed Dnl Pkts	Total number of readdressed downlink packets.
Readdressed Dnl Bytes	Total number of readdressed downlink bytes.
TCP MSS Inserted Pkts	Total number of Maximum Segment Size (MSS) inserted packets.
TCP MSS Limited Pkts	Total number of MSS limited packets.
ITC Terminated Flows	Total number of flows terminated by Intelligent Traffic Control service.
Total PP Dropped Packets	Total number of packets dropped.
Total PP Dropped Packet Bytes	Total number of bytes dropped.
<b>R7Gx Rule-Matching Failure Stats:</b>	
Total Dropped Packets	Total number of packets dropped by R7Gx due to rule matching failure, for the rulebase.
Total Dropped Packet Bytes	Total number of bytes dropped by R7Gx due to rule matching failure, for the rulebase.
<b>EDRs:</b>	
Total EDRs generated	Total number of EDRs generated.
EDRs generated for handoff	Total number of EDRs generated for handoffs.
EDRs generated for timeout	Total number of EDRs generated for timeouts.
EDRs generated for normal-end-signaling	Total number of EDRs generated for normal end signaling.
EDRs generated for session end	Total number of EDRs generated for session ends.
EDRs generated for rule match	Total number of EDRs generated for rule matches.
EDRs generated for hagr	Total number of EDRs generated for HAGR.

Field	Description
EDRs generated for flow-end content-filtering	Total number of EDRs generated for flow-end content filtering.
EDRs generated for content-filtering	Total number of EDRs generated for content filtering.
EDRs generated for any-error packets	Total number of EDRs generated for packets dropped by Firewall due to any error.
EDRs generated for firewall deny rule match	Total number of EDRs generated for firewall deny rule matches.
<b>UDRs:</b>	
Total UDRs generated	Total number of UDRs generated.
UDRs generated for handoff	Total number of UDRs generated for handoffs.
UDRs generated for time limit	Total number of UDRs generated for time limits.
UDRs generated for volume limit	Total number of UDRs generated for volume limits.
UDRs generated for call end	Total number of UDRs generated for call ends.
UDRs generated for hagr	Total number of UDRs generated for HAGR.
<b>GCDRs:</b>	
Total EGCDRs generated	Total number of eG-CDRs generated.
GCDRs for Normal Release	Total number of G-CDRs generated for normal releases.
GCDRs for Abnormal Release	Total number of G-CDRs generated for abnormal releases.
GCDRs for Volume Limit	Total number of G-CDRs generated for volume limits.
GCDRs for Time Limit	Total number of G-CDRs generated for time limits.
GCDRs for SGSN Change	Total number of G-CDRs generated for SGSN changes.
GCDRs for Max Change Cond	Total number of G-CDRs generated for maximum change condition.
GCDRs for Mgmt Intervention	Total number of G-CDRs generated for management interventions.
GCDRs for RAT Change	Total number of G-CDRs generated for RAT changes.
GCDRs for MS Timezone Change	Total number of G-CDRs generated for MS timezone changes.
GCDRs for SGSN PLMN ID Change	Total number of G-CDRs generated for SGSN PLMN ID changes.
Total rulebases matched	Total number of rulebases that matched the specified criteria.

## show active-charging ruledef firewall

Table 82. *show active-charging ruledef firewall* Command Output Descriptions

Field	Description
Service Name	Name of the Active Charging Service.
Ruledef Name	Name of the ruledef.
tcp dst-port	The TCP destination port number.
tcp src-port	The TCP source port number.
udp dst-port	The UDP destination port number.
udp src-port	The TCP source port number.
ip any-match	Indicates whether the ruledef analyzes user traffic based on IP analyzed state—true/false.
Rule Application Type	The rule application type—firewall.
Create-log-record	Indicates whether logging is enabled or disabled.
Total ruledef(s) configured	Total number of Stateful Firewall ruledefs configured.

## show active-charging ruledef statistics

Table 83. show active-charging ruledef statistics Command Output Descriptions

Field	Description
Total Charging Ruledefs	Total number of charging ruledefs configured.
Uplink Packets	Total number of packets received in uplink flow.
Uplink Bytes	Total number of bytes received in uplink flow.
Downlink Packets	Total number of packets received in downlink flow.
Downlink Bytes	Total number of bytes received in downlink flow.
Hits	Total number of events.
Total Post-processing Ruledefs	Total number of post-processing ruledefs configured.
Uplink Packets	Total number of packets received in uplink flow.
Uplink Bytes	Total number of bytes received in uplink flow.
Downlink Packets	Total number of packets received in downlink flow.
Downlink Bytes	Total number of bytes received in downlink flow.
Hits	Total number of events.
Total Firewall Ruledefs	Total number of Stateful Firewall ruledefs configured.
Uplink Packets	Total number of packets received in uplink flow.
Uplink Bytes	Total number of bytes received in uplink flow.
Downlink Packets	Total number of packets received in downlink flow.
Downlink Bytes	Total number of bytes received in downlink flow.
Uplink Packets Dropped	Total number of packets dropped in uplink flow.
Uplink Bytes Dropped	Total number of bytes dropped in uplink flow.
Downlink Packets Dropped	Total number of packets dropped in downlink flow.
Downlink Bytes Dropped	Total number of bytes dropped in downlink flow.
Hits	Total number of events.

## show active-charging ruledef statistics all firewall wide

Table 84. show active-charging ruledef statistics all firewall wide Command Output Descriptions

Field	Description
Ruledef Name	Name of the Stateful Firewall ruledef.
Packets-Down	Total number of packets downlinked.
Bytes-Down	Total number of bytes downlinked.
Packets-Up	Total number of packets uplinked.
Bytes-Up	Total number of bytes uplinked.
Pkts-Drop-Dn	Total number of downlink packets dropped.
Bytes-Drop-Dn	Total number of downlink bytes dropped.
Pkts-Drop-Up	Total number of uplink packets dropped.
Bytes-Drop-Up	Total number of uplink bytes dropped.
Hits	Total number of events.
Total Ruledef(s)	Total number of ruledefs.

## show active-charging ruledef statistics all charging

Table 85. show active-charging ruledef statistics all charging Command Output Descriptions

Field	Description
Ruledef Name	Name of the charging ruledef.
Packets-Down	Total number of packets downlinked.
Bytes-Down	Total number of bytes downlinked.
Packets-Up	Total number of packets uplinked.
Bytes-Up	Total number of bytes uplinked.
Hits	Total number of events.
Total Ruledef(s)	Total number of charging ruledefs.

## show active-charging service all

Table 86. show active-charging service all Command Output Descriptions

Field	Description
Service name	Name of the Active Charging Service.
TCP Flow Idle Timeout	TCP flow idle timeout period, in seconds.
UDP Flow Idle Timeout	UDP flow idle timeout period, in seconds.
ICMP Flow Idle Timeout	ICMP flow idle timeout period, in seconds.
Deep Packet Inspection	Indicates whether Deep Packet Inspection is enabled.
Passive Mode	Indicates whether Passive Mode is enabled.
CDR Flow Control	Indicates whether CDR Flow Control is enabled.
Content Filtering	Indicates whether Category-based Content Filtering is enabled.
Dynamic Content Filtering	Indicates whether Dynamic Content Filtering is enabled.
URL-Blacklisting	Indicates whether URL Blacklisting is enabled.
URL-Blacklisting Match-method	Indicates the URL Blacklisting method to look up URLs in the URL Blacklisting database.
Content Filtering Match-method	Indicates the match method to look up URLs in the category-based content filtering database.
<b>Credit Control:</b>	
Mode	Indicates the pre-paid charging application mode—Diameter or RADIUS.
APN-name-to-be-included	Indicates the APN name to be sent in CCA messages.
Failure-Handling	Indicates the failure handling behavior in the event of a communication failure with the pre-paid server.
Trigger-Type	Indicates the credit control reauthorization trigger type.
<b>Diameter:</b>	
Endpoint	Name of the Diameter endpoint.
Endpoint-Realm	Realm of the Diameter endpoint.
Dictionary	The Diameter dictionary used for Credit Control.
Session-Failover	Indicates whether Session Failover is supported.
Pending-Timeout	Indicates the pending timeout period, in seconds.
<b>Peer-Select:</b>	

Field	Description
Peer	Name of the peer.
Realm	Indicates realm for the peer.
Secondary-Peer	Name of the secondary peer.
Realm	Indicates realm for the secondary peer.
IMSI-Based Start-Value	To select the peer based on the International Mobile Subscriber Identification (IMSI) number, specifies the start of range in integer value of IMSI.
IMSI-Based End-Value	The end of range in integer value of IMSI.
<b>Quota</b>	
Request-Trigger	Indicates the trigger action on packets on crossing the threshold limit of subscriber quota in the pre-paid credit control service.
Holding-Time	Indicates the Quota Holding Time (QHT).
Validity-Time	Indicates the validity lifetime of the quota in seconds.
Time-Threshold	Indicates the time threshold for pre-paid credit control quota.
Units-Threshold	Indicates the units threshold for DCCA quota in percentage.
Volume-Threshold	Indicates the volume threshold for pre-paid credit control quota.
<b>Pending-Traffic-Treatment</b>	
trigger	Indicates the trigger status.
forced-reauth	Indicates status of the Diameter credit control pending traffic treatment for forced reauthorization.
no-quota	Indicates status of the Diameter credit control pending traffic treatment quota.
quota-exhausted	Indicates status of the Diameter credit control pending traffic treatment for exhausted quota.
validity-expired	Indicates status of the Diameter credit control pending traffic treatment for validity.

## show active-charging sessions firewall required

Table 87. *show active-charging sessions firewall required* Command Output Descriptions

Field	Description
SESSIONID	The active charging session ID.
CALLID	The call ID.
IMSI/MSID	The International Mobile Subscriber Identification/Mobile Station ID.
IP	IP address of client.
USERNAME	Name of the subscriber.
Total acs sessions matching specified criteria	Total number of ACS sessions with firewall enabled.

## show active-charging sessions full

Table 88. show active-charging session full Command Output Descriptions

Field	Description
Session-ID	The active charging session ID.
Username	Name of the subscriber.
Callid	Call identification.
IMSI/MSID	Indicates the International Mobile Subscriber Identification/Mobile Station ID.
ACSMgr Instance	Total instances of ACS Manager.
ACSMgr Card/Cpu	Total number of ACS Manager Card/CPU.
Client-IP	Indicates the IP address of Client.
SessMgr Instance	Total instance of session manager.
NAS-IP	Indicates the IP address of Network Access Server.
NAS-PORT	Indicates the TCP port of Network Access Server.
Access-NAS-IP(FA)	Indicates the IP address of accessed Network Access Server Foreign Agent (FA).
NSAPI	Total instances of NS APIs used.
Acct-Session-ID	Indicates the accounting session ID.
NAS-ID	The Network Access Server identifier.
Access-NAS-ID(FA)	Indicates the identifier of accessed Network Access Server Foreign Agent (FA).
3GPP2-BSID	Indicates the 3GPP2 base station identifier.
Access-Correlation-ID(FA)	Indicates the access correlation ID for FA.
3GPP2-Correlation-ID	Indicates the Mobile IP Correlation ID.
MEID	Indicates the Mobile equipment's unique Mobile Equipment IDentifier (MEID).
Carrier-ID	Indicates the Carrier or service ID.
ESN	Indicates the Electronic Serial Number (ESN) of mobile equipment.
Uplink Bytes	Total bytes uploaded.
Downlink Bytes	Total bytes downloaded.
Uplink Packets	Total packets uploaded.
Downlink Packets	Total packets downloaded.
Injected Uplink Bytes	Total bytes injected to upload.
Injected Downlink Bytes	Total bytes injected to download.

Field	Description
Injected Uplink Packets	Total packets injected to upload.
Injected Downlink Packets	Total packets injected to download.
Buffered Uplink Packets	Total buffered packets for uplink.
Buffered Downlink Packets	Total buffered packets for downlink.
Buffered Uplink Bytes	Total buffered bytes for uplink.
Buffered Downlink Bytes	Total buffered bytes for uplink.
Uplink Packets in Buffer	Total number of uplink packets in the buffer.
Uplink Bytes in Buffer	Total number of uplink bytes in the buffer.
Downlink Packets in Buffer	Total number of downlink packets in the buffer.
Downlink Bytes in Buffer	Total number of downlink bytes in the buffer.
Buff Over-limit Uplink Pkts	Total number of uplink packets that were over the buffer limit.
Buff Over-limit Uplink Bytes	Total number of uplink bytes that were over the buffer limit.
Buff Over-limit Downlink Pkts	Total number of downlink packets that were over the buffer limit.
Buff Over-limit Downlink Bytes	Total number of downlink bytes that were over the buffer limit.
Processed Uplink Packets	Total packets processed for upload.
Processed Downlink Packets	Total packets processed for download.
Dropped Uplink Packets	Total packets dropped in uplink direction.
Dropped Downlink Packets	Total packets dropped in downlink direction.
Uplink Out of Order Packets	Total out of order packets in uplink direction.
Downlink Out of Order Packets	Total out of order packets in downlink direction.
ITC Terminated Flows	Total number of flows terminated by Intelligent Traffic Control service.
ITC Redirected Flows	Total number of flows redirected by Intelligent Traffic Control service.
ITC Dropped Packets	Total number of packets dropped by Intelligent Traffic Control service.
ITC ToS Remarkd Flows	Total number of flows marked with Type of Service (ToS) by Intelligent Traffic Control service.
R7Gx Dropped UpI Packets	Total number of packets dropped by R7Gx in uplink direction.
R7Gx Dropped Dnl Packets	Total number of packets dropped by R7Gx in downlink direction.
R7Gx Dropped UpI Pkts RuleMatch Fail	Total number of packets dropped by R7Gx in uplink direction due to rulematch failure—no matching rule is found.
R7Gx Dropped UpI Bytes RuleMatch Fail	Total number of bytes dropped by R7Gx in uplink direction due to rulematch failure.
R7Gx Dropped Dnl Pkts RuleMatch Fail	Total number of packets dropped by R7Gx in downlink direction due to rulematch failure.

Field	Description
R7Gx Dropped Dnl Bytes RuleMatch Fail	Total number of bytes dropped by R7Gx in downlink direction due to rulematch failure.
CC Dropped Uplink Packets	Total number of packets dropped by credit control in uplink direction.
CC Dropped Uplink Bytes	Total number of bytes dropped by credit control in uplink direction.
CC Dropped Downlink Packets	Total number of packets dropped by credit control in downlink direction.
CC Dropped Downlink Bytes	Total number of bytes dropped by credit control in downlink direction.
Creation Time	Time display in UTC format.
Last Pkt Time	Time of last packet created.
Duration	Duration of session.
Active Charging Service name	Name of the active charging service.
Rule Base name	Name of the rulebase applied.
Firewall Policy	Indicates whether Stateful Firewall processing is required.
CF Policy ID	The content filtering policy identifier applicable for subscriber.
Dynamic Charging	Status of dynamic charging functionality.
Dynamic Chrg Msg Received	Total number of messages received for dynamic charging.
Rule Definitions Received	Total number of ruledefs received.
Installs Received	Total number of "Charging-Rule-Install" messages received.
Removes Received	Total number of "Charging-Rule-Remove" messages received.
Installs Succeeded	Total number of charging rules installed successfully.
Installs Failed	Total number of charging rules installation failed.
Removes Succeeded	Total number of charging rules removed successfully.
Removes Failed	Total number of charging rules removal failed.
Uplink Dynamic Rule Packets	Total number of packets uplinked with dynamic rules.
Uplink Dynamic Rule Bytes	Total number of bytes uplinked with dynamic rules.
Downlink Dynamic Rule Packets	Total number of packets downlinked with dynamic rules.
Downlink Dynamic Rule Bytes	Total number of bytes downlinked with dynamic rules.
Credit-Control	Status of DCCA (on/off).
Current IP Flows	Total number of current IP flows.
Current ICMP Flows	Total number of current ICMP flows.
Current TCP Flows	Total number of current TCP flows.
Current UDP Flows	Total number of current UDP flows.
Current HTTP Flows	Total number of current HTTP flows.

■ show active-charging sessions full

Field	Description
Current HTTPS Flows	Total number of current HTTPS flows.
Current FTP Flows	Total number of current FTP flows.
Current POP3 Flows	Total number of current POP3 flows.
Current SMTP Flows	Total number of current SMTP flows.
Current SIP Flows	Total number of current SIP flows.
Current RTSP Flows	Total number of current RTSP flows.
Current RTP Flows	Total number of current RTP flows.
Current RTCP Flows	Total number of current RTCP flows.
Current IMAP Flows	Total number of current IMAP flows.
Current WSP-CO Flows	Total number of current WSP-CO flows.
Current WSP-CL Flows	Total number of current WSP-CL flows.
Current MMS Flows	Total number of current MMS flows.
Current DNS Flows	Total number of current DNS flows.
Current P2P Flows	Total number of current P2P flows.
Current UNKNOWN Flows	Total number of current UNKNOWN flows.
Ruledef Name	Name of the ACS ruledef.
Pkts-Down	Total number of packets downlinked.
Bytes-Down	Total number of bytes downlinked.
Pkts-Up	Total number of packets uplinked.
Bytes-Up	Total number of bytes uplinked.
Hits	Total number of packets handled in uplink and downlink directions.
Firewall-Ruledef Name	Name of the Stateful Firewall ruledef.
Pkts-Down	Total number of packets downlinked.
Bytes-Down	Total number of bytes downlinked.
Pkts-Up	Total number of packets uplinked.
Bytes-Up	Total number of bytes uplinked.
Hits	Total number of packets handled in uplink and downlink directions.
Dynamic Charging Rule Name Statistics	Dynamic charging rule name statistics.
Dynamic Charging Rule Name Configured	Dynamic charging rule name configured.
Predefined Rules Enabled List	List of enabled predefined rules.

Field	Description
Predefined Firewall Rules Enabled List	List of enabled predefined Firewall rules.
NCQoS NRUPC Req Made	Total number of network-controlled QoS Network Requested Update PDP Context requests made.
NCQoS NRSPCA Req Made	Total number of network-controlled QoS Network Requested Secondary PDP Context Activation requests made.
NCQoS NRUPC Req Failed	Total number of network-controlled QoS Network Requested Update PDP Context requests failed.
NCQoS NRSPCA Req Failed	Total number of network-controlled QoS Network Requested Secondary PDP Context Activation requests failed.
NCQoS NRUPC Req Success	Total number of network-controlled QoS Network Requested Update PDP Context requests succeeded.
NCQoS NRSPCA Req Success	Total number of network-controlled QoS Network Requested Secondary PDP Context Activation requests succeeded.
Total acs sessions matching specified criteria	Total number of ACS sessions matching the specified criteria.

## show active-charging sessions full all

Table 89. show active-charging sessions full all Command Output Descriptions

Field	Description
Session-ID	The active charging session ID.
Username	Name of the subscriber.
Callid	Call identification.
IMSI/MSID	Indicates the International Mobile Subscriber Identification/Mobile Station ID.
ACSMgr Instance	Total instance of ACS Manager.
ACSMgr Card/Cpu	Total number of ACS Manager Card/CPU.
SessMgr Instance	Total instance of session manager.
Client-IP	Indicates the IP address of Client.
NAS-IP	Indicates the IP address of Network Access Server.
Access-NAS-IP(FA)	Indicates the IP address of accessed Network Access Server Foreign Agent (FA).
NAS-PORT	Indicates the TCP port of Network Access Server.
NSAPI	Total instances of NS APIs used.
Acct-Session-ID	Indicates the accounting session ID.
NAS-ID	The Network Access Server identifier.
Access-NAS-ID(FA)	Indicates the identifier of accessed Network Access Server Foreign Agent (FA).
3GPP2-BSID	Indicates the 3GPP2 base station identifier.
Access-Correlation-ID(FA)	Indicates the access correlation ID for FA.
3GPP2-Correlation-ID	Indicates the Mobile IP Correlation ID.
MEID	Indicates the Mobile equipment's unique Mobile Equipment Identifier (MEID).
Carrier-ID	Indicates the Carrier or service ID.
ESN	Indicates the Electronic Serial Number (ESN) of mobile equipment.
Uplink Bytes	Total bytes uploaded.
Downlink Bytes	Total bytes downloaded.
Uplink Packets	Total packets uploaded.
Downlink Packets	Total packets downloaded.
Injected Uplink Bytes	Total bytes injected to upload.
Injected Downlink Bytes	Total bytes injected to download.

Field	Description
Injected Uplink Packets	Total packets injected to upload.
Injected Downlink Packets	Total packets injected to download.
Buffered Uplink Packets	Total buffered packets for uplink.
Buffered Downlink Packets	Total buffered packets for downlink.
Buffered Uplink Bytes	Total buffered bytes for uplink.
Buffered Downlink Bytes	Total buffered bytes for uplink.
Uplink Packets in Buffer	Total number of uplink packets in the buffer.
Uplink Bytes in Buffer	Total number of uplink bytes in the buffer.
Downlink Packets in Buffer	Total number of downlink packets in the buffer.
Downlink Bytes in Buffer	Total number of downlink bytes in the buffer.
Buff Over-limit Uplink Pkts	Total number of uplink packets that were over the buffer limit.
Buff Over-limit Uplink Bytes	Total number of uplink bytes that were over the buffer limit.
Buff Over-limit Downlink Pkts	Total number of downlink packets that were over the buffer limit.
Buff Over-limit Downlink Bytes	Total number of downlink bytes that were over the buffer limit.
Processed Uplink Packets	Total packets processed for upload.
Processed Downlink Packets	Total packets processed for download.
Dropped Uplink Packets	Total packets dropped in uplink direction.
Dropped Downlink Packets	Total packets dropped in downlink direction.
Uplink Out of Order Packets	Total out of order packets in uplink direction.
Downlink Out of Order Packets	Total out of order packets in downlink direction.
ITC Terminated Flows	Total number of flows terminated by Intelligent Traffic Control service.
ITC Redirected Flows	Total number of flows redirected by Intelligent Traffic Control service.
ITC Dropped Packets	Total number of packets dropped by Intelligent Traffic Control service.
ITC ToS Remarketed Packets	Total number of packets marked with Type of Service (ToS) by Intelligent Traffic Control service.
R7Gx Dropped Upl Packets	Total number of packets dropped by R7Gx in uplink direction.
R7Gx Dropped Dnl Packets	Total number of packets dropped by R7Gx in downlink direction.
R7Gx Dropped Upl Pkts RuleMatch Fail	Total number of packets dropped by R7Gx in uplink direction due to rulematch failure—no matching rule is found.
R7Gx Dropped Upl Bytes RuleMatch Fail	Total number of bytes dropped by R7Gx in uplink direction due to rulematch failure.
R7Gx Dropped Dnl Pkts RuleMatch Fail	Total number of packets dropped by R7Gx in downlink direction due to rulematch failure.

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Field	Description
R7Gx Dropped Dnl Bytes RuleMatch Fail	Total number of bytes dropped by R7Gx in downlink direction due to rulematch failure.
CC Dropped Uplink Packets	Total number of packets dropped by credit control in uplink direction.
CC Dropped Uplink Bytes	Total number of bytes dropped by credit control in uplink direction.
CC Dropped Downlink Packets	Total number of packets dropped by credit control in downlink direction.
CC Dropped Downlink Bytes	Total number of bytes dropped by credit control in downlink direction.
NRUPC Req Made	Total number of Network Requested Update PDP Context requests made.
NRUPC Req Success	Total number of NRUPC requests succeeded.
NRUPC Req Failed	Total number of NRUPC requests failed.
NRUPC Req Time Out	Total number of NRUPC requests timed out.
Current Readdressed Sessions	Total number of current readdressed sessions.
Total Readdressed Uplink Pkts	Total number of readdressed uplink packets.
Total Readdressed Uplink Bytes	Total number of readdressed uplink bytes.
Total Readdressed Downlink Pkts	Total number of readdressed downlink packets.
Total Readdressed Downlink Bytes	Total number of readdressed downlink bytes.
Total Readdressing Failure	Total number of readdressing failures.
Creation Time	Time display in UTC format.
Last Pkt Time	Time of last packet created.
Duration	Duration of session.
Active Charging Service name	Name of the Active Charging Service.
Rule Base name	Name of the ACS rulebase applied.
Firewall Policy	Indicates whether firewall processing is required.
Bandwidth Policy	The ACS bandwidth policy applicable for subscriber.
CF Policy ID	The content filtering policy identifier applicable for subscriber.
Dynamic Charging	Status of dynamic charging functionality.
Dynamic Chrg Msg Received	Total number of messages received for dynamic charging.
Rule Definitions Received	Total number of ruledefs received.
Installs Received	Total number of "Charging-Rule-Install" messages received.
Removes Received	Total number of "Charging-Rule-Remove" messages received.
Installs Succeeded	Total number of charging rules installed successfully.
Installs Failed	Total number of charging rules installation failed.
Removes Succeeded	Total number of charging rules removed successfully.

Field	Description
Removes Failed	Total number of charging rules removal failed.
Uplink Dynamic Rule Packets	Total number of packets uplinked with dynamic rules.
Uplink Dynamic Rule Bytes	Total number of bytes uplinked with dynamic rules.
Downlink Dynamic Rule Packets	Total number of packets downlinked with dynamic rules.
Downlink Dynamic Rule Bytes	Total number of bytes downlinked with dynamic rules.
Dynamic Charging Packet Drop Statistics	Indicates dynamic charging packet drop statistics.
Credit-Control	Indicates DCCA status: On/Off
CC Peer	Name of the Credit Control peer.
CC Mode	Credit Control mode: RADIUS/Diameter
CC Failure Handling	Action configured to handle Credit Control failure.
CC Session Failover	Credit Control Session Failover status.
Total CCR-U	The total number of CCR-Updates (Credit Control Request with Update) messages sent to the Credit Control Server.
Current IP Flows	Total number of current IP flows.
Current ICMP Flows	Total number of current ICMP flows.
Current IPv6 Flows	Total number of current IPv6 flows.
Current ICMPv6 Flows	Total number of current ICMPv6 flows.
Current TCP Flows	Total number of current TCP flows.
Current UDP Flows	Total number of current UDP flows.
Current HTTP Flows	Total number of current HTTP flows.
Current HTTPS Flows	Total number of current HTTPS flows.
Current FTP Flows	Total number of current FTP flows.
Current POP3 Flows	Total number of current POP3 flows.
Current SMTP Flows	Total number of current SMTP flows.
Current SIP Flows	Total number of current SIP flows.
Current RTSP Flows	Total number of current RTSP flows.
Current RTP Flows	Total number of current RTP flows.
Current RTCP Flows	Total number of current RTCP flows.
Current IMAP Flows	Total number of current IMAP flows.
Current WSP-CO Flows	Total number of current WSP-CO flows.
Current WSP-CL Flows	Total number of current WSP-CL flows.
Current MMS Flows	Total number of current MMS flows.

■ show active-charging sessions full all

Field	Description
Current DNS Flows	Total number of current DNS flows.
Current P2P Flows	Total number of current P2P flows.
Current UNKNOWN Flows	Total number of current UNKNOWN flows.
CF Packets Allowed	Total number of packets allowed after applying content filtering service.
CF Packets Discarded without Responding	Total number of packets discarded without sending any response after applying content filtering service.
CF Packets Discarded with Flow Redirection	Total number of packets discarded with traffic flow redirection after applying content filtering service.
CF Packets Discarded with Flow Termination	Total number of packets discarded and traffic flow terminated after applying content filtering service.
CF Packets Discarded with Flow Content Insertion	Total number of packets discarded and content inserted in response message after applying content filtering service.
CF Static DB Look-ups	Total number of lookups in static rating database for content filtering service.
CF Successful Cache Look-ups	Total number of lookups in cache memory for static rating of URLs and returned successful after applying content filtering service.
Charging ruledef(s) matching the specified criteria	Charging ruledef(s) matching the specified criteria.
Firewall ruledef(s) match the specified criteria	Stateful Firewall ruledef(s) matching the specified criteria.
Dynamic Charging Rule Name Statistics	Dynamic charging rule name statistics.
Total Dynamic Rules	Total number of dynamic rules.
Total Predefined Rules	Total number of predefined rules.
Total Firewall Predefined Rules	Total number of Stateful Firewall predefined rules.
Dynamic Charging Rule Definitions Configured	Dynamic charging rules configured.
Total Dynamic Charging Rule Names	Total number of dynamic charging rules.
Total Dynamic Firewall Rule Names	Total number of dynamic Stateful Firewall rules.
Predefined Rules Enabled List	List of enabled predefined rules.
Predefined Firewall Rules Enabled List	List of enabled predefined Firewall rules.
Total acs sessions matching specified criteria	Total number of ACS sessions matching the specified criteria.

## show active-charging sessions summary

Table 90. show active-charging sessions summary Command Output Descriptions

Field	Description
Session-ID	The active charging session ID.
Username	Name of the subscriber.
Callid	Call identification.
IMSI/MSID	Indicates the International Mobile Subscriber Identification / Mobile Station ID.
ACSMgr Instance	Total instance of ACS Manager.
ACSMgr Card/Cpu	Total number of ACS Manager Card/CPU.
Client-IP	Indicates the IP address of Client.
SessMgr Instance	Total instance of session manager.
NAS-IP	Indicates the IP address of Network Access Server.
NAS-PORT	Indicates the TCP port of Network Access Server.
Access-NAS-IP(FA)	Indicates the IP address of accessed Network Access Server Foreign Agent (FA).
Acct-Session-ID	Indicates the accounting session ID.
3GPP2-Correlation-ID	Indicates the Mobile IP Correlation ID.
Access-Correlation-ID(FA)	Indicates the access correlation ID for FA.
MEID	Indicates the Mobile equipment's unique Mobile Equipment IDentifier (MEID).
Carrier-ID	Indicates the Carrier or service ID.
ESN	Indicates the Electronic Serial Number (ESN) of mobile equipment.
Uplink Bytes	Total bytes uploaded.
Downlink Bytes	Total bytes downloaded.
Uplink Packets	Total packets uploaded.
Downlink Packets	Total packets downloaded.
Injected Uplink Bytes	Total bytes injected to upload.
Injected Downlink Bytes	Total bytes injected to download.
Injected Uplink Packets	Total packets injected to upload.
Injected Downlink Packets	Total packets injected to download.
Uplink Out of Order Packets	Total out of order packets in uplink direction.
Downlink Out of Order Packets	Total out of order packets in downlink direction.

Field	Description
Creation Time	Time display in UTC format.
Last Pkt Time	Time of last packet created.
Duration	Duration of session.
Active Charging Service name	Name of the ACS service.
Rule Base name	Name of the rulebase applied.
Credit-Control	DCCA status: On/Off
CC peer	Name of the Credit Control (CC) peer.
CC Failure Handling	Action configured to handle CC failure.
CC Session Failover	CC Session Failover status.
Rating-Group	Rating group ID.
State	Rating group status.
Pending Update	Status update pending.
Last CCA	Time of last credit control application.
Time Threshold	Threshold for CC.
Quota	Quota assigned for pre-paid subscriber.
Usage	Usage by subscriber.
Ruledef Name	Name of the Ruledef.
Pkts-Down	Total packets in downlink direction.
Bytes-Down	Total byte in downlink direction.
Pkts-Up	Total Packets in upward direction.
Bytes-Up	Total bytes in upward direction.
Hits	Total packets in upload and download direction.
Current IP Sessions	Total number of current IP sessions.
Current ICMP Sessions	Total number of current ICMP sessions.
Current TCP Sessions	Total number of current TCP sessions.
Current UDP Sessions	Total number of current UDP sessions.
Current HTTP Sessions	Total number of current HTTP sessions.
Current HTTPS Sessions	Total number of current HTTPS sessions.
Current FTP Sessions	Total number of current FTP sessions.
Current POP3 Sessions	Total number of current POP3 sessions.
Current SMTP Sessions	Total number of current SMTP sessions.
Current SIP Sessions	Total number of current SIP sessions.

Field	Description
Current RTSP Sessions	Total number of current RTSP sessions.
Current RTP Sessions	Total number of current RTP sessions.
Current RTCP Sessions	Total number of current RTCP sessions.
Current IMAP Sessions	Total number of current IMAP sessions.
Current WSP-CO Sessions	Total number of current WSP-CO sessions.
Current WSP-CL Sessions	Total number of current WSP-CL sessions.
Current MMS Sessions	Total number of current MMS sessions.
Current DNS Sessions	Total number of current DNS sessions.
Current P2P Sessions	Total number of current P2P sessions.
Current UNKNOWN Sessions	Total number of current UNKNOWN sessions.
Current SKYPE Sessions	Total number of current SKYPE sessions.
Current YAHOO Sessions	Total number of current YAHOO sessions.
Current SKYPE voice Sessions	Total number of current SKYPE voice sessions.
Current YAHOO voice Sessions	Total number of current YAHOO voice sessions.
Current SKYPE non-voice Sessions	Total number of current SKYPE non-voice sessions.
Current YAHOO non-voice Sessions	Total number of current YAHOO non-voice sessions.
Current EDONKEY Sessions	Total number of current EDONKEY sessions.
Current ORB Sessions	Total number of current ORB sessions.
Current MSN Sessions	Total number of current MSN sessions.
Current GNUTELLA Sessions	Total number of current GNUTELLA sessions.
Current MSN voice Sessions	Total number of current MSN voice sessions.
Current BITTORRENT Sessions	Total number of current BITTORRENT sessions.
Current MSN non-voice Sessions	Total number of current MSN non-voice sessions.
Current JABBER Sessions	Total number of current JABBER sessions.
Current WINNY Sessions	Total number of current WINNY sessions.
Current SLINGBOX Sessions	Total number of current SLINGBOX sessions.
Current MANOLITO Sessions	Total number of current MANOLITO sessions.
Current PANDO Sessions	Total number of current PANDO sessions.
Current FILETOPIA Sessions	Total number of current FILETOPIA sessions.
Current SOULSEEK Sessions	Total number of current SOULSEEK sessions.
Current PPSTREAM Sessions	Total number of current PPSTREAM sessions.
Current QQ Sessions	Total number of current QQ sessions.

Field	Description
Current QQLIVE Sessions	Total number of current QQLIVE sessions.
Current IMESH Sessions	Total number of current IMESH sessions.
Current MUTE Sessions	Total number of current MUTE sessions.
Current PPLIVE Sessions	Total number of current PPLIVE sessions.
Current GADUGADU Sessions	Total number of current GADUGADU sessions.
Current FEIDIAN Sessions	Total number of current FEIDIAN sessions.
Current APPLEJUICE Sessions	Total number of current APPLEJUICE sessions.
Current fasttrack Sessions	Total number of current Fasttrack sessions.
Current ZATTOO Sessions	Total number of current ZATTOO sessions.
Current SKINNY Sessions	Total number of current SKINNY sessions.
Current SOPCAST Sessions	Total number of current SOPCAST sessions.
Current DIRECTCONNECT Sessions	Total number of current DIRECTCONNECT sessions.
Current ARES Sessions	Total number of current ARES sessions.
Current OSCAR Sessions	Total number of current OSCAR sessions.
Current POPO Sessions	Total number of current POPO sessions.
Current IRC Sessions	Total number of current IRC sessions.
Current STEAM Sessions	Total number of current STEAM sessions.
Current DDLINK Sessions	Total number of current DDLINK sessions.
Current HALFLIFE2 Sessions	Total number of current HALFLIFE2 sessions.
Current HAMACHIVPN Sessions	Total number of current HAMACHIVPN sessions.
Current TVANTS Sessions	Total number of current TVANTS sessions.
Current TVUPLAYER Sessions	Total number of current TVUPLAYER sessions.
Current UUSEE Sessions	Total number of current UUSEE sessions.
Current VPNX Sessions	Total number of current VPNX sessions.
Current VTUN Sessions	Total number of current VTUN sessions.
Current WINMX Sessions	Total number of current WINMX sessions.
Current WOFWARCRAFT Sessions	Total number of current WOFWARCRAFT sessions.
Current XBOX Sessions	Total number of current XBOX sessions.
Current FREENET Sessions	Total number of current FREENET sessions.
Current AIMINI Sessions	Total number of current AIMINI sessions.
Current BATTLEFIELD Sessions	Total number of current BATTLEFIELD sessions.
Current OPENFT Sessions	Total number of current OPENFT sessions.

Field	Description
Current QGAME Sessions	Total number of current QGAME sessions.
Current QUAKE Sessions	Total number of current QUAKE sessions.
Current SECONDLIFE Sessions	Total number of current SECONDLIFE sessions.
Current ACTIVESYNC Sessions	Total number of current ACTIVESYNC sessions.
Current NIMBUZZ Sessions	Total number of current NIMBUZZ sessions.
Current IAX Sessions	Total number of current IAX sessions.
Current PALTALK Sessions	Total number of current PALTALK sessions.
Current WARCRAFT3 Sessions	Total number of current WARCRAFT3 sessions.
Current IPTV Sessions	Total number of current IPTV sessions.
Current RDP Sessions	Total number of current RDP sessions.
Current PANDORA Sessions	Total number of current PANDORA sessions.

## show active-charging sessions summary type p2p

Table 91. show active-charging sessions summary type p2p Command Output Descriptions

Field	Description
Total Active Charging Sessions	The total number of active charging sessions.
Uplink Bytes	Total bytes uploaded.
Downlink Bytes	Total bytes downloaded.
Uplink Packets	Total packets uploaded.
Downlink Packets	Total packets downloaded.
Current IP Sessions	Total number of current IP sessions.
Current ICMP Sessions	Total number of current ICMP sessions.
Current TCP Sessions	Total number of current TCP sessions.
Current UDP Sessions	Total number of current UDP sessions.
Current HTTP Sessions	Total number of current HTTP sessions.
Current HTTPS Sessions	Total number of current HTTPS sessions.
Current FTP Sessions	Total number of current FTP sessions.
Current POP3 Sessions	Total number of current POP3 sessions.
Current SMTP Sessions	Total number of current SMTP sessions.
Current SIP Sessions	Total number of current SIP sessions.
Current RTSP Sessions	Total number of current RTSP sessions.
Current RTP Sessions	Total number of current RTP sessions.
Current RTCP Sessions	Total number of current RTCP sessions.
Current IMAP Sessions	Total number of current IMAP sessions.
Current WSP-CO Sessions	Total number of current WSP-CO sessions.
Current WSP-CL Sessions	Total number of current WSP-CL sessions.
Current MMS Sessions	Total number of current MMS sessions.
Current DNS Sessions	Total number of current DNS sessions.
Current P2P Sessions	Total number of current P2P sessions.
Current UNKNOWN Sessions	Total number of current UNKNOWN sessions.
Current SKYPE Sessions	Total number of current SKYPE sessions.
Current YAHOO Sessions	Total number of current YAHOO sessions.

Field	Description
Current SKYPE voice Sessions	Total number of current SKYPE voice sessions.
Current YAHOO voice Sessions	Total number of current YAHOO voice sessions.
Current SKYPE non-voice Sessions	Total number of current SKYPE non-voice sessions.
Current YAHOO non-voice Sessions	Total number of current YAHOO non-voice sessions.
Current EDONKEY Sessions	Total number of current EDONKEY sessions.
Current ORB Sessions	Total number of current ORB sessions.
Current MSN Sessions	Total number of current MSN sessions.
Current GNUTELLA Sessions	Total number of current GNUTELLA sessions.
Current MSN voice Sessions	Total number of current MSN voice sessions.
Current BITTORRENT Sessions	Total number of current BITTORRENT sessions.
Current MSN non-voice Sessions	Total number of current MSN non-voice sessions.
Current JABBER Sessions	Total number of current JABBER sessions.
Current WINNY Sessions	Total number of current WINNY sessions.
Current SLINGBOX Sessions	Total number of current SLINGBOX sessions.
Current MANOLITO Sessions	Total number of current MANOLITO sessions.
Current PANDO Sessions	Total number of current PANDO sessions.
Current FILETOPIA Sessions	Total number of current FILETOPIA sessions.
Current SOULSEEK Sessions	Total number of current SOULSEEK sessions.
Current PPSTREAM Sessions	Total number of current PPSTREAM sessions.
Current QQ Sessions	Total number of current QQ sessions.
Current QQLIVE Sessions	Total number of current QQLIVE sessions.
Current IMESH Sessions	Total number of current IMESH sessions.
Current MUTE Sessions	Total number of current MUTE sessions.
Current PPLIVE Sessions	Total number of current PPLIVE sessions.
Current GADUGADU Sessions	Total number of current GADUGADU sessions.
Current FEIDIAN Sessions	Total number of current FEIDIAN sessions.
Current APPLEJUICE Sessions	Total number of current APPLEJUICE sessions.
Current fasttrack Sessions	Total number of current Fasttrack sessions.
Current ZATTOO Sessions	Total number of current ZATTOO sessions.
Current SKINNY Sessions	Total number of current SKINNY sessions.
Current SOPCAST Sessions	Total number of current SOPCAST sessions.
Current DIRECTCONNECT Sessions	Total number of current DIRECTCONNECT sessions.

Field	Description
Current ARES Sessions	Total number of current ARES sessions.
Current OSCAR Sessions	Total number of current OSCAR sessions.
Current POPO Sessions	Total number of current POPO sessions.
Current IRC Sessions	Total number of current IRC sessions.
Current STEAM Sessions	Total number of current STEAM sessions.
Current DDLINK Sessions	Total number of current DDLINK sessions.
Current HALFLIFE2 Sessions	Total number of current HALFLIFE2 sessions.
Current HAMACHIVPN Sessions	Total number of current HAMACHIVPN sessions.
Current TVANTS Sessions	Total number of current TVANTS sessions.
Current TVUPLAYER Sessions	Total number of current TVUPLAYER sessions.
Current UUSEE Sessions	Total number of current UUSEE sessions.
Current VPNX Sessions	Total number of current VPNX sessions.
Current VTUN Sessions	Total number of current VTUN sessions.
Current WINMX Sessions	Total number of current WINMX sessions.
Current WOFWARCRAFT Sessions	Total number of current WOFWARCRAFT sessions.
Current XBOX Sessions	Total number of current XBOX sessions.
Current FREENET Sessions	Total number of current FREENET sessions.
Current AIMINI Sessions	Total number of current AIMINI sessions.
Current BATTLEFIELD Sessions	Total number of current BATTLEFIELD sessions.
Current OPENFT Sessions	Total number of current OPENFT sessions.
Current QQGAME Sessions	Total number of current QQGAME sessions.
Current QUAKE Sessions	Total number of current QUAKE sessions.
Current SECONDLIFE Sessions	Total number of current SECONDLIFE sessions.
Current ACTIVESYNC Sessions	Total number of current ACTIVESYNC sessions.
Current NIMBUZZ Sessions	Total number of current NIMBUZZ sessions.
Current IAX Sessions	Total number of current IAX sessions.
Current PALTALK Sessions	Total number of current PALTALK sessions.
Current WARCRAFT3 Sessions	Total number of current WARCRAFT3 sessions.
Current IPTV Sessions	Total number of current IPTV sessions.
Current RDP Sessions	Total number of current RDP sessions.
Current PANDORA Sessions	Total number of current PANDORA sessions.



## show active-charging subsystem all

Table 92. show active-charging subsystem all Command Output Descriptions

Field	Description
Total ACS Managers	Total number of Active Charging Service managers running on the system.
Session Creation Succ	Total number of sessions created successfully.
Session Creation Fail	Total number of session creation failures.
Total subscribers	Total number of subscribers configured on system.
Current subscribers	Total number of subscriber active on system.
Total CF subscribers	Total number of Content Filtering subscribers configured on the system.
Current CF subscribers	Total number of Content Filtering subscribers active on the system.
Total Flows Connected	Total number of flows connected.
Total Flows Disconnected	Total number of flows disconnected.
Total Uplink Pkts	Total number of packets uplinked.
Total Uplink Bytes	Total number of bytes uplinked.
Total Downlink Pkts	Total number of packets downlinked.
Total Downlink Bytes	Total number of bytes downlinked.
Total ICMP flows	Total number of ICMP flows.
Current ICMP flows	Total number of current ICMP flows.
Total TCP flows	Total number of TCP flows.
Current TCP flows	Total number of current TCP flows.
Total UDP flows	Total number of UDP flows.
Current UDP flows	Total number of current UDP flows.
Total DNS flows	Total number of DNS flows.
Current DNS flows	Total number of current DNS flows.
Total FTP flows	Total number of FTP flows.
Current FTP flows	Total number of current FTP flows.
Total HTTP flows	Total number of HTTP flows.
Current HTTP flows	Total number of current HTTP flows.
Total HTTPS flows	Total number of HTTPS flows.
Current HTTPS flows	Total number of current HTTPS flows.

Field	Description
Total POP3 flows	Total number of POP3 flows.
Current POP3 flows	Total number of current POP3 flows.
Total SMTP flows	Total number of SMTP flows.
Current SMTP flows	Total number of current SMTP flows.
Total SIP flows	Total number of SIP flows.
Current SIP flows	Total number of current SIP flows.
Total RTSP flows	Total number of RTSP flows.
Current RTSP flows	Total number of current RTSP flows.
Total RTP flows	Total number of RTP flows.
Current RTP flows	Total number of current RTP flows.
Total RTCP flows	Total number of RTCP flows.
Current RTCP flows	Total number of current RTCP flows.
Total IMAP flows	Total number of IMAP flows.
Current IMAP flows	Total number of current IMAP flows.
Total WSP-CO flows	Total number of WSP-CO flows.
Current WSP-CO flows	Total number of current WSP-CO flows.
Total WSP-CL flows	Total number of WSP-CL flows.
Current WSP-CL flows	Total number of current WSP-CL flows.
Total MMS flows	Total number of MMS flows.
Current MMS flows	Total number of current MMS flows.
Total P2P flows	Total number of P2P flows.
Current P2P flows	Total number of current P2P flows.
Total P2P Voice flows	Total number of P2P voice flows.
Current P2P Voice flows	Total number of current P2P voice flows.
Total Rule-Hits	Total number of rule hits.
Total P2P Sessions	Total number of P2P sessions formed from start.
Total PP Rule-Hits	Total number of Post-processing rule hits.
Total P2P Subscribers	Total number of P2P subscribers.
Total Firewall Subscribers	Total number of Firewall subscribers.
Total NAT Subscribers	Total number of Network Address Translation subscribers.
Total Blacklisted URL hits	Total number of Blacklisted URL hits.
Total Blacklisted URL misses	Total number of Blacklisted URL misses.

Field	Description
Total Readdr flows	Total number of readdressed flows.
Current Readdr flows	Current number of readdressed flows.
Total URLs Outstanding for Rating (SRDB)	Total number of URLs outstanding for Static Rating Database rating.
RADIUS Prepaid Statistics	Indicates the group of statistics for RADIUS prepaid session.
Total prepaid sess	Total number of active/dormant/inactive prepaid sessions.
Current prepaid sess	Total number of prepaid sessions currently active.
Total prepaid auth req	Total number of AAA authorization requests for prepaid sessions.
Total prepaid auth success	Total number of successful AAA authorization for prepaid sessions.
Total prepaid auth fail	Total number of failed AAA authorization for prepaid sessions.
Total prepaid errors	Total number of errors occurred in prepaid sessions.
Content Filtering URL Cache Statistics	Indicates URL caching statistics for Content Filtering.
Total cached entries	Total number of cached entries in memory.
Total hits	Total number of attempts to access URLs which are cached in memory with rating.
Total misses	Total number of attempts failed to access URLs which are cached in memory with rating.
Total has-path hits	Total number of attempts to access URLs which are cached in memory with rating with specified path.
Total flushes	total number of flushing of URL cache to clear memory with stale URL list and rating.
Total URLs not cached	Total number of URLs accessed but not cached in memory.
Total Cache size	Total cache size adding maximum cache size for all volume provided for URLs caching.
Percentage Full	Indicates the percentage of memory used out of allocated space for URL caching.
Last Flush request received Time	Indicates the time of last flush request received for cache flushing.
Total Control Pkts Rx	Total number of control packets received.
Total Control Pkts Tx	Total number of control packets transmitted.
Data statistics	Statistics of data flow.
Receive Pkts	Total number of packets received in different size based frequency
Transmit pkts	Total number of packets transmitted in different size based frequency
User Data statistics	Indicates the group of statistics of user data traffic.
Data octets from User	Total number of bytes originated from user.
Data packets from User	Total number of data packets originated from user.
Data octets to User	Total number of bytes sent to user.

Field	Description
Data packets to User	Total number of data packets sent to user.
EDR/UDR statistics	
Records Generated	The total number of EDR/UDR records generated.
Msgs sent to CDRMOD	The total number of EDR/UDR messages sent to CDRMOD.
Records sent to CDRMOD	The total number of EDR/UDR records sent to CDRMOD.
Msgs bounced from CDRMOD	The total number of EDR/UDR messages that were bounced from CDRMOD.
Records bounced from CDRMOD	The total number of EDR/UDR records that were bounced from CDRMOD.
Successful Msgs sent to CDRMOD	The total number of successful EDR/UDR messages that were sent to CDRMOD.
Successful records sent to CDRMOD	The total number of successful EDR/UDR records that were sent to CDRMOD.

## show active-charging subsystem facility acsmgr instance

Table 93. show active-charging subsystem facility acsmgr instance Command Output Descriptions

Field	Description
ACSMgr Instance	The ACS Manager instance.
Card/CPU	The card and CPU ID.
Session Creation Succ	Total number of sessions created successfully.
Session Creation Fail	Total number of session creation failures.
Total subscribers	Total number of subscribers configured on system.
Current subscribers	Total number of subscriber active on system.
Total CF subscribers	Total number of Content Filtering subscribers configured on the system.
Current CF subscribers	Total number of Content Filtering subscribers active on the system.
Total Flows Connected	Total number of flows connected.
Total Flows Disconnected	Total number of flows disconnected.
Total Uplink Pkts	Total number of packets uplinked.
Total Uplink Bytes	Total number of bytes uplinked.
Total Downlink Pkts	Total number of packets downlinked.
Total Downlink Bytes	Total number of bytes downlinked.
Total ICMP flows	Total number of ICMP flows.
Current ICMP flows	Total number of current ICMP flows.
Total TCP flows	Total number of TCP flows.
Current TCP flows	Total number of current TCP flows.
Total UDP flows	Total number of UDP flows.
Current UDP flows	Total number of current UDP flows.
Total DNS flows	Total number of DNS flows.
Current DNS flows	Total number of current DNS flows.
Total FTP flows	Total number of FTP flows.
Current FTP flows	Total number of current FTP flows.
Total HTTP flows	Total number of HTTP flows.
Current HTTP flows	Total number of current HTTP flows.
Total HTTPS flows	Total number of HTTPS flows.

Field	Description
Current HTTPS flows	Total number of current HTTPS flows.
Total POP3 flows	Total number of POP3 flows.
Current POP3 flows	Total number of current POP3 flows.
Total SMTP flows	Total number of SMTP flows.
Current SMTP flows	Total number of current SMTP flows.
Total SIP flows	Total number of SIP flows.
Current SIP flows	Total number of current SIP flows.
Total RTSP flows	Total number of RTSP flows.
Current RTSP flows	Total number of current RTSP flows.
Total RTP flows	Total number of RTP flows.
Current RTP flows	Total number of current RTP flows.
Total RTCP flows	Total number of RTCP flows.
Current RTCP flows	Total number of current RTCP flows.
Total IMAP flows	Total number of IMAP flows.
Current IMAP flows	Total number of current IMAP flows.
Total WSP-CO flows	Total number of WSP-CO flows.
Current WSP-CO flows	Total number of current WSP-CO flows.
Total WSP-CL flows	Total number of WSP-CL flows.
Current WSP-CL flows	Total number of current WSP-CL flows.
Total MMS flows	Total number of MMS flows.
Current MMS flows	Total number of current MMS flows.
Total P2P flows	Total number of P2P flows.
Current P2P flows	Total number of current P2P flows.
Total Rule-Hits	Total number of rule hits.
Blacklisted URL hits	The number of Blacklisted URL hits.
Blacklisted URL misses	The number of Blacklisted URL misses.
Total URLs Outstanding for Rating (SRDB)	Total number of URLs outstanding for Static Rating Database rating.
RADIUS Prepaid Statistics	Indicates the group of statistics for RADIUS prepaid session.
Total prepaid sess	Total number of active/dormant/inactive prepaid sessions.
Current prepaid sess	Total number of prepaid sessions currently active.
Total prepaid auth req	Total number of AAA authorization requests for prepaid sessions.

Field	Description
Total prepaid auth success	Total number of successful AAA authorization for prepaid sessions.
Total prepaid auth fail	Total number of failed AAA authorization for prepaid sessions.
Total prepaid errors	Total number of errors occurred in prepaid sessions.
Content Filtering Policy <policy> for Service <service> Matched	
Content Filtering URL Cache Statistics	Indicates the group of statistics of URL caching for content filtering service.
Total cached entries	Total number of cached entries in memory.
Total hits	Total number of attempts to access URLs which are cached in memory with rating.
Total misses	Total number of attempts failed to access URLs which are cached in memory with rating.
Total has-path hits	Total number of attempts to access URLs which are cached in memory with rating with specified path.
Total flushes	Total number of flushing of URL cache to clear memory with stale URL list and rating.
Total Cache size (all volumes)	Total cache size adding maximum cache size for all volume provided for URLs caching.
Percentage Full	Indicates the percentage of memory used out of allocated space for URL caching.
Last Flush request received time	Indicates the time of last flush request received for cache flushing.
Volume - <volume>	The volume.
Cached entries	For the volume, indicates the total number of cached entries in memory.
Hits	For the volume, indicates the total number of attempts failed to access URLs which are cached in memory with rating.
Misses	For the volume, indicates the total number of attempts failed to access URLs which are cached in memory with rating.
has-path hits	For the volume, indicates the total number of attempts to access URLs which are cached in memory with rating with specified path.
Flushes	For the volume, indicates the total number of times the URL cache has been flushed to clear memory with stale URL list and rating.
Percentage Full	For the volume, indicates the percentage of memory used out of allocated space for URL caching.
Last Access Time	For the volume, indicates the last access time.
Last Flush Time	For the volume, indicates the last flush time.
<b>Data statistics</b>	
Receive Pkts	Total number of packets received.
Transmit Pkts	Total number of packets transmitted.

## show active-charging timedef all

Table 94. show active-charging udr-format all Command Output Descriptions

Field	Description
Service Name	Name of the Active Charging Service.
Timedef Name	Name of the time definition.
Start Day	Start day configured for each timeslot in the timedef. If the day is not configured, shows “Daily”.
Start Time	Start time configured for each timeslot in the timedef.
End Day	End day configured for each timeslot in the timedef. If the day is not configured, shows “Daily”.
End Time	End time configured for each timeslot in the timedef.
Total timedef(s) found	The total number of timedefs found.

## show active-charging udr-format all

Table 95. *show active-charging udr-format all* Command Output Descriptions

Field	Description
Service Name	Name of the Active Charging Service.
UDR Format Name	Name of the configured UDR format.
Attribute	Attribute informations configured in specific UDR format.
Total udr-format(s) found	The total number of the configured UDR formats.

## show active-charging url-blacklisting statistics

Table 96. *show active-charging url-blacklisting statistics* Command Output Descriptions

Field	Description
Service name	Name of the Active Charging Service.
<b>Cumulative URL-Blacklisting Statistics</b>	
Total Blacklisted URL hits	The total number of Blacklisted URL hits.
Total Blacklisted URL misses	The total number of Blacklisted URL misses.

## show active-charging url-blacklisting statistics rulebase name

Table 97. show active-charging url-blacklisting statistics rulebase name Command Output Descriptions

Field	Description
Service name	Name of the Active Charging Service.
Rulebase name	Name of the rulebase.
Blacklisted URL hits	The total number of Blacklisted URL hits.
Blacklisted URL misses	The total number of Blacklisted URL misses.
Total rulebases matched	The total number of rulebases matching the specified criteria.

# Chapter 43

## show administrators

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This chapter includes the `show administrators` command output tables.

# show administrators

Table 98. *show administrators* Command Output Descriptions

Field	Description
Administrator/Operator Name	Displays the name of the administrative user currently accessing the system.
Type	Displays the administrative user's type. admin represents an administrator. oper represents an operator.
TTY	Displays a reference for the virtual console device for the CLI instance.
Start Time	Displays the time and date that the administrative user's session started.

## show administrators session id

Table 99. *show administrators session id* Command Output Descriptions

Field	Description
Administrator/Operator Name	Displays the name of the administrative user currently accessing the system.
Login Context	Displays the context in which the CLI user is working.
Remote Addr	Displays the IP address from which the CLI user is accessing the system.
Session ID	Displays the assigned session ID.



# Chapter 44

## show alarm

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This chapter includes the **show alarm** command output tables.

## show alarm outstanding all verbose

Table 100. show alarm outstanding all verbose Command Output Descriptions

Field	Description
Severity (Sev)	<p>If an alarm is present, the system will indicate that one of the following alarm levels has been triggered:</p> <ul style="list-style-type: none"> <li>• <b>Minor (MN):</b> This alarm is triggered when a high temperature is detected on a card causing the fan tray to switch to high speed.</li> <li>• <b>Major (MJ):</b> This alarm is triggered on the following conditions: <ul style="list-style-type: none"> <li>• A hardware failure was detected on a card that will cause it to be taken off-line</li> <li>• One of the Power Filter Units has failed or was removed.</li> <li>• One or more of the fans on either the upper or lower fan tray have failed.</li> <li>• Either the upper or lower fan trays have been removed.</li> </ul> </li> <li>• <b>Critical (CR):</b> This alarm is triggered when events cause a degradation in service (i.e. the system is supporting a large number of subscribers and Processing Cards are removed thus reducing the amount of available CPU and memory resources).</li> </ul>
Object	Describes the object that triggered the alarm event
Event	Describes the event that triggered the alarm condition.
Timestamp	Lists the date and time that the alarm condition was triggered.
Alarm ID	The internal system ID of the alarm.

## show alarm statistics

*Table 101. show alarm statistics Command Output Descriptions*

Field	Description
Current Outstanding Alarms	The alarm conditions that are currently active.
Cumulative Totals	The number of alarms that have occurred since the system was last booted.



# Chapter 45

## show apn

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This chapter includes the **show apn** command output tables.

## show apn all

Table 102. show apn all Command Output Descriptions

Field	Description
access point name (APN)	Indicates the name of the access point name (APN) for which counters are displayed.
authentication context	Name of the system context used for authentication for this APN.
pdp type	Indicates the type of PDP context. Possible types are: <ul style="list-style-type: none"> <li>• IPv4</li> <li>• IPv6</li> <li>• PPP</li> </ul>
Selection Mode	Indicates the APN selection mode applicable for this APN. Possible selection modes are: <ul style="list-style-type: none"> <li>• Chosen by SGSN</li> <li>• Sent by MS</li> <li>• Subscribed</li> </ul>
ip source violation	Indicates whether check for IPv4 source validation violations enabled or not. Possible status are: <ul style="list-style-type: none"> <li>• Checked</li> <li>• Ignored</li> </ul>
drop limit	Indicates the IP source-violation drop limit configured for the subscriber. The drop-limit is the number of invalid packets that can be received from a subscriber prior to their session being deleted. Refer to the <b>ip source-violation</b> command in the APN configuration mode.
ip source violation no accounting	The IP source validation violations that were detected but not included in the statistics.
accounting mode	Indicates the accounting mode configured for this APN. Possible modes are: <ul style="list-style-type: none"> <li>• gtp - GTP CDR accounting</li> <li>• none - No accounting</li> <li>• radius-diameter - RADIUS or Diameter accounting</li> </ul>
No early PDUs	Specifies whether “ <b>no-early-pdu</b> ” option configured in this APN or not. If “no-early-PDUs” is enabled, the chassis shall not send uplink/downlink data from/to a MS till it receives the Acct-Rsp Start for the same from the AAA device. On receiving the Acct-Rsp, pending PDUs are sent out.
no-interims	Specifies whether “ <b>no-interims</b> ” option configured in this APN or not. If “no-interims” is enabled, the chassis shall not send any interim message to the AAA device.
Bearer Control Mode	Specifies whether Bearer Control Mode is enabled in this APN or not.
max-primary-pdp-contexts	Specifies the maximum primary PDP contexts allowed in this APN.

Field	Description
total-pdp-contexts	Specifies the total primary and secondary PDP contexts allowed in this APN.
primary contexts	Specifies the total primary contexts allowed in this APN.
total contexts	Specifies the total primary and secondary contexts allowed in this APN.
max secondary contexts per-subscriber	Specifies the maximum secondary contexts allowed in this APN for a subscriber.
IMS Authorization	Specifies whether IMS authorization support is enabled in this APN or not.
Credit Control	Specifies whether Diameter pre-paid credit control support is enabled in this APN or not.
mbms bearer absolute timeout	Indicates the absolute time out duration in seconds for Multimedia Broadcast-Multicast Service (MBMS) bearer context.
mbms bearer idle timeout	Indicates the idle time out duration in seconds for Multimedia Broadcast-Multicast Service (MBMS) bearer context.
mbms ue absolute timeout	Indicates the absolute time out duration in seconds for Multimedia Broadcast-Multicast Service (MBMS) UE context.
local ip	Specifies the local IP address of the interface assigned to this APN.
nexthop gateway addr	Specifies the IP address of the next hop gateway configured in this APN.
primary dns	Indicates the IP address of primary Domain Name Server (DNS).
secondary dns	Indicates the IP address of secondary Domain Name Server (DNS).
primary nbns	Indicates the IP address of primary NetBIOS Name Server (NBNS).
secondary nbns	Indicates the IP address of secondary NetBIOS Name Server (NBNS).
ppp keep alive period	Indicates the duration in seconds to transmit LCP keep-alive packet.
ppp mtu	Indicates the maximum size of transmission units in bytes configured for this APN.
absolute timeout	Indicates the absolute timeout duration in seconds for session configured in this APN.
idle timeout	Indicates the idle timeout duration in seconds for session configured in this APN.
idle-timeout-activity ignore-downlink	Indicates whether idle timeout activity configured in this APN to consider downlink traffic as activity for idle-timeout or not.
long duration timeout	Indicates the timeout duration in seconds for long duration timeout support configured in this APN.
long dur inactivity time	Indicates the inactivity duration in seconds for long duration timeout support configured in this APN.
long duration action	Indicates the action configured in this APN for long duration timeout support. Possible actions are: <ul style="list-style-type: none"> <li>• Detection</li> <li>• Disconnection</li> </ul>
ip header compression	Indicates the IP header compression method configured in this APN for RObust Header Compression (ROHC) support. Supported method is Van Jacobsen (VJ).

■ show apn all

Field	Description
ip hide service address	Indicates whether APN is configured to hide service IP address from the subscriber (for security reasons) or not.
ip output access-group	The IPv4 access control list (ACL) configured in this APN for outward traffic.
ip input access-group	The IPv4 access control list (ACL) configured in this APN for inward traffic.
ipv6 output access-group	The IPv6 access control list (ACL) configured in this APN for outward traffic.
ipv6 input access-group	The IPv6 access control list (ACL) configured in this APN for inward traffic.
policy-group in	The traffic policy group configured in this APN for inward traffic.
policy-group out	The traffic policy group configured in this APN for outward traffic.
permit ip multicast	Indicates whether APN is configured to discard or permit the IP multicast.
ppp authentication	Indicates the type of PPP authentication configured for this APN.
allow noauthentication	Indicates the whether PPP session is allowed without authentication in this APN or not.
imsi authentication	Indicates the whether PPP session authentication in this APN is configured for IMSI authentication or not.
msisdn authentication	Indicates the whether PPP session authentication in this APN is configured for MSISDN authentication or not.
ip destination context	Indicates the name of the configured destination context for this APN.
Rule Base	Indicates the name of the configured rulebase for this APN.
Content-Filtering Policy-Id	Indicates the whether inline content filtering policy is configured for this APN or not.
mediation accounting	Indicates the whether mediation device is configured for accounting in this APN or not.
mediation-device context	Indicates the name of the system context to use for mediation device for accounting in this APN.
mediation no early PDUs	Specifies whether “ <b>no-early-pdu</b> ” option configured for this subscriber or not. If “no-early-PDUs” is enabled, the chassis shall not send uplink/downlink data from/to a MS till it receives the Acct-Rsp Start for the same from the mediation device. On receiving the Acct-Rsp, pending PDUs are sent out.
mediation no-interims	Specifies whether “ <b>no-interims</b> ” option configured for this subscriber or not. If “no-interims” is enabled, the chassis shall not send any interim message to the mediation device.
mediation delay-GTP-response	Specifies whether “ <b>delay-GTP-response</b> ” option configured for this subscriber or not. When enabled, this option delays the Create PDP Context response until an Accounting Start response is received from the mediation device.
outbound username	Name of the user for outbound traffic.
ip address pools	Indicates the IP address pool used for this APN.
access-link ip-frag	Indicates the IP packet fragmentation setting for access link.
ignore DF-bit data-tunnel	Indicates whether “ignore df-bit” is set for data tunnel or not.

Field	Description
ip allocation type	Specifies the type of IP allocation method used for IP address allocation. Possible types are: <ul style="list-style-type: none"> <li>• DHCP-Proxy</li> <li>• DHCP-Relay</li> <li>• Local</li> <li>• Dynamic</li> <li>• Static</li> </ul>
allow user specified ip addr	Indicates whether user specified IP address is allowed or not for IP allocation.
prefer dhcp options	Indicates whether support for DHCP supplied parameters, like DNS/NBNS addresses, in subscriber session is configured for this APN. This support can be enabled with <b>ip address alloc-method dhcp-proxy prefer-dhcp-options</b> command in APN Configuration mode.
3gpp qos to dscp mapping	This group indicates the 3GPP QoS to DSCP mapping information.
conversational	Indicates the DSCP configured for conversational type of traffic.
streaming	Indicates the DSCP configured for streaming type of traffic.
interactive (TP 1)	Indicates the DSCP configured for interactive type of traffic with traffic priority 1.
interactive (TP 2)	Indicates the DSCP configured for interactive type of traffic with traffic priority 2.
interactive (TP 3)	Indicates the DSCP configured for interactive type of traffic with traffic priority 3.
background	Indicates the DSCP configured for background type of traffic.
3GPP QoS to DSCP Mapping based on Alloc. Prio	This group indicates the 3GPP QoS to DSCP mapping information based on allocation priority.
interactive (TP 1, Alloc.P 1)	Indicates the DSCP configured for interactive type of traffic with traffic priority 1 and allocation priority 1.
interactive (TP 1, Alloc.P 2)	Indicates the DSCP configured for interactive type of traffic with traffic priority 1 and allocation priority 2.
interactive (TP 1, Alloc.P 3)	Indicates the DSCP configured for interactive type of traffic with traffic priority 1 and allocation priority 3.
interactive (TP 2, Alloc.P 1)	Indicates the DSCP configured for interactive type of traffic with traffic priority 2 and allocation priority 1.
interactive (TP 2, Alloc.P 2)	Indicates the DSCP configured for interactive type of traffic with traffic priority 2 and allocation priority 2.
interactive (TP 2, Alloc.P 3)	Indicates the DSCP configured for interactive type of traffic with traffic priority 2 and allocation priority 3.
interactive (TP 3, Alloc.P 1)	Indicates the DSCP configured for interactive type of traffic with traffic priority 3 and allocation priority 1.
interactive (TP 3, Alloc.P 2)	Indicates the DSCP configured for interactive type of traffic with traffic priority 3 and allocation priority 2.
interactive (TP 3, Alloc.P 3)	Indicates the DSCP configured for interactive type of traffic with traffic priority 3 and allocation priority 3.

■ show apn all

Field	Description
Copy user-datagram IP TOS	Indicates whether copying of IP TOS octet value from user IPv4 datagrams to IP header of tunnel encapsulation is enabled or not.
APN defined Charging Characteristics	This group displays the APN defined charging characteristics for various types of subscribers.
Home Subscribers	This sub-group displays the APN defined charging characteristics for home subscribers.
Behavior Bits	Indicates the behavior bits configured for home subscribers in APN defined charging characteristics.
Profile Value	Indicates the profile value configured for home subscribers in APN defined charging characteristics.
Visiting Subscribers	This sub-group displays the APN defined charging characteristics for visiting subscribers.
Behavior Bits	Indicates the behavior bits configured for visiting subscribers in APN defined charging characteristics.
Profile Value	Indicates the profile value configured for visiting subscribers in APN defined charging characteristics.
Roaming Subscribers	This sub-group displays the APN defined charging characteristics for roaming subscribers.
Behavior Bits	Indicates the behavior bits configured for roaming subscribers in APN defined charging characteristics.
Profile Value	Indicates the profile value configured for roaming subscribers in APN defined charging characteristics.
All (Home/Visiting/Roaming) Subscribers	This sub-group displays the APN defined charging characteristics for all subscribers (including home, visiting, and roaming).
Behavior Bits	Indicates the behavior bits configured for all subscribers (including home, visiting, and roaming) in APN defined charging characteristics.
Profile Value	Indicates the profile value configured for all subscribers (including home, visiting, and roaming) in APN defined charging characteristics.
Subscribers to use APN defined charging characteristics	Indicates the number of subscriber to use APN defined charging characteristics.
Subscribers to use RADIUS returned charging characteristics	Indicates whether subscribers in this APN are configured to use charging characteristics returned from RADIUS server.
dhcp service name	Specifies the name of the DHCP service configured for IP address allocation.
dhcp context name	Specifies the name of the DHCP context where DHCP service is configured for IP address allocation.
dhcp lease expiry policy	Specifies the DHCP address lease expiry policy. Possible actions are: <ul style="list-style-type: none"> <li>• autoconnect</li> <li>• disconnect</li> </ul>
mobile-ip	Specifies the whether Mobile IP is configured in this APN or not.
mobile-ip home-agent	Specifies the IP address of home agent (HA) to use for Mobile IP session in this APN.

Field	Description
mobile-ip alternate-home-agent(s)	Specifies the IP address of alternate home agent (HA) to use for Mobile IP session in this APN.
mobile-ip reverse-tunnel	Specifies the whether Mobile IP reverse tunnel is enabled for Mobile IP session in this APN or not.
mobile-ip mn-aaa-removal-indication	Specifies the whether “mn-aaa-removal-indication” parameter is configured for Mobile IP session in this APN or not.
mobile-ip mn-ha-spi	Specifies the security parameter index (SPI) configured between MN and HA for Mobile IP session in this APN.
mobile-ip mn-ha-hash-algorithm	Specifies the hash algorithm configured for Mobile IP session in this APN. Possible hash algorithms are: <ul style="list-style-type: none"> <li>• hmac-md5</li> <li>• md5</li> <li>• rfc2002-md5</li> </ul>
proxy-mip	Specifies the whether Proxy-Mobile IP is configured in this APN or not.
proxy-mip null-username static home address	Specifies the whether handling of RRQ to enable the acceptance without NAI extension in this APN is enabled or not.
Tunnel peer load-balancing	Specifies the tunnel peer selection method in this APN for load balancing between tunnel-peers. Possible selection methods are: <ul style="list-style-type: none"> <li>• balanced</li> <li>• prioritized</li> <li>• random</li> </ul>
L3-to-L2 tunnel address-policy no-alloc-validate	Specifies whether this APN is configured, to not to allocate or validate subscriber addresses locally for such sessions, it passes the address between remote tunnel terminator to the Mobile Node, or not.
tunnel address-policy alloc-validate	Specifies whether this APN is configured, to allocate addresses for cases in which IP addresses are dynamically assigned, or not.
NPU QoS Traffic Priority	Indicates the configured NPU QoS priority queue for packets facilitated by the APN. Possible priorities are: <ul style="list-style-type: none"> <li>• best-effort</li> <li>• bronze</li> <li>• derive-from-packet-dscp</li> <li>• gold</li> <li>• silver.</li> </ul>
APN QoS Attributes	Specifies the QoS attribute configure in this APN.
Newcall Policy	Indicates the policy for action on new calls coming on this APN. Possible actions are: <ul style="list-style-type: none"> <li>• Accept</li> <li>• Reject</li> </ul>

Field	Description
SDU Error Ratio	Indicates the QoS attribute reliability class based on Service Data Unit (SDU) Error Ratio attributes configured in this APN.
Residual BER	Indicates the QoS attribute reliability class based on Residual Bit Error Ratio (BER) attributes configured in this APN.
Class: Conversational	Specifies the statistics for use traffic of conversational QoS class along with traffic policing/shaping status.
Downlink Negotiate Limit	Specifies whether traffic data QoS negotiation limit in downlink direction is enabled or not for this class of QoS in this APN.
Uplink Negotiate Limit	Specifies whether traffic data QoS negotiation limit in uplink direction is enabled or not for this class of QoS in this APN.
Peak Data Rate (in bps)	The peak data rate in bit per seconds for this class of QoS in this APN.
Committed Data Rate(in bps)	The committed data rate in bit per seconds for this class of QoS in this APN.
Downlink Rate Limit	Specifies whether traffic data rate limit in downlink direction is enabled or not for this class of QoS in this APN.
Uplink Rate Limit	Specifies whether traffic data rate limit in uplink direction is enabled or not for this class of QoS in this APN.
Burst Size	This group indicates the static/dynamic burst size in bytes for peak and guaranteed rate limiting for this class of QoS in this APN.
Auto Readjust	Indicates whether auto readjustment of burst size is enabled or not. Possible states are: <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
Auto Readjust Duration	Indicates the configured auto readjust duration in a seconds. If auto readjust is enabled and no readjust duration is specified the default value is 1 second.
Peak Burst Size(bytes)	Indicates the peak burst size in bytes calculated dynamically by auto readjust duration and rate limit value.
Guaranteed Burst Size(bytes)	Indicates the guaranteed burst size in bytes calculated dynamically by auto readjust duration (seconds) and rate limit value (bytes). This counter is applicable only when auto readjustment is enabled.
Exceed Action	Specifies the action on downlink/uplink data rate when exceeds the allowed rate limit for this class of QoS. Possible actions are: <ul style="list-style-type: none"> <li>• <b>drop</b>: drop the packets.</li> <li>• <b>lower-ip-precedence</b>: transmit the packet after lowering the ip-precedence.</li> <li>• <b>transmit</b>: transmit the packet.</li> </ul>

Field	Description
Violate Action	Specifies the action on downlink/uplink data rate violation of allowed rate limit for this class of QoS. Possible actions are: <ul style="list-style-type: none"> <li>• <b>drop</b>: drop the packets.</li> <li>• <b>lower-ip-precedence</b>: transmit the packet after lowering the ip-precedence.</li> <li>• <b>shape</b>: enables the traffic shaping and provides the buffering of user packets when subscriber traffic violates the allowed peak/committed data rate.</li> <li>• <b>shape-transmit-when-buffer-full</b>: enables the traffic shaping and allows the packet to be transmitted when buffer memory is full.</li> <li>• <b>transmit</b>: transmit the packet.</li> </ul>
Class: Streaming	Specifies the statistics for use traffic of streaming QoS class along with traffic policing/shaping status.
Class: Interactive	Specifies the statistics for use traffic of interactive QoS class along with traffic policing/shaping status. It showed for the traffic handling priority 1 through 3.
Traffic Handling Priority	Specifies the traffic handling priority for interactive QoS class along with traffic policing/shaping status. Possible values are priority 1 through 3.
Class: Background	Specifies the statistics for use traffic of background QoS class along with traffic policing/shaping status.
ppp accept peer ipv6 ifid	Indicates the IPv6 interface id of peer to accept PPP session.
ipv6 init router advt interval	Indicates the initial IPv6 router advertisement interval in seconds for this APN.
ipv6 init router number of advts	Indicates the total number of initial IPv6 router advertisement for this APN.
ipv6 address prefix	Indicates the IPv6 address prefix configured for sessions facilitated by this APN.
ipv6 address prefix pool	Indicates the IPv6 address prefix pool name configured for sessions facilitated by this APN.
ipv6 interface id	Indicates the IPv6 interface id configured for sessions facilitated by this APN.
ipv6 dns primary server	Indicates the IPv6 address of primary DNS server configured for sessions facilitated by this APN.
ipv6 dns secondary server	Indicates the IPv6 address of secondary DNS server configured for sessions facilitated by this APN.
ipv6 egress address filtering	Indicates whether egress address filtering configured in this APN or not to filter out packets not meant for the mobile interface ID.
ipv6 dns proxy	Indicates whether IPv6 DNS proxy server configured for sessions facilitated by this APN or not.
ipv6 minimum link MTU	Indicates the size of packet in bytes configured for access-link MTU for fragment.
Radius Group	Indicates the AAA server group associated with this APN.
Radius Returned Framed IP Address	This group specifies the action and policy to handle the framed IP address returned from RADIUS server.

■ show apn all

Field	Description
Policy	Specifies the policy to handle the framed IP address returned from RADIUS server. Possible actions are: <ul style="list-style-type: none"> <li>• accept-call-when-ms-ip-not-supplied</li> <li>• reject-call-when-ms-ip-not-supplied</li> </ul>
Access-flow traffic-validation	Specifies whether traffic validation for access flow is enabled for this APN or not.
Virtual APN Configuration	Indicates whether virtual APN is configured with APN or not.
IPv6 Configuration	This group displays the configuration related to IPv6 parameters.
IPv6 initial number of router advertisements	Indicates the total number of initial IPv6 router advertisement for this APN.
IPv6 initial router advertisements interval	Indicates the initial IPv6 router advertisement interval in seconds for this APN.
IPv6 Prefix Pool	Indicates the IPv6 address prefix pool name configured for sessions facilitated by this APN.
IPv6 Egress address filtering	Indicates whether egress address filtering configured in this APN or not to filter out packets not meant for the mobile interface ID.
IPv6 Primary DNS server address	Indicates the IPv6 address of primary DNS server configured for sessions facilitated by this APN.
IPv6 Secondary DNS server address	Indicates the IPv6 address of secondary DNS server configured for sessions facilitated by this APN.
GTPP Group	Indicates the GTPP server group associated with this APN.
GTPP Accounting Context	Specifies the GTPP accounting context name associated with this APN.
Firewall Policy	Indicates whether stateful firewall policy is applicable with this APN or not.
Mobile IPv6 Tunnel MTU	Indicates the configured maximum transmission unit of packet in bytes for Mobile IPv6 tunnel traffic.
Mobile IPv6 Tunnel MTU Exceed Action	Indicates the action to take on packets which exceeds the maximum transmission unit of packet in bytes for Mobile IPv6 tunnel traffic. Possible actions are: <ul style="list-style-type: none"> <li>• Normal processing</li> <li>• Ignore defragment bit</li> <li>• Fragment and forward the packet and notify the sender</li> </ul>
Mobile IPv6 Home Agent	Specifies the IPv6 address of home agent (HA) to use for Mobile IP session in this APN.
Mobile IPv6 Home Link Prefix	Specifies the home link prefix for to use for Mobile IP session in this APN.
Mobile IPv6 Home Address	Specifies the home IPv6 address of subscriber to use for Mobile IP session in this APN.

## show apn counter ip-allocation all

Table 103. show apn counter ip-allocation all Command Output Descriptions

Field	Description
APN	Indicates the name of the access point name (APN) for which counters are displayed.
UE PROVID.	Indicates the total number of active sessions using UE provided IP allocation method through this APN.
LOCAL POOL	Indicates the total number of active sessions using Local Pool method for IP allocation through this APN.
AAA	Indicates the total number of active sessions using AAA provided IP allocation method through this APN.
DHCP	This group indicates the total number of active sessions using DHCP method for IP allocation through this APN. Possible groups are: CLIENT: Indicates the number of active sessions using DHCP client method for IP allocation through this APN. RELAY: Indicates the number of active sessions using DHCP relay method for IP allocation through this APN.
PASSTHRU	Indicates the total number of active sessions using PASSTHRU IP allocation method through this APN.

## show apn statistics name

Table 104. show apn statistics name Command Output Descriptions

Field	Description
Gi interface statistics ('uplink'=to PDN, 'downlink'=from PDN):	
uplink bytes	The current total number of bytes sent on the Gi interface for the APN.
downlink bytes	The current total number of bytes received on the Gi interface for the APN.
uplink pkts	The current total number of IP packets sent from the Gi interface for the APN.
downlink pkts	The current total number of IP packets received from the Gi interface for the APN.
uplink pkts dropped	The current total number of IP packets for the APN that were dropped prior to sending over the Gi interface.
downlink pkts dropped	The current total number of IP packets received from the Gi interface for the APN and dropped.
ipv4 bad hdr	The current total number IP packets received and dropped due to bad headers.
ipv4 ttl exceeded	The current total number of IP packets dropped because they were received with TTL values of 0.
ipv4 fragments sent	The current total number of number of times IP packets were fragmented before being sent over the Gi interface.
ipv4 could not fragment	The current total number of IP packets which failed in fragmentation.
ipv4 input acl drop	The current total number IP packets that were received and then dropped due to ACL filtering.  <div style="text-align: center;">  <b>Important:</b> This counter may increment even if no ACL is configured. </div>
ipv4 output acl drop	The current total number of IP packets that were dropped prior to sending due to ACL filtering.
ipv4 input css down drop	The current total number of IP packets the CSS received and then dropped.
ipv4 source violations	The current total number of IP packets received for which source violations were detected and then dropped.
ipv4 source violations no accounting	The IP packets received for source violations that were detected but not included in the statistics.
ipv4 source violation ignored	The IPv4 source validation violations that were detected and then ignored.
ipv4 early pdu rcvd	The current total number of early IP packet data units (PDUs) received.

Field	Description
QoS Statistics	
Class: Conversational	Specifies the statistics for use traffic of conversational QoS class along with traffic policing/shaping status.
Downlink Negotiate Limit	Specifies whether traffic data QoS negotiation limit in downlink direction is enabled or not for this class of QoS in this APN.
Uplink Negotiate Limit	Specifies whether traffic data QoS negotiation limit in uplink direction is enabled or not for this class of QoS in this APN.
Peak Data Rate(in bps)	The peak data rate in bit per seconds for this class of QoS in this APN.
Committed Data Rate(in bps)	The committed data rate in bit per seconds for this class of QoS in this APN.
Downlink Rate Limit	Specifies whether traffic data rate limit in downlink direction is enabled or not for this class of QoS in this APN.
Uplink Rate Limit	Specifies whether traffic data rate limit in uplink direction is enabled or not for this class of QoS in this APN.
Burst Size	This group indicates the static/dynamic burst size in bytes for peak and guaranteed rate limiting for this class of QoS in this APN.
Auto Readjust	Indicates whether auto readjustment of burst size is enabled or not. Possible states are: <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
Auto Readjust Duration	Indicates the configured auto readjust duration in a seconds. If auto readjust is enabled and no readjust duration is specified the default value is 1 second.
Peak Burst Size(bytes)	Indicates the peak burst size in bytes calculated dynamically by auto readjust duration and rate limit value.
Guaranteed Burst Size(bytes)	Indicates the guaranteed burst size in bytes calculated dynamically by auto readjust duration (seconds) and rate limit value (bytes). This counter is applicable only when auto readjustment is enabled.
Exceed Action	Specifies the action on downlink/uplink data rate when exceeds the allowed rate limit for this class of QoS. Possible actions are: <ul style="list-style-type: none"> <li>• <b>drop</b>: drop the packets.</li> <li>• <b>lower-ip-precedence</b>: transmit the packet after lowering the ip-precedence.</li> <li>• <b>transmit</b>: transmit the packet.</li> </ul>

Field	Description
Violate Action	Specifies the action on downlink/uplink data rate violation of allowed rate limit for this class of QoS. Possible actions are: <ul style="list-style-type: none"> <li>• <b>drop</b>: drop the packets.</li> <li>• <b>lower-ip-precedence</b>: transmit the packet after lowering the ip-precedence.</li> <li>• <b>shape</b>: enables the traffic shaping and provides the buffering of user packets when subscriber traffic violates the allowed peak/committed data rate.</li> <li>• <b>shape-transmit-when-buffer-full</b>: enables the traffic shaping and allows the packet to be transmitted when buffer memory is full.</li> <li>• <b>transmit</b>: transmit the packet.</li> </ul>
Class: Streaming	Specifies the statistics for use traffic of streaming QoS class along with traffic policing/shaping status.
Class: Interactive	Specifies the statistics for use traffic of interactive QoS class along with traffic policing/shaping status. It showed for the traffic handling priority 1 through 3.
Traffic Handling Priority	Specifies the traffic handling priority for interactive QoS class along with traffic policing/shaping status. Possible values are priority 1 through 3.
Class: Background	Specifies the statistics for use traffic of background QoS class along with traffic policing/shaping status.
IP address allocation statistics:	
ip type static	The current total number of PDP contexts facilitated by the APN that used static IP address.
ip type local pool	The current total number of PDP contexts facilitated by the APN that were dynamically assigned IP addresses from pools configured locally on the system.
ip type radius	The current total number of PDP contexts facilitated by the APN that were dynamically assigned IP addresses from a RADIUS server.
ip type dhcp proxy	The current total number of PDP contexts facilitated by the APN that were dynamically assigned IP addresses by the system using the DHCP client mode.
ip type dhcp relay	The current total number of PDP contexts facilitated by the APN that were dynamically assigned IP addresses by the system using the DHCP relay mode.
ip type no allocation	The current total number of PDP contexts facilitated by the APN that were not dynamically allocated IP addresses. This counters is relevant for a multicast sessions (MBMS) where IP allocation is not applicable.
<b>Session statistics</b>	
current contexts (selected APN(s))	The current total number of PDP contexts facilitated by the APN.
current contexts (system wide)	The current total number of PDP contexts facilitated by the entire system.
cumulative contexts (selected APN(s))	The cumulative number of PDP contexts facilitated by the APN.
cumulative contexts (system wide)	The cumulative number of PDP contexts facilitated by the entire system.
Current APN context load	The current percent utilization of the APN as function of the APN's configured maximum number of supported PDP contexts and the current total number of PDP contexts facilitated by the APN.

Field	Description
Cumulative APN context load	The cumulative percent utilization of the APN as function of the APN's configured maximum number of supported PDP contexts and the cumulative number of PDP contexts facilitated by the APN.
<b>AAA Counters</b>	
Authentication Counters	
Access-Request Sent	The total number of access requests that were sent.
Access-Request Timeouts	The total number of access request timeouts.
<b>Accounting Counters</b>	
Accounting-Request Sent	The total number of accounting requests that were sent.
Accounting-Response Received	The total number of accounting responses that were received.
Accounting-Request Timeouts	The total number of accounting request timeouts.
RADIUS Acct-Req purged	The total number of RADIUS accounting requests purged.
GTPP Acct-req purged	The total number of GTPP accounting requests purged.
GTPP sec Acct-req purged	The total number of secondary G-CDR accounting requests being processed and purged by this AAAMgr instance for which the GTPP protocol is being used to deliver the accounting message to the Charging Gateway Function (CGF) . It counts total secondary G-CDR accounting requests purged by this AAAMgr instance
GTPP Chrg-req purged	The total number of GTPP charging requests purged.
GTPP sec Chrg-req purged	The total number of secondary eG-CDR charging requests being processed and purged by this AAAMgr instance for which the GTPP protocol is being used to deliver the charging message to the Charging Gateway Function (CGF) . It counts total secondary eG-CDR charging requests purged by this AAAMgr instance



# Chapter 46

## show asngw-service

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This chapter includes the `show asngw-service` command output tables.

## show asngw-service all

Table 105. show asngw-service all Command Output Descriptions

Field	Description
Service name	The ASN GW service name.
Context	The context in which the service is configured.
Bind	The bind status.
Max Subscribers	The maximum number of subscribers.
IP address	IP address of ASN GW server where this service is located.
UDP Port	The UDP port number.
Service Status	Status of this service.
Authentication	The authentication mode. Possible modes are: <ul style="list-style-type: none"> <li>• None</li> <li>• User (Single EAP)</li> <li>• Device (Single EAP)</li> <li>• Device-User (Double EAP)</li> <li>• Device-User (Single EAP)</li> </ul>
Policy msid-dhcp-chaddr-mismatch	Indicates the status of the policy to handle the calls with mismatched DHCP Client Hardware (MAC) Address (CHADDR) and MSID of the ASN-GW session.
Policy ms-unexpected-network-reentry	Indicates the status of the policy to handle the unexpected network re-entry of an MS.
Policy asngw-initiated-reauth	Indicates the status of the policy to handle the ASN GW initiated reauthorization trigger.
Policy non-anchor-mode	Indicates the status of the policy to handle the ASN GW to accept the session in non-anchor mode.
Newcall Policy	Specify that the new call policy enabled or disabled to handle new calls. Possible values are: <ul style="list-style-type: none"> <li>• NONE</li> <li>• REJECT</li> </ul>
Policy Overload	Specify that the session overload policy enabled or disabled to handle new calls. Possible values are: <ul style="list-style-type: none"> <li>• DROP</li> <li>• REJECT</li> </ul>
Mobile IP FA context	The name of the context where MIP FA service is configured.
Maximum number of retransmissions	The maximum number of retransmissions.
Retransmission timeout	The retransmission timeout duration.

Field	Description
Setup timeout	The session setup timeout duration.
Active-relay timeout	Indicates the timeout duration for active relay of R4 or R6 messages.
Handover anchor data-path termination timeout	Indicates the timeout duration in seconds to keep the data path registration with previous anchored BS after completion of handover.
Handover anchor data-path pre-registration termination timeout	Indicates the timeout duration in seconds to keep the data path pre-registration termination information with anchored BS after completion of handover.
Handover non-anchor data-path termination timeout	Indicates the timeout duration in seconds to keep the data path registration with non-anchored BS after completion of handover.
Handover non-anchor data-path pre-registration termination timeout	Indicates the timeout duration in seconds to keep the data path pre-registration termination information with non-anchored BS after completion of handover.
Handover max number of data-path pre-registrations	Indicates the maximum number of data paths created during pre-registration for a handover.
Idle-mode entry timeout	Indicates the timeout duration in seconds for a session to enter the idle mode from active mode.
Idle-mode exit timeout	Indicates the timeout duration in seconds for a session to reenter the active mode from idle mode.
Idle-mode timeout	Indicates the total timeout duration in seconds.
Policy transaction-id-validation	Indicates the status of the policy to validate the transaction id.
Policy zero-function-type	Indicates the status of the policy to allow the zero function type of call.
Transaction Id. Seed	Indicates the transaction identifier seed.
Peer ASNGW addresses	Indicates the IP addresses of trusted ASN GW peers for handover.
BS Monitor Config	Indicates the status of BS monitoring support. Possible values are: <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
Interval	Indicates the configured amount of time in seconds between two ICMP ping message to an ASN BS.
Timeout	Indicates the number of seconds to wait for response from the ASN BS before re-sending the ICMP ping message.
Number of retries	Indicates the number of retries to sent ICMP ping messages to an ASN BS before the ASN BS is declared as dead/unreachable.
MTU size	Indicates the maximum transmission unit size configured in bytes.
Total BSs	Indicates the total number of BSs monitored.
Active BSs	Indicates number of active BSs.
Alive BSs	Indicates number of active and alive BSs.
ICMP Monitored BSs	Indicates the number of BSs which are monitored through ICMP ping messages.
Inactive BSs	Indicates number of inactive BSs.

■ show asngw-service all

Field	Description
No Calls BSs	Indicates the total number of BSs which have no active calls or in idle mode.
Going Down BSs	Indicates the total number of BSs which are going down or terminating sessions.
BS	Indicates the IP address of BSs.
Status	Indicates the status of listed BSs.
Maximum Number of Secondary IP Hosts	Indicates the maximum number of secondary hosts connected behind a primary WiMAX CPE under multiple IP host support.
Ran Peer Map Name	The name of the RAN Peer Map this service is using to reconcile base station MAC address received in R6 protocol messages to the actual IPv4 address of the base station.

# show asngw-service session all

Table 106. show asngw-service session all Command Output Descriptions

Field	Description
vv	<p>Displays service and session state information. This column provides a code consisting of two characters.</p> <p>From left-to-right, the first character represents the <b>Call Type</b> that the subscriber is using. The possible call types are:</p> <ul style="list-style-type: none"> <li>• <b>A</b>: Anchor</li> <li>• <b>N</b>: Non-Anchor</li> </ul> <p>From left-to-right, the second character represents the <b>DP Status</b>. The possible data path status are:</p> <ul style="list-style-type: none"> <li>• <b>A</b>: Active</li> <li>• <b>I</b>: Idle</li> </ul>
CALLID	The subscriber's call identification number.
MSID	The subscriber's Mobile Station Identification number.
NAI	The subscriber's Network Access Identifier.
Home Address	The IP address assigned to the subscriber's mobile node for the duration of the session.
Total Non-Anchor ASNGW Sessions	The total number of ASN GW sessions in non-anchor mode.
Total Anchor ASNGW Sessions	The total number of ASN GW sessions in anchor mode.
Total Active ASNGW Sessions	The total number of active ASN GW sessions including anchor and non-anchor mode.
Total Idle ASNGW Sessions	The total number of idle ASN GW sessions including anchor and non-anchor mode.
Total ASNGW Sessions	The total number of ASN GW sessions on chassis including all modes.

## show asngw-service session counters

Table 107. show asngw-service session counters Command Output Descriptions

Field	Description
Username	The subscriber's user name.
Callid	The subscriber's call identification number.
MSID	The subscriber's Mobile Station Identification number.
Session Type	Indicates the type of session. Possible type of sessions are: <ul style="list-style-type: none"> <li>• Anchor</li> <li>• Non-Anchor</li> </ul>
<b>Initial Network Entry Events</b>	
MS Pre-Attach	Displays the MS pre-attach event statistics.
Attempted	Indicates the total number of attempts made for an event.
Success	Indicates the total number of successful attempts made for an event.
Failures	Indicates the total number of failed attempts made for an event.
Authentications	Displays the authentication event statistics.
EAP	Indicates the total number of authentication/re-authentication attempts failed due to EAP.
Misc. Reason	Indicates the total number of authentication/re-authentication attempts failed due to miscellaneous reasons.
MS Attach	Displays the MS attach event statistics.
DP Registrations	Displays the data path registration event statistics.
Re-Authentications	Displays the re-authentication event statistics.
<b>Handover Events</b>	
Intra ASN-GW Handovers	Displays the intra-ASN GW (inter BS) handover event statistics.
Inter ASN-GW Handovers	Displays the inter-ASN GW handover event statistics.
DP De-Registrations	Displays the data path de-registration event statistics.
Idle Mode entry events	Displays the idle mode entry event statistics.
Idle Mode exit events	Displays the idle mode exit event statistics.
Paging initiation events	Displays the paging initiation event statistics.
<b>Total R6/R4 Control Messages</b>	Displays the statistics of total R4 and R6 control messages.
Sent	Total number of R4/R6 control messages sent.
Retransmissions Sent	Total number of R4/R6 control messages retransmitted.

Field	Description
Received	The total number of R4/R6 control messages received.
Accepted	The total number of R4/R6 control messages received and accepted.
Relayed	The total number of R4/R6 control messages received and relayed.
Denied	The total number of R4/R6 control messages received and denied.
Discarded	The total number of R4/R6 control messages received and discarded.
Badly Formed	The total number of badly formed R4/R6 control messages messages.
Decode Error	The total number of decode errors found in the R4/R6 control messages.
Unspecified Error	The total number of unspecified errors found in the R4/R6 control messages.
Missing Mandatory TLV	The total number of R4/R6 control messages received with missing mandatory TLVs.
TLV Value Invalid	The total number of R4/R6 control messages received with invalid TLV value.
Unknown TLV	The total number of R4/R6 control messages received with unknown TLV value.
Duplicate TLV Found	The total number of R4/R6 control messages received with duplicate TLV value.
No Session Found	The total number of R4/R6 control messages received without session information.
Transaction Id. Error	The total number of R4/R6 control messages received with error in transaction id.
Key Change Success	The total number of R4/R6 control messages received with successful Key Change request.
Key Change Failure	The total number of R4/R6 control messages with failed Key Change request.
MS Initiated Re-Auth	The total number of R4/R6 control messages received with for MS initiated re-authentication.
BS Initiated Re-Auth	The total number of R4/R6 control messages received with for BS initiated re-authentication.
<b>Total R4/R6 Data messages:</b>	Displays the statistics of total R4 and R6 data messages.
<b>GRE Receive:</b>	
Packets Received	The total number of packets received by the system through GRE tunnel.
Bytes Received	The total number of bytes received by the system through GRE tunnel.
Protocol Type Error	The total number of encapsulated packets received through GRE tunnel with protocol type errors.
GRE Key Absent	Total number of GRE tunneled key absent errors received through GRE tunnel.
GRE Checksum Error	Total number of checksum errors that occurred in GRE tunnels received by this system.
Invalid Packet Length	Total number of encapsulated packets received with invalid packet lengths through GRE tunnel.
No Session found	Total number of errors that occurred due to no session being present in received tunnels.
Unspecified Error	Total number of data messages received with errors which are not specified in this table.
<b>GRE Send:</b>	
Packets Sent	The total number of packets sent by the system through GRE tunnel.
Bytes Sent	The total number of bytes sent by the system through GRE tunnel.

## ■ show asngw-service session counters

Field	Description
Send Error	The total number of errors that occurred while sending replies through GRE tunnel.
Unspecified Error	Total number of data messages sent with errors which are not specified in this table through GRE tunnel.
Total Non-Anchor ASNGW Sessions	The total number of ASN GW sessions in non-anchor mode.
Total Anchor ASNGW Sessions	The total number of ASN GW sessions in anchor mode.
Total ASNGW Sessions	The total number of ASN GW sessions including anchor and non-anchor mode.

## show asngw-service session counters verbose

Table 108. show asngw-service session counters verbose Command Output Descriptions

Field	Description
Username	The subscriber's user name.
Callid	The subscriber's call identification number.
MSID	The subscriber's Mobile Station Identification number.
Session Type	Indicates the type of session. Possible type of sessions are: <ul style="list-style-type: none"> <li>• Anchor</li> <li>• Non-Anchor</li> </ul>
<b>Message Groups</b>	
R6 MS Pre-Attachment Request messages	Groups the statistics of the MS pre-attachment request messages on R6 interface.
R6 MS Pre-Attachment Response messages	Groups the statistics of the MS pre-attachment response messages on R6 interface.
R6 MS Pre-Attachment Ack messages	Groups the statistics of the MS pre-attachment ACK messages on R6 interface.
R6 Network Exit MS State Change Request messages	Groups the statistics of the MS state change request messages on network exit R6 interface.
R4 Network Exit MS State Change Request messages	Groups the statistics of the MS state change request messages on network exit R4 interface.
R6 Network Exit MS State Change Response messages	Groups the statistics of the MS state change response messages on network exit R6 interface.
R4 Network Exit MS State Change Response messages	Groups the statistics of the MS state change response messages on network exit R4 interface.
R6 Context Request messages	Groups the statistics of the context request messages on R6 interface.
R4 Context Request messages	Groups the statistics of the context request messages on R4 interface.
R6 Context Report messages	Groups the statistics of the context report messages on R6 interface.
R4 Context Report messages	Groups the statistics of the context report messages on R4 interface.
R6 Context Ack messages	Groups the statistics of the context ACK messages on R6 interface.
R4 Context Ack messages	Groups the statistics of the context ACK messages on R4 interface.
R6 Authentication Relay EAP Transfer messages	Groups the statistics of the EAP authentication relay transfer messages on R6 interface.
R4 Authentication Relay EAP Transfer messages	Groups the statistics of the EAP authentication relay transfer messages on R4 interface.

■ show asngw-service session counters verbose

Field	Description
R6 Authentication Relay EAP Start messages	Groups the statistics of the EAP authentication relay start messages on R6 interface.
R4 Authentication Relay EAP Start messages	Groups the statistics of the EAP authentication relay start messages on R4 interface.
R6 MS Attachment Request messages	Groups the statistics of the MS attachment request messages on R6 interface.
R6 MS Attachment Response messages	Groups the statistics of the MS attachment response messages on R6 interface.
R6 MS Attachment Ack messages	Groups the statistics of the MS attachment ACK messages on R6 interface.
R6 Data-Path Pre-Registration Request messages	Groups the statistics of the data path pre-registration request messages on R6 interface.
R4 Data-Path Pre-Registration Request messages	Groups the statistics of the data path pre-registration request messages on R4 interface.
R6 Data-Path Pre-Registration Response messages	Groups the statistics of the data path pre-registration response messages on R6 interface.
R4 Data-Path Pre-Registration Response messages	Groups the statistics of the data path pre-registration response messages on R4 interface.
R6 Data-Path Pre-Registration Ack messages	Groups the statistics of the data path pre-registration ACK messages on R6 interface.
R4 Data-Path Pre-Registration Ack messages	Groups the statistics of the data path pre-registration ACK messages on R4 interface.
R6 Data-Path Registration Request messages	Groups the statistics of the data path registration request messages on R6 interface.
R4 Data-Path Registration Request messages	Groups the statistics of the data path registration request messages on R4 interface.
R6 Data-Path Registration Response messages	Groups the statistics of the data path registration response messages on R6 interface.
R4 Data-Path Registration Response messages	Groups the statistics of the data path registration response messages on R4 interface.
R6 Data-Path Registration Ack messages	Groups the statistics of the data path registration ACK messages on R6 interface.
R4 Data-Path Registration Ack messages	Groups the statistics of the data path registration ACK messages on R4 interface.
R6 Data-Path De-Registration Request messages	Groups the statistics of the data path de-registration request messages on R6 interface.
R4 Data-Path De-Registration Request messages	Groups the statistics of the data path de-registration request messages on R4 interface.
R6 Data-Path De-Registration Response messages	Groups the statistics of the data path de-registration response messages on R6 interface.

Field	Description
R4 Data-Path De-Registration Response messages	Groups the statistics of the data path de-registration response messages on R4 interface.
R6 Data-Path De-Registration Ack messages	Groups the statistics of the data path de-registration ACK messages on R6 interface.
R4 Data-Path De-Registration Ack messages	Groups the statistics of the data path de-registration ACK messages on R4 interface.
R6 Key Change Directive messages	Groups the statistics of the key change directive messages on R6 interface.
R4 Key Change Directive messages	Groups the statistics of the key change directive messages on R4 interface.
R6 Key Change Ack messages	Groups the statistics of the key change ACK messages on R6 interface.
R4 Key Change Ack messages	Groups the statistics of the key change ACK messages on R4 interface.
R6 Key Change Confirm messages	Groups the statistics of the key change confirm messages on R6 interface.
R4 Key Change Confirm messages	Groups the statistics of the key change confirm messages on R4 interface.
R6 Cmac Key Count Update Msg	Groups the statistics of the Cipher-based Message Authentication Code (CMAC) key count update messages on R6 interface.
R4 Cmac Key Count Update Msg	Groups the statistics of the Cipher-based Message Authentication Code (CMAC) key count update messages on R4 interface.
R6 Cmac Key Count Ack Msg	Groups the statistics of the Cipher-based Message Authentication Code (CMAC) key count ACK messages on R6 interface.
R4 Cmac Key Count Ack Msg	Groups the statistics of the Cipher-based Message Authentication Code (CMAC) key count ACK messages on R4 interface.
R6 Handoff Request Msg	Groups the statistics of the hand-off request messages on R6 interface.
R4 Handoff Request Msg	Groups the statistics of the hand-off request messages on R4 interface.
R6 Handoff Response Msg	Groups the statistics of the hand-off response messages on R6 interface.
R4 Handoff Response Msg	Groups the statistics of the hand-off response messages on R4 interface.
R6 Handoff Ack Msg	Groups the statistics of the hand-off ACK messages on R6 interface.
R4 Handoff Ack Msg	Groups the statistics of the hand-off ACK messages on R4 interface.
R6 Handoff Confirm Msg	Groups the statistics of the hand-off confirm messages on R6 interface.
R4 Handoff Confirm Msg	Groups the statistics of the hand-off confirm messages on R4 interface.
R6 Handoff Complete Msg	Groups the statistics of the hand-off complete messages on R6 interface.
R4 Handoff Complete Msg	Groups the statistics of the hand-off complete messages on R4 interface.
R4 IM Entry State Change Req Msg	Groups the statistics of the idle mode entry state change request messages on R4 interface.

Field	Description
R4 IM Entry State Change Rsp Msg	Groups the statistics of the idle mode entry state change response messages on R4 interface.
R4 IM Entry State Change Ack Msg	Groups the statistics of the idle mode entry state change ACK messages on R4 interface.
R4 Anchor PC Indication Msg	Groups the statistics of anchor paging controller (PC) indication messages on R4 interface.
R4 Anchor PC Ack Msg	Groups the statistics of anchor paging controller (PC) ACK messages on R4 interface.
R4 IM Exit State Change Req Msg	Groups the statistics of the idle mode exit state change request messages on R4 interface.
R4 IM Exit State Change Rsp Msg	Groups the statistics of the idle mode exit state change response messages on R4 interface.
R4 Initiate Paging Req Msg	Groups the statistics of the initiated paging request messages on R4 interface.
R4 Initiate Paging Rsp Msg	Groups the statistics of the initiated paging response messages on R4 interface.
R4 Delete MS Entry Req Msg	Groups the statistics of the request messages to delete the MS entry request on R4 interface.
R4 Delete MS Entry Rsp Msg	Groups the statistics of the messages sent in response of delete message for the MS entry request on R4 interface.
R6 Unknown messages	Groups the statistics of the unknown type of request messages on R6 interface.
R4 Unknown messages	Groups the statistics of the unknown type of request messages on R4 interface.
<b>Message Statistics</b>	
Total Sent	The total number of this type of message sent on specific interface.
Total Send Failures	The total number of failures occurred during transaction id generation and message not sent for specific interface. This counter is used to count the error while sending the R6/R4 packets.
Retransmissions Sent	The total number of this type of message re-transmitted on specific interface.
Total Received	The total number of this type of message received on specific interface.
Total Accepted	The total number of this type of message accepted on specific interface.
Total Relayed	The total number of this type of message relayed on specific interface.
Total Denied	The total number of this type of message denied on specific interface.
Total Discarded	The total number of this type of message discarded on specific interface.
Badly Formed	The total number of badly formed this type of message on specific interface.
Decode Error	The total number of this type of message on specific interface with decode error.
Unspecified Error	The total number of this type of message on specific interface with unspecified error.
Missing Mandatory TLV	The total number of this type of message on specific interface with missing mandatory TLVs.
TLV Value Invalid	The total number of this type of message on specific interface with invalid TLV value.
Unknown TLV	The total number of this type of message on specific interface with unknown TLVs.
Duplicate TLV Found	The total number of this type of message on specific interface with duplicate TLVs.

Field	Description
No session Found	The total number of this type of message on specific interface without any session information.
Transaction Id. Error	The total number of this type of message on specific interface. with transaction id error.
Key Change Success	The total number of successful Key Change Confirmation messages.
Key Change Failure	The total number of Key Change Confirmation messages failed.
Out Of Order Packet	The total number of authentication relay EAP transfer/start messages on R6 interface with out-of-order packets.
MS Initiated Re-Auth	The total number of authentication relay EAP start messages on specific interface with MS initiated reauthorization.
BS Initiated Re-Auth	The total number of authentication relay EAP start messages on specific interface with BS initiated reauthorization.
ASNGW Initiated Re-Auth	Total number of the re-authentications initiated from the ASN GW.
<b>Data messages</b>	
GRE R6 Receive	The total number of data message received with through GRE tunnel on R6 interface.
GRE R4 Receive	The total number of data message received through GRE tunnel on R4 interface.
Packets Received	The total number of data packets received/sent through GRE tunnel on R4/R6 interface.
Bytes Received	The total number of data bytes received/sent through GRE tunnel on R4/R6 interface.
Protocol Type Error	The total number of data message received/sent with protocol type error through GRE tunnel on R4/R6 interface.
GRE Key Absent	The total number of data message received/sent without GRE key through GRE tunnel on R4/R6 interface.
GRE Checksum Error	The total number of data message received/sent with checksum error through GRE tunnel on R4/R6 interface.
Invalid Packet Length	The total number of data message received/sent with invalid packet length through GRE tunnel on R4/R6 interface.
No Session found	The total number of data message received/sent without any session information through GRE tunnel on R4/R6 interface.
Unspecified Error	The total number of data message received/sent with unknown error through GRE tunnel on R4/R6 interface.
GRE R6 Send	The total number of data message sent through GRE tunnel on R6 interface.
GRE R4 Send	The total number of data message sent through GRE tunnel on R4 interface.
Packets Sent	The total number of data packets sent through GRE tunnel on R4/R6 interface.
Send Error	The total number of data message sent with error through GRE tunnel on R4/R6 interface.
Bytes Sent	The total number of data bytes sent through GRE tunnel on R4/R6 interface.

## show asngw-service session full

Table 109. show asngw-service session full Command Output Descriptions

Field	Description
Username	The subscriber's user name.
Callid	The subscriber's call identification number.
Pseudoname	The subscriber's pseudo name. It provides the pseudo user name for a WIMAX session if TTLS authentication is used for the call.
MSID	The subscriber's Mobile Station Identification number.
Home Address	The IP address assigned to the subscriber's mobile node for the duration of the session.
ASNGW Service Address	IP address of system where ASN GW service is running.
Session Type	Indicates the type of session. Possible type of sessions are: <ul style="list-style-type: none"> <li>• Anchor</li> <li>• Non-Anchor</li> </ul>
DP Status	Indicates the status of data path. Possible data path status are: <ul style="list-style-type: none"> <li>• Active</li> <li>• Idle</li> </ul>
Authenticator Address	IP address of the authenticator ASN GW.
Anchor Address	IP address of the anchor ASN GW where subscriber is attached.
Data Path Status	Identifies if the call can carry data over the R6/R4 interface. Idle: the ASN GW is attached to PCLR and is not capable of sending traffic to BS over R6/R4. Active: the IP-GRE tunnels between the ASN GW and the BS are setup and ready to transfer data from the IP network side.
PCLR Address	IP address of PC-LR currently attached to this ASN GW.
CMAC Key Count	Total number of Cipher-based Message Authentication Code (CMAC) key count.
EAP MSK Lifetime	Total lifetime configured for EAP Master Session Key in seconds.
Remaining MSK Lifetime	Remaining lifetime available for EAP Master Session Key in seconds.
Number of Re-authentication	Total number of re-authentications happened for a WiMAX subscriber.
Authentication Mode	The authentication mode. Possible modes are: <ul style="list-style-type: none"> <li>• None</li> <li>• User (Single EAP)</li> <li>• Device (Single EAP)</li> <li>• Device-User (Double EAP)</li> <li>• Device-User (Single EAP)</li> </ul>

Field	Description
EAP-Methods	Specifies the EAP authentication method. Possible methods are: <ul style="list-style-type: none"> <li>• EAP-Pre-shared Key (EAP-PSK)</li> <li>• EAP-Transport Layer Security (EAP-TLS)</li> <li>• EAP-Tunneled Transport Layer Security (EAP-TTLS)</li> <li>• EAP-Authentication and Key Agreement (EAP-AKA)</li> </ul>
DHCP ChAddr of MS	Client Hardware (MAC) Address (CHADDR) of MS.
<b>Service Flow Information</b>	
SFID	The service flow identifier.
Direction	Direction of the service flow.
SDFID	The service data flow identifier.
PDFID	The packet data flow identifier.
Profile ID	The profile id applicable for service flow.
Peer (*) Address	Specifies the IP address of the trusted peer for handover.
Peer Type	Specifies the type of peer for handover. Possible types are: <ul style="list-style-type: none"> <li>• BS</li> <li>• ASN GW</li> </ul>
BSID	Specifies the ASN base station Id.
GRE Key	The Generic Routing Encapsulation (GRE) key.
Tunnel Endpoint	Indicates the IP address of GRE tunnel endpoint.
Total Service flows(unidirectional)	Total number of service flows in both direction.
Total Non-Anchor ASNGW Sessions	The total number of ASN GW sessions in non-anchor mode.
Total Anchor ASNGW Sessions	The total number of ASN GW sessions in anchor mode.
Total Active ASNGW Sessions	The total number of active ASN GW sessions.
Total Idle ASNGW Sessions	The total number of ASN GW sessions in idle mode.
Total ASNGW Sessions	The total number of ASN GW sessions including anchor and non-anchor mode.

## show asngw-service session counters function-type data-path

Table 110. show asngw-service session counters function-type data-path Command Output Descriptions

Field	Description
Username	The subscriber's user name.
CALLID	The subscriber's call identification number.
MSID	The subscriber's Mobile Station Identification number.
<b>Data-Path Registration Request Messages:</b>	
Total Sent	The total number of Data-Path Registration Request messages sent.
Total Send Failures	The total number of failures occurred during transaction id generation and message not sent for specific interface. This counter is used to count the error while sending the R6/R4 packets.
Total Received	The total number of Data-Path Registration Request messages received.
Total Denied	The total number of Data-Path Registration Request messages denied.
Total Discarded	The total number of Data-Path Registration Request messages discarded.
Badly Formed	The total number of badly formed Data-Path Registration Request messages.
Decode Error	The total number of decode errors in the Data-Path Registration Request messages sent.
Unspecified Error	The total number of unspecified errors in the Data-Path Registration Request messages sent.
Missing Mandatory TLV	The total number of missing mandatory TLVs in the Data-Path Registration Request messages sent.
TLV Value Invalid	The total number of Data-Path Registration Request messages sent with invalid TLV value.
Unknown TLV	The total number of Data-Path Registration Request messages sent with unknown TLV.
Duplicate TLV Found	The total number of Data-Path Registration Request messages sent with duplicate TLV.
No Session Found	The total number of Data-Path Registration Request messages sent without session information.
<b>Data-Path Registration Response Messages:</b>	
Total Sent	The total number of Data-Path Registration Response messages sent.
Total Send Failures	The total number of failures occurred during transaction id generation and message not sent for specific interface. This counter is used to count the error while sending the R6/R4 packets.
Total Received	The total number of Data-Path Registration Response messages received.
Total Denied	The total number of Data-Path Registration Response messages denied.
Total Discarded	The total number of Data-Path Registration Response messages discarded.
Badly Formed	The total number of badly formed Data-Path Registration Response messages.
Decode Error	The total number of decode errors in the Data-Path Registration Response messages sent.

Field	Description
Unspecified Error	The total number of unspecified errors in the Data-Path Registration Response messages sent.
Missing Mandatory TLV	The total number of missing mandatory TLVs in the Data-Path Registration Response messages sent.
TLV Value Invalid	The total number of Data-Path Registration Response messages sent with invalid TLV value.
Unknown TLV	The total number of Data-Path Registration Response messages sent with unknown TLV.
Duplicate TLV Found	The total number of Data-Path Registration Response messages sent with duplicate TLV.
No Session Found	The total number of Data-Path Registration Response messages sent without session information.
<b>Data-Path Registration Ack Messages:</b>	
Total Sent	The total number of Data-Path Registration Request Ack messages sent.
Total Send Failures	The total number of failures occurred during transaction id generation and message not sent for specific interface. This counter is used to count the error while sending the R6/R4 packets.
Total Received	The total number of Data-Path Registration Request Ack messages received.
Total Denied	The total number of Data-Path Registration Request Ack messages denied.
Total Discarded	The total number of Data-Path Registration Request Ack messages discarded.
Badly Formed	The total number of badly formed Data-Path Registration Request Ack messages.
Decode Error	The total number of decode errors in the Data-Path Registration Request Ack messages sent.
Unspecified Error	The total number of unspecified errors in the Data-Path Registration Request Ack messages sent.
Missing Mandatory TLV	The total number of missing mandatory TLVs in the Data-Path Registration Request Ack messages sent.
TLV Value Invalid	The total number of Data-Path Registration Request Ack messages sent with invalid TLV value.
Unknown TLV	The total number of Data-Path Registration Request Ack messages sent with unknown TLV.
Duplicate TLV Found	The total number of Data-Path Registration Request Ack messages sent with duplicate TLV.
No Session Found	The total number of Data-Path Registration Request Ack messages sent without session found.
<b>Data-Path De-Registration Request Messages:</b>	
Total Sent	The total number of Data-Path De-Registration Request messages sent.
Total Send Failures	The total number of failures occurred during transaction id generation and message not sent for specific interface. This counter is used to count the error while sending the R6/R4 packets.
Total Received	The total number of Data-Path De-Registration Request messages received.
Total Denied	The total number of Data-Path De-Registration Request messages denied.
Total Discarded	The total number of Data-Path De-Registration Request messages discarded.
Badly Formed	The total number of badly formed Data-Path De-Registration Request messages.
Decode Error	The total number of decode errors in the Data-Path De-Registration Request messages sent.

Field	Description
Unspecified Error	The total number of unspecified errors in the Data-Path De-Registration Request messages sent.
Missing Mandatory TLV	The total number of missing mandatory TLVs in the Data-Path De-Registration Request messages sent.
TLV Value Invalid	The total number of Data-Path De-Registration Request messages sent with invalid TLV value.
Unknown TLV	The total number of Data-Path De-Registration Request messages sent with unknown TLV.
Duplicate TLV Found	The total number of Data-Path De-Registration Request messages sent with duplicate TLV.
No Session Found	The total number of Data-Path De-Registration Request messages sent without session information.
<b>Data-Path De-Registration Response Messages:</b>	
Total Sent	The total number of Data-Path De-Registration Response messages sent.
Total Send Failures	The total number of failures occurred during transaction id generation and message not sent for specific interface. This counter is used to count the error while sending the R6/R4 packets.
Total Received	The total number of Data-Path De-Registration Response messages received.
Total Denied	The total number of Data-Path De-Registration Response messages denied.
Total Discarded	The total number of Data-Path De-Registration Response messages discarded.
Badly Formed	The total number of badly formed Data-Path De-Registration Response messages.
Decode Error	The total number of decode errors in the Data-Path De-Registration Response messages sent.
Unspecified Error	The total number of unspecified errors in the Data-Path De-Registration Response messages sent.
Missing Mandatory TLV	The total number of missing mandatory TLVs in the Data-Path De-Registration Response messages sent.
TLV Value Invalid	The total number of Data-Path De-Registration Response messages sent with invalid TLV value.
Unknown TLV	The total number of Data-Path De-Registration Response messages sent with unknown TLV.
Duplicate TLV Found	The total number of Data-Path De-Registration Response messages sent with duplicate TLV.
No Session Found	The total number of Data-Path De-Registration Response messages sent without session information.
Total ASNGW Sessions	The total number of ASNGW messages.

## show asngw-service session peer-address

Table 111. show asngw-service session peer-address Command Output Descriptions

Field	Description
vv	<p>Displays service and session state information. This column provides a code consisting of two characters.</p> <p>From left-to-right, the first character represents the <b>Call Type</b> that the subscriber is using. The possible call types are:</p> <ul style="list-style-type: none"> <li>• <b>A</b>: Anchor</li> <li>• <b>N</b>: Non-Anchor</li> </ul> <p>From left-to-right, the second character represents the <b>DP Status</b>. The possible data path status are:</p> <ul style="list-style-type: none"> <li>• <b>A</b>: Active</li> <li>• <b>I</b>: Idle</li> </ul>
CALLID	The subscriber's call identification number.
MSID	The subscriber's Mobile Station Identification number.
NAI	The subscriber's Network Access Identifier.
Home Address	The IP address assigned to the subscriber's mobile node for the duration of the session.
Total Non-Anchor ASNGW Sessions	The total number of ASN GW sessions in non-anchor mode.
Total Anchor ASNGW Sessions	The total number of ASN GW sessions in anchor mode.
Total Active ASNGW Sessions	The total number of active ASN GW sessions including anchor and non-anchor mode.
Total Idle ASNGW Sessions	The total number of idle ASN GW sessions including anchor and non-anchor mode.
Total ASNGW Sessions	The total number of ASN GW sessions on chassis including all modes.

## show asngw-service session summary

*Table 112. show asngw-service session summary Command Output Descriptions*

Field	Description
Total Non-Anchor ASNGW Sessions	The total number of ASN GW sessions in non-anchor mode.
Total Anchor ASNGW Sessions	The total number of ASN GW sessions in anchor mode.
Total Active ASNGW Sessions	The total number of active ASN GW sessions including anchor and non-anchor mode.
Total Idle ASNGW Sessions	The total number of idle ASN GW sessions including anchor and non-anchor mode.
Total ASNGW Sessions	The total number of ASN GW sessions on chassis including all modes.

## show asngw-service statistics

Table 113. show asngw-service statistics Command Output Descriptions

Field	Description
<b>Initial Network Entry Events</b>	
MS Pre-Attach	Displays the MS pre-attach event statistics.
Attempted	Indicates the total number of attempts made for an event.
Success	Indicates the total number of successful attempts made for an event.
Failures	Indicates the total number of failed attempts made for an event.
Authentications	Displays the authentication event statistics.
EAP	Indicates the total number of authentication/re-authentication attempts failed due to EAP.
Misc. Reason	Indicates the total number of authentication/re-authentication attempts failed due to miscellaneous reasons.
MS Attach	Displays the MS attach event statistics.
Re-Authentications	Displays the re-authentication event statistics.
<b>Handover Events</b>	
Intra ASN-GW Handovers	Displays the intra-ASN GW (inter BS) handover event statistics.
Inter ASN-GW Handovers	Displays the inter-ASN GW handover event statistics.
DP Pre-registration	Displays the data path pre-registration event statistics.
DP Registration	Displays the data path registration event statistics.
DP De-Registration	Displays the data path de-registration event statistics.
Idle Mode entry events	Displays the idle mode entry event statistics.
Idle Mode exit events	Displays the idle mode exit event statistics.
Paging initiation events	Displays the paging initiation event statistics.
Total Disconnects	Displays the reason statistics for the disconnection of session.
MSK Lifetime Expiry	Indicates the total number of disconnects due to Master Session Key lifetime expiry.
Auth Failures	Indicates the total number of disconnects due to authentication failure.
Admin Drops	Indicates the total number of disconnects due to administrator intervention.
De-registrations	Indicates the total number of disconnects due to de-registration request initiation.
Other Reasons	Indicates the total number of disconnects due to unspecified reasons.
<b>Total R6/R4 Control Messages</b>	Displays the statistics of total R4 and R6 control messages.

Field	Description
Sent	Total number of R4/R6 control messages sent.
Retransmissions Sent	Total number of R4/R6 control messages retransmitted.
Received	Total number of R4/R6 control messages received.
Accepted	Total number of R4/R6 control messages received and accepted.
Relayed	Total number of R4/R6 control messages received and relayed.
Denied	Total number of R4/R6 control messages received and denied.
Discarded	Total number of R4/R6 control messages received and discarded.
Badly Formed	Total number of badly formed R4/R6 control messages.
Decode Error	Total number of decode errors found in the R4/R6 control messages.
Unspecified Error	Total number of unspecified errors found in the R4/R6 control messages.
Missing Mandatory TLV	Total number of R4/R6 control messages received with missing mandatory TLVs.
TLV Value Invalid	Total number of R4/R6 control messages received with invalid TLV value.
Unknown TLV	Total number of R4/R6 control messages received with unknown TLV value.
Duplicate TLV Found	Total number of R4/R6 control messages received with duplicate TLV value.
No Session Found	Total number of R4/R6 control messages received without session information.
Transaction Id. Error	Total number of R4/R6 control messages received with error in transaction id.
Key Change Success	Total number of R4/R6 control messages received with successful Key Change request.
Key Change Failures	Total number of R4/R6 control messages with failed Key Change request.
MS Initiated Re-Auth	Total number of R4/R6 control messages received with for MS initiated re-authentication.
BS Initiated Re-Auth	Total number of R4/R6 control messages received with for BS initiated re-authentication.
ASNGW Initiated Re-Auth	Total number of the re-authentications initiated from the ASN GW.
<b>Total R4/R6 Data messages:</b>	Displays the statistics of total R4 and R6 data messages.
<b>GRE Receive:</b>	
Total Packets Received	Total number of packets received by the system through GRE tunnel.
Total Bytes Received	Total number of bytes received by the system through GRE tunnel.
Protocol Type Error	Total number of encapsulated packets received through GRE tunnel with protocol type errors.
GRE Key Absent	Total number of GRE tunneled key absent errors received through GRE tunnel.
GRE Checksum Error	Total number of checksum errors that occurred in GRE tunnels received by this system.
Invalid Packet Length	Total number of encapsulated packets received with invalid packet lengths through GRE tunnel.
No Session found	Total number of errors that occurred due to no session being present in received tunnels.
Unspecified Error	Total number of data messages received with errors which are not specified in this table.
<b>GRE Send:</b>	

Field	Description
Total Packets Sent	Total number of packets sent by the system through GRE tunnel.
Total Bytes Sent	Total number of bytes sent by the system through GRE tunnel.
Send Error	Total number of errors that occurred while sending replies through GRE tunnel.
Unspecified Error	Total number of data messages sent with errors which are not specified in this table through GRE tunnel.
Total Sessions Connected	Historical count of the total number of ASNGW sessions setup on a per-service and a per-chassis basis.

## show asngw-service statistics function-type ms-state-change

Table 114. show asngw-service statistics function-type ms-state-change Command Output Descriptions

Field	Description
<b>Network Entry MS State Change Request Messages:</b>	
Total Sent	The total number of Network Entry MS State Change Request messages sent.
Total Send Failures	The total number of failures occurred during transaction id generation and message not sent for specific interface. This counter is used to count the error while sending the R6/R4 packets.
Total Received	The total number of Network Entry MS State Change Request messages received.
Total Denied	The total number of Network Entry MS State Change Request messages denied.
Total Discarded	The total number of Network Entry MS State Change Request messages discarded.
Badly Formed	The total number of badly formed Network Entry MS State Change Request messages.
Decode Error	The total number of decode errors in the Network Entry MS State Change Request messages sent.
Unspecified Error	The total number of unspecified errors in the Network Entry MS State Change Request messages sent.
Missing Mandatory TLV	The total number of missing mandatory TLVs in the Network Entry MS State Change Request messages sent.
TLV Value Invalid	The total number of Network Entry MS State Change Request messages sent with invalid TLV value.
Unknown TLV	The total number of Network Entry MS State Change Request messages sent with unknown TLV.
Duplicate TLV Found	The total number of Network Entry MS State Change Request messages sent with duplicate TLV.
No Session Found	The total number of Network Entry MS State Change Request messages sent without session information.
<b>Network Entry MS State Change Response Messages:</b>	
Sent	The total number of Network Entry MS State Change Response messages sent.
Total Received	The total number of Network Entry MS State Change Response messages received.
Total Denied	The total number of Network Entry MS State Change Response messages denied.
Total Discarded	The total number of Network Entry MS State Change Response messages discarded.
Badly Formed	The total number of badly formed Network Entry MS State Change Response messages.
Decode Error	The total number of decode errors in the Network Entry MS State Change Response messages sent.
Unspecified Error	The total number of unspecified errors in the Network Entry MS State Change Response messages sent.
Missing Mandatory TLV	The total number of missing mandatory TLVs in the Network Entry MS State Change Response messages sent.
TLV Value Invalid	The total number of Network Entry MS State Change Response messages sent with invalid TLV value.
Unknown TLV	The total number of Network Entry MS State Change Response messages sent with unknown TLV.

Field	Description
Duplicate TLV Found	The total number of Network Entry MS State Change Response messages sent with duplicate TLV.
No Session Found	The total number of Network Entry MS State Change Response messages sent without session information.
<b>Network Entry MS State Change Directive Messages:</b>	
Total Sent	The total number of Network Entry MS State Change Directive messages sent.
Total Send Failures	The total number of failures occurred during transaction id generation and message not sent for specific interface. This counter is used to count the error while sending the R6/R4 packets.
Total Received	The total number of Network Entry MS State Change Directive messages received.
Total Denied	The total number of Network Entry MS State Change Directive messages denied.
Total Discarded	The total number of Network Entry MS State Change Directive messages discarded.
Badly Formed	The total number of badly formed Network Entry MS State Change Directive messages.
Decode Error	The total number of decode errors in the Network Entry MS State Change Directive messages sent.
Unspecified Error	The total number of unspecified errors in the Network Entry MS State Change Directive messages sent.
Missing Mandatory TLV	The total number of missing mandatory TLVs in the Network Entry MS State Change Directive messages sent.
TLV Value Invalid	The total number of Network Entry MS State Change Directive messages sent with invalid TLV value.
Unknown TLV	The total number of Network Entry MS State Change Directive messages sent with unknown TLV.
Duplicate TLV Found	The total number of Network Entry MS State Change Directive messages sent with duplicate TLV.
No Session Found	The total number of Network Entry MS State Change Directive Request messages sent without session information.
<b>Network Entry MS State Change Ack Messages:</b>	
Total Sent	The total number of Network Entry MS State Change Ack messages sent.
Total Received	The total number of Network Entry MS State Change Ack messages received.
Total Denied	The total number of Network Entry MS State Change Ack messages denied.
Total Discarded	The total number of Network Entry MS State Change Ack messages discarded.
Badly Formed	The total number of badly formed Network Entry MS State Change Ack messages.
Decode Error	The total number of decode errors in the Network Entry MS State Change Ack messages sent.
Unspecified Error	The total number of unspecified errors in the Network Entry MS State Change Ack messages sent.
Missing Mandatory TLV	The total number of missing mandatory TLVs in the Network Entry MS State Change Ack messages sent.
TLV Value Invalid	The total number of Network Entry MS State Change Ack messages sent with invalid TLV value.
Unknown TLV	The total number of Network Entry MS State Change Ack messages sent with unknown TLV.
Duplicate TLV Found	The total number of Network Entry MS State Change Ack messages sent with duplicate TLV.

```
■ show asngw-service statistics function-type ms-state-change
```

Field	Description
No Session Found	The total number of Network Entry MS State Change Ack messages sent without session information.

## show asngw-service statistics verbose

Table 115. show asngw-service statistics verbose Command Output Descriptions

Field	Description
<b>Message Groups</b>	
R6 MS Pre-Attachment Request messages	Groups the statistics of the MS pre-attachment request messages on R6 interface.
R6 MS Pre-Attachment Response messages	Groups the statistics of the MS pre-attachment response messages on R6 interface.
R6 MS Pre-Attachment Ack messages	Groups the statistics of the MS pre-attachment ACK messages on R6 interface.
R6 Network Exit MS State Change Request messages	Groups the statistics of the MS state change request messages on network exit R6 interface.
R4 Network Exit MS State Change Request messages	Groups the statistics of the MS state change request messages on network exit R4 interface.
R6 Network Exit MS State Change Response messages	Groups the statistics of the MS state change response messages on network exit R6 interface.
R4 Network Exit MS State Change Response messages	Groups the statistics of the MS state change response messages on network exit R4 interface.
R6 Context Request messages	Groups the statistics of the context request messages on R6 interface.
R4 Context Request messages	Groups the statistics of the context request messages on R4 interface.
R6 Context Report messages	Groups the statistics of the context report messages on R6 interface.
R4 Context Report messages	Groups the statistics of the context report messages on R4 interface.
R6 Context Ack messages	Groups the statistics of the context ACK messages on R6 interface.
R4 Context Ack messages	Groups the statistics of the context ACK messages on R4 interface.
R6 Authentication Relay EAP Transfer messages	Groups the statistics of the EAP authentication relay transfer messages on R6 interface.
R4 Authentication Relay EAP Transfer messages	Groups the statistics of the EAP authentication relay transfer messages on R4 interface.
R6 Authentication Relay EAP Start messages	Groups the statistics of the EAP authentication relay start messages on R6 interface.
R4 Authentication Relay EAP Start messages	Groups the statistics of the EAP authentication relay start messages on R4 interface.
R6 MS Attachment Request messages	Groups the statistics of the MS attachment request messages on R6 interface.

```
show asngw-service statistics verbose
```

Field	Description
R6 MS Attachment Response messages	Groups the statistics of the MS attachment response messages on R6 interface.
R6 MS Attachment Ack messages	Groups the statistics of the MS attachment ACK messages on R6 interface.
R6 Data-Path Pre-Registration Request messages	Groups the statistics of the data path pre-registration request messages on R6 interface.
R4 Data-Path Pre-Registration Request messages	Groups the statistics of the data path pre-registration request messages on R4 interface.
R6 Data-Path Pre-Registration Response messages	Groups the statistics of the data path pre-registration response messages on R6 interface.
R4 Data-Path Pre-Registration Response messages	Groups the statistics of the data path pre-registration response messages on R4 interface.
R6 Data-Path Pre-Registration Ack messages	Groups the statistics of the data path pre-registration ACK messages on R6 interface.
R4 Data-Path Pre-Registration Ack messages	Groups the statistics of the data path pre-registration ACK messages on R4 interface.
R6 Data-Path Registration Request messages	Groups the statistics of the data path registration request messages on R6 interface.
R4 Data-Path Registration Request messages	Groups the statistics of the data path registration request messages on R4 interface.
R6 Data-Path Registration Response messages	Groups the statistics of the data path registration response messages on R6 interface.
R4 Data-Path Registration Response messages	Groups the statistics of the data path registration response messages on R4 interface.
R6 Data-Path Registration Ack messages	Groups the statistics of the data path registration ACK messages on R6 interface.
R4 Data-Path Registration Ack messages	Groups the statistics of the data path registration ACK messages on R4 interface.
R6 Data-Path De-Registration Request messages	Groups the statistics of the data path de-registration request messages on R6 interface.
R4 Data-Path De-Registration Request messages	Groups the statistics of the data path de-registration request messages on R4 interface.
R6 Data-Path De-Registration Response messages	Groups the statistics of the data path de-registration response messages on R6 interface.
R4 Data-Path De-Registration Response messages	Groups the statistics of the data path de-registration response messages on R4 interface.
R6 Data-Path De-Registration Ack messages	Groups the statistics of the data path de-registration ACK messages on R6 interface.
R4 Data-Path De-Registration Ack messages	Groups the statistics of the data path de-registration ACK messages on R4 interface.

Field	Description
R6 Key Change Directive messages	Groups the statistics of the key change directive messages on R6 interface.
R4 Key Change Directive messages	Groups the statistics of the key change directive messages on R4 interface.
R6 Key Change Ack messages	Groups the statistics of the key change ACK messages on R6 interface.
R4 Key Change Ack messages	Groups the statistics of the key change ACK messages on R4 interface.
R6 Key Change Confirm messages	Groups the statistics of the key change confirm messages on R6 interface.
R4 Key Change Confirm messages	Groups the statistics of the key change confirm messages on R4 interface.
R6 Cmac Key Count Update Msg	Groups the statistics of the Cipher-based Message Authentication Code (CMAC) key count update messages on R6 interface.
R4 Cmac Key Count Update Msg	Groups the statistics of the Cipher-based Message Authentication Code (CMAC) key count update messages on R4 interface.
R6 Cmac Key Count Ack Msg	Groups the statistics of the Cipher-based Message Authentication Code (CMAC) key count ACK messages on R6 interface.
R4 Cmac Key Count Ack Msg	Groups the statistics of the Cipher-based Message Authentication Code (CMAC) key count ACK messages on R46 interface.
R6 Handoff Request Msg	Groups the statistics of the hand-off request messages on R6 interface.
R4 Handoff Request Msg	Groups the statistics of the hand-off request messages on R4 interface.
R6 Handoff Response Msg	Groups the statistics of the hand-off response messages on R6 interface.
R4 Handoff Response Msg	Groups the statistics of the hand-off response messages on R4 interface.
R6 Handoff Ack Msg	Groups the statistics of the hand-off ACK messages on R6 interface.
R4 Handoff Ack Msg	Groups the statistics of the hand-off ACK messages on R4 interface.
R6 Handoff Confirm Msg	Groups the statistics of the hand-off confirm messages on R6 interface.
R4 Handoff Confirm Msg	Groups the statistics of the hand-off confirm messages on R4 interface.
R6 Handoff Complete Msg	Groups the statistics of the hand-off complete messages on R6 interface.
R4 Handoff Complete Msg	Groups the statistics of the hand-off complete messages on R4 interface.
R4 IM Entry State Change Req Msg	Groups the statistics of the idle mode entry state change request messages on R4 interface.
R4 IM Entry State Change Rsp Msg	Groups the statistics of the idle mode entry state change response messages on R4 interface.
R4 IM Entry State Change Ack Msg	Groups the statistics of the idle mode entry state change ACK messages on R4 interface.
R4 Anchor PC Indication Msg	Groups the statistics of anchor paging controller (PC) indication messages on R4 interface.
R4 Anchor PC Ack Msg	Groups the statistics of anchor paging controller (PC) ACK messages on R4 interface.

Field	Description
R4 IM Exit State Change Req Msg	Groups the statistics of the idle mode exit state change request messages on R4 interface.
R4 IM Exit State Change Rsp Msg	Groups the statistics of the idle mode exit state change response messages on R4 interface.
R4 Initiate Paging Req Msg	Groups the statistics of the initiated paging request messages on R4 interface.
R4 Initiate Paging Rsp Msg	Groups the statistics of the initiated paging response messages on R4 interface.
R4 Delete MS Entry Req Msg	Groups the statistics of the request messages to delete the MS entry request on R4 interface.
R4 Delete MS Entry Rsp Msg	Groups the statistics of the messages sent in response of delete message for the MS entry request on R4 interface.
R6 Unknown messages	Groups the statistics of the unknown type of request messages on R6 interface.
R4 Unknown messages	Groups the statistics of the unknown type of request messages on R4 interface.
<b>Message Statistics</b>	
Total Sent	The total number of this type of message sent on specific interface.
Total Send Failures	The total number of failures occurred during transaction id generation and message not sent for specific interface. This counter is used to count the error while sending the R6/R4 packets.
Retransmissions Sent	The total number of this type of message re-transmitted on specific interface.
Total Received	The total number of this type of message received on specific interface.
Total Accepted	The total number of this type of message accepted on specific interface.
Total Relayed	The total number of this type of message relayed on specific interface.
Total Denied	The total number of this type of message denied on specific interface.
Total Discarded	The total number of this type of message discarded on specific interface.
Badly Formed	The total number of badly formed this type of message on specific interface.
Decode Error	The total number of this type of message on specific interface with decode error.
Unspecified Error	The total number of this type of message on specific interface with unspecified error.
Missing Mandatory TLV	The total number of this type of message on specific interface with missing mandatory TLVs.
TLV Value Invalid	The total number of this type of message unspecific interface with invalid TLV value.
Unknown TLV	The total number of this type of message on specific interface with unknown TLVs.
Duplicate TLV Found	The total number of this type of message on specific interface with duplicate TLVs.
No session Found	The total number of this type of message on specific interface without any session information.
Transaction Id. Error	The total number of this type of message on specific interface. with transaction id error.
Key Change Success	The total number of successful Key Change Confirmation messages.
Key Change Failure	The total number of Key Change Confirmation messages failed.

Field	Description
Out Of Order Packet	The total number of authentication relay EAP transfer/start messages on R6 interface with out-of-order packets.
MS Initiated Re-Auth	The total number of authentication relay EAP start messages on specific interface with MS initiated reauthorization.
BS Initiated Re-Auth	The total number of authentication relay EAP start messages on specific interface with BS initiated reauthorization.
<b>Data messages</b>	
GRE R6 Receive	The total number of data message received with through GRE tunnel on R6 interface.
GRE R4 Receive	The total number of data message received through GRE tunnel on R4 interface.
Packets Received	The total number of data packets received/sent through GRE tunnel on R4/R6 interface.
Bytes Received	The total number of data bytes received/sent through GRE tunnel on R4/R6 interface.
Protocol Type Error	The total number of data message received/sent with protocol type error through GRE tunnel on R4/R6 interface.
GRE Key Absent	The total number of data message received/sent without GRE key through GRE tunnel on R4/R6 interface.
GRE Checksum Error	The total number of data message received/sent with checksum error through GRE tunnel on R4/R6 interface.
Invalid Packet Length	The total number of data message received/sent with invalid packet length through GRE tunnel on R4/R6 interface.
No Session found	The total number of data message received/sent without any session information through GRE tunnel on R4/R6 interface.
Unspecified Error	The total number of data message received/sent with unknown error through GRE tunnel on R4/R6 interface.
GRE R6 Send	The total number of data message sent through GRE tunnel on R6 interface.
GRE R4 Send	The total number of data message sent through GRE tunnel on R4 interface.
Packets Sent	The total number of data packets sent through GRE tunnel on R4/R6 interface.
Send Error	The total number of data message sent with error through GRE tunnel on R4/R6 interface.
Bytes Sent	The total number of data bytes sent through GRE tunnel on R4/R6 interface.



# Chapter 47

## show asnpc-service

---

This chapter includes the `show asnpc-service` command output tables.

## show asnpc-service all

Table 116. show asnpc-service all Command Output Descriptions

Field	Description
Service name	The ASN GW service name.
Context	The context in which the service is configured.
Anchor PC ID	The anchor paging controller identifier.
Bind	The bind status.
Max Subscribers	The maximum number of subscribers.
IP address	IP address of ASN GW server where this service is located.
UDP Port	The UDP port number.
Service Status	Status of this service.
Maximum number of retransmissions	The maximum number of retransmissions.
Maximum number of paging-announce retransmissions	The maximum number of paging-announce retransmissions.
Retransmission timeout	The retransmission timeout duration.
Setup timeout	The session setup timeout duration.
Active-relay timeout	Indicates the timeout duration for active relay of R4 or R6 messages.
Paging-announce timeout	Indicates the paging announce timeout duration in seconds.
Paging-announce retransmission timeout	Indicates the paging announce retransmission timeout duration in seconds.
Policy transaction-id-validation	Possible values are: <ul style="list-style-type: none"> <li>• ALLOW: Enforce tid validation procedure as per NWG specification, section 3.1.</li> <li>• DISALLOW: Do not enforce tid validation procedure as per NWG specification, section 3.1.</li> </ul>
Policy zero-function-type	Possible values are: <ul style="list-style-type: none"> <li>• ALLOW: If configured, function type is not considered for transaction id generation/validation.</li> <li>• DISALLOW: If configured, function type is considered for transaction id generation/validation.</li> </ul>
Transaction Id. Seed	If configured, initial value of tid is set to this configured value, otherwise, initial value of tid is set to a random number.
Peer ASNGW address	The list of ASN GW IP addresses with which the PCLR is permitted to interact.
Number of Paging Groups configured	The total number of paging groups configured for this service.

Field	Description
Paging Group	The paging group ID associated with this service.
Paging Offset	The offsets configured for the Paging Group.
Number of MSIDs	The current total number of MNs assigned/using the offset.

## show asnpc-service session all

Table 117. show asnpc-service session all Command Output Descriptions

Field	Description
CALLID	The subscriber's call identification number.
MSID	The subscriber's Mobile Station Identification number.
BS/PA Address	IP address of the base-station or paging agent.
Session Type	Indicates the type of ASN PC session. Possible type of sessions are: <ul style="list-style-type: none"><li>• Anchor</li><li>• Non-anchor</li></ul>
Total ASNPC Sessions	The total number of ASN PC sessions on chassis including all modes.

## show asnpc-service session full

Table 118. show asnpc-service session all Command Output Descriptions

Field	Description
Username	The subscriber's user name.
Callid	The subscriber's call identification number.
MSID	The subscriber's Mobile Station Identification number.
ASNPC Service Address	IP address of system where ASN PC service is running.
BS/PA Address	IP address of the base-station or paging agent.
BS ID	The identifier of base station. Generally it is MAC address of the BS.
Authenticator Address	IP address of the authenticator ASN GW.
DPF/ASNGW Address	IP address of the system where data path function/ASN GW service is running.
Idle-mode timeout	Indicates the total configured timeout duration in seconds for an MS to enter the idle mode from active mode.
Remaining Idle Mode Timeout	Indicates the remaining timeout duration in seconds for an MS to enter the idle mode from active mode.
Paging Information	
Paging Cycle	Indicates the number of paging cycles happened in this ASN PC service session.
Paging Offset	Indicates the paging offset for paging announce.
Paging Group ID	Indicates the paging group identifier which contains the group of paging agents bounded with this paging controller session.
Paging Interval	Interval time in seconds between two paging announces.
MS Information	
Idle Mode Authorization Indication	Indicates the idle mode authorization status.
SA Descriptor Information	Indicates the Security Association description information. SA descriptor is a compound attribute whose sub-attributes describe the properties of a Security Association (SA). These properties include the SA ID, the SA type, the SA service type, and the cryptographic suite employed within the SA.
SA ID	Indicates the identifier for the security association.
SA Type	Indicates the types of security association. Possible values are:

Field	Description
Cryptographic Suite	Indicates the cryptographic suite employed within the security association. Possible values are: <ul style="list-style-type: none"> <li>• 0: Primary SA</li> <li>• 1: Static SA</li> <li>• 3: Dynamic SA</li> <li>• 4: Group SA</li> <li>• 5: MBS SA</li> </ul>
SA Service Type	Indicates the service types of the corresponding SA type. Possible values are: <ul style="list-style-type: none"> <li>• 0: Unicast service</li> <li>• 1: Group multicast service</li> <li>• 2: MBS service</li> </ul> <p>Note that this shall be defined only when SA type is Static SA or Dynamic SA.</p>
SA Index	Indicates the index of security association.
Older/Newer TEK Parameters	Indicates the older or newer Traffic Encryption Key (TEK) parameters involved.
TEK TLV (in hex)	Indicates the TEK total length value in hexadecimal.
TEK Sequence Number	Indicates the TEK sequence number.
TEK Lifetime	Indicates the TEK lifetime in seconds.
PN Counter	Indicates the packet number counter in downlink direction that are used for encryption and decryption by the Base Station.
RxPN Counter	Indicates the packet number counter in uplink direction that are used for encryption and decryption by the Base Station.
Total ASNPC Sessions	The total number of ASN PC sessions on chassis including all modes.

## show asnpc-service session counters verbose

Table 119. show asnpc-service session counters verbose Command Output Descriptions

Field	Description
Username	The subscriber's user name.
Callid	The subscriber's call identification number.
MSID	The subscriber's Mobile Station Identification number.
<b>Message Groups</b>	
R6 Idle Mode Entry MS State Change Request Msg	Groups the statistics of the Idle Mode Entry MS State Change Request messages on R6 interface.
R6 Idle Mode Entry MS State Change Response Msg	Groups the statistics of the Idle Mode Entry MS State Change Response messages on R6 interface.
R6 Idle Mode Entry MS State Change Ack Msg	Groups the statistics of the Idle Mode Entry MS State Change Ack messages on R6 interface.
R6 Idle Mode Exit MS State Change Request Msg	Groups the statistics of the Idle Mode Exit MS State Change Request messages on R6 interface.
R6 Idle Mode Exit MS State Change Response Msg	Groups the statistics of the Idle Mode Exit MS State Change Response messages on R6 interface.
R6 Location Update Request Msg	Groups the statistics of the Location Update Request messages on R6 interface.
R6 Location Update Response Msg	Groups the statistics of the Location Update Response messages on R6 interface.
R6 Location Update Confirm Msg	Groups the statistics of the Location Update Confirm messages on R6 interface.
R6 Paging Announce Msg	Groups the statistics of the Paging Announce messages on R6 interface.
R4 Idle Mode Entry MS State Change Request Msg	Groups the statistics of the Idle Mode Entry MS State Change Request messages on R4 interface.
R4 Idle Mode Entry MS State Change Response Msg	Groups the statistics of the Idle Mode Entry MS State Change Response messages on R4 interface.
R4 Idle Mode Entry MS State Change Ack Msg	Groups the statistics of the Idle Mode Entry MS State Change Ack messages on R4 interface.
R4 Idle Mode Exit MS State Change Request Msg	Groups the statistics of the Idle Mode Exit MS State Change Request messages on R4 interface.
R4 Idle Mode Exit MS State Change Response Msg	Groups the statistics of the Idle Mode Exit MS State Change Response messages on R4 interface.
R4 Network Exit MS State Change Request Msg	Groups the statistics of the Network Exit MS State Change Request messages on R4 interface.

Field	Description
R4 Network Exit MS State Change Response Msg	Groups the statistics of the Network Exit MS State Change Response messages on R4 interface.
R4 Delete MS Entry Request Msg	Groups the statistics of the Delete MS Entry Request messages on R4 interface.
R4 Delete MS Entry Response Msg	Groups the statistics of the Delete MS Entry Response messages on R4 interface.
R4 Initiate Paging Request Msg	Groups the statistics of the Initiate Paging Request messages on R4 interface.
R4 Initiate Paging Response Msg	Groups the statistics of the Initiate Paging Response messages on R4 interface.
R4 Anchor PC Ind Msg	Groups the statistics of the Anchor Paging Controller Indicator messages on R4 interface.
R4 Anchor PC Ack Msg	Groups the statistics of the Anchor Paging Controller Ack messages on R4 interface.
R4 Context Request Msg	Groups the statistics of the Context Request messages on R4 interface.
R4 Context Report Msg	Groups the statistics of the Context Report messages on R4 interface.
R6/R4 Unknown Messages	Groups the statistics of the Unknown type of messages on R6 and/or R4 interface.
<b>Message Statistics</b>	
Total Sent	The total number of this type of message sent on specific interface.
Total Send Failures	The total number of failures occurred during transaction id generation and message not sent for specific interface. This counter is used to count the error while sending the R6/R4 packets.
Retransmissions Sent	The total number of this type of message re-transmitted on specific interface.
Total Received	The total number of this type of message received on specific interface.
Total Accepted	The total number of this type of message accepted on specific interface.
Total Relayed	The total number of this type of message relayed on specific interface.
Total Denied	The total number of this type of message denied on specific interface.
Total Discarded	The total number of this type of message discarded on specific interface.
Badly Formed	The total number of badly formed this type of message on specific interface.
Decode Error	The total number of this type of message on specific interface with decode error.
Unspecified Error	The total number of this type of message on specific interface with unspecified error.
Paging Config Error	The total number of this type of errors messages on specified interface occurred. This error occurs when paging node id (BS id) is not configured in configured paging groups.
Missing Mandatory TLV	The total number of this type of message on specific interface with missing mandatory TLVs.
TLV Value Invalid	The total number of this type of message on specific interface with invalid TLV value.
Unknown TLV	The total number of this type of message on specific interface with unknown TLVs.
Duplicate TLV Found	The total number of this type of message on specific interface with duplicate TLVs.
No session Found	The total number of this type of message on specific interface without any session information.

Field	Description
Transaction Id. Error	The total number of this type of message on specific interface. with transaction id error.
<b>Data messages</b>	
GRE R6 Receive	The total number of data message received with through GRE tunnel on R6 interface.
GRE R4 Receive	The total number of data message received through GRE tunnel on R4 interface.
Packets Received	The total number of data packets received/sent through GRE tunnel on R4/R6 interface.
Bytes Received	The total number of data bytes received/sent through GRE tunnel on R4/R6 interface.
Protocol Type Error	The total number of data message received/sent with protocol type error through GRE tunnel on R4/R6 interface.
GRE Key Absent	The total number of data message received/sent without GRE key through GRE tunnel on R4/R6 interface.
GRE Checksum Error	The total number of data message received/sent with checksum error through GRE tunnel on R4/R6 interface.
Invalid Packet Length	The total number of data message received/sent with invalid packet length through GRE tunnel on R4/R6 interface.
No Session found	The total number of data message received/sent without any session information through GRE tunnel on R4/R6 interface.
Unspecified Error	The total number of data message received/sent with unknown error through GRE tunnel on R4/R6 interface.
GRE R6 Send	The total number of data message sent through GRE tunnel on R6 interface.
GRE R4 Send	The total number of data message sent through GRE tunnel on R4 interface.
Packets Sent	The total number of data packets sent through GRE tunnel on R4/R6 interface.
Send Error	The total number of data message sent with error through GRE tunnel on R4/R6 interface.
Bytes Sent	The total number of data bytes sent through GRE tunnel on R4/R6 interface.

## show asnpc-service statistics verbose

Table 120. show asnpc-service statistics verbose Command Output Descriptions

Field	Description
<b>Message Groups</b>	
R6 Idle Mode Entry MS State Change Request Msg	Groups the statistics of the Idle Mode Entry MS State Change Request messages on R6 interface.
R6 Idle Mode Entry MS State Change Response Msg	Groups the statistics of the Idle Mode Entry MS State Change Response messages on R6 interface.
R6 Idle Mode Entry MS State Change Ack Msg	Groups the statistics of the Idle Mode Entry MS State Change Ack messages on R6 interface.
R6 Idle Mode Exit MS State Change Request Msg	Groups the statistics of the Idle Mode Exit MS State Change Request messages on R6 interface.
R6 Idle Mode Exit MS State Change Response Msg	Groups the statistics of the Idle Mode Exit MS State Change Response messages on R6 interface.
R6 Location Update Request Msg	Groups the statistics of the Location Update Request messages on R6 interface.
R6 Location Update Response Msg	Groups the statistics of the Location Update Response messages on R6 interface.
R6 Location Update Confirm Msg	Groups the statistics of the Location Update Confirm messages on R6 interface.
R6 Paging Announce Msg	Groups the statistics of the Paging Announce messages on R6 interface.
R4 Idle Mode Entry MS State Change Request Msg	Groups the statistics of the Idle Mode Entry MS State Change Request messages on R4 interface.
R4 Idle Mode Entry MS State Change Response Msg	Groups the statistics of the Idle Mode Entry MS State Change Response messages on R4 interface.
R4 Idle Mode Entry MS State Change Ack Msg	Groups the statistics of the Idle Mode Entry MS State Change Ack messages on R4 interface.
R4 Idle Mode Exit MS State Change Request Msg	Groups the statistics of the Idle Mode Exit MS State Change Request messages on R4 interface.
R4 Idle Mode Exit MS State Change Response Msg	Groups the statistics of the Idle Mode Exit MS State Change Response messages on R4 interface.
R4 Initiate Paging Request Msg	Groups the statistics of the Initiate Paging Request messages on R4 interface.
R4 Initiate Paging Response Msg	Groups the statistics of the Initiate Paging Response messages on R4 interface.
R4 Location Update Request Msg	Groups the statistics of the Location Update Request messages on R4 interface.

Field	Description
R4 Location Update Response Msg	Groups the statistics of the Location Update Response messages on R4 interface.
R4 Location Update Confirm Msg	Groups the statistics of the Location Update Confirm messages on R4 interface.
R4 Network Exit MS State Change Request Msg	Groups the statistics of the Network Exit MS State Change Request messages on R4 interface.
R4 Network Exit MS State Change Response Msg	Groups the statistics of the Network Exit MS State Change Response messages on R4 interface.
R4 Delete MS Entry Request Msg	Groups the statistics of the Delete MS Entry Request messages on R4 interface.
R4 Delete MS Entry Response Msg	Groups the statistics of the Delete MS Entry Response messages on R4 interface.
R4 Anchor PC Ind Msg	Groups the statistics of the Anchor Paging Controller Indicator messages on R4 interface.
R4 Anchor PC Ack Msg	Groups the statistics of the Anchor Paging Controller Ack messages on R4 interface.
R4 PC Relocation Ind Msg	Groups the statistics of the PC Relocation Ind messages on the R4 interface.
R4 PC Relocation Ack Msg	Groups the statistics of the PC Relocation Ack messages on the R4 interface.
R4 Context Request Msg	Groups the statistics of the Context Request messages on R4 interface.
R4 Context Report Msg	Groups the statistics of the Context Report messages on R4 interface.
R4 CMAC Key Count Update Msg	Groups the statistics of the CMAC Key Count Update messages on the R4 interface.
R4 CMAC Key Count Ack Msg	Groups the statistics of the CMAC Key Count Ack messages on the R4 interface.
R6/R4 Unknown Messages	Groups the statistics of the Unknown type of messages on R6 and/or R4 interface.
<b>Message Statistics</b>	
Total Sent	The total number of this type of message sent on specific interface.
Total Send Failures	The total number of failures occurred during transaction id generation and message not sent for specific interface. This counter is used to count the error while sending the R6/R4 packets.
Retransmissions Sent	The total number of this type of message re-transmitted on specific interface.
Total Received	The total number of this type of message received on specific interface.
Total Accepted	The total number of this type of message accepted on specific interface.
Total Relayed	The total number of this type of message relayed on specific interface.
Total Denied	The total number of this type of message denied on specific interface.
Total Discarded	The total number of this type of message discarded on specific interface.
Badly Formed	The total number of badly formed this type of message on specific interface.
Decode Error	The total number of this type of message on specific interface with decode error.
Unspecified Error	The total number of this type of message on specific interface with unspecified error.

Field	Description
Missing Mandatory TLV	The total number of this type of message on specific interface with missing mandatory TLVs.
TLV Value Invalid	The total number of this type of message on specific interface with invalid TLV value.
Unknown TLV	The total number of this type of message on specific interface with unknown TLVs.
Duplicate TLV Found	The total number of this type of message on specific interface with duplicate TLVs.
No session Found	The total number of this type of message on specific interface without any session information.
Transaction Id. Error	The total number of this type of message on specific interface. with transaction id error.

# Chapter 48

## show bcmcs

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This chapter includes the **show bcmcs** command output tables.

## show bcmcs counters all

Table 121. *show bcmcs counters all* Command Output Descriptions

Field	Description
Username	BCMCS group username for this output.
Callid	Call ID for this output.
Flow-id	Flow ID for this output.
BCMCS Service Request/Reply	
Renew SRQ Accepted	The total number of service request renewals accepted.
Discarded	The total number of service request renewals discarded.
Response Send Error	The total number of service replies for which errors were experienced during transmission.
BCMCS Registration Request/Reply	
Renew RRQ Accepted	The total number of registration request renewals accepted.
Discarded	The total number of registration request renewals discarded.
Response Send Error	The total number of registration replies for which errors were experienced during transmission.
BCMCS Registration Update/Ack	
Initial Update Transmitted	The total number of registration updates that have been transmitted.
Update Retransmitted	The total number of registration updates that have been re-transmitted.
Denied	The total number of registration updates that have been denied by the PCF.
Not Acknowledged	The total number of registration updates and/or acknowledgements that have not been acknowledged by the PCF.
Reg Ack Received	The total number of registration acknowledgements that have been received.
Reg Ack Discarded	The total number of registration acknowledgements that have been discarded.
Update Send Error	The total number of registration updates for which errors were experienced during transmission.
BCMCS Registration Update Send Reason	
Lifetime Expiry	The total number of registration updates that were sent due to the expiration of a lifetime timer during a subscriber session.
Upper Layer Initiated	The total number of registration updates that were initiated by upper processing layers.
Other Reasons	The total number of registration updates that were sent due to reasons other than those listed here.

Field	Description
Session Manager Exited	The total number of registration updates that were sent due to the termination of Session Manager tasks. <b>NOTE:</b> If any data is reported for this field, there may be an issue with either the software or hardware. If you continue to experience problems, refer to the System Administration and Administration Reference for information on troubleshooting the problem.
BCMCS Registration Update Denied	
Reason Unspecified	The total number of denied registration updates that were sent with a reply code of 80H (Registration Denied - reason unspecified).
Admin Prohibited	The total number of denied registration updates that were sent with a reply code of 81H (Registration Denied - administratively prohibited).
BSN Failed Authentication	The total number of denied registration updates due to authentication failure by the mobile node.
Identification Mismatch	The total number of denied registration updates that were sent with a reply code of 85H (Registration Denied - identification mismatch).
Poorly Formed Update	The total number of denied registration updates that were sent with a reply code of 86H (Registration Denied - poorly formed request).
GRE Send	
Total Packets Sent	Indicates the total number of Generic Routing Encapsulation (GRE) packets transmitted.
Total Bytes Sent	Indicates the total number of Generic Routing Encapsulation (GRE) bytes transmitted.
Total BCMCS Sessions matching specified criteria	Total number of sessions matching specified criteria.

## show bcmcs statistics

Table 122. show bcmcs statistics Command Output Descriptions

Field	Description
Session Stats	
Total Sessions Current	Indicates the total number of sessions that are in progress. These could be either active, dormant, being set up, or being disconnected.
Current Flow-id session	Indicates the number of flow-id sessions in progress. These could be active, dormant, being set up or being disconnected.
Current Pgm-Id Session	Indicates the number of program-id sessions in progress. These could be active, dormant, being set up or being disconnected.
Total Setup	Indicates the total number of sessions that have been successfully set up since system started.
Total Released	Indicates the total number of sessions that have successfully been disconnected.
Total Setup Flow-Id	Indicates the total number of flow-id sessions that have been successfully set up since the system was started.
Total Setup Program-Id	Indicates the total number of program-id sessions that have been successfully set up since the system was started.
Session Releases	
De-registered	Indicates the total number of sessions that were disconnected through a normal de-registration process.
Lifetime Expiry	Indicates the total number of sessions that were disconnected due to the expiration of their lifetime timer.
PPP Layer Command	Indicates the number of sessions disconnected due to PPP initiating a tear-down.
PCF-Monitor Fail	The total number of sessions disconnected because the PCF monitor function detected that the PCF was down.
GRE Key Mismatch	The total number of sessions disconnected because the GRE key changed for a session.
Other Reasons	Indicates the number of sessions disconnected due to reasons other than those listed here.
BCMCS Service Request/Response	
Total SRQ/Renew/Dereg RX	The total number of service requests, renewals, and de-registrations received.
Total Accept	The total number of service requests that have been received and accepted.
Total Denied	Total number of service requests that have been received and denied.
Total Discard	Total number of service requests that have been received and discarded.
Init SRQ RX	The total number of initial setup or start service requests that have been received.
Init SRQ Accept	The total number of initial setup or start service requests that have been received and accepted.

Field	Description
Init SRQ Denied	The total number of initial setup or start service requests that have been received and denied.
Init SRQ Discard	The total number of initial setup or start service requests that have been received and discarded.
Renew SRQ RX	The total number of service request renewals received.
Renew SRQ Accept	The total number of service request renewals received and accepted.
Renew SRQ Denied	The total number of service request renewals received and denied.
Renew SRQ Discard	The total number of service request renewals received discarded.
Dereg SRQ RX	The total number of de-registration requests that have been received.
Dereg SRQ Accept	The total number of de-registration requests that have been received and accepted.
Dereg SRQ Denied	The total number of de-registration requests that have been received and denied.
Dereg SRQ Discard	The total number of de-registration requests that have been received and discarded.
Response Send Error	Indicates the total number of registration replies for which errors were experienced during transmission.
BCMCS Service Request Denied	
Requests Accepted	Indicates the total number of service requests that were denied based on the number of requests accepted.
Unspecified Reason	Indicates the total number of service requests that were denied for unspecified reasons.
PCF Failed Auth	Indicates the total number of service requests that were denied due to mobile node authentication failure.
Identification Mismatch	Indicates the total number of service requests that were denied due to an identification mismatch.
Unknown BSN	Indicates the total number of service requests that were denied due to an unknown BSN address.
BCMCS SRQ Denied - Insufficient Resource Reasons	
No Session Manager	Indicates the total number of service requests that were denied due to the lack of available Session Manager tasks. This may occur when the system is booting up in the event that a Session Manager task terminated unexpectedly.
No Memory	Indicates the total number of service requests that were denied due to insufficient memory.
Session Managers Retried	Indicates that the system unsuccessfully attempted to try multiple Session Manager tasks to establish a session.
Input-Q Exceeded	Indicates that the queue in which incoming calls are kept prior to being processed exceeded its capacity.
BCMCS SRQ Denied - Poorly Formed Request Reasons	
Session Already Dormant	The number of SRQs that had Active Stop for a session that was already dormant.
Already Active	The number of SRQs that had Active Start for a session that was already active.
Other Reasons	The number of SRQs denied due to other reasons for a badly formed SRQ.
BCMCS SRQ Denied - Overload/Congestion Control	
Admin Prohibited (reject)	SRQs denied due to congestion control mechanism.

Field	Description
Unknown BSN (redirect)	SRQs denied due to congestion control mechanism.
BCMCS Registration Request/Reply	
Total RRQ/Renew/Dereg RX	The total number of registration requests, renewals, and de-registrations received.
Total Accept	The total number of registration requests that have been accepted.
Total Denied	The total number of registration requests that have been rejected.
Total Discard	The total number of registration requests that have been discarded.
Init RRQ RX	The total number of initial registration requests that have been received.
Init RRQ Accept	The total number of initial registration requests received and accepted.
Init RRQ Denied	The total number of initial registration requests received and rejected.
Init RRQ Discard	The total number of initial registration requests that have been received and discarded.
Renew RRQ RX	The total number of registration request renewals received.
Renew RRX Accept	The total number of registration request renewals received and accepted.
Renew Actv Start Accept	The total number of RRQ renewals with an Active Start record received and accepted.
Renew Actv Stop Accept	The total number of RRQ renewals with an Active Stop record received and accepted.
Renew RRQ Denied	The total number of registration request renewals received and rejected.
Renew RRQ Discard	The total number of registration request renewals received and discarded
Dereg RRQ RX	The total number of de-registration requests that have been received.
Dereg RRQ Accept	The total number of de-registration requests received and accepted.
Dereg Active Stop Accept	The total number of de-registration requests with an active stop that were accepted.
Dereg RRQ Denied	The total number of de-registration requests received and rejected
Dereg RRQ Discard	The total number of de-registration requests received and discarded.
Reply Send Error	Indicates the total number of registration replies for which errors were experienced during transmission.
BCMCS Registration Request Denied	
Unspecified Reason	Indicates the total number of registration requests that were denied using reply code of 80H (Registration Denied - reason unspecified)
Admin Prohibited	Indicates the total number of registration requests that were denied using reply code of 81H (Registration Denied - administratively prohibited).
Insufficient Resources	Indicates the total number of registration requests that were denied using reply code of 82H (Registration Denied - insufficient resources).

Field	Description
PCF Failed Auth	Indicates the total number of registration requests that were denied using reply code of 83H (Registration Denied - mobile node failed authentication).
Identification Mismatch	Indicates the total number of registration requests that were denied using reply code of 85H (Registration Denied - identification mismatch).
Poorly Formed Request	Indicates the total number of registration requests that were denied using reply code of 86H (Registration Denied - poorly formed request).
Unknown BSN Address	Indicates the total number of registration requests that were denied due to an unknown BSN address.
Reverse Tunnel Unavail	Indicates the total number of registration requests that were denied using reply code of 89H (Registration Denied - requested reverse tunnel unavailable).
Reverse Tunnel Required	Indicates the total number of registration requests that were denied using reply code of 8AH (Registration Denied - reverse tunnel is mandatory and "T"-bit not set).
Unrecognized Vendor Id	Indicates the total number of registration requests that were denied using reply code of 8DH (Registration Denied - unsupported vendor ID or unable to interpret data in the CVSE).
Session Already Closed	Renew and RRQ denied due to the session not present in the PDSN Dereq. Error code 0x8e.
BCMCS RRQ Denied - Insufficient Resource Reasons	
No Session Manager	Indicates the total number of registration requests that were denied due to the lack of available Session Manager tasks. This may occur when the system is booting up in the event that a Session Manager task terminated unexpectedly.
No Memory	Indicates the total number of registration requests that were denied due to insufficient memory.
Session Managers Retried	Indicates that the system unsuccessfully attempted to try multiple Session Manager tasks to establish a session.
Input-Q Exceeded	Indicates that the queue in which incoming calls are kept prior to being processed exceeded its capacity.
BCMCS RRQ Denied - Poorly Formed Request Reasons	
Session Already Dormant	The number of RRQs that had Active Stop for a session that was already dormant.
Already Active	The number of RRQs that had Active Start for a session that was already active.
Other Reasons	The number of RRQs denied due to other reasons for a badly formed RRQ.
BCMCS RRQ Denied - Overload/Congestion Control	
Admin Prohibited (reject)	RRQs denied with error code 0x81h due to congestion control mechanism.
Unknown BSN (redirect)	RRQs denied with error code 0x88 due to congestion control mechanism.
BCMCS Registration Update/Ack	
Reg Update Transmitted	Indicates the total number of registration updates that were transmitted.
Accepted	Indicates the total number of registration updates that were accepted by the PCF.

Field	Description
Denied	Indicates the total number of registration updates that were denied.
Not Acknowledged	Indicates the total number of registration updates that were not acknowledged.
Initial Update TX	Indicates the total number of initial registration updates that were transmitted.
Update Retransmitted	Indicates the total number of registration updates that were re-transmitted.
Reg Ack Received	Indicates the total number of registration acknowledgements that were received.
Reg Ack Discarded	Indicates the total number of registration acknowledgements that were discarded.
Update Send Error	Indicates the total number of registration updates for which errors were experienced during transmission.
BCMCS Registration Update Send Reason	
Lifetime Expiry	Indicates the total number of registration updates that were sent due to the expiration of a lifetime timer during a subscriber session.
Other Reasons	Indicates the total number of registration updates that were sent due to reasons other than those listed here.
Upper Layer Initiated	Indicates the total number of registration updates that were initiated by upper processing layers.
Session Manager Exited	Indicates the number of registration updates that were sent due to the termination of a Session Manager task.
BCMCS Registration Update Denied	
Reason Unspecified	Indicates the total number of denied registration updates that were sent with a reply code of 80H (Registration Denied - reason unspecified).
Admin Prohibited	Indicates the total number of denied registration updates that were sent with a reply code of 81H (Registration Denied - administratively prohibited).
BSN Failed Auth	Indicates the total number of denied registration updates that were sent due to failed authentication by the mobile node.
Identification Mismatch	Indicates the total number of denied registration updates that were sent with a reply code of 85H (Registration Denied - identification mismatch).
Poorly Formed Updated	Indicates the total number of denied registration updates that were sent with a reply code of 86H (Registration Denied - poorly formed request).
BCMCS Registration Ack Discard Reasons	
Session Absent	Indicates the total number of registration acknowledgements that were discarded due to the session having been already ended because the acknowledgement was late.
No Memory	Indicates the total number of registration acknowledgements that were discarded due to insufficient memory.
Malformed	Indicates the total number of registration acknowledgements that were discarded due to being poorly formed.
Auth Failure	Indicates the total number of registration acknowledgements that were discarded due to the mobile node failing authentication.
Internal Bounce Error	Indicates that an internal communication message between an A11 Manager task and a Session Manager task bounced (was not successfully sent).

Field	Description
Input-Q Exceeded	Indicates the number of times that the queue in which incoming calls are kept prior to being processed exceeded its capacity.
Mismatched Id	Indicates the total number of discarded registration acknowledgements due to reply code 85H (Registration Denied - identification mismatch).
Invalid Packet Length	Indicates the total number of registration acknowledgements that were discarded due to having an invalid packet length.
Misc Reasons	Indicates the number of registration acknowledgements that were discarded due to reasons other than those listed here.
GRE Send	
Total Packets Sent	Indicates the total number of Generic Routing Encapsulation (GRE) packets transmitted.
Total Bytes Sent	Indicates the total number of Generic Routing Encapsulation (GRE) bytes transmitted.



# Chapter 49

## show bssap

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This chapter includes the **show bssap** command output tables.

## show bssap+ statistics

Table 123. show bssap+ statistics Command Output Descriptions

Field	Description
Bssap+ Statistics	Base station system application part plus related statistics.
Number of Subscribers in Gs-Associated State	Total number of subscriber in Gs associated state or using Gs interface for connectivity between SGSN and VLR.
Number of Associated Vlrs	Total number of VLRs associated with this BSSAP+ application.
Alert Req Rcvd	Total number of alert request messages received by BSSAP+ application from VLR.
Alert Ack Sent	Total number of acknowledge messages sent by BSSAP+ application in response to alert requests messages.
Alert Rej Sent	Total number of messages sent by BSSAP+ application to reject the alert requests.
Location Upd Req Sent	Total number of location update request messages sent by BSSAP+ application.
Location Upd Acc Rcvd	Total number of location update accept messages sent by BSSAP+ application from VLR.
Location Upd Rej Rcvd	Total number of messages sent by BSSAP+ application to reject the location update requests from VLR.
GPRS Detach Ind Sent	Total number of GPRS detach indication messages sent by BSSAP+ application.
GPRS Detach Ack Rcvd	Total number of acknowledge messages received by BSSAP+ application in response to GPRS detach indication messages sent to VLR.
IMSI Detach Ind Sent	Total number of IMSI detach indication messages sent by BSSAP+ application to VLR.
IMSI Detach Ack Rcvd	Total number of acknowledge messages received by BSSAP+ application in response to IMSI detach indication messages sent to VLR.
Mobile Status Rcvd	Total number of mobile status messages received by BSSAP+ application from VLR.
Mobile Status Sent	Total number of mobile status messages sent by BSSAP+ application to VLR.
Paging Req Rcvd	Total number of paging request messages received by BSSAP+ application from VLR.
Paging Rej Sent	Total number of messages sent by BSSAP+ application to reject the received paging request messages from VLR.
MS Unreachable Sent	Total number of messages sent by BSSAP+ application to indicate that mobile is unreachable to VLR.
TMSI Reloc Comp Sent	Total number of messages sent by BSSAP+ application with TMSI relocation components to VLR.
MS Info Req Rcvd	Total number of MS information request messages received by BSSAP+ application from VLR.
MS Info Rsp Sent	Total number of response messages sent by BSSAP+ application in response to MS information request messages from VLR.

Field	Description
MM Info Req Rcvd	Total number of mobility management (MM) information request messages received by BSSAP+ application from VLR.
MS Activity Ind Sent	Total number of MS activity indication messages sent by BSSAP+ application to VLR.
Reset Ind Rcvd	Total number of reset indicator messages received by BSSAP+ application from VLR.
Reset Ack Sent	Total number of acknowledge messages sent by BSSAP+ application in response to reset indicator message received from VLR.
Reset Ind Sent	Total number of reset indicator messages sent by BSSAP+ application to VLR.
Reset Ack Rcvd	Total number of acknowledge messages received by BSSAP+ application in response to reset indicator message sent to VLR.
Downlink Tnnl Req Rcvd	Total number of downlink tunnel request messages received by BSSAP+ application from VLR.
Uplink Tnnl Req Sent	Total number of uplink tunnel request messages sent by BSSAP+ application to VLR.



# Chapter 50

## show bulkstats data

Table 124. show bulkstats data Command Output Descriptions

Field	Description
<b>Bulk Statistics Server Configuration:</b>	
Server State	Indicates the server state—enabled/disabled.
File Limit	Indicates the file size limit in KBs.
Sample Interval	Indicates the sampling interval.
Transfer Interval	Indicates the transfer interval.
Receiver Mode	Indicates the receiver mode.
Local File Storage	Indicates the local file storage.
Historical Data Collection	Indicates the Historical Data Collection state—enabled/disabled.
<b>Bulk Statistics Server Statistics:</b>	
Records awaiting transmission	Indicates the number of records awaiting transmission.
Bytes awaiting transmission	Indicates the number of bytes awaiting transmissions.
Total records collected	Indicates the total number of records collected.
Total bytes collected	Indicates the total number of bytes collected.
Total records transmitted	Indicates the total number of records transmitted.
Total bytes transmitted	Indicates the total number of bytes transmitted.
Total records discarded	Indicates the total number of records discarded.
Total bytes discarded	Indicates the total number of bytes discarded.
Last collection time required	Indicates the last collection time required.
Last transfer time required	Indicates the last transfer time required.
No successful data transfers	Indicates successful data transfers.
No attempted data transfers	Indicates attempted data transfers.
<b>File n</b>	
Remote File Format	The remote file format—for example, %date%-%time%
File Header	The file's header.

Field	Description
File Footer	The file's footer.
No bulkstats receivers	Indicates the total number of Bulk Statistics collection servers configured.
<b>File Statistics:</b>	
Records awaiting transmission	Indicates the number of records awaiting transmission.
Bytes awaiting transmission	Indicates the number of bytes awaiting transmissions.
Total records collected	Indicates the total number of records collected.
Total bytes collected	Indicates the total number of bytes collected.
Total records transmitted	Indicates the total number of records transmitted.
Total bytes transmitted	Indicates the total number of bytes transmitted.
Total records discarded	Indicates the total number of records discarded.
Total bytes discarded	Indicates the total number of bytes discarded.
Last transfer time required	Indicates the last transfer time required.
No successful data transfers	Indicates successful data transfers.
No attempted data transfers	Indicates attempted data transfers.

# Chapter 51

## show card

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This chapter includes the **show card** command output tables.

## show card diag

Table 125. show card diag Command Output Descriptions

Field	Description
Counters	<p>Displays boot counter information for the card. The following counters are reported:</p> <ul style="list-style-type: none"> <li>• <b>Successful warm boots:</b> Warm boots occur upon a software reset of the card.</li> <li>• <b>Successful cold boots:</b> Cold boots occur when the card experiences a hardware reboot.</li> <li>• <b>Total boot attempts:</b> This is the sum of successful and unsuccessful warm and cold boots. If this number is not equal to the total number of successful warm boots and the number of successful cold boots, then boot failures have occurred. This situation may indicate a problem with this card that requires further investigation.</li> </ul> <p>Each of the above counters provide a timestamp indicating the most recent occurrence.</p> <hr/> <p> <b>Important:</b> Counters are not displayed for line card diagnostics.</p>
Status	<p>Status is reported for the following items:</p> <ul style="list-style-type: none"> <li>• IDEEPROM Magic Number</li> <li>• Boot Mode</li> <li>• <b>Card Diagnostics:</b> Indicates the current status of the card's internal diagnostics. The two possible states are: Pass (all diagnostics passed) and Failed (one or more diagnostics did not pass).</li> <li>• <b>Current Failure:</b> Indicates any failure that is currently being reported by this card. If no failures were detected, this item will display None.</li> <li>• <b>Last Failure:</b> Indicates the last failure reported by this card since its event log was last cleared.</li> <li>• <b>Card Usable:</b> Indicates whether or not the card is usable. "Usability" is based on the operational state of the card (active, standby, or offline), whether or not the Administrative state is enabled (the card is configured for use via software), and whether or not the card's interlock switch is locked. Either a Yes or a No will be displayed.</li> </ul>
Boot/Diag Log	<p>Displays the contents of the boot and diagnostics log.</p> <hr/> <p> <b>Important:</b> The boot and diagnostic log contents are not displayed for line card diagnostics.</p>
Error Log	<p>Displays the contents of the error log.</p> <hr/> <p> <b>Important:</b> The error log contents are not displayed for line card diagnostics.</p>

Field	Description
Current Environment	<p>Displays the results for the following measurements:</p> <ul style="list-style-type: none"><li>• <b>Temperature measurements:</b> Indicates the current operating temperatures and provides the maximum safe temperature for comparison.</li><li>• <b>Voltage measurements:</b> Indicates the current input status for the various DC sources and provides the acceptable upper and lower limits for comparison.</li></ul>

## show card info

Table 126. show card info Command Output Descriptions

Field	Applicable Card(s)	Description
Slot Type	All	Displays the type of slot. The possible slot types are: <ul style="list-style-type: none"> <li>• <b>Processing Cards:</b> Slots 1 through 7 and 10 through 16</li> <li>• <b>SPC/SMC:</b> Slots 8 and 9</li> <li>• <b>SPIO:</b> Slots 24 and 25</li> <li>• <b>RCC:</b> Slots 40 and 41</li> <li>• <b>LC:</b> Slots 17 through 23, 26 through 39, and 42 through 48. Note that for the full-height XGLC, only the upper slot number (17 through 23 and 26 through 32) is used.</li> </ul>
Card type	All	Indicates the type of card installed.
Operational State	All	Displays the operational state of the card. The possible operational states are: <ul style="list-style-type: none"> <li>• <b>Active:</b> Indicates that the card is an active component that will be used to process subscriber data sessions.</li> <li>• <b>Standby:</b> Indicates that the card is a redundant component. Redundant components will become active through manual configuration or automatically should a failure occur.</li> <li>• <b>Offline:</b> Indicates that the card is installed but is not ready to process subscriber data sessions. This could be due to the fact that it is not completely installed (i.e. the card interlock switch is not locked, refer to the System Installation Guide for information on installing cards in the system) or that its processes have been halted.</li> </ul>
Desired Mode	Processing Cards, SPIOs, and line cards	Displays the configured mode of the card. Through software configuration the card could be placed into either the active or standby mode.
Last State Change	All	Displays the time of the last operational state change for the card.
Number of Ports	SPIOs and line cards	Displays the maximum number of physical ports supported per card. <ul style="list-style-type: none"> <li>• The Ethernet 10/100 Line Card supports 8 ports.</li> <li>• The Ethernet 1000 Line Card supports 1 port.</li> <li>• The Quad Gigabit Ethernet Line Card (QGLC) supports 4 ports (ASR 5000 only)</li> <li>• The 10 Gigabit Ethernet Line Card (XGLC) supports 1 port (ASR 5000 only)</li> <li>• The Switch Processor Input/Output Card supports 2 ports.</li> <li>• The DS3/E and DS3/T Cards each support 3 ports.</li> </ul>

Field	Applicable Card(s)	Description
Card Standby Priority	Processing Cards	Displays the configured priority of the card for use as a redundant component. If multiple Processing Cards are installed and in standby mode, they can be assigned priorities that dictate how they should be used as redundant components in the event of the failure of an active Processing Card. Refer to the System Administration and Configuration Guide for additional information.
Administrative State	All	Indicates whether or not the card has been configured for use via software. If it has been configured, Enabled will be displayed. If not, Disabled will be displayed.
Card Lock	All	Displays whether or not the card's interlock switch is Locked or Unlocked.
Halt Issued	Processing Cards, SPIOs, RCCs, and line cards	Displays whether or not this card was the target of a halt command issued by an administrator or operator. The halt command stops all tasks and processes running on the card. If the card has been halted, a Yes will be displayed. If not, a No will be displayed.
Reboot Pending	All	Displays whether or not the card will be undergoing a reboot. If the card is being rebooted, a Yes will be displayed. If not, a No will be displayed.
Upgrade In Progress	PSC, PSC2, SMC	Indicates whether an upgrade is in progress. The following operations are not allowed while a card is upgrading: <ul style="list-style-type: none"> <li>• change pac edc requirement (config)</li> <li>• change card [no] shutdown (config)</li> <li>• change card active (config)</li> <li>• change card redundancy (config)</li> <li>• card halt (exec)</li> <li>• card reboot (exec)</li> <li>• start an online upgrade</li> </ul> Level unlock operations are ignored while a card is upgrading.
Card Usable	All	Indicates whether or not the card is usable. "Usability" is based on the operational state of the card (active, standby, or offline), whether or not the Administrative state is enabled (the SPC/SMC can communicate with it), and whether or not the card's interlock switch is locked. Either a Yes or a No will be displayed.
Single Point of Failure	All	Displays whether or not the component is a single point of failure (SPOF) in the system. If the component is a SPOF, then a Yes will appear in this column. If not, a No will be displayed.
Attachments	Processing Cards, SPIOs, SPCs/SMCs, and line cards	Displays the slot number and card type(s) that this card is associated with. For example, if this information is being displayed for a Processing Card, then the line card(s) that the Processing Card is associated with will be displayed.
Temperature	All	Indicates the current operating temperature and provides the maximum safe temperature for comparison.
Voltages	All	Indicates whether the power levels that the card is receiving are within acceptable limits. Every card in the system has at least two power inputs. If all of the power inputs are within specification, a Good will be displayed. If even one of these inputs is out of the acceptable range, then a Bad ***ALARM*** will be displayed.

Field	Applicable Card(s)	Description
Card LEDs	All	<p>Displays the state of the Run/Fail, Active, and Standby light emitting diodes (LEDs) on the front panels of each of the cards. The LEDs will be displayed as either Green, Red, or Off.</p> <ul style="list-style-type: none"> <li>• <b>Run/Fail LED:</b> Green is normal, Red or Off indicate a problem.</li> </ul> <p><b>NOTE:</b> If the Run/Fail LED is either Red or Off, refer to System Administration and Configuration Guide for information on troubleshooting the problem.</p> <ul style="list-style-type: none"> <li>• <b>Active:</b> Green indicates that the card is in active mode. Off indicates that the card is in standby mode.</li> <li>• <b>Standby LED:</b> Green indicates that the card is in standby mode. Off indicates that the card is in active mode.</li> </ul>
System LEDs	SPC/SMC	<p>Displays the state of the Status and Service LEDs on the SPC/SMC. The Status LED will be displayed as either Green, Red, or Off. The Service LED will be displayed as either Amber, or Off.</p> <ul style="list-style-type: none"> <li>• <b>Status LED:</b> Green is normal, Red or Off indicate a problem.</li> </ul> <p><b>NOTE:</b> If the Run/Fail LED is either Red or Off, refer to System Administration and Configuration Guide for information on troubleshooting the problem.</p> <ul style="list-style-type: none"> <li>• <b>Service LED:</b> Amber indicates that maintenance is needed. Off indicates that no maintenance is necessary.</li> </ul> <p><b>NOTE:</b> If the Status LED is Amber, refer to System Administration and Configuration Guide for information on troubleshooting the problem.</p>
Compact Flash	SPC/SMC	<p>Displays information on the CompactFlash memory module installed on the SPC/SMC. The following information is displayed:</p> <ul style="list-style-type: none"> <li>• <b>Type:</b> Indicates the size of the flash module in mega bytes (MB).</li> <li>• <b>Model:</b> Indicates the manufacturer and model number.</li> <li>• <b>Serial Number:</b> Indicates the devices serial number.</li> </ul>
PCMCIA 1 and 2	SPC/SMC	<p>Indicates whether or not a PC card is installed in either of the two PCMCIA card slots on the SPC/SMC or in the one slot on the SMC.</p> <hr/> <p> <b>Important:</b> PCMCIA 2 is not supported on the SMC.</p> <hr/> <p>If a PC card is installed, Present will be displayed. If not, Not Present will be displayed. In addition, if a PC card is installed, the following information about the card will also be displayed:</p> <ul style="list-style-type: none"> <li>• <b>Type:</b> Indicates the size of the flash module in mega bytes (MB).</li> <li>• <b>Model:</b> Indicates the manufacturer and model number.</li> <li>• <b>Serial Number:</b> Indicates the devices serial number.</li> </ul>
CPU 0 through 3	Processing Cards, and SPCs/SMCs	<p>Displays how the CPUs on the card are being used.</p> <p><b>NOTE:</b> The SPC/SMC only indicates CPU 0 because it has only one CPU. The PAC displays CPUs 0 through 3 because it has four CPUs. The Processing Cards display CPUs 0 and 1 because each card has two CPUs.</p>

## show card mappings

Table 127. show card mappings Command Output Descriptions

Field	Description
Slot (left-most column)	Displays the chassis slot number and the type of line card installed.
Mapping	<p>Displays the mapping or communication path from the line card to the application card. The possible mappings are:</p> <ul style="list-style-type: none"> <li>• <b>Direct:</b> The line card is operating in conjunction with the application card installed directly in front of it.</li> <li>• <b>Cross:</b> The SPIO installed in slot 24 is operating in conjunction with the SPC/SMC installed in slot 9 or the SPIO in slot 25 is operating in conjunction with the SPC/SMC in slot 8.</li> </ul> <hr/> <p> <b>Important:</b> Cross mappings only occur if the SPC/SMC that the SPIO was formerly operating behind became disabled (either automatically due to an error, or through manual configuration).</p> <hr/> <ul style="list-style-type: none"> <li>• <b>RCC 40:</b> A line card (non-SPIO) installed in chassis slots 17 through 23 or 26 through 32 is operating in conjunction with a Processing Card installed in a slot that is not directly in front via the RCC in slot 40.</li> <li>• <b>RCC 41:</b> A line card (non-SPIO) installed in chassis slots 33 through 39 or 42 through 48 is operating in conjunction with a Processing Card installed in a slot that is not directly in front via the RCC in slot 41.</li> </ul> <hr/> <p> <b>Important:</b> RCC 40 and RCC 41 mappings will only occur if the Processing Card that the line card was formerly operating behind became disabled (either automatically due to an error, or through manual configuration).</p> <hr/>
Slot (right-most column)	Displays the chassis slot number and the type of application card installed.

## show card table

Table 128. show card table Command Output Descriptions

Field	Description
Slot	<p>Displays the chassis slot number and type. The slot type represents the type of card(s) that the slot supports. Possible slot types are:</p> <ul style="list-style-type: none"> <li>• Slots 1 through 7, and 10 through 16: Supports either a Processing Card, or a Telephony Accelerator Card (TAC)</li> <li>• Slots 8 and 9: Support Switch Processor Cards (SPCs) or System Management Cards (SMCs)</li> <li>• Slots 40 and 41: Support Redundant Crossbar Cards (RCCs)</li> </ul>
Card Type	<p>Displays the type of card installed. The possible card types supported for this release are:</p> <ul style="list-style-type: none"> <li>• Packet Accelerator Cards</li> <li>• Packet Services Cards</li> <li>• Switch Processor Cards</li> <li>• System Management Cards</li> <li>• Redundant Crossbar Cards</li> </ul>
Oper State	<p>Displays the operational state of the card. The possible operational states are:</p> <ul style="list-style-type: none"> <li>• <b>Active:</b> Indicates that the card is an active component that will be used to process subscriber data sessions.</li> <li>• <b>Standby:</b> Indicates that the card is a redundant component. Redundant components will become active through manual configuration or automatically should a failure occur.</li> <li>• <b>Offline:</b> Indicates that the card is installed but is not ready to process subscriber data sessions. This could be due to the fact that it is not completely installed (i.e. the card interlock switch is not locked, refer to the System Installation Guide for information on installing cards in the system) or that its processes have been halted.</li> </ul>
SPOF	<p>Displays whether or not the component is a single point of failure (SPOF) in the system. If the component is a SPOF, then a Yes will appear in this column. If not, a No will be displayed.</p>
Attach	<p>Displays the line card that the Processing Cards and SPCs/SMCs are using for network access. This column will only be populated for the RCCs in the event that tasks and processes were migrated from an active Processing Card to a standby Processing Card. The RCC creates a path from the standby Processing Card to the line cards.</p>

# Chapter 52

## show certificate

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*Table 129. show certificate Command Output Descriptions*

Field	Description
Name	Certificate name
Data	Data output varies with content at the time of certificate creation but will include: X.509 version number Serial number Algorithm type Issuing authority Valid dates Public key encrypted data



# Chapter 53

## show content-filtering

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This chapter includes the `show content-filtering` command output tables.

# show content-filtering category database

Table 130. show content-filtering category database active verbose Command Output Descriptions

Field	Description
Database Status	Indicates latest status of rating databases. Possible status are: <ul style="list-style-type: none"> <li>• <b>OK</b>: Indicates all SRDB tasks are running and database is good.</li> <li>• <b>ERROR-Database Corrupt</b>: Indicates all SRDB tasks are running and database is bad or corrupt.</li> <li>• <b>ERROR-No database at specified pathname</b>: Indicates all SRDB tasks are running and database is not available at specified path/location/directory.</li> <li>• <b>MERGING</b>: Displayed during merging of the incremental database with full OPTCMDB database.</li> <li>• <b>LOADING</b>: Displayed during loading of the database.</li> <li>• <b>n/a</b>: Indicates that specified database is not loaded and its status is unknown.</li> </ul>
Path	Path specified to base location or folder for Static Rating Databases (SRDB). It may have one of the following flags: <ul style="list-style-type: none"> <li>• <b>*ACTIVE*</b>: Indicates database is valid and good.</li> <li>• <b>*NOT LODAED*</b>: Indicates that there is an error in database.</li> </ul>
Last Upgrade Status	Status of last attempt of rating database upgrade. Possible status are: <ul style="list-style-type: none"> <li>• <b>Successful</b>: Displayed after the upgrade is completed successfully.</li> <li>• <b>Failure</b>: Displayed in case of failure system will rollback to previous database.</li> <li>• <b>n/a</b>: Displayed in case of first time loading of database.</li> </ul>
Type	Type of SRDB with checksum. Type of SRDB may be Full or Incremental.
Version	Latest version status of SRDB.
Creation Time	Time of creation of SRDB in DAY MM DD HH:MM:SS YYYY format.
Hostname	Host server name where SRDB base directory existing.
Comment	User defined remarks/description about database.
Last Access Time	Date and time in DAY MM DD HH:MM:SS YYYY format when database was last accessed.
Last Modified Time	Date and time in DAY MM DD HH:MM:SS YYYY format when database was last modified.
Last Status Change Time	Date and time in DAY MM DD HH:MM:SS YYYY format when status of access time or modified time was changed.

## show content-filtering category database all

Table 131. show content-filtering category database all Command Output Descriptions

Field	Description
<b>Content Filtering Static Rating Databases:</b>	
Last Upgrade Status	Status of the last attempt of rating database upgrade. Possible statuses are: <ul style="list-style-type: none"> <li>• <b>Success:</b> Displayed after the upgrade is completed successfully.</li> <li>• <b>Failure:</b> Displayed in case the full upgrade failed. System will rollback to previous database.</li> <li>• <b>n/a:</b> Displayed in case of first time loading of database.</li> </ul>
Path	Path specified to base location or folder for Static Rating Databases (SRDB). It may have one of the following flags: <ul style="list-style-type: none"> <li>• <b>*ACTIVE*:</b> to indicate database is valid and good.</li> <li>• <b>*NOT LODAED*:</b> to indicate that there is an error in database.</li> </ul>
Database Status	Latest status of rating databases. Possible status are: <ul style="list-style-type: none"> <li>• <b>OK:</b> Indicates all SRDB tasks are running and database is good.</li> <li>• <b>ERROR-Database Corrupt:</b> Indicates all SRDB tasks are running and database is bad or corrupt.</li> <li>• <b>ERROR-No database at specified pathname:</b> Indicates all SRDB tasks are running and database is not available at specified path/location/directory.</li> <li>• <b>MERGING:</b> Displayed during merging of the incremental database with full OPTCMDB database.</li> <li>• <b>LOADING:</b> Displayed during loading of the database.</li> <li>• <b>n/a:</b> Indicates that specified database is not loaded and its status is unknown.</li> </ul>

## show content-filtering category database facility srbmgrp all

Table 132. show content-filtering category database facility srbmgrp all Command Output Descriptions

Field	Description
<b>Content Filtering SRDB Instance Based Database Configuration:</b>	
SRDB Instance	Indicates the running Static Rating Database (SRDB) Manager instance number.
DB Load Status	Indicates the database load status.
DB Version	Indicates the version of loaded database.
Volume	Indicates the database volume number.
Number of URLs	Indicates the number of URLs available in specific volume of database.
Number of Blocks/Page	Indicates the average number of blocks per page rated in URLs available in specific volume of database.
The following indicate Dynamic Content Filtering statistics at SRDB level:	
Dynamic SRDB Instance	Indicates the running Dynamic SRDB Manager instance number.
RaterPkg Load Status	Indicates the Dynamic Rater Package load status: <ul style="list-style-type: none"> <li>• Loaded</li> <li>• Not-loaded</li> </ul>
Number of Model files	Indicates the number of model files (used for language detection and category recognition) available.
Standby Dynamic SRDB Instance	Indicates standby Dynamic SRDB instance number.
RaterPkg Load Status	Indicates the Dynamic Rater Package load status: <ul style="list-style-type: none"> <li>• Loaded</li> <li>• Not-loaded</li> </ul>
Number of Model files	Indicates the number of model files (used for language detection and category recognition) available.

## show content-filtering category policy-id id

Table 133. show content-filtering category policy-id Command Output Descriptions

Field	Description
Service Name	The content filtering service name.
Content Filtering Policy	The content filtering policy ID, and description, if set.
<b>Content filtering Categories:</b>	
Category	Category of the content rated.
Priority	Priority of the CF Category in the CF Policy.
Action	Action taken for the indicated result of CF analysis.
Content Insert	The content string inserted in place of message returned from prohibited or restricted site or content server.
Redirect	The URL to redirect subscriber.
EDR	The EDR file format name to generate separate CF EDRs based on action and content category.
Timeout Action	The timeout end condition if rating cannot be performed.
Discarded-Flow-Content-ID	The content ID for the discarded flows. If not configured, this field is not displayed.

## show content-filtering category statistics

Table 134. show content-filtering category statistics Command Output Descriptions

Field	Description
Service Name	Name of the Content Filtering service.
Content Filtering status	Status of the current Content Filtering service.
Overall Status	Indicates capability of the system to perform Content Filtering service.
Content Filtering Statistics	Indicates the Content Filtering statistics group information.
Static Rating	Information on static rating content-filtering.
SRDB Request Count	Total number of requests received.
SRDB Response Total	Total number of responses sent for requests.
SRDB Response Successful	Total number of responses for successful requests.
SRDB Response Not Rated	Total number of responses for requests without rating.
SRDB Response Not in DB	Total number of responses for unknown or undefined requests.
Number of Incremental DB Received	Total number of incremental rating database received by the Content Filtering subsystem.
Number of Successful Incremental Upgrade Performed	Total number of incremental upgrades performed successfully with incremental rating database.
Number of Full DB Received	Total number of full rating database received by the Content Filtering subsystem.
Number of Successful Full Upgrade Performed	Total number of full upgrades performed successfully with incremental rating database.
Time Since Last Upgrade (dd:hh:mm:ss)	Time since last upgraded, full or incremental, performed.

## show content-filtering category statistics facility srdbmgr all

Table 135. show content-filtering category statistics facility srdbmgr all Command Output Descriptions

Field	Description
Content Filtering status	Indicates Content Filtering service status.
Overall Status	Indicates the system's ability to perform content filtering.
Dynamic Content Filtering status	Indicates Dynamic Content Filtering service status.
Overall Status	Indicates the system's ability to perform dynamic content filtering.
Content Filtering SRDB Instance Based Statistics	Indicates the group statistics of content filtering based on Static Rating Database Manager instance.
Instance Number	Indicates the SRDB Manager's instance number.
<b>Static Rating:</b>	
Request Count	Total number of requests received.
Response Total	Total number of responses sent for requests.
Response Successful	Total number of responses for successful requests.
Response Not Rated	Total number of responses for requests without rating.
Response Not in DB	Total number of responses for unknown or undefined requests.
Average Ratings/sec	Indicates the average ratings performed per second.
Number of URLs rated by domain	Total number of URLs rated with given domain.
<b>Dynamic Content Filtering SRDB Instance Based Statistics:</b>	
Instance Number	Indicates the instance number of SRDB manager.
<b>Dynamic Rating:</b>	
Request Count	Total number of requests received.
Response Total	Total number of responses sent for requests.
Response Successful	Total number of responses for successful requests.
Response Not Rated	Total number of responses for requests without rating.
Histogram based on URL length	Indicates the histogram statistics of URLs grouped by length of URL.
Histogram for number of URLs hit per SN category (sorted on no. of URLs):	Indicates the specific category and the number of URLs hit per category. If, during runtime, an x-category was added, the x-category is also displayed.

## show content-filtering category url <url> policy-id <id> verbose

Table 136. show content-filtering category url <url> policy-id <id> verbose Command Output Descriptions

Field	Description
URL	The URL path for Static Rating Category Database.
URL Root Domain	The URL's root domain information.
URL OPTCMDB Volume	The Optimized Content Rating Master Database (OPTCMDB) volume and version.
URL Hash	Indicates the URL hash in URL OPTCMDB.
Domain Used For Rating	Indicates whether domain name is used for URL rating. Possible values are: <ul style="list-style-type: none"> <li>• TRUE</li> <li>• FALSE</li> </ul>
URL Category	The URL's category.
Action Configured	Indicates the action configured. <p> <b>Important:</b> In case of multiple categories, the action configured for a category with highest priority is displayed. If Dynamic Content Filtering is enabled, the action configured for DYNAM and UNKNOW is displayed as <b>Dynamic</b> (i.e. the URL is sent for Dynamic categorization). In case more than one category is returned with DYNAM and if it is configured with higher priority then, that action will be shown.</p>
Content Insertion String	Indicates the content insertion string. <p> <b>Important:</b> This field is displayed only if Dynamic CF is not enabled.</p>
Redirect URL	Indicates the redirected URL.

## show content-filtering server-group name

*Table 137. show content-filtering server-group name Command Output Descriptions*

Field	Description
Content Filtering Group	The name of the Content Filtering Server Group (CFSG).
Context	The name of the content in which CFSG is configure.
Origin Address	IP address of the origin endpoint or ICAP client.
ICAP Address(Port)	IP address and port number of ICAP server with in CF Server Group.
Max Outstanding	Total number of unanswered outstanding messages to this ICAP server.
Failure Action	Displays the action taken on connection failure.
Response Timeout	Displays the configured response-timeout duration to wait for response.
Connection Retry Timeout	Displays the configured connection retry timeout duration to check the TCP connection status between ICAP sever and client.
Dictionary	Specifies the configured dictionary to use for encoding the requests to the server(s).
Deny Message	Specifies the configured text string message that is returned to the subscriber in a deny response.

## show content-filtering server-group statistics

Table 138. show content-filtering server-group statistics Command Output Descriptions

Field	Description
Content Filtering Group	The name of the Content Filtering Server Group (CFSG).
Connection Statistics	Displays the ICAP connection related statistics.
Current Open Connections	Total number of open connections.
Connection DHOST requests	Total number of DHOST requests.
Successfull Connections	Total number of successful connections.
Connections DHOST remove	Total number of connections removed from DHOST.
Connection SHUTDOWN req	Total number of requests for SHUTDOWN.
ACF Unreachable(read)	Total number of attempts for Active Content Filter server (ICAP server) to read.
ACF Unreachable(write)	Total number of attempts for Active Content Filter server (ICAP server) to write.
Reconnect attempts	Total number of reconnect attempts for ACF server (ICAP server).
Connection Timeout	Total number of connections timeout after reconnect attempts for ACF server (ICAP server).
Connection Failure Statistics	Displays connection failure statistics.
Connection DHOST errors	Total number of connection DHOST errors in connection.
Connection CONNECT error	Total number of connection CONNECT errors in connection.
Socket open errors	Total number of errors due to SOCKET open in connection.
Connection bind errors	Total number of BIND errors in connection.
Connection setvr errors	Total number of SETVER errors in connection.
Connection NONBLOCK errors	Total number of NONBLOCK errors in connection.
Connection SHUTDOWN errors	Total number of SHUTDOWN errors in connection.
Incomplete 3-way handshaking	Total number of errors due to incomplete 3-way handshaking in TCP connection.
ACF Statistics	Displays Active Content Filter (ICAP server) statistics.
ACF Requests Created	Total number of requests created for ACF.
Response Timeout	Total number of response timeout for requests to ACF.
Write request success	Total number of successful WRITE requests.
Write request failed	Total number of failed WRITE requests.
Read response success	Total number of successful READ response.

Field	Description
Read response failed	Total number of failed READ response.
HTTP Permit	Total number of HTTP URLs permitted from ACF.
WAP Permit	Total number of WAP URLs permitted from ACF.
HTTP Denny	Total number of HTTP URLs denied from ACF.
WAP Denny	Total number of WAP URLs denied from ACF.
HTTP Redirect	Total number of HTTP URLs redirected from ACF.
WAP Redirect	Total number of WAP URLs redirected from ACF.
Invalid ACTION	Total number of invalid ACTION message from ACF.
Redirect URL not defined	Total number of errors due to undefined redirect URL.
Buffer List Empty	Total number of errors due to empty buffer list.
Failure action Permit	Total number of connections permitted after connection failure.
Failure action Deny	Total number of connections denied after connection failure.
Failure action Discard	Total number of connections discarded after connection failure.
Failure action Terminate	Total number of connections terminated after connection failure.
Failure actions taken	Total number of actions taken after failure in connection failure.
Num pkts dropped for DENY	Total number of packets dropped after denying the connection due to failure in connection.
Num pkts dropped for REDIRECT	Total number of packets dropped after redirecting the connection due to failure in connection.
Num pkts dropped for DENY Timeout action	Total number of packets dropped after denying the connection due to timeout action.
Num pkts dropped for REDIRECT Timeout action	Total number of packets dropped after redirecting the connection due to timeout action.
ACF Resp Parse Statistics	Displays the statistics related to ACF response parsing.
Parse ACF resp success	Total number of successful ACF parse response.
Parse ACF resp ver err	Total number of successful ACF parse response version error.
Misc Statistics	Displays the miscellaneous statistics.
Total pkts sent	Total number of packets sent through ICAP connection.
Invalid ACF group config	Total number of errors due to invalid CF Server Group (Active Content Filter server groups) configuration.
Invalid bind address	Total number of errors due to invalid binding address configuration.
Invalid ICAP address	Total number of errors due to invalid ICAP server addresses.



# Chapter 54

## show congestion-control

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This chapter includes the `show congestion-control` command output tables.

## show congestion-control statistics a11mgr instance

Table 139. show congestion-control statistics a11mgr instance Command Output Descriptions

Field	Description
Current congestion status	The current congestion control state as “Cleared” or “Applied”.
Congestion applied	Displays the number of times the system invoked a congestion control policy for the specified service type.
Congestion Control Resource Limits	Indicates the congestion control threshold that was triggered. Refer to the <b>congestion-control threshold</b> command in the Global Configuration Mode chapter of this reference.

## show congestion-control statistics asngwmgr instance

Table 140. show congestion-control statistics asngwmgr instance Command Output Descriptions

Field	Description
Current congestion status	The current congestion control state as “Cleared” or “Applied”.
Congestion applied	Displays the number of times the system invoked a congestion control policy for the specified service type.
Congestion Control Resource Limits	Indicates the congestion control threshold that was triggered. Refer to the congestion-control threshold command in the Global Configuration Mode chapter of this reference.
system cpu use exceeded	Indicates the number of time the ASNGW Manager exceeded the system CPU usage limit.
service cpu use exceeded	Indicates the number of time the ASNGW Manager exceeded the CPU usage limit specified for this service.
system memory use exceeded	Indicates the number of time the ASNGW Manager exceeded the allocated system memory usage limit.
port rx use exceeded	Indicates the number of time the ASNGW Manager exceeded the Rx port usage limit.
port tx use exceeded	Indicates the number of time the ASNGW Manager exceeded the Tx port usage limit.
port specific rx use exceeded	Indicates the number of time the ASNGW Manager exceeded the Rx port usage limit for a specific port number.
port specific tx use exceeded	Indicates the number of time the ASNGW Manager exceeded the Tx port usage limit for a specific port number.
max sess use exceeded	Indicates the number of time the ASNGW Manager exceeded the maximum session usage limit for a service.
license use exceeded	Indicates the number of time the ASNGW Manager exceeded the maximum license usage limit.
msg queue size use exceeded	Indicates the number of time the ASNGW Manager exceeded the message queue size usage.
msg queue wait time exceeded	Indicates the number of time the ASNGW Manager exceeded the message queue wait time.
license threshold exceeded	Indicates the number of time the ASNGW Manager exceeded the license threshold limit.
max sess threshold exceeded	Indicates the number of time the ASNGW Manager exceeded the maximum session threshold limit.
Sessions disconnected due to overload disconnect	Indicates the total number of sessions disconnected due to overload.

## show congestion-control statistics asnpcmgr instance

Table 141. show congestion-control statistics asnpcmgr instance Command Output Descriptions

Field	Description
Current congestion status	The current congestion control state as “Cleared” or “Applied”.
Congestion applied	Displays the number of times the system invoked a congestion control policy for the specified service type.
Congestion Control Resource Limits	Indicates the congestion control threshold that was triggered. Refer to the congestion-control threshold command in the Global Configuration Mode chapter of this reference.
system cpu use exceeded	Indicates the number of time the ASNPC Manager exceeded the system CPU usage limit.
service cpu use exceeded	Indicates the number of time the ASNPC Manager exceeded the CPU usage limit specified for this service.
system memory use exceeded	Indicates the number of time the ASNPC Manager exceeded the allocated system memory usage limit.
port rx use exceeded	Indicates the number of time the ASNPC Manager exceeded the Rx port usage limit.
port tx use exceeded	Indicates the number of time the ASNPC Manager exceeded the Tx port usage limit.
port specific rx use exceeded	Indicates the number of time the ASNPC Manager exceeded the Rx port usage limit for a specific port number.
port specific tx use exceeded	Indicates the number of time the ASNPC Manager exceeded the Tx port usage limit for a specific port number.
max sess use exceeded	Indicates the number of time the ASNPC Manager exceeded the maximum session usage limit for a service.
license use exceeded	Indicates the number of time the ASNPC Manager exceeded the maximum license usage limit.
msg queue size use exceeded	Indicates the number of time the ASNPC Manager exceeded the message queue size usage.
msg queue wait time exceeded	Indicates the number of time the ASNPC Manager exceeded the message queue wait time.
license threshold exceeded	Indicates the number of time the ASNPC Manager exceeded the license threshold limit.
max sess threshold exceeded	Indicates the number of time the ASNPC Manager exceeded the maximum session threshold limit.
Sessions disconnected due to overload disconnect	Indicates the total number of sessions disconnected due to overload.

# Chapter 55

## show context all

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Table 142. show context all Command Output Descriptions

Field	Description
Context Name	The name of a configured context.
Context ID	The system ID of the context.
State	The current state of the context. The possible states are: <b>Active:</b> The VPN Manager task is running and is ready to respond to the requests. <b>Initializing:</b> The Context is configured but not yet started. The VPN Controller knows about it and is in the process of starting the VPN Manager. In other words, the VPN Manager services are not available yet. <b>Inactive:</b> The VPN Manager is configured but either the task is not running yet or the VPN Manager has just crashed and the restart process is going on.



# Chapter 56

## show cpu table

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Table 143. show cpu table Command Output Descriptions

Field	Description
CPU	Displays the number of the CPU in the format <i>slot_number/cpu_number</i> .
State	Indicates the CPU state as one of the following: <b>Active:</b> The CPU is active and available for session processing. <b>Sndby:</b> The CPU is on standby.
Load	Indicates the CPU load for the following time intervals: <b>Now:</b> Current load <b>5min:</b> Load within the last 5 minutes <b>15min:</b> Load within the last 15 minutes
CPU-Usage	Indicates the CPU usage as a percentage for the following time intervals: <b>Now:</b> Current usage <b>5min:</b> Usage within the last 5 minutes <b>15min:</b> Usage within the last 15 minutes
Memory	Indicates the memory usage for the following time intervals: <b>Now:</b> Current usage <b>5min:</b> Usage within the last 5 minutes <b>15min:</b> Usage within the last 15 minutes In addition, the <b>total</b> memory available on the CPU is displayed. The PSC has two CPUs, the main CPU (CPU 0) contains 16 GB of memory. The second CPU is contained within the card's NPU and provides an additional 512 MB of memory. The PSC2 has two CPUs, the main CPU (CPU 0) contains 32 GB of memory.



# Chapter 57

## show crypto

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This chapter includes the `show crypto` command output tables.

## show crypto ikev2-ikesa security-associations summary

Table 144. show crypto ikev2-ikesa security-associations summary Command Output Descriptions

Field	Description
Mgr ID	SA Manager ID number
VPN	SA VPN number
Local IPsec GW	Local default gateway IP address
Port	UDP port number
Remote IPsec GW	Remote default gateway IP address
Port	UDP port number
State	Authentication state <ul style="list-style-type: none"> <li>• I = Initiator</li> <li>• R = Responder</li> </ul>
Lifetime/Remaining	Originally configured lifetime for the SA in seconds/number of seconds left in this lifetime.

## show crypto ipsec security-associations

Field	Description
Map Name	The name of the crypto map facilitating the security association.
Local Address	The IP address of the interface on the security gateway facilitating the security association.
Current Peer	The IP address of the interface on the peer gateway facilitating the security association.
Crypto Type	The type of crypto map facilitating the security association, which can be: <ul style="list-style-type: none"> <li>• Dynamic Map</li> <li>• IKEv1 Map</li> <li>• IKEv2 Map</li> <li>• Manual Map</li> </ul>
SA State	The state of the security association, which can be: <ul style="list-style-type: none"> <li>• Established</li> <li>• Partially Established</li> <li>• No SAs</li> </ul>
IPSec Manager	The identifying number of the IPsec manager facilitating the security association.
Rekeying	The state of rekeying for the security association, which can be: <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
Redundancy Status	The state of the security association, which can be: <ul style="list-style-type: none"> <li>• Original Tunnel: No failure has occurred.</li> <li>• Recovered Session: A failure has occurred and a recovered session has been created.</li> </ul>
Allocated Address	The IP address allocated to the Network Access Identifiers (NAIs) of the users.
Phase 1	The NAI used in Phase 1 authentication.
Phase 2	The NAI used in Phase 2 authentication.
Encoded	The number of packets and bytes of data that have been encoded for the security association.
Encoded Errors	The number of errors that occurred while the packets were being encoded.
Decoded	The number of packets and bytes of data that have been decoded for the security association.
Decoded Errors	The number of errors that occurred while the packets were being decoded.
Authentication Errors	The number of errors that occurred during authentication.
Replay Errors	The number of replay errors that occurred.
Too short Errors	The number of too short errors that occurred.

Field	Description
<b>IPSec SA</b>	
<b>Outbound esp sas</b>	
spi	The Security Parameter Index (SPI) of the outbound ESP security association.
<b>transform</b>	
hmac	The keyed-Hash Message Authentication Code used for the outbound ESP security association, which can be: <ul style="list-style-type: none"> <li>• sha1-96</li> <li>• md5-96</li> </ul>
cipher	The cipher used for the outbound ESP security association, which can be: <ul style="list-style-type: none"> <li>• null</li> <li>• des</li> <li>• 3des</li> <li>• aes-cbc-128</li> <li>• aes-cbc-256</li> </ul>
negotiated soft lifetime (kb/sec)	The soft lifetime in kilobits and/or seconds for the outbound ESP security association, created when a successful rekey has occurred. The soft lifetime is used to warn that the security association is about to expire, allowing the security gateway to create a new lifetime prior to the expiration of the hard lifetime.
remaining soft lifetime (kb/sec)	The remaining soft lifetime in kilobits and/or seconds.
negotiated hard lifetime (kb/sec)	The hard lifetime in kilobits and/or seconds for the outbound ESP security association. The hard lifetime is the number of kilobits and/or seconds used before the security association expires.
remaining hard lifetime (kb/sec)	The remaining hard lifetime in kilobits and/or seconds.
Encoded	The number of encoded packets and bytes of data for the outbound ESP security association.
Encoded Errors	The number of errors that occurred while the packets were being encoded.
<b>Inbound esp sas</b>	
spi	The Security Parameter Index (SPI) of the inbound ESP security association.
<b>transform</b>	
hmac	The keyed-Hash Message Authentication Code used for the inbound ESP security association, which can be: <ul style="list-style-type: none"> <li>• sha1-96</li> <li>• md5-96</li> </ul>

Field	Description
cipher	The cipher used for the inbound ESP security association, which can be: <ul style="list-style-type: none"> <li>• null</li> <li>• des</li> <li>• 3des</li> <li>• aes-cbc-128</li> <li>• aes-cbc-256</li> </ul>
negotiated soft lifetime (kb/sec)	The soft lifetime in kilobits and/or seconds for the inbound ESP security association, created when a successful rekey has occurred. The soft lifetime is used to warn that the security association is about to expire, allowing the security gateway to create a new lifetime prior to the expiration of the hard lifetime.
remaining soft lifetime (kb/sec)	The remaining soft lifetime in kilobits and/or seconds.
negotiated hard lifetime (kb/sec)	The hard lifetime in kilobits and/or seconds for the inbound ESP security association. The hard lifetime is the number of kilobits and/or seconds used before the security association expires.
remaining hard lifetime (kb/sec)	The remaining hard lifetime in kilobits and/or seconds.
Decoded	The number of packets and bytes of data that have been decoded for the inbound ESP security association.
Decoded Errors	The number of errors that occurred while the packets were being decoded.
Authentication Errors	The number of errors that occurred during authentication.
Replay Errors	The number of replay errors that occurred.
Too short Errors	The number of too short errors that occurred.

## show crypto ipsec security-associations statistics

Table 145. show crypto ipsec security-associations statistics Command Output Descriptions

Field	Description
Map Name	The name of the crypto map for which statistics are being displayed.
Application Map Name	The application map name that concatenates the following: <ul style="list-style-type: none"> <li>• <b>Application Supported:</b> MIP or L2TP</li> <li>• <b>Local Address:</b> The IP address of the interface on the system facilitating the security association (SA).</li> <li>• <b>Peer Address:</b> The IP address of the peer security gateway facilitating the SA.</li> <li>• <b>Traffic Type:</b> Control, GRE encapsulated data, or IPIP (IP-in-IP) encapsulated data</li> </ul> <p><b>NOTE:</b> When a crypto map does not have any IPSec SAs established yet, i.e. No IKE negotiation has taken place OR the tunnel had been brought down after inactivity during the entire lifetime of the SAs, is marked as "Security Association is not established!"</p>
local addr	The IP address of the interface on the system facilitating the security association (SA).
ACL	For ISAKMP or manual crypto maps, this is the name of the access control list (ACL) that is matched to the crypto map.
current peer	The IP address of the peer security gateway facilitating the SA.
Tunnel is keyed 1 times.	The number of times the tunnel was keyed. In this example, the tunnel was keyed once.
Encoded	The number of packets and bytes that have been encoded for the SA.
Encode Errors	The number of errors that have occurred while encoding packets.
Decoded	The number of packets and bytes that have been decoded for the SA.
Decode Errors	The number of errors that have occurred while decoding packets.
Authentication Errors	The number of errors that occurred during the system/security gateway authentication process.
Replay Errors	The number of replay errors that occurred for the SA.
outbound esp sas	
spi	The outbound (from the system to the security gateway) security parameter index (SPI) used for the Encapsulating Security Payload protocol.
transform	The protocols configured for the transform set used by the crypto map for outbound tunnels.
negotiated soft lifetime (kb/sec)	The soft lifetime negotiated by the system and the security gateway for outbound SAs. The lifetime is measured in terms kilobytes (kb) and/or seconds (sec). The soft lifetime is used to warn that the SA is about to expire allowing the systems to negotiate a new lifetime prior to the expiration of the hard lifetime.
remaining soft lifetime (kb/sec)	The amount of kilobytes and/or seconds remaining to the soft lifetime from what was initially negotiated.

Field	Description
negotiated hard lifetime (kb/sec)	The hard lifetime negotiated by the system and the security gateway for outbound SAs. The lifetime is measured in terms kilobytes (kb) and/or seconds (sec). The hard lifetime that dictates the maximum duration for the SA before its termination.
remaining hard lifetime (kb/sec)	The amount of kilobytes and/or seconds remaining to the hard lifetime from what was initially negotiated.
Encoded	The number of packets and bytes that have been encoded for the SA.
Encode Errors	The number of errors that have occurred while encoding packets.
inbound esp sas	
spi	The inbound (from the system to the security gateway) security parameter index (SPI) used for the Encapsulating Security Payload protocol.
transform	The protocols configured for the transform set used by the crypto map for inbound tunnels.
negotiated soft lifetime (kb/sec)	The soft lifetime negotiated by the system and the security gateway for inbound SAs. The lifetime is measured in terms kilobytes (kb) and/or seconds (sec). The soft lifetime is used to warn that the SA is about to expire allowing the systems to negotiate a new lifetime prior to the expiration of the hard lifetime.
remaining soft lifetime (kb/sec)	The amount of kilobytes and/or seconds remaining to the soft lifetime from what was initially negotiated.
negotiated hard lifetime (kb/sec)	The hard lifetime negotiated by the system and the security gateway for inbound SAs. The lifetime is measured in terms kilobytes (kb) and/or seconds (sec). The hard lifetime that dictates the maximum duration for the SA before its termination.
remaining hard lifetime (kb/sec)	The amount of kilobytes and/or seconds remaining to the hard lifetime from what was initially negotiated.
Decoded	The number of packets and bytes that have been decoded for the SA.
Decode Errors	The number of errors that have occurred while decoding packets.
Authentication Errors	The number of errors that occurred during the system/security gateway authentication process.
Replay Errors	The number of replay errors that occurred for the SA.
Too Short Errors	The number of too short errors that occurred for the SA.
ISAKMP sessions established for this tunnel	The total number of sessions successfully connected by this SA.
ISAKMP sessions failed for this tunnel	The total number of sessions that failed to be connected by this SA.
ISAKMP for this tunnel	<b>NOTE:</b> These items are displayed for the life of the ISAKMP SA.
Phase1 Completed as Responder	Indicates the state of the Phase 1 IPSec negotiation stage and role of the system (either responder or initiator).
Statistics	Displays statistics for the ISAKMP SA.
IN	The number of packets/bytes received.
OUT	The number of packets/bytes transmitted.

## ■ show crypto ipsec security-associations statistics

Field	Description
1 Phase2 negotiations	The number of negotiations that have taken place in Phase 2.
Negotiated Hard lifetime	The hard lifetime negotiated by the system and the security gateway for inbound SAs. The lifetime is measured in terms kilobytes (kb) and/or seconds (sec). The hard lifetime that dictates the maximum duration for the SA before its termination.

## show crypto ipsec security-associations summary

Table 146. show crypto ipsec security-associations summary Command Output Descriptions

Field	Description
vvv	<p>The first value (v) indicates the state of the security association (SA State), which can be:</p> <ul style="list-style-type: none"> <li>• <b>E</b>: Established</li> <li>• <b>P</b>: Partially Established</li> <li>• <b>N</b>: No SAs</li> </ul> <p>The second value (v) indicates the state of rekeying (Rekey/Keepalive), which can be:</p> <ul style="list-style-type: none"> <li>• <b>D</b>: Rekey Disabled</li> <li>• <b>E</b>: Rekey Enabled/No Keepalive</li> <li>• <b>K</b>: Rekey Enabled/Keepalive</li> </ul> <p>The third value (v) indicates the type of crypto map (Crypto Type) facilitating the security association, which can be:</p> <ul style="list-style-type: none"> <li>• <b>D</b>: Dynamic Map</li> <li>• <b>I</b>: IKEv1 Map</li> <li>• <b>J</b>: IKEv2 Map</li> <li>• <b>M</b>: Manual Map</li> </ul>
Map Name	The name of the crypto map facilitating the security association.
Rekeys	The number of rekeys that occurred for the security association.
En Pkts	The number of packets that have been encrypted and transmitted over the security association.
De Pkts	The number of packets that have been received over the security association and decrypted.

## show crypto isakmp keys

Table 147. *show crypto isakmp keys* Command Output Descriptions

Field	Description
Peer IP Address	The IP address of the security gateway(s).
Preshared Key	The pre-shared key(s) (in Hex) exchanged by the security gateway.

## show crypto isakmp security-associations

Table 148. show crypto isakmp security-associations Command Output Descriptions

Field	Description
Local IPSec GW	The IP address of the local IPSec gateway.
Remote IPSec GW	The IP address of the remote IPSec gateway.
State	<p>This displays the state of the SA.</p> <p>The two letters at the beginning of the state define the IKE mode as follows:</p> <ul style="list-style-type: none"> <li>• MM - Main Mode</li> <li>• QM - Quick Mode</li> <li>• AM - Aggressive Mode</li> </ul> <p>The letter in parentheses ( ) at the end of the state, describe where the state message was initiated as follows:</p> <ul style="list-style-type: none"> <li>• I - Initiator</li> <li>• R - Responder</li> </ul>
Lifetime	The lifetime (time) the security association is active and amount of time remaining.

## show crypto managers

Table 149. show crypto managers Command Output Descriptions

Field	Description
Total IKEv2 Invalid-MsgId Notify Sent	An invalid KE Payload was received and the receiver sent back a NOTIFY payload to indicate this. This is the number of times a NOTIFY payload was sent to indicate this error condition.
Total IKEv2 Invalid-MsgId Notify Received	A NOTIFY Payload was received indicating that the KE which had been previously sent to the peer was deemed invalid by the peer.
Total IKEv2 Invalid-KE Notify Sent	An IKE packet was received for which the message-id is invalid. A NOTIFY payload was sent to the peer to indicate that the received message-id was invalid. This maintains the count of the number of times that such a NOTIFY payload was sent.
Total IKEv2 Invalid-KE Notify Received	A NOTIFY payload was received indicating that the message-id which had been previously sent to the peer was deemed invalid by the peer.
Total IKEv2 No-Prop-Chosen Notify Sent	The receiver could not accept the protocol proposal which was sent. A NOTIFY payload was sent back to indicate this. This maintains the count of the number of times such a NOTIFY payload was sent.
Total IKEv2 No-Prop-Chosen Notify Received	A NOTIFY payload was received indicating that the proposals which had been previously sent to the peer could not be accepted.

# show crypto managers instance

Table 150. show crypto managers instance Command Output Descriptions

Field	Description
IKEv2 DoS Cookie-Challenge Status	Denial of Service status. <ul style="list-style-type: none"> <li>On</li> <li>Off</li> </ul>
Certificate Information	<p>For non-expired certificates:</p> <ul style="list-style-type: none"> <li>Serial number: <i>&lt;string&gt;</i></li> <li>Monitoring Timer: Running</li> <li>Status: Not Expired</li> <li>Next Timer <i>&lt;datetime&gt;</i></li> <li>Expiry: <i>&lt;datetime&gt;</i></li> </ul> <p>For expired certificates</p> <ul style="list-style-type: none"> <li>Serial number: <i>&lt;string&gt;</i></li> <li>Monitoring Timer: Stopped</li> <li>Status: Expired</li> <li>Next Timer: Not Scheduled</li> <li>Expiry: <i>&lt;datetime&gt;</i></li> </ul>
IKEv2 Statistics	This displays the IKEv2 statistics for this manager instance
Current IKEv2 SAs	The total number of all IKEv2 SAs for this manager instance
Current half-open IKEv2 SAs	The number of IKEv2 SAs in half-open state for this manager instance
Current Connecting IKEv2 SAs	The number of IKEv2 SAs trying to connect for this manager instance
Current Established IKEv2 SAs	The number of established IKEv2 SAs for this manager instance
Internal Failure Sent	Indicates an internal failure in ipsecmgr or dcadmgr and a Notify message was sent to the peer.

## show crypto managers summary

Table 151. show crypto managers summary Command Output Descriptions

Field	Description
demux-stats	Display sessions demux statistics on each IPsec Manager.
distribution	Display IPsec Manager distribution info.
handoff-stats	Display IKE request handoff Statistics on each IPsec Manager.
ike-stats	Display IKE statistics on each IPsec Manager.
ikev2-stats	Display IKEv2 statistics on each IPsec Manager.
ipsec-sa-stats	Display IPsec SA statistics on each IPsec Manager.

# show crypto map summary

Table 152. show crypto map summary Command Output Descriptions

Field	Description
Total Crypto maps	The total number of crypto maps of all types.
Configured maps	The total number of configured crypto maps.
Service maps	The total number of service maps. There is one map per service.
Subscriber maps	The total number of subscriber maps.
<b>Map Types</b>	
ipsec-dynamic	The total number of dynamic IPsec tunnel crypto maps.
ipsec-L2tp	The total number of L2TP IPsec tunnel crypto maps.
ipsec-ikev1	The total number of IKEv1 IPsec tunnel crypto maps.
ipsec-manual	The total number of manual (static) IPsec tunnel crypto maps.
ipsec-ikev2-subscriber	The total number of IKEv2 subscriber tunnel crypto maps.
ipsec-mobile-ip	The total number of mobile IP IPsec tunnel crypto maps.
<b>IKEv2 SA</b>	
Cipher null	The total number of IKEv2 security associations using the block cipher NULL. All IKEv2 security association protected traffic is sent in the clear.
Cipher des	The total number of IKEv2 security associations using the block cipher Data Encryption Standard in Cypher Block Chaining (CBC) mode.
Cipher 3des	The total number of IKEv2 security associations using the block cipher Triple Data Encryption Standard in Cypher Block Chaining (CBC) mode.
Cipher aes-cbc-128	The total number of IKEv2 security associations using the block cipher Advanced Encryption Standard with a 128-bit key in Cypher Block Chaining (CBC) mode.
Cipher aes-cbc-256	The total number of IKEv2 security associations using the block cipher Advanced Encryption Standard with a 256-bit key in Cypher Block Chaining (CBC) mode.
PRF sha1	The total number of IKEv2 security associations using the IKE pseudo-random function (PRF) with the cryptographic hash function Secure Hash Algorithm-1.
PRF md5	The total number of IKEv2 security associations using the IKE pseudo-random function (PRF) with the cryptographic hash function Message Digest 5.
HMAC sha1	The total number of IKEv2 security associations using a keyed-Hash Message Authentication Code (HMAC) with the cryptographic hash function Secure Hash Algorithm-1 truncated to 96 bits.

Field	Description
HMAC md5	The total number of IKEv2 security associations using a keyed-Hash Message Authentication Code (HMAC) with the cryptographic hash function Message Digest 5 truncated to 96 bits.
DH Group 1	The total number of IKEv2 security associations using Diffie-Hellman Group 1 security (the lowest security level). DH Group 1 provides 768 bits of key exchange cryptographic strength. This is a modular exponential (MODP) DH group.
DH Group 2	The total number of IKEv2 security associations using Diffie-Hellman Group 2 security. DH Group 2 (the default) provides 1024 bits of key exchange cryptographic strength. This is a modular exponential (MODP) DH group.
DH Group 5	The total number of IKEv2 security associations using Diffie-Hellman Group 5 security. DH Group 5 provides 1536 bits of key exchange cryptographic strength. This is a modular exponential (MODP) DH group.
DH Group 14	The total number of IKEv2 security associations using Diffie-Hellman Group 14 security (the highest security level). DH Group 14 provides 2048 bits of key exchange cryptographic strength. This is a modular exponential (MODP) DH group.
<b>IPSec SA</b>	
Protocol esp	The total number of IPsec security associations using Encapsulating Security Payload (ESP) protocol.
Protocol ah	The total number of IPsec security associations using Authentication Header (AH) protocol.
Cipher null	The total number of IPsec security associations using the block cipher NULL. All IKEv2 IPsec security association derived traffic is sent in the clear.
Cipher des	The total number of IPsec security associations using the block cipher Data Encryption Standard in Cypher Block Chaining (CBC) mode.
Cipher 3des	The total number of IPsec security associations using the block cipher Triple Data Encryption Standard in Cypher Block Chaining (CBC) mode.
Cipher aes-cbc-128	The total number of IPsec security associations using the block cipher Advanced Encryption Standard with a 128-bit key in Cypher Block Chaining (CBC) mode.
Cipher aes-cbc-256	The total number of IPsec security associations using the block cipher Advanced Encryption Standard with a 256-bit key in Cypher Block Chaining (CBC) mode.
HMAC sha1-96	The total number of IPsec security associations using a keyed-Hash Message Authentication Code (HMAC) with the cryptographic hash function Secure Hash Algorithm-1 truncated to 96 bits (the default).
HMAC md5-96	The total number of IPsec security associations using a keyed-Hash Message Authentication Code (HMAC) with the cryptographic hash function Message Digest 5 truncated to 96 bits.
DH Group 1	The total number of IPsec security associations using Diffie-Hellman Group 1 security (the lowest security level). DH Group 1 provides 768 bits of key exchange cryptographic strength. This is a modular exponential (MODP) DH group.
DH Group 2	The total number of IPsec security associations using Diffie-Hellman Group 2 security. DH Group 2 (the default) provides 1024 bits of key exchange cryptographic strength. This is a modular exponential (MODP) DH group.
DH Group 5	The total number of IPsec security associations using Diffie-Hellman Group 5 security. DH Group 5 provides 1536 bits of key exchange cryptographic strength. This is a modular exponential (MODP) DH group.

Field	Description
DH Group 14	The total number of IPsec security associations using Diffie-Hellman Group 14 security (the highest security level). DH Group 14 provides 2048 bits of key exchange cryptographic strength. This is a modular exponential (MODP) DH group.

## show crypto statistics

Table 153. show crypto statistics Command Output Descriptions

Field	Description
Combined ipsec statistics for context <context-name>	The name of the system context for which statistics are displayed.
<b>Transmit Statistics</b>	
ESP Encode	The total number of packets and bytes that were transmitted having been encoded for the SA using the Encapsulating Security Payload (ESP) protocol.
AH Encode	The total number of packets and bytes that were transmitted having been encoded for the SA using the Authentication Header (AH) protocol.
<b>Receive Statistics</b>	
ESP Decode	The total number of packets and bytes that were received having been encoded for the SA using the Encapsulating Security Payload (ESP) protocol.
AH Decode	The total number of packets and bytes that were received having been encoded for the SA using the Authentication Header (AH) protocol.
Error Counters	Error statistics for received packets and bytes <ul style="list-style-type: none"> <li>• Invalid packets/bytes</li> <li>• Discarded packets/bytes</li> <li>• Ignored packets/bytes</li> <li>• Bad Record packets/bytes</li> <li>• Replay packets/bytes</li> <li>• Bad Flow packets/bytes</li> <li>• Decode packets/bytes</li> <li>• Authentication packets/bytes</li> <li>• Input Underrun packets/bytes</li> <li>• DPU packets/bytes</li> <li>• Too Short packets/bytes</li> <li>• Non-Zero esp.</li> </ul>
Combined IKE statistics for context	The name of the system context for which statistics are displayed.
<b>Flow Counts</b>	
Current UDP flows	The total number of UDP port based flows in the data path
Current Cookie flows	The total number of cookie based flows in the data path
<b>Transmit Statistics</b>	

Field	Description
IKE Packets	The total number of total IKE packets transmitted
<b>Receive Statistics</b>	
IKE Packets Received	The total number of IKE packets received
New IKE Requests	The total number of IKE packets sent for new IKE requests
UDP flow Packets	The total number of packets that matched the UDP flow
Cookie flow Packets	The total number of packets that matched the cookie flow
<b>Dead Peer Detection (DPD) Statistics</b>	
Requests sent	The total number of DPD R-U-THERE packets sent
Requests received	The total number of DPD R-U-THERE packets received
Replies sent	The total number of DPD R-U-THERE-ACK packets sent
Replies received	The total number of DPD R-U-THERE-ACK packets received
Phase1 IKESA rekeys	The total number of times the IKE SAs negotiated during phase 1 of the IPSec negotiation have been rekeyed. This field is for IKEv1 only and it will be 0 for IKEv2.
Timeouts	The total number of ISAKMP DPD protocol messages that have exceeded their configured timeout period.
Disconnects	The total number of DPD disconnects that occurred between the peers.
<b>NAT-T Statistics</b>	
Keepalives sent	The total number of NATT keepalive packets sent
Keepalives received	The total number of NATT keepalive packets received
<b>Detailed IKE Statistics. (Support for IKEv2 added for release 7.x and later)</b>	
Active IKE SAs	The total number of SAs <ul style="list-style-type: none"> <li>• Initiated</li> <li>• Responded</li> </ul>
Total IKE SAs so far	The total number of SAs (cumulative history) <ul style="list-style-type: none"> <li>• Initiated</li> <li>• Responded</li> </ul>
Total attempts so far:	The total cumulative attempts made to establish SAs <ul style="list-style-type: none"> <li>• Initiated</li> <li>• Responded</li> </ul>
Total deletes so far	<ul style="list-style-type: none"> <li>• Requests received</li> <li>• Requests sent</li> <li>• Replies received</li> <li>• Replies sent</li> </ul>

Field	Description
Total packets in	The total cumulative IKE packets received
Total octets in	The total cumulative IKE octets received
Failed initiated negotiations with errors	The total number of initiated negotiations that failed because of errors
Failed initiated negotiations with time out	The total number of initiated negotiations that failed because of timeouts (no response)
Failed responded negotiations with errors	The total number of responded negotiations that failed because of errors
Total cookie errors	Total errors in cookie challenge. Please look into detailed counters in IKEv2 section
<b>IKEv2 Statistics</b>	
Current state:	<ul style="list-style-type: none"> <li>• Current IKEv2 SAs</li> <li>• Current half-open IKEv2 SAs</li> <li>• Current connecting IKEv2 SAs</li> <li>• Current established IKEv2 SAs</li> <li>• Current child SAs</li> </ul>
IKEv2 Timer Stats	<ul style="list-style-type: none"> <li>• Total IKESA Retrans expirations</li> <li>• Total IKESA Setup expirations (no exchange)</li> <li>• Total IKESA Setup expirations</li> <li>• Total IKESA Lifetime (soft) expirations</li> <li>• Total IKESA Lifetime (hard) expirations</li> <li>• Total TSELSA Lifetime (soft) expirations</li> <li>• Total TSELSA Lifetime (hard) expirations</li> </ul>
IKEv2 Exchanges dropped	<ul style="list-style-type: none"> <li>• Total IKEv2 Resp Pkts Drop - No IKESA</li> <li>• Total invalid resp</li> <li>• Total non-init exch drop--no IKESA</li> <li>• Total invalid message ID</li> <li>• Total invalid major version</li> <li>• Total IKESA error</li> <li>• Total unknown critical payload</li> </ul>

Field	Description
IKEv2 Cookie Statistics	<ul style="list-style-type: none"> <li>• Total cookie notify packets sent</li> <li>• Total cookie notify packets received</li> <li>• Total cookie notify match</li> <li>• Total cookie notify not match</li> </ul>
IKEv2 Rekey Statistics	<ul style="list-style-type: none"> <li>• Total IKESA Rekey sent</li> <li>• Total IKESA Rekey received</li> <li>• Total IKESA Rekey ignored</li> <li>• Total ChildSA Rekey sent</li> <li>• Total ChildSA Rekey received</li> <li>• Total ChildSA Rekey ignored</li> </ul>
IKEv2 MOBIKE Statistics	<ul style="list-style-type: none"> <li>• Total MOBIKE notify sent</li> <li>• Total MOBIKE received</li> <li>• Total Mobike ignored</li> </ul>
IKEv2 Misc Statistics	<ul style="list-style-type: none"> <li>• Total SA create failure</li> <li>• Total SA flow operation failure</li> <li>• Total NAT Keepalive received</li> <li>• Total Invalid-KE notify sent</li> <li>• Total Invalid-KE notify received</li> <li>• Total Invalid-msgID notify received</li> <li>• Total No-Prop-Chosen notify sent</li> <li>• Total No-Prop-Chosen notify received</li> </ul>

Field	Description
IKEv2 Exchange Decode failure statistics	<ul style="list-style-type: none"> <li>• Total pkts failure</li> <li>• Total internal errors</li> <li>• Total invalid IP HDR</li> <li>• Total invalid UDR HDR</li> <li>• Total invalid IKE HDR</li> <li>• Total invalid IKE HDR payload</li> <li>• Total invalid IKE HDR MJ ve</li> <li>• Total invalid IKE HDR MN verr</li> <li>• Total invalid IKE HDR exchange type</li> <li>• Total invalid IKE HDR Rsvd flag</li> <li>• Total invalid IKE HDR length</li> <li>• Total invalid payload syntax</li> <li>• Total invalid payload len</li> <li>• Total unknown crit payload</li> <li>• Total too many payloads</li> <li>• Total invalid SA payload len</li> <li>• Total invalid SA proposal HDR</li> <li>• Total invalid SA proposal HDR Reserved</li> <li>• Total too many transforms</li> <li>• Total invalid SA proposal HDR len</li> <li>• Total too many proposals</li> <li>• Total invalid protocol ID</li> <li>• Total invalid first SA proposal num</li> <li>• Total invalid SA proposal num</li> <li>• Total invalid transform len</li> <li>• Total invalid transform HDR</li> <li>• Total invalid transform HDR Rsvd</li> <li>• Total invalid transform type</li> <li>• Total invalid transform ID</li> <li>• Total invalid KE payload len</li> <li>• Total invalid KE DH groups</li> <li>• Total invalid KE DH group</li> <li>• Total invalid KE DH Group len</li> <li>• Total invalid ID payload len</li> <li>• Total invalid ID payload type</li> </ul>

Field	Description
IKEv2 Exchange Decode failure statistics (continued)	<ul style="list-style-type: none"> <li>• Total invalid Transform ID</li> <li>• Total invalid auth payload len</li> <li>• Total invalid nonce payload len</li> <li>• Total invalid notify payload len</li> <li>• Total invalid notify payload SPI size</li> <li>• Total Invalid Notify payload Proto ID</li> <li>• Total invalid notify payload NATT</li> <li>• Total invalid notify payload Cookie</li> <li>• Total Invalid notify payload Rekey</li> <li>• Total invalid notify payload NATT</li> <li>• Total invalid notify payload Cookie</li> <li>• Total invalid notify payload Rekey</li> <li>• Total invalid EAP payload len</li> <li>• Total invalid CP payload len</li> <li>• Total invalid CP payload attr len</li> <li>• Total invalid payload unknown attr</li> <li>• Total invalid Encrypted Payload len</li> <li>• Total invalid TS payload len</li> <li>• Total invalid TS payload Rsvd</li> <li>• Total invalid TS payload TS-type</li> <li>• Total unsupported crit payload</li> <li>• Total unsupported cert payload</li> <li>• Total unsupported Auth method</li> <li>• Total unsupported SA payload Prot AH</li> <li>• Total unsupported Notify Prot AH</li> <li>• Total unsupported payload Crit VID</li> <li>• Total unsupported TS payload TS_Type</li> <li>• Total unsupported method</li> <li>• Total unknown error</li> </ul>

Field	Description
IKEv2 Decrypt Failure statistics	<ul style="list-style-type: none"><li>• Total Pkts failure</li><li>• Total HMAC mismatch</li><li>• Total pad length error</li></ul>
IKEv2 Xchg statistics	<ul style="list-style-type: none"><li>• Total Bad Msg ID</li><li>• Total bad response</li><li>• Total stale message ID</li><li>• Total unknown error</li><li>• Total state lookup failure</li></ul>

## show crypto statistics ikev2 service-name

Table 154. show crypto statistics IKEv2 service-name Command Output Descriptions

Field	Description
<b>Flow Counts</b>	
Current UDP flows	The total number of UDP port based flows in the data path.
Current Cookie flows	The total number of cookie challenge based flows in the data path.
<b>Transmit Statistics</b>	
IKE Packets	The total number of total IKE packets transmitted.
<b>Receive Statistics</b>	
IKE Packets Received	The total number of IKE packets received.
New IKE Requests	The total number of IKE packets sent for new IKE requests.
UDP flow Packets	The total number of packets that matched the UDP flow.
Cookie flow Packets	The total number of packets that matched the cookie flow.
<b>Rekey Statistics</b>	
IKE Rekeys	The total number of successful IKE_SA rekeys.
<b>Dead Peer Detection (DPD) Statistics</b>	
Requests sent	The total number of DPD R-U-THERE packets sent.
Replies received	The total number of DPD R-U-THERE-ACK packets received.
Requests received	The total number of DPD R-U-THERE packets received.
Replies sent	The total number of DPD R-U-THERE-ACK packets sent.
Collisions	The total number of events that IKEv2 keepalive exchanges occur simultaneously from the PDIF and the MS.
Disconnects	The total number of DPD disconnects that occurred between the peers.
Timeouts	The total number of DPD protocol messages that have exceeded their configured timeout period.
<b>NAT-T Statistics</b>	
Keepalives sent	The total number of NAT-T keepalive packets sent.
<b>Detailed IKE Statistics</b>	
Active IKE SAs	The total number of IKE SAs.
Initiated	The total number of the active SAs initiated locally.

■ show crypto statistics ikev2 service-name

Field	Description
Responded	The total number of the active SAs responded.
Total IKE SAs so far	The total number of SAs (cumulative history).
Initiated	The total cumulative IKE SAs initiated locally.
Responded	The total cumulative IKE SAs responded to.
Total attempts so far	The total cumulative attempts made to establish SAs.
Initiated	The total number of SA establishment attempts initiated locally.
Responded	The total number of SA establishment attempts responded to.
Total deletes so far	The total cumulative deletes so far.
Requests received	The total number of requests received.
Requests sent	The total number of requests sent.
Replies received	The total number of replies received.
Replies sent	The total number of replies sent.
Total packets in	The total cumulative IKEv2 packets received.
Total packets out	The total cumulative IKEv2 packets sent.
Total octets in	The total cumulative IKEv2 octets received.
Total octets out	The total cumulative IKEv2 octets sent.
Failed initiated negotiations with errors	The total number of initiated negotiations that failed because of errors.
Failed initiated negotiations with time out:	The total number of initiated negotiations that failed because of timeouts (no response).
Failed responded negotiations with errors	The total number of responded negotiations that failed because of errors.
Total cookie errors	The total number of cookie errors encountered.
Congestion rejects	The total number of packets rejected due to congestion.
Congestion drops	The total number of packets dropped due to congestion.
Total Unknown Exchange SPI	The total number of unknown exchange SPIs.
<b>IKEv2 Detail Statistics</b>	
<b>Current State</b>	
Current IKEv2 SAs	The number of current IKEv2 SAs.

Field	Description
Current Half-Open IKEv2 SAs	The number of IKEv2 SAs in a half-open state.
Current Connecting IKEv2 SAs	The number of IKEv2 SAs currently connecting.
Current Established IKEv2 SAs	The number of established IKEv2 SAs.
Current Child SAs	The number of current child SAs.
<b>Total IKEv2 Timer Statistics</b>	
IKESA Retrans Expirations	The total number of retransmission expirations.
IKESA Setup Expirations (no Xchg)	The number of IKESA setups that expired with no exchange.
IKESA Setup Expirations	The total number of IKESA Session setups expired.
IKESA Lifetime (Soft) Expirations	The number of IKESA soft lifetime timer expirations.
IKESA Lifetime (Hard) Expirations	The number of IKESA hard lifetime timer expirations.
CHILD_SA Setup Expirations (no Xchg)	The number of Child SA setups that expired with no exchange.
CHILD_SA Lifetime (Soft) Expirations	The number of Child SA soft lifetime timer expirations.
CHILD_SA Lifetime (Hard) Expirations	The number of Child SA hard lifetime timer expirations.
<b>Total IKEv2 Multiple Authentication Statistics</b>	
Phase 1 Auth Successes	The number of multi-auth Phase 1 EAP authentication successes.
Phase 1 Auth Failures	The number of multi-auth Phase 1 EAP authentication failures.
Phase 1 Auth Req Sent	The number of multi-auth Phase 1 EAP authentication requests sent.
Phase 1 Auth Resp Rcvd	The number of multi-auth Phase 1 EAP authentication responses received.
Phase 2 Auth Successes	The number of multi-auth Phase 2 EAP authentication successes.

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show crypto statistics ikev2 service-name
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Field	Description
Phase 2 Auth Failures	The number of multi-auth Phase 2 EAP authentication failures.
Phase 2 Auth Req Sent	The number of multi-auth Phase 2 EAP authentication requests sent.
Phase 2 Auth Resp Rcvd	The number of multi-auth Phase 2 EAP authentication responses received.
Phase 2 Auth MD5 Successes	The number of multi-auth Phase 2 EAP authentication with MD5 successes.
Phase 2 Auth MD5 Failures	The number of multi-auth Phase 2 EAP authentication with MD5 failures.
Phase 2 Auth GTC Successes	The number of multi-auth Phase 2 EAP authentication with GTC mode successes.
Phase 2 Auth GTC Failures	The number of multi-auth Phase 2 EAP authentication with GTC mode failures.
Hash match failures	The number of hash match failures.
Signing failures	The number of signing failures.
MSK missing at phase 1 comp	The number of EAP Master Session Keys (MSK) not found.
Miss Another Auth Follows	The number of missed authentications that follow.
<b>Total IKEv2 Exchanges Dropped</b>	
Resp Pkts Drop - No IKESA	The number of IKEv2 response packets dropped without an IKEv2 SA being created.
Invalid Resp	The total number of invalid response messages.
Non-Init Exch Drop - No IKESA	The total number of IKEv2 exchanges dropped without an IKEv2 SA being created.
Invalid MSG ID	The total number of sessions dropped due to packets with invalid MSG ID.
Invalid Major Version	The total number of sessions dropped due to packets with invalid major version.
IKESA error	The total number of IKESA error messages.
Unknown Crit Payload	The total number of unknown critical payload messages.
Retransmitted request	IKEV2 Stack does not process the packets in the order they are received. New packets are queued if any packet is under processing. After completing the processing, stack consider processing the packets queue first instead of taking the latest packet received from network directly and leaving the packets in queue for later. And if any message is received with same message ID which is currently under processing, then that message will be discarded as retransmitted message received. The count for such request is 'Retransmitted Request'.
<b>Total IKEv2 Notify Statistics</b>	

Field	Description
Cookie Notify Sent	The total number of IKEv2 Denial of Service (DoS) cookie notify packets sent.
Cookie Notify Received	The total number of IKEv2 DoS cookie notify packets received.
Cookie Notify Match	The total number of IKEv2 DoS cookie notify messages that match.
Cookie Notify Not Match	The total number of IKEv2 DoS cookie notify messages that do not match.
Multi Auth Supported	The total number of multiple authentications supported.
Another Auth Follows	The total number of authentications that follow.
<b>Total IKEv2 Rekey Statistics</b>	
IKESA Rekey Sent	The total number of IKESA Rekey Request messages sent.
IKESA Rekey Rcvd	The total number of IKESA Rekey Request messages received.
IKESA Rekey Ignored	The total number of IKESA Rekey messages ignored.
ChildSA Rekey Req Sent	The total number of Child SA Rekey Request messages sent.
ChildSA Rekey Req Rcvd	The total number of Child SA Rekey Request messages received.
ChildSA Rekey Rsp Sent	The total number of Child SA Rekey Response messages sent.
ChildSA Rekey Rsp Rcvd	The total number of Child SA Rekey Response messages received.
ChildSA Rekey Ignored	The total number of Child SA Rekey messages ignored.
<b>Total IKEv2 MOBIKE Statistics</b>	
MOBIKE Notify Sent	The total number of MOBIKE notify messages sent. MOBIKE is not supported. All MOBIKE messages are treated as if they were never received.
MOBIKE Recvd	The total number of MOBIKE packets received.
MOBIKE Ignored	The total number of MOBIKE packets dropped.
<b>Total IKEv2 Misc Statistics</b>	
SA Create Failure	The total number of SA creations failed.
SA Flow Operation Failure	The total number of SA flow operations failed.
<b>Total IKEv2 Notify Payload Sent Statistics</b>	
Invalid KE Payload	The total number of IKEv2 NOTIFY payloads sent of the NOTIFY type Invalid KE Payload.

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show crypto statistics ikev2 service-name
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Field	Description
Invalid Major Version	The total number of IKEv2 NOTIFY payloads sent of the NOTIFY type Invalid Major Version.
Invalid Message ID	The total number of IKEv2 NOTIFY payloads sent of the NOTIFY type Invalid Message ID.
Invalid Syntax	The total number of IKEv2 NOTIFY payloads sent of the NOTIFY type Invalid Syntax.
No Additional SAs	The total number of IKEv2 NOTIFY payloads sent of the NOTIFY type No Additional SAs.
No Proposal Chosen	The total number of IKEv2 NOTIFY payloads sent of the NOTIFY type No Proposal Chosen.
TS Unacceptable	The total number of IKEv2 NOTIFY payloads sent of the NOTIFY type TS Unacceptable.
Unsupported Critical Payload	The total number of IKEv2 NOTIFY payloads sent of the NOTIFY type Unsupported Critical Payload.
Internal Failure Sent	The total number of IKEv2 NOTIFY payloads sent of the NOTIFY type Internal Failure Sent.
<b>Total IKEv2 Notify Payload Received Statistics</b>	
Invalid KE Payload	The total number of IKEv2 NOTIFY payloads received of the NOTIFY type Invalid KE Payload.
Invalid Major Version	The total number of IKEv2 NOTIFY payloads received of the NOTIFY type Invalid Major Version.
Invalid Message ID	The total number of IKEv2 NOTIFY payloads received of the NOTIFY type Invalid Message ID.
Invalid Syntax	The total number of IKEv2 NOTIFY payloads received of the NOTIFY type Invalid Syntax.
No Additional SAs	The total number of IKEv2 NOTIFY payloads received of the NOTIFY type No Additional SAs.
No Proposal Chosen	The total number of IKEv2 NOTIFY payloads received of the NOTIFY type No Proposal Chosen.
TS Unacceptable	The total number of IKEv2 NOTIFY payloads received of the NOTIFY type TS Unacceptable.
Unsupported Critical Payload	The total number of IKEv2 NOTIFY payloads received of the NOTIFY type Unsupported Critical Payload.
<b>IKEv2 Exchange Decode Failure Statistics</b>	
Packet Failures	The number of IKEv2 packets that fail to decode.
Internal Errors	The total number of failures due to internal errors.
Invalid IP HDR	The total number of failures due to an invalid IP header.
Invalid UDP HDR	The total number of failures due to an invalid UDP header.
Invalid IKE HDR	The total number of failures due to an invalid IKE header.
Invalid IKE HDR Payload	The total number of failures due to an invalid IKE header payload.
Invalid IKE HDR Init SPI	The total number of failures due to an invalid IKE header initiator security parameter index.
Invalid IKE HDR Resp SPI	The total number of failures due to an invalid IKE header responder security parameter index.
Invalid IKE HDR Major Ver	The total number of failures due to an invalid IKE header major version.

Field	Description
Invalid IKE HDR Minor Ver	The total number of failures due to an invalid IKE header minor version.
Invalid IKE HDR Xchg Type	The total number of failures due to an invalid IKE header exchange type.
Invalid IKE HDR Rcvd Flag	The total number of failures due to an invalid IKE header received flags.
Invalid IKE HDR Len	The total number of failures due to an invalid IKE header length.
Invalid Syntax	The total number of failures due to an invalid syntax.
Invalid Payload Syntax	The total number of failures due to an invalid payload syntax.
Invalid Payload Len	The total number of failures due to an invalid payload length.
Unknown Crit Payload	The total number of failures due to an unknown critical payload.
Too many payloads	The total number of failures due to many payloads.
Invalid SA Payload Len	The total number of failures due to an invalid SA payload length.
Invalid SA Proposal HDR	The total number of failures due to an invalid SA proposal header.
Invalid SA Proposal HDR Rcvd	The total number of failures due to an invalid SA proposal header received.
Too many transforms	The total number of failures due to many transform-sets in the SA payload.
Invalid SA Proposal HDR Len	The total number of failures due to an invalid SA proposal header length.
Too many proposals	The total number of failures due to many proposals in SA payload.
Invalid first SA Proposal num	The total number of failures due to an invalid first SA proposal number.
Invalid SA Proposal ID	The total number of failures due to an invalid Protocol ID in SA payload.
Invalid SA Proposal num	The total number of failures due to an invalid SA proposal number.
Invalid Transform Len	The total number of failures due to an invalid transform-set length.
Invalid Transform HDR	The total number of failures due to an invalid transform-set header.
Invalid Transform HDR Rcvd	The total number of failures due to an invalid transform-set header received.

Field	Description
Invalid Transform Type	The total number of failures due to an invalid transform-set type.
Invalid Transform ID	The total number of failures due to an invalid transform-set ID.
Invalid KE Payload Len	The total number of failures due to an invalid key exchange payload length.
Invalid KE DH Group	The total number of failures due to an invalid key exchange Diffie-Hellman group number.
Invalid KE DH Group Len	The total number of failures due to an invalid ID payload length.
Invalid ID Payload Len	The total number of failures due to an invalid ID payload length.
Invalid ID Payload Type	The total number of failures due to an invalid ID payload type.
Invalid Auth Payload Len	The total number of failures due to an invalid authorization payload length.
Invalid Nonce Payload Len	The total number of failures due to an invalid nonce payload length.
Invalid Notify Payload Len	The total number of failures due to an invalid notify payload length.
Invalid Notify Payload SPI Len	The total number of failures due to an invalid notify payload security parameter index size.
Invalid Notify Payload NAT	The total number of failures due to an invalid notify payload Network Address Translation-Traversal.
Invalid Notify payload Proto Id	The total number of failures due to an invalid notify payload protocol ID.
Invalid EAP Payload len	The total number of failures due to an invalid Encapsulation Authentication Protocol payload length.
Invalid Notify Payload Rekey	The total number of failures due to an invalid notify payload rekey.
Invalid CP Payload len	The total number of failures due to an invalid CP payload length.
Invalid Notify Payload Cookie	The total number of failures due to an invalid notify payload cookie.
Invalid TS Payload len	The total number of failures due to an invalid transform-set payload length.
Invalid CP Payload Attr Len	The total number of failures due to an invalid CP payload unknown attribute length.
Invalid TS Payload Rcvd	The total number of failures due to an invalid transform-set payload received.

Field	Description
Invalid Encrypted Payload Len	The total number of failures due to an invalid encrypted payload length.
Invalid TS payload TS-Type	The total number of failures due to an invalid transform-set payload transform-set type.
Unsupported Crit Payload	The total number of failures due to an unsupported critical payload.
Unsupported Cert Payload	The total number of failures due to an unsupported certified payload.
Unsupported Notify Prot AH	The total number of failures due to an unsupported notify payload protocol Authentication Header.
Unsupported Auth method	The total number of failures due to an unsupported authentication method.
Unsupported Payload Crit VID	The total number of failures due to an unsupported payload critical V-LAN ID.
Unsupported method	The total number of failures due to an unsupported method.
Unknown Error	The total number of failures due to an unknown error.
Unsupported SA Payload Prot AH	The total number of failures due to an unsupported SA payload protocol Authentication Header.
Unsupported TS payload TS-Num	The total number of failures due to an unsupported transform-set payload number.
Unsupported TS Payload TS-Type	The total number of failures due to an unsupported transform-set payload transform-set-type.
Unsupported TS Payload TS-Prot	The total number of failures due to an unsupported transform-set payload protocol.
Unsupported CP Payload No IP Attr	The total number of failures due to an invalid CP because of no available IP attribute.
Invalid CP Payload UNK ATTR	The total number of failures due to an invalid CP because of an unknown attribute.
<b>Total IKEv2 Decrypt Failure Statistics</b>	
Packets Failure	The total number of session failures due to packets that failed to decrypt.
HMAC mismatch	The total number of session failures due to a HMAC mismatch.
Pad length error	The total number of failures due to a pad length error in the packet.
<b>Total IKEv2 Xchg Statistics</b>	
Bad Msg Id	The total number of session failures due to a bad message ID.
Bad Response	The total number of session failures due to a bad response.
Stale Msg ID	The total number of session failures due to a stale message ID.
Unknown error	The total number of session failures due to unknown errors.

■ show crypto statistics ikev2 service-name

Field	Description
Stale Lookup Failure	The total number of session failures due to a stale lookup failure.
<b>Combined Crypto map Statistics</b>	
Current Tunnels	The number of tunnels currently connected by the SA.
Current Tunnels Established	The number of tunnels successfully connected by the SA.
IKE Fails	The total number of tunnels that failed to be connected by the SA.
Total Tunnels	The total number of tunnels connected by the SA.
Total Tunnels Established	The total number of tunnels successfully connected by the SA.
Call Req Rejects	The total number of call request reject messages.

# Chapter 58

## show cscf

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This chapter includes the `show cscf` command output tables.

## show cscf nat media mapping all

Table 155. show cscf nat media mapping all Command Output Descriptions

Field	Description
UE-Origin	The IP address and port number of the UE origin.
UE-Destination	The IP address and port number of the UE destination.
Nwk-Origin	The IP address and port number of the network origin.
Nwk-Destination	The IP address and port number of the network destination.
Nwk-Core-context	The context in which the network core configuration resides.
UE-Access-context	The context in which the UE access configuration resides.

## show cscf peer-servers full

Table 156. show cscf peer-servers full Command Output Descriptions

Field	Description
Peer-Server name	The name of the peer server group.
Context	The context in which the peer server group configuration resides.
Server type	The type of servers in the peer server group.
Hunting-method	The hunting method used by the servers in the peer server group.
server	The name of the peer server.
Address	The IP address of the peer server expressed in IPv4 or IPv6 dotted decimal notation.
domain	The domain name of the peer server.
Monitor status	The monitoring status of the peer servers as determined by the CLI command Enabled/Disabled.
monitor-interval (seconds)	The time period, in seconds, between monitor intervals.
monitor-message	The SIP message (OPTIONS) to be sent after each monitoring interval.
monitor-response-timer (seconds)	The response wait timer, in seconds, for each monitor message.
Server mode	The mode of the peer server as determined by the CLI command Active/Standby.
Server status	The status of the peer server. Possible statuses are: <ul style="list-style-type: none"> <li>• OUT_OF_SERVICE — Peer server mode changed to standby through CLI command.</li> <li>• AVAILABLE — Peer server mode is Active and peer server sends response to monitor message.</li> <li>• UNAVAILABLE— Peer server mode is Active, however, peer server does not send response to monitor message.</li> </ul>
Network session template	Binds the nw-session-template name with the peer server.
IMS Capable	Indicates if the peer server is ims-capable or not.
Request Rx	The number of requests received by the sip-as peer server from S-CSCF during load balancing.

## show cscf service li-packet-cable statistics

Table 157. show cscf service li-packet-cable statistics Command Output Descriptions

Field	Description
<b>DLIA Session Stats</b>	Diameter Lawful Intercept Application Session statistics:
Total Current Sessions	Total number of current sessions.
<b>DLIA Message Stats</b>	Diameter Lawful Intercept Application Message statistics:
ACR Sent	Number of Accounting Request messages sent.
ACA Received	Number of Accounting Answer messages received.
<b>DLIA Message Error Stats</b>	Diameter Lawful Intercept Application Error statistics:
Diameter Protocol Errs	Number of Diameter protocol errors.
Bad Answers	Number of bad answers.
ACR Send Errors	Number of Accounting Request send errors.

## show cscf service statistics

Table 158. show cscf service statistics Command Output Descriptions

Field	Description
CSCF Service	The name of the service and context.
<b>CSCF Active Subscriptions</b>	
Originating	The total current number of active subscriptions originating on this service.
Terminating (UE originated)	The total current number of UE-originated active subscriptions terminating on this service.
Terminating (PCSCF Originated)	The total current number of Proxy CSCF-originated active subscriptions terminating on this service.
Terminating (AS Originated)	The total current number of AS-originated active subscriptions terminating on this service.
Proxied	The total current number of active subscriptions proxied on this service.
<b>CSCF Calls</b>	
Total CallSetupAttempts Rx	The total current number of call setup attempts received by this service.
Total CallSetupAttempts Tx	The total current number of call setup attempts transmitted by this service.
Total CallSetupSuccess Rx	The total current number of successful call setups received by this service.
Total CallSetupSuccess Tx	The total current number of call setups successfully transmitted by this service.
Total CallSetupFailures Rx	The total current number of call setup failures received by this service.
Total CallSetupFailures Tx	The total current number of failed call setups transmitted by this service.
Total 3xx Responses Rx	The total current number of 3xx responses received by this service.
Total 3xx Responses Tx	The total current number of 3xx responses transmitted by this service.
Total 402 Payment Required Rx	The total current number of 402 Payment Required responses received by this service.
Total 402 Payment Required Tx	The total current number of 402 Payment Required responses transmitted by this service.
Total 403 Forbidden Rx	The total current number of 403 Forbidden responses received by this service.
Total 403 Forbidden Tx	The total current number of 403 Forbidden responses transmitted by this service.
Total 404 Not Found Rx	The total current number of 404 Not Found responses received by this service.
Total 404 Not FoundTx	The total current number of 404 Not Found responses transmitted by this service.
Total 407 Proxy Auth Required Rx	The total current number of 407 Proxy Auth Required responses received by this service.
Total 407 Proxy Auth Required Tx	The total current number of 407 Proxy Auth Required responses transmitted by this service.

Field	Description
Total 408 Request Timeout Rx	The total current number of 408 Request Timeout responses received by this service.
Total 408 Request Timeout Tx	The total current number of 408 Request Timeout responses transmitted by this service.
Total 420 Bad Extension Rx	The total current number of 420 Bad Extension responses received by this service.
Total 420 Bad Extension Tx	The total current number of 420 Bad Extension responses transmitted by this service.
Total 421 Extension Required Rx	The total current number of 421 Extension Required responses received by this service.
Total 421 Extension Required Tx	The total current number of 421 Extension Required responses transmitted by this service.
Total 480 Temp Not Available Rx	The total current number of 480 Temp Not Available responses received by this service.
Total 480 Temp Not Available Tx	The total current number of 480 Temp Not Available responses transmitted by this service.
Total 486 Busy Here Rx	The total current number of 486 Busy Here responses received by this service.
Total 486 Busy Here Tx	The total current number of 486 Busy Here responses transmitted by this service.
Total 487 Request Cancel Rx	The total current number of 487 Request Cancel responses received by this service.
Total 487 Request Cancel Tx	The total current number of 487 Request Cancel responses transmitted by this service.
Total 488 Not Acceptable Media Rx	The total current number of 488 Not Acceptable Media responses received by this service.
Total 488 Not Acceptable Media Tx	The total current number of 488 Not Acceptable Media responses transmitted by this service.
Total 4xx Responses Rx	The total current number of 4xx responses received by this service.
Total 4xx Responses Tx	The total current number of 4xx responses transmitted by this service.
Total 5xx Responses Rx	The total current number of 5xx responses received by this service.
Total 5xx Responses Tx	The total current number of 5xx responses transmitted by this service.
Total 500 Internal Error Rx	The total current number of 500 Internal Error responses received by this service.
Total 500 Internal Error Tx	The total current number of 500 Internal Error responses transmitted by this service.
Total 503 Service Unavailable Rx	The total current number of 503 Service Unavailable responses received by this service.
Total 503 Service Unavailable Tx	The total current number of 503 Service Unavailable responses transmitted by this service.
Total 6xx Responses Rx	The total current number of 6xx responses received by this service.
Total 6xx Responses Tx	The total current number of 6xx responses transmitted by this service.
Total CallReleaseAttempts Rx	The total current number of call release attempts received by this service.

Field	Description
Total CallReleaseAttempts Tx	The total current number of call release attempts transmitted by this service.
Total CallReleaseSuccess Rx	The total current number of call releases successfully received by this service.
Total CallReleaseSuccess Tx	The total current number of successful call releases transmitted by this service.
Total CallReleaseFailures Rx	The total current number of call release failures received by this service.
Total CallReleaseFailures Tx	The total current number of failed call releases transmitted by this service.
Total Call Attempts Challenged	The total current number of call attempts challenged on this service.
Total Session Timer Expires	The total current number of sessions on this service with expired timers.
Total Call Rejects from PCRF/PDF	The total current number of calls rejected by the PCRF/PDF from this service.
Total Call Rejects from Proxy (local)	The total current number of calls rejected by the local proxy from this service.
Total Too Large SIP Messages	The total current number of too large SIP messages on this service.
Total HSS Accesses	The total current number of HSS accesses by this service.
Total Emergency Calls	The total current number of emergency calls made through this service.
Total Toll Free Calls	The total current number of toll-free calls made through this service.
Total Premium Service Calls	The total current number of premium-service calls made through this service.
Total International Calls	The total current number of international calls made through this service.
Total LongDistance Calls	The total current number of long distance calls made through this service.
Total Operator Assisted Calls	The total current number of operator-assisted calls made through this service.
Total Directory Assisted Calls	The total current number of directory-assisted calls made through this service.
Total Media (audio) Loss Call Releases	The total current number of media (audio) loss call releases by this service.
Total RTP Packets Sent	The total current number of RTP packets sent by this service.
Total RTP Packets Received	The total current number of RTP packets received by this service.
Total MSRP Packets Sent	The total current number of MSRP TCP packets sent by this service.
Total MSRP Packets Received	The total current number of MSRP TCP packets received by this service.
Total Call Releases initiated by UE	The total current number of UE-initiated call releases. <ul style="list-style-type: none"> <li>For P-CSCF, the number of BYE initiated by UE.</li> <li>For S-CSCF, the number of BYE received from P-CSCF (initiated by UE/P-CSCF).</li> </ul>

Field	Description
Total Call Releases initiated by Network	The total current number of network-initiated call releases. <ul style="list-style-type: none"> <li>For P-CSCF, the number of BYE received from S-CSCF.</li> <li>For S-CSCF, the number of BYE received from AS, etc.</li> </ul>
Total Call Releases initiated by Radio Loss	The total current number of Radio Loss-initiated call releases; the number of BYE originated by P-CSCF due to radio coverage loss of UE.
Total Call Releases initiated by CSCF (Local)	The total current number of CSCF (Local)-initiated call releases; the number of BYE originated by CSCF due to CLI, radio loss, network-initiated de-registration, and internal processing failure.
Total Calls rejected due to Concurrent Call limit exceeded	The total current number of calls rejected due to concurrent call limit exceeded by this service.
<b>CSCF Congestion Control Statistics</b>	
Registration Attempts Rejected	The total current number of registration (SIP REGISTER message) attempts rejected by CSCF service due to congestion trigger.
Re-Registration Attempts Rejected	The total current number of re-registration (SIP REGISTER message) attempts rejected by CSCF service due to congestion trigger.
Call Setup Attempts Rejected	The total current number of call setup attempts (SIP INVITE) rejected by CSCF service due to congestion trigger.
Message Attempts Rejected	The total current number of SIP MESSAGE requests rejected by CSCF service due to congestion trigger.
Subscription Attempts Rejected	The total current number of SIP SUBSCRIBE requests rejected by CSCF service due to congestion trigger.
Notification Attempts Rejected	The total current number of SIP NOTIFY requests rejected by CSCF service due to congestion trigger.
Publish Attempts Rejected	The total current number of SIP PUBLISH attempts rejected by CSCF service due to congestion trigger.
Other SIP Message Attempts Rejected	The total current number of other SIP requests (excepts those mentioned above) rejected by CSCF service due to congestion trigger.
Messages dropped due to congestion	The total current number of SIP messages dropped by CSCF service due to congestion trigger.
TCP packets dropped due to congestion	The total current number of TCP packets dropped by CSCF service due to congestion trigger.
Number of times congestion applied	The number of times the sessmgr congestion control is triggered. This value is collected from all sessmgrs running the CSCF service.
Number of times congestion cleared	The number of times the sessmgr congestion control is cleared. This value is collected from all sessmgrs running the CSCF service.
<b>CSCF MESSAGE Statistics</b>	
Message Attempts Received	The total current number of message attempts received by this service.
Message Attempts Transmitted	The total current number of message attempts transmitted by this service.

Field	Description
Message Success Received	The total current number of successful messages received by this service.
Message Success Transmitted	The total current number of messages successfully transmitted by this service.
Message Failures Received	The total current number of message failures received by this service.
Message Failures Transmitted	The total current number of failed messages transmitted by this service.
3xx Response Received	The total current number of 3xx Response messages received on this service.
3xx Response Transmitted	The total current number of 3xx Response messages transmitted by this service.
400 Bad Request Received	The total current number of 400 Bad Request messages received on this service.
400 Bad Request Transmitted	The total current number of 400 Bad Request messages transmitted by this service.
403 Forbidden Received	The total current number of 403 Forbidden messages received on this service.
403 Forbidden Transmitted	The total current number of 403 Forbidden messages transmitted by this service.
404 Not Found Received	The total current number of 404 Not Found messages received on this service.
404 Not Found Transmitted	The total current number of 404 Not Found messages transmitted by this service.
415 Unsupport Media Type Received	The total current number of 415 Unsupport Media Type messages received on this service.
415 Unsupport Media Type Transmitted	The total current number of 415 Unsupport Media Type messages transmitted by this service.
416 Unsupport URI Scheme Received	The total current number of 416 Unsupport URI Scheme messages received on this service.
416 Unsupport URI Scheme Transmitted	The total current number of 416 Unsupport URI Scheme messages transmitted by this service.
420 Bad Extension Received	The total current number of 420 Bad Extension messages received on this service.
420 Bad Extension Transmitted	The total current number of 420 Bad Extension messages transmitted by this service.
421 Extension Required Received	The total current number of 421 Extension Required messages received on this service.
421 Extension Required Transmitted	The total current number of 421 Extension Required messages transmitted by this service.
480 Temp Not Available Received	The total current number of 480 Temp Not Available messages received on this service.
480 Temp Not Available Transmitted	The total current number of 480 Temp Not Available messages transmitted by this service.
488 Not Acceptable Media Received	The total current number of 488 Not Acceptable Media messages received on this service.
488 Not Acceptable Mediad Transmitted	The total current number of 488 Not Acceptable Media messages transmitted by this service.
4xx Response Received	The total current number of 4xx Response messages received on this service.

Field	Description
4xx Response Transmitted	The total current number of 4xx Response messages transmitted by this service.
500 Internal Error Received	The total current number of 500 Internal Error messages received on this service.
500 Internal Error Transmitted	The total current number of 500 Internal Error messages transmitted by this service.
513 Message Too Large Received	The total current number of 513 Message Too Large messages received on this service.
513 Message Too Large Transmitted	The total current number of 513 Message Too Large messages transmitted by this service.
5xx Response Received	The total current number of 5xx Response messages received on this service.
5xx Response Transmitted	The total current number of 5xx Response messages transmitted by this service.
6xx Response Received	The total current number of 6xx Response messages received on this service.
6xx Response Transmitted	The total current number of 6xx Response messages transmitted by this service.
<b>CSCF Performance</b>	
Invite Processing Time	Minimum and maximum time (in ms) required to process an INVITE message (time elapsed between the INVITE entering the proxy and the INVITE forwarded out of the proxy).
First Response Time	Minimum and maximum time (in ms) between sending an INVITE message out of the proxy and the first response received for the INVITE (any 1xx).
Post Dial Delay	Minimum and maximum time (in ms) between sending an INVITE message out of the proxy and receiving the ringing message or any final response to the INVITE.
Session Setup Delay	Minimum and maximum time (in ms) between when an INVITE message was received by the proxy and a 200 OK (invite) sent out of the proxy.
Post Answer Delay	Minimum and maximum time (in ms) between a 200 OK INVITE message received by the proxy and the ACK message (for invite) sent out of the proxy.
Session Release Delay	Minimum and maximum time (in ms) between when a BYE message is received by the proxy and a 200 OK BYE is sent out of the proxy.
<b>CSCF Registrations</b>	
Current Registered Users	The current number of users registered to this service.
Current Secure Connections	The current number of secure connections to this service.
Current Unsecure Connections	The current number of unsecure connections to this service.
Total Failed Authentications	The total current number of failed authentications for this service.
Total Registration Expires	The total current number of expired registrations on this service.
Total Registration from Roaming UE	The total number of registrations from Roaming UE.
Total Successful Registration from Roaming UE	The total number 200 ok to registrations from Roaming UE.

Field	Description
Total Failed Registration from Roaming UE	The total number of failed registrations from Roaming UE.
Total 403 response to Registration from Roaming UE	The total number of 403 response to registration from Roaming UE.
Total Re-Registration from Roaming UE	The total number of re-registration from Roaming UE.
Total Successful Re-Registration from Roaming UE	The total number 200 ok to re-registrations from Roaming UE.
Total Failed Re-Registration from Roaming UE	The total number of failed re-registrations from Roaming UE.
Total 403 response to Re-Registration from Roaming UE	The total number of 403 response to re-registration from Roaming UE.
Total De-Registration from Roaming UE	The total number of de-registration from Roaming UE.
Total Successful De-Registration from Roaming UE	The total number 200 ok to de-registrations from Roaming UE.
Total Failed De-Registration from Roaming UE	The total number of failed de-registrations from Roaming UE.
Total 403 response to De-Registration from Roaming UE	The total number of 403 response to de-registration from Roaming UE.
Total De-registrations initiated by UE	The total current number of UE-initiated de-registration requests on this service.
Total De-registrations initiated by Network	The total current number of network-initiated de-registration requests received by P-CSCF from S-CSCF or by S-CSCF/SIP Proxy from internal/HSS trigger on this service.
Total Secure Registrations	The total current number of secure registrations on this service.
Total Failed Secure Registrations	The total current number of failed secure registrations on this service.
Registration Statistics	
Registration Attempts Received	The total current number of registration attempts received on this service.
Registration Attempts Transmitted	The total current number of registration attempts transmitted by this service.
Registration Success Received	The total current number of registration successes received on this service.
Registration Success Transmitted	The total current number of registration successes transmitted by this service.

Field	Description
Registration Failures Received	The total current number of registration failures received on this service.
Registration Failures Transmitted	The total current number of registration failures transmitted by this service.
401 Unauthorized (Registration) Received	The total current number of 401 Unauthorized responses to registration received on this service.
401 Unauthorized (Registration) Transmitted	The total current number of 401 Unauthorized responses to registration transmitted by this service.
403 Forbidden (Registration) Received	The total current number of 403 Forbidden responses to registration received on this service.
403 Forbidden (Registration) Transmitted	The total current number of 403 Forbidden responses to registration transmitted by this service.
404 Not Found (Registration) Received	The total current number of 404 Not Found responses to registration received on this service.
404 Not Found (Registration) Transmitted	The total current number of 404 Not Found responses to registration transmitted by this service.
420 Bad Extension (Registration) Received	The total current number of 420 Bad Extension responses to registration received on this service.
420 Bad Extension (Registration) Transmitted	The total current number of 420 Bad Extension responses to registration transmitted by this service.
439 First HopLackOb (Registration) Received	The total current number of 439 First Hop Lack Outbound responses to registration received on this service.
439 First HopLackOb (Registration) Transmitted	The total current number of 439 First Hop Lack Outbound responses to registration transmitted by this service.
4xx Responses (Registration) Received	The total current number of 4xx responses to registration received on this service.
4xx Responses (Registration) Transmitted	The total current number of 4xx responses to registration transmitted by this service.
500 Internal Error (Registration) Received	The total current number of 500 Internal Error responses to registration received on this service.
500 Internal Error (Registration) Transmitted	The total current number of 500 Internal Error responses to registration transmitted by this service.
5xx Responses (Registration) Received	The total current number of 5xx responses to registration received on this service.
5xx Responses (Registration) Transmitted	The total current number of 5xx responses to registration transmitted by this service.
6xx Responses (Registration) Received	The total current number of 6xx responses to registration received on this service.
6xx Responses (Registration) Transmitted	The total current number of 6xx responses to registration transmitted by this service.

Field	Description
Re-Registration Statistics	
Re-Registration Attempts Received	The total current number of re-registration attempts received on this service.
Re-Registration Attempts Transmitted	The total current number of re-registration attempts transmitted by this service.
Re-Registration Success Received	The total current number of re-registration successes received on this service.
Re-Registration Success Transmitted	The total current number of re-registration successes transmitted by this service.
Re-Registration Failures Received	The total current number of re-registration failures received on this service.
Re-Registration Failures Transmitted	The total current number of re-registration failures transmitted by this service.
401 Unauthorized (Re-Registration) Received	The total current number of 401 Unauthorized responses to re-registration received on this service.
401 Unauthorized (Re-Registration) Transmitted	The total current number of 401 Unauthorized responses to re-registration transmitted by this service.
403 Forbidden (Re-Registration) Received	The total current number of 403 Forbidden responses to re-registration received on this service.
403 Forbidden (Re-Registration) Transmitted	The total current number of 403 Forbidden responses to re-registration transmitted by this service.
404 Not Found (Re-Registration) Received	The total current number of 404 Not Found responses to re-registration received on this service.
404 Not Found (Re-Registration) Transmitted	The total current number of 404 Not Found responses to re-registration transmitted by this service.
420 Bad Extension (Re-Registration) Received	The total current number of 420 Bad Extension responses to re-registration received on this service.
420 Bad Extension (Re-Registration) Transmitted	The total current number of 420 Bad Extension responses to re-registration transmitted by this service.
439 First HopLackOb (Re-Registration) Received	The total current number of 439 First Hop Lack Outbound responses to re-registration received on this service.
439 First HopLackOb (Re-Registration) Transmitted	The total current number of 439 First Hop Lack Outbound responses to re-registration transmitted by this service.
4xx Responses (Re-Registration) Received	The total current number of 4xx responses to re-registration received on this service.
4xx Responses (Re-Registration) Transmitted	The total current number of 4xx responses to re-registration transmitted by this service.
500 Internal Error (Re-Registration) Received	The total current number of 500 Internal Error responses to re-registration received on this service.

Field	Description
500 Internal Error (Re-Registration) Transmitted	The total current number of 500 Internal Error responses to re-registration transmitted by this service.
5xx Responses (Re-Registration) Received	The total current number of 5xx responses to re-registration received on this service.
5xx Responses (Re-Registration) Transmitted	The total current number of 5xx responses to re-registration transmitted by this service.
6xx Responses (Re-Registration) Received	The total current number of 6xx responses to re-registration received on this service.
6xx Responses (Re-Registration) Transmitted	The total current number of 6xx responses to re-registration transmitted by this service.
De-Registration Statistics	
De-Registration Attempts Received	The total current number of de-registration attempts received on this service.
De-Registration Attempts Transmitted	The total current number of de-registration attempts transmitted by this service.
De-Registration Success Received	The total current number of de-registration successes received on this service.
De-Registration Success Transmitted	The total current number of de-registration successes transmitted by this service.
De-Registration Failures Received	The total current number of de-registration failures received on this service.
De-Registration Failures Transmitted	The total current number of de-registration failures transmitted by this service.
401 Unauthorized (De-Registration) Received	The total current number of 401 Unauthorized responses to de-registration received on this service.
401 Unauthorized (De-Registration) Transmitted	The total current number of 401 Unauthorized responses to de-registration transmitted by this service.
403 Forbidden (De-Registration) Received	The total current number of 403 Forbidden responses to de-registration received on this service.
403 Forbidden (De-Registration) Transmitted	The total current number of 403 Forbidden responses to de-registration transmitted by this service.
404 Not Found (De-Registration) Received	The total current number of 404 Not Found responses to de-registration received on this service.
404 Not Found (De-Registration) Transmitted	The total current number of 404 Not Found responses to de-registration transmitted by this service.
420 Bad Extension (De-Registration) Received	The total current number of 420 Bad Extension responses to de-registration received on this service.
420 Bad Extension (De-Registration) Transmitted	The total current number of 420 Bad Extension responses to de-registration transmitted by this service.

Field	Description
439 First HopLackOb (De-Registration) Received	The total current number of 439 First Hop Lack Outbound responses to de-registration received on this service.
439 First HopLackOb (De-Registration) Transmitted	The total current number of 439 First Hop Lack Outbound responses to de-registration transmitted by this service.
4xx Responses (De-Registration) Received	The total current number of 4xx responses to de-registration received on this service.
4xx Responses (De-Registration) Transmitted	The total current number of 4xx responses to de-registration transmitted by this service.
500 Internal Error (De-Registration) Received	The total current number of 500 Internal Error responses to de-registration received on this service.
500 Internal Error (De-Registration) Transmitted	The total current number of 500 Internal Error responses to de-registration transmitted by this service.
5xx Responses (Re-Registration) Received	The total current number of 5xx responses to de-registration received on this service.
5xx Responses (De-Registration) Transmitted	The total current number of 5xx responses to de-registration transmitted by this service.
6xx Responses (De-Registration) Received	The total current number of 6xx responses to de-registration received on this service.
6xx Responses (De-Registration) Transmitted	The total current number of 6xx responses to de-registration transmitted by this service.
Unclassified Requests (Registration) Received	The total current number of unclassified request responses to registration received on this service.
4XX Responses (Unclassified Requests) Transmitted	The total current number of 4XX responses (Unclassified Requests) transmitted by this service.
5XX Responses (Unclassified Requests) Transmitted	The total current number of 5XX Responses (Unclassified Requests) transmitted by this service.
<b>IP-Security Statistics</b>	
Total Secure Connection	The total number of subscribers with secure connections on this service.
Total Unsecure Connection	The total number of subscribers with unsecure connections on this service.
Total Security Association Rejects	The total number of security association rejections on this service.
Total Secure Registrations	The total number of secure registrations on this service.
Total Secure Re-registrations	The total number of secure re-registrations on this service.
Total Secure De-registrations	The total number of secure de-registrations on this service.
Total Failed Secure Registrations	The total number of failed secure registrations on this service.
Total IP-Sec Packets Received	The total number of IPSec packets received on this service.

Field	Description
Total IP-Sec Packets Transmitted	The total number of IPSec packets transmitted by this service.
Total IP-Sec Octets Received	The total number of IPSec octets received on this service.
Total IP-Sec Octets Transmitted	The total number of IPSec octets transmitted by this service.
Total Registration Rejects Due to Sec-Agree	The total number of registration rejections due to security agreement on this service.
Total Registration Rejects Due to Algorithm Mismatch	The total number of registration rejections due to algorithm mismatch on this service.
Total Messages Dropped Due to Error	The total number of messages dropped due to error on this service.
Total Messages With Incorrect Security Verify	The total number of messages with incorrect security verification on this service.
<b>Others</b>	
Current CSCF Sessions	The number of currently active CSCF sessions existing on this service.
Total CSCF Sessions	Total number of CSCF sessions created so far for originating/proxying SIP messages. This counter should not include CSCF sessions created for internal processing, like ROUTE REQUEST. Also, this counter should not get incremented for REGISTER requests received by S-CSCF as it acts as registrar and S-CSCF callleg itself can handle this.
Current TCP Connections	The number of currently active TCP connections existing on this service.
Current IPsec TCP Connections	The number of currently active IPSec TCP connections existing on this service.
<b>SigComp Statistics</b>	
Total Requests Compressed	The total number of SIP request messages compressed by this service.
Total Requests Decompressed	The total number of SIP request messages decompressed by this service.
Total Responses Compressed	The total number of SIP response messages compressed by this service.
Total Responses Decompressed	The total number of SIP response messages decompressed by this service.
Total NACK Packets Received	The total number of NACK (negative acknowledgement) packets received by this service.
Total NACK Packets Transmitted	The total number of NACK (negative acknowledgement) packets transmitted by this service.
Total Compression Failures	The current total number of compression failures that occurred in this service.
Total Decompression Failures	The current total number of decompression failures that occurred in this service.

Field	Description
<b>SigComp Effectiveness</b>	
Ratio results in this section are derived using the following formula: $(S_b - S_a) * 100 / (S_b)$ where $S_b$ = the size of the message before compression and $S_a$ = the size of the message after compression.	
Best compression ratio (Outgoing message)	The current best compression ratio achieved for messages sent by this service.
Worst compression ratio (Outgoing message)	The current worst compression ratio achieved for messages sent by this service. Usually this will be a negative value indicating that the message had expanded instead of compressed.
Average compression ratio (Outgoing message)	The running average compression of messages sent by this service. The average is derived using the following formula: $(S(S_b) - S(S_a)) * 100 / (S(S_b))$ .
Best compression ratio (Incoming message)	The current best compression ratio achieved for messages received by this service.
Worst compression ratio (Incoming message)	The current worst compression ratio achieved for messages received by this service. Usually this will be a negative value indicating that the message had expanded instead of compressed.
Average compression ratio (Incoming message)	The running average compression of messages received by this service. The average is derived using the following formula: $(S(S_b) - S(S_a)) * 100 / (S(S_b))$ .
<b>SIP TCP Connection Statistics</b>	
Active Connections	The total number of active TCP connections on this service.
Total Connections Closed	The total number of TCP connections closed on this service.
Total Successful Outgoing Connections	The total number of successful outgoing TCP connections on this service.
Total Failed Outgoing Connections	The total number of failed outgoing TCP connections on this service.
Total Successful Incoming Connections	The total number of successful incoming TCP connections on this service.
Total Failed Incoming Connections	The total number of failed incoming TCP connections on this service.
Total Migrated Connections	The total number of TCP connections migrated from Cscfmgr to Sessmgr for load balancing.
Total Packets Sent	The total number of TCP/IP packets transmitted by CSCF service.
Total Packets Received	The total number of TCP/IP packets received by CSCF service.
Total Bytes Sent	The total number of bytes transmitted.
Total Bytes Received	The total number of bytes received.
<b>Subscription Package</b>	
Subscription Attempts Received	The total current number of subscription attempts received on this service.
Subscription Attempts Transmitted	The total current number of subscription attempts transmitted by this service.

Field	Description
Subscription Success Received	The total current number of subscription successes received on this service.
Subscription Success Transmitted	The total current number of subscription successes transmitted by this service.
Subscription Failures Received	The total current number of subscription failures received on this service.
Subscription Failures Transmitted	The total current number of subscription failures transmitted by this service.
200 OK (Subscription) Received	The total current number of 200 OK responses to registration received on this service.
200 OK (Subscription) Transmitted	The total current number of 200 OK responses to registration transmitted by this service.
202 Accepted (Subscription) Received	The total current number of 202 Accepted responses to registration received on this service.
202 Accepted (Subscription) Transmitted	The total current number of 202 Accepted responses to registration transmitted by this service.
400 Bad Request (Subscription) Received	The total current number of 400 Bad Request responses to registration received on this service.
400 Bad Request (Subscription) Transmitted	The total current number of 400 Bad Request responses to registration transmitted by this service.
403 Forbidden (Subscription) Received	The total current number of 403 Forbidden responses to registration received on this service.
403 Forbidden (Subscription) Transmitted	The total current number of 403 Forbidden responses to registration transmitted by this service.
481 Trans Does Not Exist (Subscription) Received	The total current number of 481 Trans Does Not Exist responses to registration received on this service.
481 Trans Does Not Exist (Subscription) Transmitted	The total current number of 481 Trans Does Not Exist responses to registration transmitted by this service.
489 Bad Event (Subscription) Received	The total current number of 489 Bad Event responses to registration received on this service.
489 Bad Event (Subscription) Transmitted	The total current number of 489 Bad Event responses to registration transmitted by this service.
500 Internal Error (Subscription) Received	The total current number of 500 Internal Error responses to registration received on this service.
500 Internal Error (Subscription) Transmitted	The total current number of 500 Internal Error responses to registration transmitted by this service.
Re-Subscription Attempts Received	The total current number of re-subscription attempts received on this service.
Re-Subscription Attempts Transmitted	The total current number of re-subscription attempts transmitted by this service.

Field	Description
Re-Subscription Success Received	The total current number of re-subscription successes received on this service.
Re-Subscription Success Transmitted	The total current number of re-subscription successes transmitted by this service.
Re-Subscription Failures Received	The total current number of re-subscription failures received on this service.
Re-Subscription Failures Transmitted	The total current number of re-subscription failures transmitted by this service.
200 OK (Re-Subscription) Received	The total current number of 200 OK responses to re-registration received on this service.
200 OK (Re-Subscription) Transmitted	The total current number of 200 OK responses to re-registration transmitted by this service.
202 Accepted (Re-Subscription) Received	The total current number of 202 Accepted responses to re-registration received on this service.
202 Accepted (Re-Subscription) Transmitted	The total current number of 202 Accepted responses to re-registration transmitted by this service.
400 Bad Request (Re-Subscription) Received	The total current number of 400 Bad Request responses to re-registration received on this service.
400 Bad Request (Re-Subscription) Transmitted	The total current number of 400 Bad Request responses to re-registration transmitted by this service.
403 Forbidden (Re-Subscription) Received	The total current number of 403 Forbidden responses to re-registration received on this service.
403 Forbidden (Re-Subscription) Transmitted	The total current number of 403 Forbidden responses to re-registration transmitted by this service.
481 Trans Does Not Exist (Re-Subscription) Received	The total current number of 481 Trans Does Not Exist responses to re-registration received on this service.
481 Trans Does Not Exist (Re-Subscription) Transmitted	The total current number of 481 Trans Does Not Exist responses to re-registration transmitted by this service.
489 Bad Event (Re-Subscription) Received	The total current number of 489 Bad Event responses to re-registration received on this service.
489 Bad Event (Re-Subscription) Transmitted	The total current number of 489 Bad Event responses to re-registration transmitted by this service.
500 Internal Error (Re-Subscription) Received	The total current number of 500 Internal Error responses to re-registration received on this service.
500 Internal Error (Re-Subscription) Transmitted	The total current number of 500 Internal Error responses to re-registration transmitted by this service.
Un-Subscription Attempts Received	The total current number of un-subscription attempts received on this service.

Field	Description
Un-Subscription Attempts Transmitted	The total current number of un-subscription attempts transmitted by this service.
Un-Subscription Success Received	The total current number of un-subscription successes received on this service.
Un-Subscription Success Transmitted	The total current number of un-subscription successes transmitted by this service.
Un-Subscription Failures Received	The total current number of un-subscription failures received on this service.
Un-Subscription Failures Transmitted	The total current number of un-subscription failures transmitted by this service.
200 OK (Un-Subscription) Received	The total current number of 200 OK responses to un-registration received on this service.
200 OK (Un-Subscription) Transmitted	The total current number of 200 OK responses to un-registration transmitted by this service.
202 Accepted (Un-Subscription) Received	The total current number of 202 Accepted responses to un-registration received on this service.
202 Accepted (Un-Subscription) Transmitted	The total current number of 202 Accepted responses to un-registration transmitted by this service.
400 Bad Request (Un-Subscription) Received	The total current number of 400 Bad Request responses to un-registration received on this service.
400 Bad Request (Un-Subscription) Transmitted	The total current number of 400 Bad Request responses to un-registration transmitted by this service.
403 Forbidden (Un-Subscription) Received	The total current number of 403 Forbidden responses to un-registration received on this service.
403 Forbidden (Un-Subscription) Transmitted	The total current number of 403 Forbidden responses to un-registration transmitted by this service.
481 Trans Does Not Exist (Un-Subscription) Received	The total current number of 481 Trans Does Not Exist responses to un-registration received on this service.
481 Trans Does Not Exist (Un-Subscription) Transmitted	The total current number of 481 Trans Does Not Exist responses to un-registration transmitted by this service.
489 Bad Event (Un-Subscription) Received	The total current number of 489 Bad Event responses to un-registration received on this service.
489 Bad Event (Un-Subscription) Transmitted	The total current number of 489 Bad Event responses to un-registration transmitted by this service.
500 Internal Error (Un-Subscription) Received	The total current number of 500 Internal Error responses to un-registration received on this service.
500 Internal Error (Un-Subscription) Transmitted	The total current number of 500 Internal Error responses to un-registration transmitted by this service.
Notify Attempts Received	The total current number of notify attempts received on this service.

Field	Description
Notify Attempts Transmitted	The total current number of notify attempts transmitted by this service.
Notify Success Received	The total current number of notify successes received on this service.
Notify Success Transmitted	The total current number of notify successes transmitted by this service.
Notify Failures Received	The total current number of notify failures received on this service.
Notify Failures Transmitted	The total current number of notify failures transmitted by this service.
Publish Attempts Received	The total current number of publish attempts received on this service.
Publish Attempts Transmitted	The total current number of publish attempts transmitted by this service.
Publish Success Received	The total current number of publish successes received on this service.
Publish Success Transmitted	The total current number of publish successes transmitted by this service.
Publish Failures Received	The total current number of publish failures received on this service.
Publish Failures Transmitted	The total current number of publish failures transmitted by this service.
Un-Publish Attempts Received	The total current number of un-publish attempts received on this service.
Un-Publish Attempts Transmitted	The total current number of un-publish attempts transmitted by this service.
Un-Publish Success Received	The total current number of un-publish successes received on this service.
Un-Publish Success Transmitted	The total current number of un-publish successes transmitted by this service.
Un-Publish Failures Received	The total current number of un-publish failures received on this service.
Un-Publish Failures Transmitted	The total current number of un-publish failures transmitted by this service.
<b>TCP Connection Statistics</b>	
Active IP-Sec Connections	The total number of active IPsec TCP connections on this service.
Total IP-Sec Connections Closed	The total number of IPsec TCP connections closed on this service.
Total Successful IP-Sec Outgoing Connections	The total number of successful outgoing IPsec TCP connections on this service.
Total Failed IP-Sec Outgoing Connections	The total number of failed outgoing IPsec TCP connections on this service.
Total Successful IP-Sec Incoming Connections	The total number of successful incoming IPsec TCP connections on this service.
Total Failed IP-Sec Incoming Connections	The total number of failed incoming IPsec TCP connections on this service.

## show cscf sessions counters

Table 159. show cscf sessions counters Command Output Descriptions

Field	Description
<b>Interval</b>	
<200ms	The number of sessions that had a duration of less than 200 millisecond.
200..400ms	The number of sessions that had a duration between 200 and 400 milliseconds.
400..600ms	The number of sessions that had a duration between 400 and 600 milliseconds.
600..800ms	The number of sessions that had a duration between 600 and 800 milliseconds.
800..1000ms	The number of sessions that had a duration between 800 and 1000 milliseconds.
1000..1200ms	The number of sessions that had a duration between 1000 and 1200 milliseconds.
1200..1400ms	The number of sessions that had a duration between 1200 and 1400 milliseconds.
1400..1600ms	The number of sessions that had a duration between 1400 and 1600 milliseconds.
1600..1800ms	The number of sessions that had a duration between 1600 and 1800 milliseconds.
1800..2000ms	The number of sessions that had a duration between 1800 and 2000 milliseconds.
2000..2200ms	The number of sessions that had a duration between 2000 and 2200 milliseconds.
2200..2400ms	The number of sessions that had a duration between 2200 and 2400 milliseconds.
2400..2600ms	The number of sessions that had a duration between 2400 and 2600 milliseconds.
2600..2800ms	The number of sessions that had a duration between 2600 and 2800 milliseconds.
2800..3000ms	The number of sessions that had a duration between 2800 and 3000 milliseconds.
3..5sec	The number of sessions that had a duration between three and five seconds.
5..7sec	The number of sessions that had a duration between five and seven seconds.
7..9sec	The number of sessions that had a duration between seven and nine seconds.
9..11sec	The number of sessions that had a duration between nine and 11 seconds.
11..13sec	The number of sessions that had a duration between 11 and 13 seconds.
13..15sec	The number of sessions that had a duration between 13 and 15 seconds.
15..17sec	The number of sessions that had a duration between 15 and 17 seconds.
17..19sec	The number of sessions that had a duration between 17 and 19 seconds.
19..21sec	The number of sessions that had a duration between 19 and 21 seconds.
>21sec	The number of sessions that had a duration of more than 21 seconds.

Field	Description
<b>Count</b> The following provide total counts for each session type per specified interval.	
Invite Processing Time	Time required to process an INVITE message (time elapsed between the INVITE entering the proxy and the INVITE forwarded out of the proxy).
First Response Delay	Time between sending an INVITE message out of the proxy and the first response received for the INVITE (any 1xx).
Post Dial Delay	Time between sending an INVITE message out of the proxy and receiving the ringing message or any final response to the INVITE.
Session Setup Delay	Time between when an INVITE message was received by the proxy and a 200 OK (invite) sent out of the proxy.
Post Answer Delay	Time between a 200 OK INVITE message received by the proxy and the ACK message (for invite) sent out of the proxy.
Session Release Delay	Time between when a BYE message is received by the proxy and a 200 OK BYE is sent out of the proxy.

## show cscf sessions duration

Table 160. show cscf sessions duration Command Output Descriptions

Field	Description
<1s	The number of sessions that had a duration of less than one second.
01..10sec	The number of sessions that had a duration between one and 10 seconds.
10..30sec	The number of sessions that had a duration between 10 and 30 seconds.
30..60sec	The number of sessions that had a duration between 30 and 60 seconds.
01..03min	The number of sessions that had a duration between one and three minutes.
03..05min	The number of sessions that had a duration between three and five minutes.
05..07min	The number of sessions that had a duration between five and seven minutes.
07..09min	The number of sessions that had a duration between seven and nine minutes.
09..11min	The number of sessions that had a duration between nine and 11 minutes.
11..13min	The number of sessions that had a duration between 11 and 13 minutes.
13..15min	The number of sessions that had a duration between 13 and 15 minutes.
15..17min	The number of sessions that had a duration between 15 and 17 minutes.
17..19min	The number of sessions that had a duration between 17 and 19 minutes.
19..21min	The number of sessions that had a duration between 19 and 21 minutes.
21..23min	The number of sessions that had a duration between 21 and 23 minutes.
23..25min	The number of sessions that had a duration between 23 and 25 minutes.
25..27min	The number of sessions that had a duration between 25 and 27 minutes.
27..29min	The number of sessions that had a duration between 27 and 29 minutes.
29..60min	The number of sessions that had a duration between 29 and 60 minutes.
>60min	The number of sessions that had a duration of more than 60 minutes.
<1hr	The number of sessions that had a duration of less than one hour.
1..2hrs	The number of sessions that had a duration between one and two hours.
2..3hrs	The number of sessions that had a duration between two and three hours.
3..4hrs	The number of sessions that had a duration between three and four hours.
4..5hrs	The number of sessions that had a duration between four and five hours.
5..6hrs	The number of sessions that had a duration between five and six hours.
6..7hrs	The number of sessions that had a duration between six and seven hours.

Field	Description
7..8hrs	The number of sessions that had a duration between seven and eight hours.
8..9hrs	The number of sessions that had a duration between eight and nine hours.
9..10hrs	The number of sessions that had a duration between nine and 10 hours.
>10hrs	The number of sessions that had a duration of more than 10 hours.

## show cscf sip statistics

Table 161. show cscf sip statistics Command Output Descriptions

Field	Description
CSCF Service	The name of the service and context.
Peer IP Address	The IP address of the peer server expressed in IPv4 or IPv6 dotted decimal notation.
<b>SIP Request Statistics</b>	
Register	The total number of SIP Register requests received (Rx) or transmitted (Tx) by this service.
Invite	The total number of INVITE requests received (Rx) or transmitted (Tx) by this service.
Ack	The total number of ACK requests received (Rx) or transmitted (Tx) by this service.
Bye	The total number of Bye requests received (Rx) or transmitted (Tx) by this service.
Info	The total number of Info requests received (Rx) or transmitted (Tx) by this service.
Prack	The total number of PRACK requests received (Rx) or transmitted (Tx) by this service.
Refer	The total number of Refer requests received (Rx) or transmitted (Tx) by this service.
Cancel	The total number of Cancel requests received (Rx) or transmitted (Tx) by this service.
Notify	The total number of Notify requests received (Rx) or transmitted (Tx) by this service.
Update	The total number of Update requests received (Rx) or transmitted (Tx) by this service.
Message	The total number of Message requests received (Rx) or transmitted (Tx) by this service.
Options	The total number of Options requests received (Rx) or transmitted (Tx) by this service.
Publish	The total number of Publish requests received (Rx) or transmitted (Tx) by this service.
Subscribe	The total number of Subscribe requests received (Rx) or transmitted (Tx) by this service.
Notify	The total number of Notify requests received (Rx) or transmitted (Tx) by this service.
<b>SIP Response Statistics</b>	
100 Trying	The total number of 100 Trying responses received (Rx) or transmitted (Tx) by this service.
180 Ringing	The total number of 180 Ringing responses received (Rx) or transmitted (Tx) by this service.
181 Forwarding	The total number of 181 Forwarded responses received (Rx) or transmitted (Tx) by this service.
182 Queued	The total number of 182 Queued responses received (Rx) or transmitted (Tx) by this service.
183 Progress	The total number of 183 Progress responses received (Rx) or transmitted (Tx) by this service.

Field	Description
200 Ok (Register)	The total number of 200 OK Register responses received (Rx) or transmitted (Tx) by this service.
200 Ok (Invite)	The total number of 200 OK Invite responses received (Rx) or transmitted (Tx) by this service.
200 Ok (Bye)	The total number of 200 OK Bye responses received (Rx) or transmitted (Tx) by this service.
200 Ok (Info)	The total number of 200 OK Info responses received (Rx) or transmitted (Tx) by this service.
200 Ok (Prack)	The total number of 200 OK PRACK responses received (Rx) or transmitted (Tx) by this service.
200 Ok (Refer)	The total number of 200 OK Refer responses received (Rx) or transmitted (Tx) by this service.
200 Ok (Cancel)	The total number of 200 OK Cancel responses received (Rx) or transmitted (Tx) by this service.
200 Ok (Notify)	The total number of 200 OK Notify responses received (Rx) or transmitted (Tx) by this service.
200 Ok (Update)	The total number of 200 OK Update responses received (Rx) or transmitted (Tx) by this service.
200 Ok (Message)	The total number of 200 OK Message responses received (Rx) or transmitted (Tx) by this service.
200 Ok (Options)	The total number of 200 OK Options responses received (Rx) or transmitted (Tx) by this service.
200 Ok (Publish)	The total number of 200 OK Publish responses received (Rx) or transmitted (Tx) by this service.
200 Ok (Subscribe)	The total number of 200 OK Subscribe responses received (Rx) or transmitted (Tx) by this service.
202 Accepted (Refer)	The total number of 202 Accepted Refer responses received (Rx) or transmitted (Tx) by this service.
202 Accepted (Subscribe)	The total number of 202 Accepted Subscribe responses received (Rx) or transmitted (Tx) by this service.
300 Multiple Choices	The total number of Multiple Choices responses received (Rx) or transmitted (Tx) by this service.
301 Moved Permanently	The total number of Moved Permanently responses received (Rx) or transmitted (Tx) by this service.
302 Moved Temporarily	The total number of Moved Temporarily responses received (Rx) or transmitted (Tx) by this service.
305 Use Proxy	The total number of Use Proxy responses received (Rx) or transmitted (Tx) by this service.
380 Alternative Service	The total number of Alternative Service responses received (Rx) or transmitted (Tx) by this service.

Field	Description
400 Bad Request	The total number of 400 Bad Request errors received (Rx) or transmitted (Tx) by this service.
401 Unauthorized	The total number of 401 Unauthorized errors received (Rx) or transmitted (Tx) by this service.
403 Forbidden	The total number of 403 Forbidden errors received (Rx) or transmitted (Tx) by this service.
404 Not Found	The total number of 404 Not Found errors received (Rx) or transmitted (Tx) by this service.
405 Method Not Allowed	The total number of 405 Method Not Allowed errors received (Rx) or transmitted (Tx) by this service.
406 Not Acceptable	The total number of 406 Not Acceptable errors received (Rx) or transmitted (Tx) by this service.
407 Proxy Auth Required	The total number of 407 Proxy Auth Required errors received (Rx) or transmitted (Tx) by this service.
408 Request Timeout	The total number of 408 Request Timeout errors received (Rx) or transmitted (Tx) by this service.
410 Gone	The total number of 410 Gone errors received (Rx) or transmitted (Tx) by this service.
412 Conditional Req Fail	The total number of 412 Conditional Request Fail errors received (Rx) or transmitted (Tx) by this service.
413 Req Entity Too Large	The total number of 413 Request Entity Too Large errors received (Rx) or transmitted (Tx) by this service.
414 Req URI Too Long	The total number of 414 Request URI Too Long errors received (Rx) or transmitted (Tx) by this service.
415 Unsupport Media Type	The total number of 415 Unsupported Media Type errors received (Rx) or transmitted (Tx) by this service.
416 Unsupport URI Scheme	The total number of 416 Unsupported URI Scheme errors received (Rx) or transmitted (Tx) by this service.
420 Bad Extension	The total number of 420 Bad Extension errors received (Rx) or transmitted (Tx) by this service.
421 Extension Required	The total number of 421 Extension Required errors received (Rx) or transmitted (Tx) by this service.
423 Interval Too Brief	The total number of 423 Interval Too Brief errors received (Rx) or transmitted (Tx) by this service.
480 Temp Not Available	The total number of 480 Temp Not Available errors received (Rx) or transmitted (Tx) by this service.
481 Trans Does Not Exist	The total number of 481 Transaction Does Not Exist errors received (Rx) or transmitted (Tx) by this service.
482 Loop Detected	The total number of 482 Loop Detected errors received (Rx) or transmitted (Tx) by this service.

Field	Description
483 Too Many Hops	The total number of 483 Too Many Hops errors received (Rx) or transmitted (Tx) by this service.
484 Address Incomplete	The total number of 484 Address Incomplete errors received (Rx) or transmitted (Tx) by this service.
485 Ambiguous	The total number of 485 Ambiguous errors received (Rx) or transmitted (Tx) by this service.
486 Busy Here	The total number of 486 Busy Here errors received (Rx) or transmitted (Tx) by this service.
487 Request Cancel	The total number of 487 Request Cancel errors received (Rx) or transmitted (Tx) by this service.
488 Not Acceptable Media	The total number of 488 Not Acceptable Media errors received (Rx) or transmitted (Tx) by this service.
489 Bad Event	The total number of 489 Bad Event errors received (Rx) or transmitted (Tx) by this service.
491 Request Pending	The total number of 491 Request Pending errors received (Rx) or transmitted (Tx) by this service.
493 Undecipherable	The total number of 493 Undecipherable errors received (Rx) or transmitted (Tx) by this service.
500 Internal Error	The total number of 500 Internal Error errors received (Rx) or transmitted (Tx) by this service.
501 Not Implemented	The total number of 501 Not Implemented errors received (Rx) or transmitted (Tx) by this service.
502 Bad Gateway	The total number of 502 Bad Gateway errors received (Rx) or transmitted (Tx) by this service.
503 Service Unavailable	The total number of 503 Service Unavailable errors received (Rx) or transmitted (Tx) by this service.
504 Gateway Timeout	The total number of 504 Gateway Timeout errors received (Rx) or transmitted (Tx) by this service.
505 Bad SIP Version	The total number of 505 Bad SIP Version errors received (Rx) or transmitted (Tx) by this service.
513 Message Too Large	The total number of 513 Message Too Large errors received (Rx) or transmitted (Tx) by this service.
580 Precondition Failure	The total number of 580 Precondition Failure errors received (Rx) or transmitted (Tx) by this service.
600 Busy Everywhere	The total number of 600 Busy Everywhere errors received (Rx) or transmitted (Tx) by this service.
603 Decline	The total number of 603 Decline errors received (Rx) or transmitted (Tx) by this service.
604 Not Exist Anywhere	The total number of 604 Not Exist Anywhere errors received (Rx) or transmitted (Tx) by this service.

Field	Description
606 Not Acceptable	The total number of 606 Not Acceptable errors received (Rx) or transmitted (Tx) by this service.
Total Invalid Messages	The total number of SIP Invalid Messages received (Rx) or transmitted (Tx) by this service.
Total Messages	The total number of SIP Messages received (Rx) or transmitted (Tx) by this service.
TCP Request	The total number of SIP requests received (Rx) or transmitted (Tx) over TCP by this service.
TCP Response	The total number of SIP responses received (Rx) or transmitted (Tx) over TCP by this service.
Auto switch to TCP on MTU size limit	The total number of times CSCF switched from UDP to TCP because of message size larger than MTU.

## show cscf tcp connections

Table 162. show cscf tcp connections Command Output Descriptions

Field	Description
TCP Connection Details	
LocalIp	The local IP address, expressed in IPv4 or IPv6 dotted decimal notation, of the TCP connection.
Local Port	The local port number of the TCP connection.
RemoteIp	The remote IP address, expressed in IPv4 or IPv6 dotted decimal notation, of the TCP connection.
Remote Port	The remote port number of the TCP connection.
Facility	Facility type for which connection details have to be retrieved—CscfMgr or SessMgr.
Instance	The instance number of the facility that the connection belongs to.
SockDesc	The socket descriptor id.
State	The state of the connection. TCP states are: <ul style="list-style-type: none"> <li>• CLOSED</li> <li>• LISTEN</li> <li>• SYNCSNT</li> <li>• SYNCRVD</li> <li>• ESTABLISHED</li> <li>• CLOSEWAIT</li> <li>• FINWAIT1</li> <li>• CLOSING</li> <li>• LASTACK</li> <li>• FINWAIT2</li> <li>• TIMEWAIT</li> <li>• INVALID</li> </ul>
BytesInRecvQueue	Data size in the receive queue, in bytes.
BytesInSendQueue	Data size in the send queue, in bytes.
RecvQueueSize	Size of the receive queue, in bytes.
SendQueueSize	Size of the send queue, in bytes.
MaxSendWind	Maximum send window seen so far.
SndUna	Send unacknowledged sequence value.
SndNext	Send next sequence value.

Field	Description
MaxSndNext	Highest sequence number sent.
Iss	Initial send sequence number.
Irs	Initial receive sequence number.
Rto	Retransmission timeout.
SndWL1	Send segment sequence number used for last window update.
SndWL2	Send segment acknowledgment number used for last window update.
MaxSndWind	Maximum send window seen so far.
RecvNxt	Receive next sequence.
RecvWind	Receive window sequence.
RecvAdv	Sequence number of right edge of advertised window.
CWind	Send congestion window.
Ssthresh	Send slow start threshold size.
BackLog	Back logs.
DupAck	Duplicate ACKs.
RetransSegments	Number of retransmitted segments.
AckAfterRetrans	Number of non duplicate acks after duplicate ACK.
TcpFlags	TCP flags.
Total TCP sockets	The total number of TCP sockets.

# Chapter 59

## show dhcp

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This chapter includes the **show dhcp** command output tables.

## show dhcp call-id

Table 163. show dhcp call-id Command Output Descriptions

Field	Description
<b>Session Counters</b>	
Total Current	The total number of currently active sessions on the system that received DHCP-assigned IP addresses.
DHCP Proxy	The total number of currently active sessions that were assigned IP addresses using the DHCP Proxy method.
<b>DHCP Messages</b>	
DISCOVER TX	The number of DHCPDISCOVER messages sent by the system to the DHCP server as part of the DHCP Proxy method.
DISCOVER retransmitted	The number of DHCPDISCOVER messages re-sent by the system to the DHCP server as part of the DHCP Proxy method.
DISCOVER relayed	The number of DHCPDISCOVER messages relayed by the system to the mobile as part of the DHCP Relay method.
OFFER RX	The number of DHCPOFFER messages sent by the system to the DHCP server as part of the DHCP Proxy method.
OFFER Discarded	The number of DHCPOFFER messages re-sent by the system to the DHCP server as part of the DHCP Proxy method.
OFFER relayed	The number of DHCPOFFER messages relayed by the system to the mobile as part of the DHCP Relay method.
REQUEST TX	The number of DHCPREQUEST messages sent by the system to the DHCP server as part of the DHCP Proxy method.
REQUEST retransmitted	The number of DHCPREQUEST messages re-sent by the system to the DHCP server as part of the DHCP Proxy method.
REQUEST relayed	The number of DHCPREQUEST messages relayed by the system to the mobile as part of the DHCP Relay method.
ACK RX	The number of DHCPACK messages received from the DHCP server as part of the DHCP Proxy method.
ACK for INFORM	The number of acknowledgements received for DHCPINFORM messages sent by the system to the DHCP server as part of the DHCP Proxy method.
ACK relayed	The number of DHCPACK messages relayed by the system to the mobile as part of the DHCP Relay method.
NAK RX	The number of DHCPNAK messages received from the DHCP server as part of the DHCP Proxy method.
NAK for INFORM	The number of number of negative acknowledgements for DHCPINFORM messages sent by the system to the DHCP server as part of the DHCP Proxy method.
NAK relayed	The number of DHCPNAK messages relayed by the system to the mobile as part of the DHCP Relay method.

Field	Description
DECLINE relayed	The number of DHCPDECLINE messages relayed by the system to the DHCP server as part of the DHCP Relay method.
RELEASE relayed	The number of DHCPRELEASE messages relayed by the system to the DHCP server as part of the DHCP Relay method.
INFORM relayed	The number of DHCPINFORM messages relayed by the system to the DHCP server on behalf of the mobile as part of the DHCP Relay method.
DHCP OFFER Discard Reasons: (dhcp-proxy)	
Parse error	The number of DHCPOFFER messages discarded by the system due to parsing errors in the OFFER message such as: <ul style="list-style-type: none"> <li>• "magic cookie invalid"</li> <li>• missing "end" option</li> <li>• "xid" does not match xid of any outstanding requests</li> <li>• the message is a "short message"</li> </ul>
Lease less than min	The number of DHCPOFFER messages discarded by the system due to the offered lease time being less than the minimum acceptable value configured on the system.
Lease greater than max	The number of DHCPOFFER messages discarded by the system due to the offered lease time being greater than the maximum acceptable value configured on the system.
IP Validation failed	The number of DHCPOFFER messages discarded by the system due to a failure with the validation of the IP address. This occurs because the IP address returned by DHCP Server is not present in the static pool in the destination context.
XID mismatch:	The number of DHCPOFFER messages discarded by the system due to an XID mismatch.
DHCP ACK Discard Reasons: (dhcp-proxy)	
Parse error	The number of DHCPACK messages discarded by the system due to parsing errors in the OFFER message such as: <ul style="list-style-type: none"> <li>• "magic cookie invalid"</li> <li>• missing "end" option</li> <li>• "xid" does not match xid of any outstanding requests</li> <li>• the message is a "short message"</li> </ul>
XID mismatch:	The number of DHCPACK messages discarded by the system due to an XID mismatch.
DHCP DECLINE Reasons: (dhcp-proxy)	
IP mismatch	The number of DHCP DECLINE messages sent by the system due to a mismatch in the IP address returned in the OFFER and the IP address returned in ACK. A DECLINE message is sent for the IP address sent in the OFFER.
IP Lease Renewals	The number of address lease renewal requests successfully processed.
DHCP Call Type	Type of DHCP call.

■ show dhcp call-id

Field	Description
DHCP State	Status of DHCP call. <ul style="list-style-type: none"><li>• Bound : Call Established</li><li>• Renewing: Call renewing after expiry of leased time.</li><li>• Rebinding: Making call for same call id after expiry of</li></ul>
Lease time received	Time in seconds allotted for a specific call-Id.
Lease time remaining	Time in seconds available for a specific call-Id.

## show dhcp chaddr

*Table 164. show dhcp chaddr Command Output Descriptions*

Field	Description
User Name	The user name associated with this session.
User Address	The IP address of the user's PDP context in dotted decimal notation.
DHCP Service	The DHCP service name.
Server Address	The server address.
DHCP Call Type	The DHCP call type.
DHCP State	The DHCP state.
Lease time received	The IP address lease time received.
Lease time remaining	The IP address lease time remaining.
Total DHCP sessions matching specified criteria	The total number of DHCP sessions matching specified criteria.

## show dhcp dhcp-service

Table 165. show dhcp dhcp-service Command Output Descriptions

Field	Description
<b>Session Counters</b>	
Total Current	The total number of currently active PDP contexts on the system that received DHCP-assigned IP addresses as facilitated by the specified criteria.
DHCP Proxy	The total number of PDP contexts that were assigned IP addresses using the DHCP Proxy method.
DHCP Relay Agent	The total number of PDP contexts that were assigned IP addresses using the DHCP Relay method.
<b>DHCP Messages</b>	
DISCOVER TX	The number of DHCPDISCOVER messages sent by the system to the DHCP server as part of the DHCP Proxy method.
DISCOVER retransmitted	The number of DHCPDISCOVER messages re-sent by the system to the DHCP server as part of the DHCP Proxy method.
DISCOVER relayed	The number of DHCPDISCOVER messages relayed by the system to the mobile as part of the DHCP Relay method.
OFFER RX	The number of DHCPOFFER messages sent by the system to the DHCP server as part of the DHCP Proxy method.
OFFER Discarded	The number of DHCPOFFER messages re-sent by the system to the DHCP server as part of the DHCP Proxy method.
OFFER relayed	The number of DHCPOFFER messages relayed by the system to the mobile as part of the DHCP Relay method.
REQUEST TX	The number of DHCPREQUEST messages sent by the system to the DHCP server as part of the DHCP Proxy method.
REQUEST retransmitted	The number of DHCPREQUEST messages re-sent by the system to the DHCP server as part of the DHCP Proxy method.
REQUEST relayed	The number of DHCPREQUEST messages relayed by the system to the mobile as part of the DHCP Relay method.
ACK RX	The number of DHCPACK messages received from the DHCP server as part of the DHCP Proxy method.
ACK for INFORM	The number of acknowledgements received for DHCPINFORM messages sent by the system to the DHCP server as part of the DHCP Proxy method.
ACK relayed	The number of DHCPACK messages relayed by the system to the mobile as part of the DHCP Relay method.
NAK RX	The number of DHCPNAK messages received from the DHCP server as part of the DHCP Proxy method.
NAK for INFORM	The number of negative acknowledgements for DHCPINFORM messages sent by the system to the DHCP server as part of the DHCP Proxy method.

Field	Description
NAK relayed	The number of DHCPNAK messages relayed by the system to the mobile as part of the DHCP Relay method.
DECLINE relayed	The number of DHCPDECLINE messages relayed by the system to the DHCP server as part of the DHCP Relay method.
RELEASE relayed	The number of DHCPRELEASE messages relayed by the system to the DHCP server as part of the DHCP Relay method.
INFORM relayed	The number of DHCPINFORM messages relayed by the system to the DHCP server on behalf of the mobile as part of the DHCP Relay method.
<b>DHCP OFFER Discard Reasons</b>	
Parse error	The number of DHCPOFFER messages discarded by the system due to parsing errors in the OFFER message such as: <ul style="list-style-type: none"> <li>• "magic cookie invalid"</li> <li>• missing "end" option</li> <li>• "xid" does not match xid of any outstanding requests</li> <li>• the message is a "short message"</li> </ul>
Lease less than min	The number of DHCPOFFER messages discarded by the system due to the offered lease time being less than the minimum acceptable value configured on the system.
Lease greater than max	The number of DHCPOFFER messages discarded by the system due to the offered lease time being greater than the maximum acceptable value configured on the system.
IP Validation failed	The number of DHCPOFFER messages discarded by the system due to a failure with the validation of the IP address. This occurs because the IP address returned by DHCP Server is not present in the static pool in the destination context.
<b>DHCP ACK Discard Reasons: (dhcp-proxy)</b>	
Parse error	The number of DHCPACK messages discarded by the system due to parsing errors in the OFFER message such as: <ul style="list-style-type: none"> <li>• "magic cookie invalid"</li> <li>• missing "end" option</li> <li>• "xid" does not match xid of any outstanding requests</li> <li>• the message is a "short message"</li> </ul>
<b>DHCP DECLINE Reasons: (dhcp-proxy)</b>	
IP mismatch	The number of DHCPDECLINE messages sent by the system due to a mismatch in the IP address returned in the OFFER and the IP address returned in ACK. A DECLINE message is sent for the IP address sent in the OFFER.
IP Lease Renewals	The number of address lease renewal requests successfully processed.

## show dhcp msid

*Table 166. show dhcp msid Command Output Descriptions*

Field	Description
User Name	The user name associated with this session.
User Address	IP address of the user's PDP context in dotted decimal notation.
DHCP Service	The DHCP service name.
Server Address	The server address.
DHCP Chaddr of MS	The Client Hardware (MAC) Address (CHADDR) of MS.
DHCP Call Type	The DHCP call type.
DHCP State	The DHCP state.
Lease time received	The IP address lease time received.
Lease time remaining	The IP address lease time remaining.
Total DHCP sessions matching specified criteria	The total number of DHCP sessions matching specified criteria.

## show dhcp full msid

Table 167. show dhcp full msid Command Output Descriptions

Field	Description
User Name	The user name associated with this session.
User Address	IP address of the user's PDP context in dotted decimal notation.
DHCP Service	The DHCP service name.
Server Address	The server address.
DHCP Call Type	The DHCP call type.
DHCP State	The DHCP status.
Lease time received	Time allotted in seconds.
Lease time remaining	Time available in seconds.
<b>DHCP Messages:</b>	
DISCOVER TX	The number of DHCPDISCOVER messages sent by the system to the DHCP server as part of the DHCP Proxy method.
DISCOVER retransmitted	The number of DHCPDISCOVER messages re-sent by the system to the DHCP server as part of the DHCP Proxy method.
DISCOVER RX	The number of DHCPDISCOVER messages received by the system to the DHCP server as part of the DHCP Proxy method.
DISCOVER retried RX	The number of retried DHCPDISCOVER messages received by the system to the DHCP server as part of the DHCP Proxy method.
DISCOVER relayed	The number of DHCPDISCOVER messages relayed by the system to the mobile as part of the DHCP Relay method.
OFFER RX	The number of DHCPOFFER messages sent by the system to the DHCP server as part of the DHCP Proxy method.
OFFER Discarded	The number of DHCPOFFER messages re-sent by the system to the DHCP server as part of the DHCP Proxy method.
OFFER TX	The number of DHCPREQUEST messages sent by the system to the DHCP server as part of the DHCP Proxy method.
OFFER relayed	The number of DHCPOFFER messages relayed by the system to the mobile as part of the DHCP Relay method.
REQUEST TX	The number of DHCPREQUEST messages sent by the system to the DHCP server as part of the DHCP Proxy method.
REQUEST retransmitted	The number of DHCPREQUEST messages re-sent by the system to the DHCP server as part of the DHCP Proxy method.

Field	Description
REQUEST RX	The number of DHCPREQUEST messages received by the system as part of the DHCP Proxy method.
REQUEST renewal RX	The number of DHCPREQUEST renewal messages received by the system as part of the DHCP Proxy method.
REQUEST relayed	The number of DHCPREQUEST messages relayed by the system to the mobile as part of the DHCP Relay method.
ACK RX	The number of DHCPACK messages received from the DHCP server as part of the DHCP Proxy method.
ACK for INFORM	The number of acknowledgements received for DHCPINFORM messages sent by the system to the DHCP server as part of the DHCP Proxy method.
ACK TX	The number of DHCPACK messages send to the DHCP server as part of the DHCP Proxy method.
ACK Renewing TX	The number of DHCPACK messages renewed from the DHCP server as part of the DHCP Proxy method.
ACK relayed	The number of DHCPACK messages relayed by the system to the mobile as part of the DHCP Relay method.
NAK RX	The number of DHCPNAK messages received from the DHCP server as part of the DHCP Proxy method.
NAK for INFORM	The number of number of negative acknowledgements for DHCPINFORM messages sent by the system to the DHCP server as part of the DHCP Proxy method.
NAK TX	The number of DHCPNAK messages sent to the DHCP server as part of the DHCP Proxy method.
NAK relayed	The number of DHCPNAK messages relayed by the system to the mobile as part of the DHCP Relay method.
DECLINE relayed	The number of DHCPDECLINE messages relayed by the system to the DHCP server as part of the DHCP Relay method.
RELEASE relayed	The number of DHCPRELEASE messages relayed by the system to the DHCP server as part of the DHCP Relay method.
INFORM relayed	The number of DHCPINFORM messages relayed by the system to the DHCP server on behalf of the mobile as part of the DHCP Relay method.
<b>DHCP OFFER Discard Reasons: (dhcp-proxy)</b>	
Parse error	The number of DHCPPOFFER messages discarded by the system due to parsing errors in the OFFER message such as: <ul style="list-style-type: none"> <li>• "magic cookie invalid"</li> <li>• missing "end" option</li> <li>• "xid" does not match xid of any outstanding requests</li> <li>• the message is a "short message"</li> </ul>
Lease less than min	The number of DHCPPOFFER messages discarded by the system due to the offered lease time being less than the minimum acceptable value configured on the system.
Lease greater than max	The number of DHCPPOFFER messages discarded by the system due to the offered lease time being greater than the maximum acceptable value configured on the system.

Field	Description
IP Validation failed	The number of DHCPOFFER messages discarded by the system due to a failure with the validation of the IP address. This occurs because the IP address returned by DHCP Server is not present in the static pool in the destination context.
<b>DHCP ACK Discard Reasons: (dhcp-proxy)</b>	
Parse error	The number of DHCPACK messages discarded by the system due to parsing errors in the OFFER message such as: <ul style="list-style-type: none"> <li>• "magic cookie invalid"</li> <li>• missing "end" option</li> <li>• "xid" does not match xid of any outstanding requests</li> <li>• the message is a "short message"</li> </ul>
<b>DHCP DECLINE Reasons: (dhcp-proxy)</b>	
IP mismatch	The number of DHCP DECLINE messages sent by the system due to a mismatch in the IP address returned in the OFFER and the IP address returned in ACK. A DECLINE message is sent for the IP address sent in the OFFER.
IP Lease Renewals	The number of address lease renewal requests successfully processed.
<b>Session Counters:</b>	
Total Current	The total number of currently active sessions on the system that received DHCP-assigned IP addresses.
DHCP Proxy	The total number of sessions that were assigned IP addresses using the DHCP Proxy method.
DHCP Relay Agent	The total number of sessions that were assigned IP addresses using the DHCP Relay method.
DHCP Server	The DHCP server's IP address.
Total DHCP sessions matching specified criteria	The total number of DHCP sessions matching the specified criteria.

## show dhcp status

Table 168. show dhcp status Command Output Descriptions

Field	Description
DHCP Type	Indicates the type of DHCP service active. Possible types are: <ul style="list-style-type: none"> <li>• (P) - DHCP Proxy</li> <li>• (R) - DHCP Relay</li> <li>• (S) - DHCP Server</li> <li>• (u) - unknown call</li> </ul>
Lease State	The lease state for the DHCP service.
DHCP Service	The name of the DHCP service.
DHCP Server	The IP address of DHCP server.
Status	Indicates the status of the DHCP server. Possible status are: <ul style="list-style-type: none"> <li>• Up</li> <li>• Active</li> </ul>
Current Leased Address	The total number of DHCP Relay-assigned IP addresses currently leased to this service.
Total Leased Address	The total number of DHCP Relay-assigned IP addresses available for this service.

# show dhcp-service

Table 169. show dhcp-service name Command Output Descriptions

Field	Description
Service name	The DHCP service name.
Context	The context name.
Bind	Indicates the bind status.
Local IP Address	The IP address of DHCP server.
Service Status	Indicates the service status, whether started or not.
Retransmission Timeout	The retransmission timeout period that must pass with no response before the system re-attempts to communicate with the DHCP server, in milliseconds.
Max Retransmissions	The maximum number of times that the system attempts to communicate with unresponsive DHCP server before it is considered a failure.
Lease Time	The lease time, in seconds.
Minimum Lease Duration	The minimum allowable lease duration accepted in responses from DHCP servers, in seconds.
Maximum Lease Duration	The maximum allowable lease duration accepted in responses from DHCP servers, in seconds.
DHCP Dead Time	The DHCP deadtime, in seconds, indicating the time period that the system waits prior to re-communicating with a DHCP server that was previously marked as down.
DHCP Dead consecutive Failure	The number of consecutive failures for the to be declared dead.
DHCP T1 Threshold Timer	The DHCP T1 threshold timer indicating the percentage of the allocated IP address lease time at which the DHCP call-line state is changed to "RENEWING".
DHCP T2 Threshold Timer	The DHCP T2 threshold timer indicating the percentage of the allocated IP address lease time at which the DHCP call-line state is changed to "REBINDING".
DHCP Client Identifier	Indicates the behavior relating to inclusion of client identifier DHCP option in DHCP messages. Possible values are: <ul style="list-style-type: none"> <li>• msisdn</li> <li>• none.</li> </ul>
DHCP Algorithm	The algorithm used to select DHCP servers with which to communicate when multiple servers are configured.
DHCP Servers configured	The IP address and priority information of the DHCP servers configured.
Next Hop Address	Indicates the nexthop-forwarding address configured in DHCP service for MPLS traffic.

Field	Description
VRF Name	Indicates the name of the virtual routing and forwarding context instance associated with this DHCP service. Note: For DHCP over MPLS feature to work in StarOS 9.0 onward VRF context must be associated in DHCP service. Without this association the DHCP service using MPLS labels will not be started.
MPLS-label	Indicates the MPLS labels configured in DHCP service for MPLS traffic.
Input	Indicates the MPLS labels configured in DHCP service for inward MPLS traffic. Note: For DHCP over MPLS feature to work in StarOS 9.0 onward VRF context must be associated in DHCP service. Without this association the DHCP service using MPLS labels will not be started.
Output	Indicates the MPLS labels configured in DHCP service for outward MPLS traffic.

# show dhcp statistics

Table 170. show dhcp statistics Command Output Descriptions

Field	Description
<b>Session Stats</b>	
Total Current	The total number of currently active sessions on the system that received DHCP-assigned IP addresses.
DHCP Proxy	The total number of currently active sessions that were assigned IP addresses using the DHCP Proxy method.
DHCP Relay Agent	The total number of currently active sessions that were assigned IP addresses using the DHCP Relay method.
Total Setup	The cumulative total number of sessions facilitated by the system that received DHCP-assigned IP addresses.
DHCP Proxy	The cumulative total number of sessions facilitated by the system that were assigned IP addresses using the DHCP Proxy method.
DHCP Relay Agent	The cumulative total number of sessions facilitated by the system that were assigned IP addresses using the DHCP Relay method.
Total Released	The total number of IP addresses that have been returned to the DHCP server(s).
<b>Session Release Reasons: (dhcp-proxy)</b>	
Admin Releases	The number of DHCP Proxy-assigned IP addresses released due to administrative intervention.
Bearer Call Terminated	The number of DHCP Proxy-assigned IP addresses released due to session termination.
Lease Exp Policy	The number of DHCP Proxy-assigned IP addresses released due to the expiration of the address lease policy.
Lease Renew Failure	The number of DHCP Proxy-assigned IP addresses released due to a failure experienced during lease renewal.
IP Address mis-match	The number of DHCP Proxy-assigned IP addresses released due to the offering of an invalid IP address.
Lease time mis-match	The number of DHCP Proxy-assigned IP addresses released due to the offering of an unacceptable lease time.
Chaddr mis-match	The number of DHCP Proxy-assigned IP addresses released due to the mis-match in client hardware address (MAC) or unknown/invalid client hardware address.
Client-identifier mis-match	The number of DHCP Proxy-assigned IP addresses released due to the mis-match in client id or unknown/invalid client id.
Other Reasons	The number of DHCP Proxy-assigned IP addresses released due to reasons other than those listed here.
<b>Session Release Reasons: (dhcp-relay)</b>	
Admin Releases	The number of DHCP Relay-assigned IP addresses released due to administrative intervention.
Bearer Call Terminated	The number of DHCP Relay-assigned IP addresses released due to session termination.

Field	Description
Lease Timed-out	The number of DHCP Relay-assigned IP addresses released due to the expiration of the address lease.
Other Reasons	The number of DHCP Relay-assigned IP addresses released due to reasons other than those listed here.
<b>DHCP Messages</b>	
DISCOVER TX	The number of DHCPDISCOVER messages sent by the system to the DHCP server as part of the DHCP Proxy method.
DISCOVER retransmitted	The number of DHCPDISCOVER messages re-sent by the system to the DHCP server as part of the DHCP Proxy method.
DISCOVER relayed	The number of DHCPDISCOVER messages relayed by the system to the mobile as part of the DHCP Relay method.
OFFER RX	The number of DHCPOFFER messages sent by the system to the DHCP server as part of the DHCP Proxy method.
OFFER Discarded	The number of DHCPOFFER messages re-sent by the system to the DHCP server as part of the DHCP Proxy method.
OFFER relayed	The number of DHCPOFFER messages relayed by the system to the mobile as part of the DHCP Relay method.
REQUEST TX	The number of DHCPREQUEST messages sent by the system to the DHCP server as part of the DHCP Proxy method.
REQUEST retransmitted	The number of DHCPREQUEST messages re-sent by the system to the DHCP server as part of the DHCP Proxy method.
REQUEST relayed	The number of DHCPREQUEST messages relayed by the system to the mobile as part of the DHCP Relay method.
ACK RX	The number of DHCPACK messages received from the DHCP server as part of the DHCP Proxy method.
ACK for INFORM	The number of acknowledgements received for DHCPINFORM messages sent by the system to the DHCP server as part of the DHCP Proxy method.
ACK relayed	The number of DHCPACK messages relayed by the system to the mobile as part of the DHCP Relay method.
NAK RX	The number of DHCPNAK messages received from the DHCP server as part of the DHCP Proxy method.
NAK for INFORM	The number of number of negative acknowledgements for DHCPINFORM messages sent by the system to the DHCP server as part of the DHCP Proxy method.
NAK relayed	The number of DHCPNAK messages relayed by the system to the mobile as part of the DHCP Relay method.
DECLINE TX	The number of DHCPDECLINE messages sent by the system to the DHCP server as part of the DHCP Proxy method.
DECLINE relayed	The number of DHCPDECLINE messages relayed by the system to the DHCP server as part of the DHCP Relay method.
RELEASE TX	The number of DHCPRELEASE messages sent by the system to the DHCP server as part of the DHCP Proxy method.
RELEASE relayed	The number of DHCPRELEASE messages relayed by the system to the DHCP server as part of the DHCP Relay method.

Field	Description
RELEASE for relay call	The number of DHCPRELEASE messages relayed by the system to the DHCP server as part of the DHCP Relay method.
INFORM TX	The number of DHCPINFORM messages sent by the system to the DHCP server as part of the DHCP Proxy method.
INFORM retransmitted	The number of DHCPINFORM messages re-sent by the system to the DHCP server as part of the DHCP Proxy method.
INFORM relayed	The number of DHCPINFORM messages relayed by the system to the DHCP server on behalf of the mobile as part of the DHCP Relay method.
<b>DHCP OFFER Discard Reasons: (dhcp-proxy)</b>	
Parse error	The number of DHCPPOFFER messages discarded by the system due to parsing errors in the OFFER message such as: <ul style="list-style-type: none"> <li>• "magic cookie invalid"</li> <li>• missing "end" option</li> <li>• "xid" does not match xid of any outstanding requests</li> <li>• the message is a "short message"</li> </ul>
Lease less than min	The number of DHCPPOFFER messages discarded by the system due to the offered lease time being less than the minimum acceptable value configured on the system.
Lease greater than max	The number of DHCPPOFFER messages discarded by the system due to the offered lease time being greater than the maximum acceptable value configured on the system.
IP Validation failed	The number of DHCPPOFFER messages discarded by the system due to a failure with the validation of the IP address. This occurs because the IP address returned by DHCP Server is not present in the static pool in the destination context.
XID mismatch:	The number of DHCPPOFFER messages discarded by the system due to an XID mismatch.
<b>DHCP ACK Discard Reasons: (dhcp-proxy)</b>	
Parse error	The number of DHCPACK messages discarded by the system due to parsing errors in the OFFER message such as: <ul style="list-style-type: none"> <li>• "magic cookie invalid"</li> <li>• missing "end" option</li> <li>• "xid" does not match xid of any outstanding requests</li> <li>• the message is a "short message"</li> </ul>
XID mismatch:	The number of DHCPACK messages discarded by the system due to an XID mismatch.
<b>DHCP DECLINE Reasons: (dhcp-proxy)</b>	
IP mismatch	The number of DHCPDECLINE messages sent by the system due to a mismatch in the IP address returned in the OFFER and the IP address returned in ACK. A DECLINE message is sent for the IP address sent in the OFFER.
<b>Renewal Statistics: (dhcp-proxy)</b>	
IP Lease Renewals	The number of address lease renewal requests successfully processed.

Field	Description
Failed IP Lease Renewals	The number of address lease renewal requests for which failures occurred. This is the sum of the following errors: <ul style="list-style-type: none"> <li>• No reply from server</li> <li>• Server NAK</li> <li>• IP address mis-match</li> <li>• Lease mismatch</li> </ul>
No reply from server	The number of address lease renewal requests made for which there was no reply from the DHCP server within the stipulated time. The time required to wait for the server's response is described in RFC 2131, section 4.4.5.
Server NAK	The number of address lease renewal requests for which a negative acknowledgement was received from the server.
IP address mis-match	The number of address lease renewal requests for which there was an IP address mis-match condition- the IP Addresses assigned to the client (in the first ACK) and the IP address returned in the successive ACK (in response to lease renewal DHCP REQUEST) did not match.
Lease mis-match	The number of address lease renewal requests for which there was a lease time mis-match condition- to be lease returned in the first ACK was within the limits of the DHCP Service Configuration parameters, but the lease returned in the ACK (in response to lease renewal DHCP REQUEST) did not match.

## show dhcp username

*Table 171. show dhcp username Command Output Descriptions*

Field	Description
User Name	The user name associated with this session.
User Address	IP address of the user's PDP context in dotted decimal notation.
DHCP Service	The DHCP service name.
Server Address	The server address.
DHCP Call Type	The DHCP call type.
DHCP State	The DHCP state.
Lease time received	The IP address lease time received.
Lease time remaining	The IP address lease time remaining.
Total DHCP sessions matching specified criteria	The total number of DHCP sessions matching specified criteria.

## show dhcp full username

Table 172. show dhcp full username Command Output Descriptions

Field	Description
User Name	The user name associated with this session.
User Address	IP address of the user's PDP context in dotted decimal notation.
DHCP Service	The DHCP service name.
Server Address	The server address.
DHCP Chaddr of MS	The Client Hardware (MAC) Address (CHADDR) of MS.
Primary DNS Address	<p>Specifies the primary Domain Name Server (DNS) IP address in IPv4 notation.</p> <hr/> <p> <b>Important:</b> This is the DNS/NBNS values received from DHCP server for the particular subscriber session sent to the subscriber in GTP Create PDP Context Response message. If DNS/NBNS values received from DHCP are not sent to the subscriber nothing will be displayed.</p> <hr/>
Secondary DNS Address	<p>Specifies the secondary Domain Name Server (DNS) IP address in IPv4 notation.</p> <hr/> <p> <b>Important:</b> This is the DNS/NBNS values received from DHCP server for the particular subscriber session sent to the subscriber in GTP Create PDP Context Response message. If DNS/NBNS values received from DHCP are not sent to the subscriber nothing will be displayed.</p> <hr/>
Primary NBNS Address	<p>Specifies the primary NetBIOS Name Server (NBNS) IP address in IPv4 notation.</p> <hr/> <p> <b>Important:</b> This is the DNS/NBNS values received from DHCP server for the particular subscriber session sent to the subscriber in GTP Create PDP Context Response message. If DNS/NBNS values received from DHCP are not sent to the subscriber nothing will be displayed.</p> <hr/>

Field	Description
Secondary NBNS Address	<p>Specifies the secondary NetBIOS Name Server (NBNS) IP address in IPv4 notation.</p> <hr/> <p> <b>Important:</b> This is the DNS/NBNS values received from DHCP server for the particular subscriber session sent to the subscriber in GTP Create PDP Context Response message. If DNS/NBNS values received from DHCP are not sent to the subscriber nothing will be displayed.</p> <hr/>
DHCP Call Type	The DHCP call type.
DHCP State	The DHCP state.
Lease time received	The IP address lease time received.
Lease time remaining	The IP address lease time remaining.
<b>DHCP Messages:</b>	
DISCOVER TX	The number of DHCPDISCOVER messages sent by the system to the DHCP server as part of the DHCP Proxy method.
DISCOVER retransmitted	The number of DHCPDISCOVER messages retransmitted by the system to the DHCP server as part of the DHCP Proxy method.
DISCOVER RX	The number of DHCPDISCOVER messages received by the system to the DHCP server as part of the DHCP Proxy method.
DISCOVER retried RX	The number of retried DHCPDISCOVER messages received by the system to the DHCP server as part of the DHCP Proxy method.
DISCOVER relayed	The number of DHCPDISCOVER messages relayed by the system to the DHCP server as part of the DHCP Proxy method.
OFFER RX	The number of DHCPOFFER messages received by the system to the DHCP server as part of the DHCP Proxy method.
OFFER Discarded	The number of DHCPOFFER messages discarded by the system to the DHCP server as part of the DHCP Proxy method.
OFFER TX	The number of DHCPOFFER messages sent by the system to the DHCP server as part of the DHCP Proxy method.
OFFER relayed	The number of DHCPOFFER messages relayed by the system to the DHCP server as part of the DHCP Proxy method.
REQUEST TX	The number of DHCPREQUEST messages sent by the system to the DHCP server as part of the DHCP Proxy method.
REQUEST retransmitted	The number of DHCPREQUEST messages re-sent by the system to the DHCP server as part of the DHCP Proxy method.
REQUEST RX	The number of DHCPREQUEST messages received by the system to the DHCP server as part of the DHCP Proxy method.
REQUEST renewal RX	The number of DHCPREQUEST renewal messages received by the system to the DHCP server as part of the DHCP Proxy method.

■ show dhcp full username

Field	Description
REQUEST relayed	The number of DHCPREQUEST messages relayed by the system to the DHCP server as part of the DHCP Proxy method.
ACK RX	The number of DHCPACK messages received from the DHCP server as part of the DHCP Proxy method.
ACK for INFORM	The number of acknowledgements received for DHCPINFORM messages sent by the system to the DHCP server as part of the DHCP Proxy method.
ACK TX	The number of DHCPACK messages sent to the DHCP server as part of the DHCP Proxy method.
ACK Renewing TX	The number of DHCPACK renewal messages sent to the DHCP server as part of the DHCP Proxy method.
ACK relayed	The number of DHCPACK messages relayed by the system to the mobile as part of the DHCP Relay method.
NAK RX	The number of DHCPNAK messages received from the DHCP server as part of the DHCP Proxy method.
NAK for INFORM	The number of negative acknowledgements for DHCPINFORM messages sent by the system to the DHCP server as part of the DHCP Proxy method.
NAK TX	The number of DHCPNAK messages sent to the DHCP server as part of the DHCP Proxy method.
NAK relayed	The number of DHCPNAK messages relayed by the system to the mobile as part of the DHCP Relay method.
DECLINE relayed	The number of DHCPDECLINE messages relayed by the system to the DHCP server as part of the DHCP Relay method.
RELEASE relayed	The number of DHCPRELEASE messages relayed by the system to the DHCP server as part of the DHCP Relay method.
INFORM relayed	The number of DHCPINFORM messages relayed by the system to the DHCP server on behalf of the mobile as part of the DHCP Relay method.
<b>DHCP OFFER Discard Reasons: (dhcp-proxy)</b>	
Parse error	The number of DHCPOFFER messages discarded by the system due to parsing errors in the OFFER message such as: <ul style="list-style-type: none"> <li>• "magic cookie invalid"</li> <li>• missing "end" option</li> <li>• "xid" does not match xid of any outstanding requests</li> <li>• the message is a "short message"</li> </ul>
Lease less than min	The number of DHCPOFFER messages discarded by the system due to the offered lease time being less than the minimum acceptable value configured on the system.
Lease greater than max	The number of DHCPOFFER messages discarded by the system due to the offered lease time being greater than the maximum acceptable value configured on the system.
IP Validation failed	The number of DHCPOFFER messages discarded by the system due to a failure with the validation of the IP address. This occurs because the IP address returned by DHCP Server is not present in the static pool in the destination context.
<b>DHCP ACK Discard Reasons: (dhcp-proxy)</b>	

Field	Description
Parse error	The number of DHCPACK messages discarded by the system due to parsing errors in the OFFER message such as: <ul style="list-style-type: none"> <li>• "magic cookie invalid"</li> <li>• missing "end" option</li> <li>• "xid" does not match xid of any outstanding requests</li> <li>• the message is a "short message"</li> </ul>
<b>DHCP DECLINE Reasons: (dhcp-proxy)</b>	
IP mismatch	The number of DHCPDECLINE messages sent by the system due to a mismatch in the IP address returned in the OFFER and the IP address returned in ACK. A DECLINE message is sent for the IP address sent in the OFFER.
IP Lease Renewals	The number of address lease renewal requests successfully processed.
<b>Session Counters</b>	
Total Current	The total number of currently active sessions on the system that received DHCP-assigned IP addresses.
DHCP Proxy	The total number of currently active sessions that were assigned IP addresses using the DHCP Proxy method.
DHCP Relay Agent	The total number of sessions that were assigned IP addresses using the DHCP Relay method.
DHCP Server	The DHCP server's IP address.
Total DHCP sessions matching specified criteria	The total number of DHCP sessions matching specified criteria.



# Chapter 60

## show diameter

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This chapter includes the `show diameter` command output tables.

# show diameter aaa-statistics

Table 173. show diameter aaa-statistics Command Output Descriptions

Field	Description
<b>Authentication Servers Summary</b>	
<b>Message Stats</b>	Total Diameter session message statistics.
Total MA Requests	Total number of Multimedia-Auth-Requests.
Total MA Answers	Total number of Multimedia-Auth-Answers.
MAR - Retries	Total number of Multimedia-Auth-Request retries.
MAA Timeouts	Total number of Multimedia-Auth-Answer timeouts.
MAA - Dropped	Total number of Multimedia-Auth-Answer dropped.
Total SA Requests	Total number of Server-Assignment-Requests.
Total SA Answers	Total number of Server-Assignment-Answers.
SAR - Retries	Total number of Server-Assignment-Request retries.
SAA Timeouts	Total number of Server-Assignment-Answer timeouts.
SAA - Dropped	Total number of Server-Assignment-Answers dropped.
Total UA Requests	Total number of User-Authorization-Requests.
Total UA Answers	Total number of User-Authorization-Answers.
UAR - Retries	Total number of User-Authorization-Request retries.
UAA Timeouts	Total number of User-Authorization-Answer timeouts.
UAA - Dropped	Total number of User-Authorization-Answers dropped.
Total LI Requests	Total number of Location-Info-Requests.
Total LI Answers	Total number of Location-Info-Answers.
LIR - Retries	Total number of Location-Info-Request retries.
LIA Timeouts	Total number of Location-Info-Answer timeouts.
LIA - Dropped	Total number of Location-Info-Answers dropped.
Total RT Requests	Total number of Registration-Termination-Requests.
Total RT Answers	Total number of Registration-Termination-Answers.
RTR - Rejected	Total number of Registration-Termination-Requests rejected.
Total PP Requests	Total number of Push-Profile-Requests.
Total PP Answers	Total number of Push-Profile-Answers.

Field	Description
PPR - Rejected	Total number of Push-Profile-Requests rejected.
Total DE Requests	Total number of Diameter-EAP-Requests.
Total DE Answers	Total number of Diameter-EAP-Answers.
DEA - Accept	Total number of Diameter-EAP-Answers accepted.
DEA - Reject	Total number of Diameter-EAP-Answers rejected.
DER - Retries	Total number of Diameter-EAP-Request retries.
DEA Timeouts	Total number of Diameter-EAP-Answer timeouts.
DEA - Dropped	Total number of Diameter-EAP-Answer dropped.
Total AA Requests	Indicates the total number of AA (Authentication and/or Authorization) Request messages sent by P-GW on S6b interface to AAA Server/Proxy.
Total AA Answers	Indicates the total number of AA (Authentication and/or Authorization) Answer messages received by P-GW on S6b interface from AAA Server/Proxy.
AAR - Retries	Indicates the total number of AAR (AA Request) messages retransmitted by P-GW on S6b interface to AAA Server/Proxy.
AAA Timeouts	Indicates the total number of AAA (AA Answer) messages timed-out due to no response from AAA Server/Proxy.
AAA - Dropped	Indicates the total number of AAA (AA Answer) messages dropped due any reason from AAA Server/Proxy.
ASR	Total number of Abort-Session-Requests.
ASA	Total number of Abort-Session-Answers.
RAR	Total number of Re-Auth-Requests.
RAA	Total number of Re-Auth-Answers.
STR	Total number of Session-Termination-Requests.
STA	Total number of Session-Termination-Answers.
STR - Retries	Total number of Session-Termination-Request retries.
<b>DE Message Error Stats</b>	
Diameter Protocol Errs	Total number of Diameter protocol errors.
Bad Answers	Total number of bad answers.
Unknown Session Reqs	Total number of unknown session requests.
Unknown Command Code	Total number of unknown command codes.
Request Timeouts	Total number of request timeouts.
Parse Errors	Total number of parse errors.
Request Retries	Total number of request retries.

Field	Description
<b>Session Stats</b>	Diameter Session Statistics.
Total Sessions	Total number of sessions.
Freed Sessions	Total number of freed sessions.
Session Timeouts	Total number of session timeouts.
Active Sessions	Total number of active sessions.
<b>STR Termination Cause Stats</b>	Session-Termination-Request termination cause statistics.
Diameter Logout	Total number of Session-Termination-Request terminations due to Diameter logouts.
Service Not Provided	Total number of Session-Termination-Request terminations due to service not provided.
Bad Answer	Total number of Session-Termination-Request terminations due to bad answers.
Administrative	Total number of Session-Termination-Request terminations due to administrative reasons.
Link Broken	Total number of Session-Termination-Request terminations due to links broken.
Auth Expired	Total number of Session-Termination-Request terminations due to auth expiry.
User Moved	Total number of Session-Termination-Request terminations due to user moves.
Session Timeout	Total number of Session-Termination-Request terminations due to session timeouts.
User Request	Total number of Session-Termination-Request terminations due to user requests.
Lost Carrier	Total number of Session-Termination-Request terminations due to lost carriers.
Lost Service	Total number of Session-Termination-Request terminations due to lost service.
Idle Timeout	Total number of Session-Termination-Request terminations due to idle timeouts.
NAS Session Timeout	Total number of Session-Termination-Request terminations due to NAS session timeouts.
Admin Reset	Total number of Session-Termination-Request terminations due to admin resetting.
Admin Reboot	Total number of Session-Termination-Request terminations due to admin reboots.
Port Error	Total number of Session-Termination-Request terminations due to port errors.
NAS Error	Total number of Session-Termination-Request terminations due to NAS errors.
NAS Request	Total number of Session-Termination-Request terminations due to NAS requests.
NAS Reboot	Total number of Session-Termination-Request terminations due to NAS reboots.
Port Unneeded	Total number of Session-Termination-Request terminations due to unneeded ports.
Port Preempted	Total number of Session-Termination-Request terminations due to preempted ports.
Port Suspended	Total number of Session-Termination-Request terminations due to suspended ports.
Service Unavailable	Total number of Session-Termination-Request terminations due to unavailable service.
Callback	Total number of Session-Termination-Request terminations due to callback.
User Error	Total number of Session-Termination-Request terminations due to user errors.

Field	Description
Host Request	Total number of Session-Termination-Request terminations due to host requests.
<b>Accounting Servers Summary</b>	
<b>Message Stats</b>	Accounting message statistics.
Total AC Requests	Total number of AC-Requests.
Total AC Answers	Total number of AC-Answers.
ACR-Start	Total number of AC-Request starts.
ACA-Start	Total number of AC-Answer starts.
ACR-Start Retries	Total number of AC-Request start retries.
ACA-Start Timeouts	Total number of AC-Answer timeouts.
ACR-Interim	Total number of AC-Request interim.
ACA-Interim	Total number of AC-Answer interim.
ACR-Interim Retries	Total number of AC-Request interim retries.
ACA-Interim Timeouts	Total number of AC-Answer interim timeouts.
ACR-Event	Total number of AC-Request events.
ACA-Event	Total number of AC-Answer events.
ACR-Stop	Total number of AC-Request stops.
ACA-Stop	Total number of AC-Answer stops.
ACR-Stop Retries	Total number of AC-Request stop retries.
ACA-Stop Timeouts	Total number of AC-Answer stop timeouts.
ACA-Dropped	Total number of AC-Answers dropped.
<b>AC Message Error Stats</b>	Accounting message error statistics.
Diameter Protocol Errs	Total number of Diameter protocol errors.
Bad Answers	Total number of bad answers.
Unknown Session Reqs	Total number of unknown session requests.
Unknown Command Code	Total number of unknown command codes.
Request Timeouts	Total number of request timeouts.
Parse Errors	Total number of parse errors.
Request Retries	Total number of request retries.

## show diameter authentication servers

Table 174. show diameter authentication servers Command Output Descriptions

Field	Description
Context Name	Name of the context in which the Diameter servers are configured.
AAA Group	Name of the AAA group.
Endpoint	Name of the Diameter endpoint.
Peer	Name of the Diameter server host.
No of Instance in UP state	The number of instances between Diameter server and AAA Manager in up state.
No of Instance in DOWN state	The number of instances between Diameter server and AAA Manager in down state.
Priority	The relative priority of this server considered when the system is selecting which Diameter server to use. Lower number has higher priority.
Message Sent/Queued	The number of messages sent/queued from Diameter server to AAA Manager.

## show diameter endpoints all

Table 175. show diameter endpoints all Command Output Descriptions

Field	Description
Context	Name of the configured context.
Endpoint	Name of the endpoint.
Realm	Domain (Realm) name for subscriber.
Task	Task running on ACSMgr or AAAMgr.
CPU	Indicates the Card and CPU number.
Application	Indicates the application running on ACSMgr or AAAMgr.
Total endpoints matching specified criteria	Indicates the total number of matching endpoints.

## show diameter message-queue counters outbound endpoint

Table 176. show diameter message-queue counters outbound endpoint Command Output Descriptions

Field	Description
Context	Name of the configured context.
Endpoint	Name of the endpoint.
Peer Host	Name of the peer host.
Peer Realm	Name of the peer realm.
Accounting-Answer	The number of outbound Accounting-Answer messages for the specified endpoint.
Accounting-Request	The number of outbound Accounting-Request messages for the specified endpoint.
Abort-Session-Answer	The number of outbound Abort-Session-Answer messages for the specified endpoint.
Abort-Session-Request	The number of outbound Abort-Session-Request messages for the specified endpoint.
Authorization-Authentication-Ans	The number of outbound Authorization-Authentication-Ans messages for the specified endpoint.
Authorization-Authentication-Req	The number of outbound Authorization-Authentication-Req messages for the specified endpoint.
Capabilities-Exchange-Answer	The number of outbound Capabilities-Exchange-Answer messages for the specified endpoint.
Capabilities-Exchange-Request	The number of outbound Capabilities-Exchange-Request messages for the specified endpoint.
Credit-Control-Answer	The number of outbound Credit-Control-Answer messages for the specified endpoint.
Credit-Control-Request	The number of outbound Credit-Control-Request messages for the specified endpoint.
Device-Watchdog-Answer	The number of outbound Device-Watchdog-Answer messages for the specified endpoint.
Device-Watchdog-Request	The number of outbound Device-Watchdog-Request messages for the specified endpoint.
Diameter-EAP-Answer	The number of outbound Diameter-EAP-Answer messages for the specified endpoint.
Diameter-EAP-Request	The number of outbound Diameter-EAP-Request messages for the specified endpoint.
Disconnect-Peer-Answer	The number of outbound Disconnect-Peer-Answer messages for the specified endpoint.
Disconnect-Peer-Request	The number of outbound Disconnect-Peer-Request messages for the specified endpoint.
Location-Info-Answer	The number of outbound Location-Info-Answer messages for the specified endpoint.
Location-Info-Request	The number of outbound Location-Info-Request messages for the specified endpoint.
Multimedia-Auth-Answer	The number of outbound Multimedia-Auth-Answer messages for the specified endpoint.
Multimedia-Auth-Request	The number of outbound Multimedia-Auth-Request messages for the specified endpoint.
Profile-Update-Answer	The number of outbound Profile-Update-Answer messages for the specified endpoint.

Field	Description
Profile-Update-Request	The number of outbound Profile-Update-Request messages for the specified endpoint.
Push-Profile-Answer	The number of outbound Push-Profile-Answer messages for the specified endpoint.
Push-Profile-Request	The number of outbound Push-Profile-Request messages for the specified endpoint.
Re-Auth-Answer	The number of outbound Re-Auth-Answer messages for the specified endpoint.
Re-Auth-Request	The number of outbound Re-Auth-Request messages for the specified endpoint.
Registration-Termination-Answer	The number of outbound Registration-Termination-Answer messages for the specified endpoint.
Registration-Termination-Request	The number of outbound Registration-Termination-Request messages for the specified endpoint.
Server-Assignment-Answer	The number of outbound Server-Assignment-Answer messages for the specified endpoint.
Server-Assignment-Request	The number of outbound Server-Assignment-Request messages for the specified endpoint.
Session-Termination-Answer	The number of outbound Session-Termination-Answer messages for the specified endpoint.
Session-Termination-Request	The number of outbound Session-Termination-Request messages for the specified endpoint.
User-Authorization-Answer	The number of outbound User-Authorization-Answer messages for the specified endpoint.
User-Authorization-Request	The number of outbound User-Authorization-Request messages for the specified endpoint.
User-Data-Answer	The number of outbound User-Data-Answer messages for the specified endpoint.
User-Data-Request	The number of outbound User-Data-Request messages for the specified endpoint.
Total peers matching specified criteria	Indicates the total number of matching peers.

# show diameter peers full all

Table 177. show diameter peers full all Command Output Descriptions

Field	Description
Context	Name of the context.
Endpoint	Name of the endpoint.
<b>Inbound listening sockets</b>	Displays listening Diameter interface:ports information when origin-host is configured as of “accept-inbound” connection type. If no inbound sockets are present these fields are not displayed.
Local Host	Name of the local host.
Local Address	IP address and port number of the local host.
Endpoint	Name of the endpoint.
Task	The task instance running on ACSMgr or AAAMgr.
Peer Hostname	Name of the peer host.
Local Hostname	Name of the local host.
Peer Realm	Peer domain (realm) name for Subscriber.
Local Realm	Local domain (realm) name for Subscriber.
Peer Address	Address of peer domain (realm).
Local Address	Address of local domain (realm).
State	Indicates the connection status.
CPU	The Card and CPU number.
Messages Out/Queued	The number of messages sent out/queued.
Task	The task running on ACSMgr or AAAMgr.
Supported Vendor IDs	The supported vendor IDs.
Admin Status	Indicates the admin status. Whether the user can administratively disable a peer while still preserving its configuration.
DPR Disconnect	Disconnect-Peer-Request disconnect cause.
Total peers matching specified criteria	The total number of peers matching the criteria.

# show diameter statistics

Table 178. show diameter statistics Command Output Descriptions

Field	Description
<b>Connection statistics</b>	
Connection attempts	The total number of connections attempted.
Connection failures	The total number of connections failed.
Connection reads	The total number of connections read.
Connection starts	The total number of connections started.
Connection disconnects	The total number of connections disconnected.
Connection closes	The total number of connections closes.
Connection DHOST requests	The total number of connections with DHOST requested.
Connection DHOST removes	The total number of connections with DHOST removed.
Connection Timeouts	The total number of connections timed out.
Tc Expire Connection Attempts	The total number of connections attempted due to <b>Tc</b> timer expired. Note: The <b>Tc</b> timer controls the frequency that transport connection attempts are done to a peer with whom no active transport connection exists.
Tw Expire Connection Closes	The total number of connections closed due to <b>Tw</b> timer expired.
<b>Connection failure statistics</b>	
Connection bind errors	The total number of connections failed during binding errors.
Connection connect errors	The total number of connections failed during connect errors.
Connection address errors	The total number of connections failed due to address errors.
Connection misc errors	The total number of connections failed due to other errors not mentioned in output.
Connection DHOST errors	The total number of connections failed due to DHOST errors.
<b>Capabilities Exchange Request and Answers statistics</b>	
Connection CER sent	The total number of Capabilities Exchange Request (CER) messages sent for connection.
Connection CER send errors	The total number of connections failed due to errors during CER messages sent.
CERs received	The total number of CER messages received.
Connection CER create failures	The total number of connections failed during CER message creation.
CEAs received	The total number of Capabilities Exchange Answer (CEA) messages received.
CEA AVPs unknown	The total number of unknown Attribute Value Pairs (AVPs) related to CEA message.
CEA Application ID mismatch	The total number of CEA Application ID mismatch.

## ■ show diameter statistics

Field	Description
Read CEA Messages	The total number of READ messages for CEA.
Read CEA Messages Unexpected	The total number of unexpected READ messages for CEA.
Read CEA Missing	The total number of missing READ messages for CEA.
Read CEA Negotiation Failure	The total number of failures in READ messages negotiation for CEA.
Read CER Messages	The total number of READ messages for CER.
Read CER Messages Unexpected	The total number of unexpected READ messages for CER.
Read CER Missing	The total number of missing READ messages for CER.
Tw Expire Waiting for CEA	The total number of CEAs waiting for answer due to <b>Tw</b> timer expired. Note: The <b>Tw</b> timer controls the changing of a peer to the SUSPECT state when no answer is received to a watchdog request.
<b>Device Watchdog Requests and Answers statistics</b>	
DWA attempts	The total number of attempts for Device Watchdog Answer (DWA).
DWA handle allocation failures	The total number of failures to handle allocation of DWA .
DWAs sent	The total number of DWA messages sent.
DWR send errors	The total number of errors while sending DWR messages.
Read DWA Messages	The total number of READ messages for DWA.
Read DWA Messages Unexpected	The total number of unexpected READ messages for DWA.
Read DWR Messages	The total number of missing READ messages for DWR.
Tw Expire Send DWR	The total number of DWRs sent due to <b>Tw</b> timer expired.
Send DWR Attempts	The total number of attempts to send 'DWR Sent' messages.
Send DWR Send Errors	The total number of errors while sending 'DWR Sent' messages.
Send DWR Calls	The total number of calls for 'DWR Sent' messages.
Send DWR MH Errors	The total number of message handling errors for 'DWR Sent' messages.
<b>Create Messages statistics</b>	
Create Message Calls	The total number of calls for 'Create' message.
Create Message Success	The total number of messages successful for 'Create' message.
Create Message Routed	The total number of messages routed for 'Create' message.
Create Message Directed	The total number of messages directed for 'Create' message.
Create Message Buffer Errors	The total number of errors for 'Create' message buffer.
Create Message Peer Never Up Errors	The total number of errors due to peer failure for 'Create' message.
Create Message Window Errors	The total number of errors due to 'Create' message window.

Field	Description
Create Message Unsupported Application Errors	The total number of errors due to unsupported applications for 'Create' message.
<b>Message Parse statistics</b>	
Message Pool Expand Attempts	The total number of attempts for message pool expansion.
Buffer Expand Attempts	The total number of attempts for buffer expansion.
Message Parse Calls	The total number of calls for message parsing.
Message Parse Too Many AVP Errors	The total number of message parsed having excessive AVP errors.
Message Parse Header Errors	The total number of message parsed having header errors.
Message Parse AVP Unknown Errors	The total number of message parsed having unknown AVP errors (errors not listed here).
Message Parse Runt Errors	The total number of message parsed having runtime errors.
Message Parse AVP Header Errors	The total number of message parsed having AVP header errors.
Message Protocol Error	The total number of message parsed having protocol errors.
Message Parse Mand AVP Unknown Errors	The total number of message parsed having unknown errors for mandatory AVP.
Message aborts	The total number of message aborted during parsing.
<b>Send Message statistics</b>	
Send Message Calls	The total number of calls for 'Send' message.
Send Message Truncated Errors	The total number of truncated errors for 'Send' message.
<b>Read Statistics</b>	
Read Bytes	The total number of bytes read.
Read Messages Total	The total number of 'Read' messages.
Requests Read	The total number of requests for 'Read' messages.
Requests Timed Out	The total number of requests timed out for 'Read' messages.
Answers Read	The total number of answers read for 'Read' messages.
Answers Timed Out	The total number of answers timed out for 'Read' messages.
Read Application Messages	The total number of 'Read application' messages.
Unexpected Answers Read	The total number of unexpected answers for 'Read' messages.
<b>Read Parse statistics</b>	
Read Parse Begin	The total number of parsing begins for 'Read' message.
Read Parse E2E Errors	The total number of End-to-End (E2E) errors during parsing of 'Read' message.
Read Parse Success	The total number of successful parsing of 'Read' message.

Field	Description
Read Parse Application ID Errors	The total number of errors with Application Id during parsing of 'Read' message.
Read Parse Command/Flag Errors	The total number of command or flag errors during parsing of 'Read' message.
Read Parse Diameter Protocol Errors	The total number of Diameter protocol errors during parsing of 'Read' message.
Read Parse Errors	The total number of errors during parsing of 'Read' message.
Read Parse Length Padding Errors	The total number of 'Length Padding' errors during parsing of 'Read' message.
Read Parse H2H Errors	The total number of Host-to-Host (H2H) errors during parsing of 'Read' message.
Read Parse Length Too Long	The total number of message parsed having excessive length of 'Read' message.
Read Parse Command Unknown	The total number of message parsed having unknown command in 'Read' message.
Read Parse Length Sanity Errors	The total number of message parsed having invalid length of 'Read' message.
Read Parse Length-v-SCTP EOR Errors	The total number of "Length-v-SCTP EOR" errors during parsing of "Read" message.
Read Parse SCTP Missing EOR Errors	The total number of "SCTP Missing EOR" errors during parsing of "Read" message.
<b>Write statistics</b>	
Write calls total	The total number of calls for 'Write' message.
Write calls while OPEN	The total number of calls for 'Write' message while connection is OPEN.
Write calls while IDLE	The total number of calls for 'Write' message while connection is IDLE.
Write calls in other states	The total number of calls for 'Write' message while connection state is other than OPEN or IDLE state.
Write backpressure events	The total number of Write messages over the maximum number of outstanding messages to queue.
Written bytes	The total number of bytes written.
Write iterations	The total number of write iterations.
Written messages	The total number of messages written.
Write EOFs	The total number of 'Write' messages with End-of-File (EOFs).
Write errors	The total number of 'Write' message with errors.
<b>Peer Calls statistics</b>	
Peer Open Calls	The total number of calls to open a peer.
Peer Close Calls	The total number of calls to close a peer.
Peer Open New Peer	The total number of calls to open a new peer.
Peer Open Unknown Peer Errors	The total number of calls to open an unknown peer.
Peer Open Misses	The total number of missed attempts to open a peer.
<b>Route statistics</b>	

Field	Description
Route Adds	The total number of routes added.
Route Expires	The total number of routes expired.
Route Hits	The total number of hits to a route.
Routes Misses	The total number of routes missed.
Route Indirects	The total number of indirect route.
Redirect Installs	The total number of redirected routes installed.
<b>Latency statistics</b>	
Last Round Trip Time (ms)	The last round trip time, in milliseconds.
Average Round Trip Time (ms)	The average round trip time in milliseconds.
<b>Redirect Host Usage:</b>	
Redirected Host	The number of times the host is redirected.
Redirect Not Cached	The number of times the redirected host is not cached.
Redirect All Session	The number of times all messages within the session are sent to Redirect-Host.
Redirect All Realm	The number of times all messages destined to Realm are sent to Redirect-Host.
Redirect Realm and Application	The number of times the messages for application requested to Realm are sent to Redirect-Host.
Redirect All Application	The number of times all messages for application are sent to Redirect-Host.
Redirect All Host	The number of times the messages sent to Redirect-Host AVP value instead of Redirect-Host value sent by the host.
Redirect All User	The number of times the message for user sent to Redirect-Host value.



# Chapter 61

## show dns-client

**Table 179. show dns-client statistics client <client\_name> Command Output Descriptions**

Field	Description
DNS Usage Statistics	
Query Type	Indicates the type of DNS queries performed. Possible type of DNS queries are: A: Indicates the total A (IPv4 address record) type of queries. SRV: Indicates the total SRV (service locator) type of queries. AAAA: Indicates the total AAAA (IPv6 address record) type of queries. NAPTR: Indicates the total NAPTR (Naming Authority Pointer) type of queries.
Attempts	Indicates the total number of DNS query of specific type attempted.
Successes	Indicates the total number of attempted and successful DNS query of specific type.
Failures	Indicates the total number of attempted but failed DNS query of specific type.
Total queries	Indicates the total number of queries including A, SRV, and NAPTR type of queries.
DNS Cache Statistics	
Central Cache	Indicates the domain name lookups cached in central (remote) location.
Local Cache	Indicates the domain name lookups cached in local location.
Total Lookups	Indicates the total domain name lookups cached in central (remote) and local location.
Cache Hits (Positive Response)	Indicates the total number of hits with positive response.
Cache Hits (Negative Response)	Indicates the total number of hits with negative response.
Not Found in Cache	Indicates the total number of hits which have no record in central or local cache memory.
Hit Ratio (Percentage)	Indicates the percentage of domain records hit and found in central or local cache memory.
DNS Resolver Statistics	
Query Type	Indicates the type of DNS queries performed. Possible type of DNS queries are: A: Indicates the total A (IPv4 address record) type of queries. SRV: Indicates the total SRV (service locator) type of queries. AAAA: Indicates the total AAAA (IPv6 address record) type of queries. NAPTR: Indicates the total NAPTR (Naming Authority Pointer) type of queries.
Attempts	Indicates the total number of DNS query of specific type attempted.
Successes	Indicates the total number of attempted and successful DNS query of specific type.
Failures	Indicates the total number of attempted but failed DNS query of specific type.

## ■ show diameter statistics

Field	Description
Successful Queries	Indicates the total number of queries resolved successfully.
Query Timeouts	Indicates the total number of queries went timeout.
Domain Not Found	Indicates the total number of queries where domain name not found.
Connection Refused	Indicates the total number of queries for a domain for which connection refused.
Other Failures	Indicates the total number of queries failed due to reasons other that listed here.

# Chapter 62

## show dynamic-policy

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This chapter includes the `show dynamic-policy` command output tables.

## show dynamic-policy statistics

Table 180. show dynamic-policy statistics Command Output Descriptions

Field	Description
Dynamic Policy Stats	
PCC rule stats	
Install request	Total number of Policy Control and Charging (PCC) rule install requests.
Remove request	Total number of PCC rule removal requests.
Installed uplink	Total number of PCC rules installed for uplink direction.
Installed downlink	Total number of PCC rules installed for downlink direction.
Activate requests	Total number of PCC rule activate requests.
Deactivate requests	Total number of PCC rule deactivate requests.
Activate group	Total number of policy groups activated.
Deactivate group	Total number of policy groups deactivated.
PCC rule failure stats	
Install failure	Total number of PCC rule install failures.
Remove failure	Total number of PCC rule removal failures.
Activation failure	Total number of PCC rule activation failures.
Deactivation failure	Total number of PCC rule deactivation failures.
Group activation failure	Total number of policy group activation failures.
Group deactivation failure	Total number of policy group deactivation failures.
Event stats	
Session up	Total number of subscriber sessions up.
Session down	Total number of subscriber sessions down.
Handoff	Total number of handoffs occurred.
RAT change	Total number of Radio Access Type (RAT) changes occurred.
Flow create	Total number of flows created.
Flow delete	Total number of flows deleted.
Bearer loss	Total number of bearer loss.
Bearer recovery	Total number of bearer recoveries after loss of bearer.
Update tft	Total number of Traffic Flow Template (TFT) updates.

Field	Description
Update qos	Total number of QoS updates.
Event failure stats	
Session up	Total number of session up failures.
Session down	Total number of session down failures.
Handoff	Total number of handoff failures.
RAT change	Total number of RAT change failures.
Flow create	Total number of flow creation failures.
Flow delete	Total number of flow deletion failures.
Bearer loss	Total number of bearer loss failures.
Bearer recovery	Total number of bearer recovery failures.
Update tft	Total number of TFT update failures.
Update qos	Total number of QoS update failures.
Auth stats	
Auth request	Total number of authorization requests sent.
Auth failure	Total number of authorization request failures.
Reauth request	Total number of re-authorization requests sent.
Reauth request failure	Total number of re-authorization request failures.
Terminate request	Total number of terminate requests sent.
Terminate request failure	Total number of terminate request failures.



# Chapter 63

## show fans

 **Important:** On some platforms, the output will change to show the state of the fan controller and the speed of each fan.

*Table 181. show fans Command Output Descriptions*

Field	Description
State	Displays the operational state of the fan tray and fan tray controller. The possible states are:
	<b>Normal:</b> There are no errors. This is the normal operating condition.
	<b>Multiple Fan Failure:</b> Multiple fans on the fan tray have failed.
	<b>Single Fan Failure:</b> A single fan on the fan tray has failed.
	<b>Heartbeat Error:</b> The redundant fan controller on the fan tray did not respond to the heartbeat signal.
	<b>Fan A Communication Error:</b> An error has occurred on the primary fan controller bus for the fan tray.
	<b>Fan B Communication Error:</b> An error has occurred on the redundant fan controller bus for the fan tray.
	<b>Communication Error:</b> An inter-bus communication error was experienced between the primary and redundant fan controllers on the fan tray.
Speed	<b>NOTE:</b> If any of the error conditions above are reported for your system, it is likely that the fan tray will need to be repaired or replaced. Please contact your local sales representative for additional information.
	Indicates the rate at which the fans on the fan tray are spinning as a percentage. Lower percentages indicate that the fans are having to do less work to keep the chassis cool and should be the normal operating condition. Higher percentages indicate that the fans are having to work harder to keep the chassis cool. This could be due to a number of reasons including improper ventilation of the chassis, individual fan failures, or even a dirty air filter. Refer to Please refer to the System Administration and Administration Reference for information on troubleshooting the problem. <b>NOTE:</b> systems with the dual-speed fan tray controller installed display the fan speed of the following: <b>Normal:</b> The fans on the fan tray are operating at a normal speed to maintain a safe operating temperature for the chassis and its components. <b>High:</b> The fans on the fan tray are operating in high speed to maintain a safe operating temperature for the chassis and its components. This could be due to a number of reasons including improper ventilation of the chassis, individual fan failures, or even a dirty air filter. Please refer to the System Administration and Administration Reference for information on troubleshooting the problem.
Temp	Displays the temperature of the chassis at the fan tray.



# Chapter 64

## show fa-service

Table 182. show fa-service name Command Output Descriptions

Field	Description
Service name	The name of the FA service for which the information are displayed.
Context	The name of the context in which this service is configured.
Bind	Status of connectivity of this service with context and IP address.
Max Subscribers	The number of subscribers are allowed to configure in this service.
Local IP Address	IP address to which this service is bound and communicate with HA.
Local IP Port	The port number on which this service is to communicate with HA.
Lifetime	The maximum time that the FA session can exist before it becomes expired.
Registration Timeout	The maximum duration of inactivity for a session registration before it becomes expired.
Advt Lifetime	Lifetime for an advertisement message.
Advt Interval	Interval between two advertisement messages.
Num Advt	The total number of advertisement messages broadcasted.
Advt Prefix Length Extn	Indicates the setting of prefix extension length in advertisement message.
Reverse Tunnel	Status of reverse tunnel.
GRE Encapsulation	Status of Generic Routing Encapsulation (GRE).
Optimize Tunnel Reassembly	Status of tunnel reassembly optimization.
Allow Priv Addr w/o Rev Tunnel	Status of setting to allow private addresses without reverse tunnelling.
Dynamic MIP Key Update	Status of setting to update dynamic MIP key.
Ignore Dynamic MIP Key	Status of setting to ignore dynamic MIP keys.
Remove MN-AAA/MN-FAC extns	Status of setting to remove MN-AAA and/or MN-FA extensions from messages.
Standalone FA service	Show the standalone FA service status. If “Enabled” system performs as a standalone FA only.
Proxy MIP	Status of Proxy Mobile IP support.

Field	Description
Proxy MIP Max Retransmissions	Total number of retransmission for Proxy Mobile IP support.
Proxy MIP Retrans Timeout	Timeout duration in seconds between two of retransmissions for Proxy MIP support.
Proxy MIP Renew Percent Time:	Percentage of timeout duration. Once this much percent of timeout duration exhausted the Proxy MIP message will be retransmitted. For example, If retransmission timeout is set for 4 secs. and renew percent time is configured for 75%, the Proxy MIP messages will be retransmitted after 3 seconds.
SPI(s)	The configured Security Parameter Index (SPI) number between FA and HA.
<b>FAHA</b>	
Remote Addr	IP address of HA.
Hash Algorithm:	Hashing algorithm applicable for HA.
SPI Num	SPI number set for HA.
Replay Protection:	Type of reply protection enabled for reply messages.
Timestamp Tolerance	Total variation allowed in timestamp mismatch.
HA Monitoring:	Status of HA monitoring configuration.
GRE Sequence Numbers	Status of GRE sequence number setting in messages.
GRE Sequence Mode	Specifies the GRE sequence mode.
GRE reorder Timeout	Total timeout duration for GRE reorder.
GRE Checksum	Status of GRE Checksum setting in messages.
GRE Checksum Verification	Status of GRE Checksum verification setting.
Registration Revocation	Status of registration revocation setting.
Reg-Revocation I Bit	Status of I-bit setting for registration revocation.
Reg-Revocation Max Retries	Maximum number of retries allowed for registration revocation.
Reg-Revocation Timeout	Total duration allowed between two retries for registration revocation.
Reg-Rev on InternalFailure	Specifies whether registration revocation will be triggered on internal failure or not.
Default Subscriber	Name of the default subscriber.
Max sessions	Maximum number of subscriber sessions allowed.
Max challenge len	Length of challenge key for subscriber authentication.
Challenge Window	total number of windows opened for challenge.
Service Status	Status of this service.

Field	Description
MN-AAA Auth Policy	Specifies the lookup criteria for authentication policy between MN and AAA in RRP. Possible settings are: alwaysignore-after-handoffinit-reginit-reg-except-handoffrenew-and-dereg-noauthrenew-reg-noauth
Optimize-Retries	Status of setting for optimized retries when authentication policy is not received for MN and AAA.
MN-HA Auth Policy	Specifies the lookup criteria for authentication policy between MN and HA in RRP.
AAA Distributed MIP Keys Override	Specifies the setting for the FA service to override dynamic keys from AAA with static keys to support MIP registration with HAs which do not support dynamic keys.
Newcall Policy	Specify that new call policy enabled or disabled to handle new calls.
Idle Timeout Mode	Idle timeout mode allowed for this service.
Ignore Stale Challenge	Status of setting to ignore old/stale challenge messages.
Limit Reg Lifetime	Status of setting to limit registration lifetime.
Dynamic HA Failover	Status of setting to handle dynamic HA failovers.
AAA HA override	Status of setting to override HA settings if received from AAA.
HA Failover	Status of setting to handle HA failovers.
Retrans Timeout	Timeout duration between two retransmission of probe on HA failover.
Retries Before Swtichover	Total number of retries before switching to another HA.
Maximum retries	Total number of retries allowed.
Load Balance	Status of setting to handle HA performance issues or HAa failovers by load balancing.
HA Monitoring	Status of setting to monitor HA.
Inactivity Timeout	Timeout duration after which a probe message will be sent to HA.
Monitor Reply Timeout	Timeout duration to wait for reply from HA after which a probe message will be resent to HA.
Maximum retries	Total number of retries allowed.



# Chapter 65

## show ggsn-service

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This chapter includes the `show ggsn-service` command output tables.

## show ggsn-service sgsn-table

Table 183. show ggsn-service sgsn-table Command Output Descriptions

Field	Description
GTP Version	GPRS Tunnelling Protocol. (0) - GTPRS (1) - UMTS
Active	GTP condition. (I) - Inactive (A) - Active
GTPC Echo	GPRS Tunneling Protocol-Control message (D) - Disabled (E) - Enabled
PLMN Type	Public land mobile network type. (H) - Home (F) - Foreign (U) - Unknown
SGSN Stats	SGSN statistics. (A) - Available (U) - Unavailable
Service ID	GGSN Service ID.
SGSN Address	IP address of each active SGSN.
Restart Counter	The restart counter sent by the SGSN. Increments by 1 with each restart.
Number of Restarts	Number of times the restart of the particular SGSN is detected, i.e., the number of times a NEW restart counter is received from the SGSN in a GTPC request message.
Curr Subs	Number of current subscribers to each SGSN.
Max Subs	Maximum number of permitted subscribers to each SGSN.

# Chapter 66

## show gmb

---

This chapter includes the **show gmb** command output tables.

## show gmb statistics

Table 184. show gmb statistics Command Output Descriptions

Field	Description
MBMS Context Stats	
Total Current	Total number of MBMS contexts currently in active status on Gmb interface.
Total Setup	Total number of MBMS contexts are in setup status on Gmb interface.
Total Released	Total number of MBMS contexts release on Gmb interface.
Total Denied	Total number of MBMS contexts requests denied on Gmb interface.
MBMS UE	Total number of UEs in active/setup status or released/denied on this Gmb interface for MBMS service.
MBMS Mcast Bearer	Total number of multicast bearers in active/setup status or released/denied on this Gmb interface for MBMS service.
MBMS Bcast Bearer	Total number of broadcast bearers in active/setup status or released/denied on this Gmb interface for MBMS service.
MBMS UE Context Management Stats	
MBMS UE Auth	Total number of UE Auth Request messages received on this Gmb interface for MBMS service.
Accepted	Total number of UE Auth Request messages received and accepted on this Gmb interface for MBMS service.
Denied	Total number of UE Auth Request messages received and denied on this Gmb interface for MBMS service.
MBMS UE Update	Total number of UE Update Request messages received on this Gmb interface for MBMS service.
Accepted	Total number of UE Update Request messages received and accepted on this Gmb interface for MBMS service.
Denied	Total number of UE Update Request messages received and denied on this Gmb interface for MBMS service.
MBMS UE Delete Tx	Total number of UE Delete Request messages transmitted on this Gmb interface for MBMS service.
Accepted	Total number of UE Delete Request messages transmitted and accepted on this Gmb interface for MBMS service.
Denied	Total number of UE Delete Request messages transmitted and denied on this Gmb interface for MBMS service.
MBMS UE Delete Rx	Total number of UE Delete Request messages received on this Gmb interface for MBMS service.
Accepted	Total number of UE Delete Request messages received and accepted on this Gmb interface for MBMS service.

Field	Description
Denied	Total number of UE Delete Request messages received and denied on this Gmb interface for MBMS service.
Discarded	Total number of UE Delete Request messages received but discarded on this Gmb interface for MBMS service.
MBMS Bearer (Multicast) Context Management Stats	
MBMS Bearer Reg	Total number of Multicast Bearer Context Register request messages received on this Gmb interface for MBMS service.
Accepted	Total number of Multicast Bearer Context Register request messages received and accepted on this Gmb interface for MBMS service.
Denied	Total number of Multicast Bearer Context Register request messages received and denied on this Gmb interface for MBMS service.
MBMS Bearer Dereg TX	Total number of Multicast Bearer Context Dereg Request messages transmitted on this Gmb interface for MBMS service.
Accepted	Total number of Multicast Bearer Context Dereg Request messages transmitted and accepted on this Gmb interface for MBMS service.
Denied	Total number of Multicast Bearer Context Dereg Request messages transmitted and denied on this Gmb interface for MBMS service.
MBMS Bearer Dereg RX	Total number of Multicast Bearer Context Dereg messages received on this Gmb interface for MBMS service.
Accepted	Total number of Multicast Bearer Context Dereg Request messages received and accepted on this Gmb interface for MBMS service.
Denied	Total number of Multicast Bearer Context Dereg Request messages received and denied on this Gmb interface for MBMS service.
Discarded	Total number of Multicast Bearer Context Dereg Request messages received but discarded on this Gmb interface for MBMS service.
MBMS Mcast Sess Start	Total number of Multicast Session Start Request messages received on this Gmb interface for MBMS service.
Accepted	Total number of Multicast Session Start Request messages received and accepted on this Gmb interface for MBMS service.
Denied	Total number of Multicast Session Start Request messages received and denied on this Gmb interface for MBMS service.
Discarded	Total number of Multicast Session Start Request messages received but discarded on this Gmb interface for MBMS service.
MBMS Mcast Sess Stop	Total number of Multicast Session Stop Request messages received on this Gmb interface for MBMS service.
Accepted	Total number of Multicast Session Stop Request messages received and accepted on this Gmb interface for MBMS service.
Denied	Total number of Multicast Session Stop Request messages received and denied on this Gmb interface for MBMS service.

Field	Description
Discarded	Total number of Multicast Session Stop Request messages received but discarded on this Gmb interface for MBMS service.
MBMS Mcast Sess Update	Total number of Multicast Session Update Request messages received on this Gmb interface for MBMS service.
Accepted	Total number of Multicast Session Update Request messages received and accepted on this Gmb interface for MBMS service.
Denied	Total number of Multicast Session Update Request messages received and denied on this Gmb interface for MBMS service.
Discarded	Total number of Multicast Session Update Request messages received but discarded on this Gmb interface for MBMS service.
<b>MBMS Bearer (Broadcast) Context Management Stats</b>	
MBMS Bcast Sess Start	Total number of Broadcast Session Start Request messages received on this Gmb interface for MBMS service.
Accepted	Total number of Broadcast Session Start Request messages received and accepted on this Gmb interface for MBMS service.
Denied	Total number of Broadcast Session Start Request messages received and denied on this Gmb interface for MBMS service.
Discarded	Total number of Broadcast Session Start Request messages received but discarded on this Gmb interface for MBMS service.
MBMS Bcast Sess Stop	Total number of Broadcast Session Stop messages received on this Gmb interface for MBMS service.
Accepted	Total number of Broadcast Session Stop Request messages received and accepted on this Gmb interface for MBMS service.
Denied	Total number of Broadcast Session Stop Request messages received and denied on this Gmb interface for MBMS service.
Discarded	Total number of Broadcast Session Stop Request messages received but discarded on this Gmb interface for MBMS service.
MBMS Bcast Sess Update	Total number of Broadcast Session Update messages received on this Gmb interface for MBMS service.
Accepted	Total number of Broadcast Session Update Request messages received and accepted on this Gmb interface for MBMS service.
Denied	Total number of Broadcast Session Update Request messages received and denied on this Gmb interface for MBMS service.
Discarded	Total number of Broadcast Session Update Request messages received but discarded on this Gmb interface for MBMS service.
<b>MBMS Bearer (Unknown Service Type) Stats</b>	
MBMS Unknown Sess Start denied	Total number of unknown type of Session Start messages received and denied on this Gmb interface for MBMS service.
MBMS Unknown Sess Stop denied	Total number of unknown type of Session Stop messages received and denied on this Gmb interface for MBMS service.

Field	Description
MBMS Unknown Sess Update denied	Total number of unknown type of Session Update messages received and denied on this Gmb interface for MBMS service.



# Chapter 67

## show gmm-sm

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This chapter includes the `show gmm-sm` command output tables.

## show gmm-sm statistics

Table 185. show gmm-sm statistics Command Output Descriptions

Field	Description
Session Statistics	
Attached Subscribers	Statistics for attached subscribers.
Total Attached	Total subscribers attached for 2G and 3G.
3G Attached	Total subscribers attached for 3G only.
2G Attached	Total subscribers attached for 3G only.
Home Subscribers	Statistics for attached home subscribers.
Total Home	Total home subscribers attached for 2G and 3G.
3G Home	Total home subscribers attached for 3G only.
2G Home	Total home subscribers attached for 3G only.
Visiting National Subscribers	Statistics for attached visiting national subscribers.
Total-Visiting-National	Total visiting national subscribers attached for 2G and 3G.
3G-Visiting-National	Total visiting national subscribers attached for 3G only.
2G-Visiting-National	Total visiting national subscribers attached for 3G only.
Visiting Foreign Subscribers	Statistics for attached visiting foreign subscribers.
Total-Visiting-Foreign	Total visiting foreign subscribers attached for 2G and 3G.
3G-Visiting-Foreign	Total visiting foreign subscribers attached for 3G only.
2G-Visiting-Foreign	Total visiting foreign subscribers attached for 2G only.
Network Sharing Subscribers	Statistics for network sharing subscribers.
3G-Supporting-UE	<b>Description:</b> This proprietary statistic indicates the total number of 3G Network Sharing Supporting User Equipment currently in the system. <b>Triggers:</b> Increments when a network sharing supporting UE connects with the 3G SGSN. <b>Availability:</b> per SGSN service, per RNC, per RA
3G-Non-Supporting-UE	<b>Description:</b> This proprietary statistic indicates the total number of 3G Network Sharing Non-supporting User Equipment currently in the system. <b>Triggers:</b> Increments when a network sharing non-supporting UE connects with the 3G SGSN. <b>Availability:</b> per SGSN service, per RNC, per RA
Subscribers in PMM-REGISTERED state	Total subscribers in PMM registered state, including connected and idle.
PMM-CONNECTED	Total number of subscribers in PMM connected state.
PMM-IDLE	Total number of subscribers in PMM idle state.

Field	Description
Activated Subscribers	Statistics for activated subscribers.
Total Activated	Total number of activated 2G and 3G subscriber.
3G Activated	Total number of activated 3G subscribers only.
2G Activated	Total number of activated 2G subscribers only.
Activate PDP Contexts	Statistics for activated PDP contexts.
Total Actv Pdp Ctx	Total number of activated 2G and 3G PDP contexts.
3G-Actv Pdp Ctx	Total number of activated 3G PDP contexts only.
2G-Actv Pdp Ctx	Total number of activated 2G PDP contexts only.
Total Actv Pdp Ctx with Direct Tunnel	Total number of activated PDP contexts through direct tunnel.
Message Statistics	Indicates the statistics of messages.
Specific Procedures	Indicates the statistics related to specific procedures.
Attach Request	Total number of messages for Attach Request
Total-Attach	Indicates the statistics of total attach.
IMSI	Indicates the statistics of total attach through international mobile subscriber identity (IMSI).
Total-IMSI-Attach	Total international mobile subscriber identity (IMSI) attach including 2G and 3G.
3G-IMSI-Attach	Indicates the 3G-IMSI attach statistics for GPRS and non-GPRS.
GPRS-only Attached	Total 3G-IMSI attach with GPRS only access.
Combined Attached	Total 3G-IMSI attach with combined (PS and CS) access.
2G-IMSI-Attach	Indicates the 2G-IMSI attach statistics for GPRS and non-GPRS.
GPRS-only Attached	Total 2G-IMSI attach with GPRS only access.
Combined Attached	Total 2G-IMSI attach with combined (PS and CS) access.
PTMSI	Indicates the statistics of total attach through Packet-Temporary Mobile Subscriber Identity (P-TMSI).
Total-PTMSI-Attach	Total Packet-Temporary Mobile Subscriber Identity (P-TMSI) attach including 2G and 3G.
3G-PTMSI-Attach	Indicates the 3G-P-TMSI attach statistics for GPRS and non-GPRS.
GPRS-only Attached	Total 3G-P-TMSI attach with GPRS only access.
Combined Attached	Total 3G-P-TMSI attach with combined (PS and CS) access.
2G-PTMSI-Attach	Indicates the 2G-P-TMSI attach statistics for GPRS and non-GPRS.
GPRS-only Attached	Total 2G-P-TMSI attach with GPRS only access.
Combined Attached	Total 2G-P-TMSI attach with combined (PS and CS) access.
Attach Accept	Indicates the statistics of total attach accepts.
Total-Attach-Accept	Total attach accepts including 2G and 3G.

Field	Description
3G-Attach-Accept	Indicates the 3G-attach accept statistics for GPRS and non-GPRS.
Gprs-Attached	Total 3G-attach accepts with GPRS only access.
Comb-Attached	Total 3G-attach accepts with combined (PS and CS) access.
2G-Attach-Accept	Indicates the 2G-attach accept statistics for GPRS and non-GPRS.
Gprs-Attached	Total 2G-attach accepts with GPRS only access.
Comb-Attached	Total 2G-attach accepts with combined (PS and CS) access.
Attach Complete	Indicates the statistics of total attach completed.
Total-Attach-Complete	Total attach completed including 2G and 3G.
3G-Attach-Complete	Indicates the 3G-attach complete statistics for GPRS and non-GPRS.
2G-Attach-Complete	Total 3G-attach completed with GPRS only access.
Attach Reject	Total 3G-attach completed with combined (PS and CS) access.
Total-Attach-Reject	Indicates the 2G-attach complete statistics for GPRS and non-GPRS.
3G-Attach-Reject	Total 2G-attach completed with GPRS only access.
2G-Attach-Reject	Total 2G-attach completed with combined (PS and CS) access.
Routing Area Update Request	Indicates the statistics of RAU request.
Total-RAU	Indicates the total RAU request.
Total-Intra-SGSN-RAU	Total intra-SGSN RAU request messages.
Total-Ra-Up-Intra-SGSN-RAU	Total routing area update request messages for intra-SGSN RA updates.
3G-Ra-Up-Intra-SGSN-RAU	Total routing area update request messages for intra-SGSN RA updates for 3G.
2G-Ra-Up-Intra-SGSN-RAU	Total routing area update request messages for intra-SGSN RA updates for 2G.
Total-Periodic-Intra-RAU	Total periodic intra-RA update messages.
3G-Periodic-Intra-RAU	Total periodic intra-RA update messages for 3G.
2G-Periodic-Intra-RAU	Total periodic intra-RA update messages for 2G.
Total-Comb-Intra-SGSN-RAU	Total intra-SGSN RAU request messages for combined (PS and CS) services.
3G-Comb-Intra-SGSN-RAU	Total intra-SGSN RAU request messages for combined (PS and CS) 3G services.
2G-Comb-Intra-SGSN-RAU	Total intra-SGSN RAU request messages for combined (PS and CS) 2G services.
Total-PS-Inter-SGSN-RAU	Total packet switching inter-SGSN-RA update request messages.
3G-PS-Inter-SGSN-RAU	Total packet switched inter-SGSN-RA update request messages for 3G service.
2G-PS-Inter-SGSN-RAU	Total packet switched inter-SGSN-RA update request messages for 2G service.
Total-Comb-Inter-SGSN-RAU	Total combined (PS and CS) inter-SGSN-RA update request messages.
3G-Comb-Inter-SGSN-RAU	Total combined (PS and CS) inter-SGSN-RA update request messages for 3G service.
2G-Comb-Inter-SGSN-RAU	Total combined (PS and CS) inter-SGSN-RA update request messages for 2G service.

Field	Description
Routing Area Update Accept	Indicates the statistics of routing area update messages accepted.
Total-RAU-Accept	Total number of routing area update messages accepted.
3G-RAU-Accept	Total number of routing area update messages accepted for 3G service.
3G-Intra-SGSN-RAU-Accept	Total number of intra-SGSN routing area update messages accepted for 3G service.
RA-Updated	Total number of routing area information updated for 3G service.
Comb RA/LA-Updated	Total number of combined (PS and CS) routing area or location area information updated for 3G service.
2G-RAU-Accept	Total number of routing area update messages accepted for 2G service.
2G-Intra-SGSN-RAU-Accept	Total number of intra-SGSN routing area update messages accepted for 2G service.
RA-Updated	Total number of routing area information updated for 2G service.
Comb RA/LA-Updated	Total number of combined (PS and CS) routing area or location area information updated for 2G service.
3G-Inter-SGSN-RAU-Accept	Total number of inter-SGSN routing area update messages accepted for 3G service.
RA-Updated	Total number of routing area information updated for 3G service.
Comb RA/LA-Updated	Total number of combined (PS and CS) routing area or location area information updated for 3G service.
2G-RAU-Accept	Total number of routing area update messages accepted for 2G service.
2G-Inter-SGSN-RAU-Accept	Total number of inter-SGSN routing area update messages accepted for 2G service.
RA-Updated	Total number of routing area information updated for 2G service.
Comb RA/LA-Updated	Total number of combined (PS and CS) routing area or location area information updated for 2G service.
Routing Area Update Complete	Indicates the statistics of routing area update complete messages.
Total-RAU-Complete	Total number of routing area update complete messages.
3G-RAU-Complete	Total number of routing area update complete messages for 3G service.
2G-RAU-Complete	Total number of routing area update complete messages for 2G service.
Routing Area Update Reject	Indicates the statistics of routing area update reject messages.
Total-RAU-Reject	Total number of routing area update reject messages.
3G-RAU-Reject	Total number of routing area update reject messages for 3G service.
2G-RAU-Reject	Total number of routing area update reject messages for 2G service.
Detach Request	Indicates the statistics of detach request messages.
Total-Detach-Req	Total number of detach request messages.
Total-MS-Init-Detach-Req	Total number of MS initiated detach request.
3G-MS-Init-GPRS-Detach-Req	Total number of MS initiated GPRS (PS) detach request for 3G service.

Field	Description
3G-MS-Init-IMSI-Detach-Req	Total number of MS initiated IMSI (CS) detach request for 3G service.
3G-MS-Init-Comb-Detach-Req	Total number of MS initiated combined (IMSI and GPRS) detach request for 3G service.
2G-MS-Init-GPRS-Detach-Req	Total number of MS initiated GPRS detach request for 2G service.
2G-MS-Init-IMSI-Detach-Req	Total number of MS initiated IMSI detach request for 2G service.
2G-MS-Init-Comb-Detach-Req	Total number of MS initiated combined (PS and CS) detach request for 2G service.
Total-Nw-Init-Detach-Req	Total number of network initiated detach request.
3G-Nw-Init-Reattach-Req	<b>Description:</b> During the network initiated detach for 3G service, the SGSN informs the MS that it has been detached by sending a detach request. The Detach Request has a detach type - "Reattach required" when it wants the MS to attach again for GPRS services. <b>Triggers:</b> Increments when a clear subscriber is performed. <b>Availability:</b> per RA, per RNC, per SGSN service
2G-Nw-Init-Reattach-Req	<b>Description:</b> During the network initiated detach for 2G service, the SGSN informs the MS that it has been detached by sending a detach request. The Detach Request has a detach type - "Reattach required" when it wants the MS to attach again for GPRS services. <b>Triggers:</b> Increments when a clear subscriber is performed. <b>Availability:</b> per RA, per RNC, per GPRS service
3G-Nw-Init-Reattach-Not-Req	<b>Description:</b> During the network initiated detach for 3G service, the SGSN informs the MS that it has been detached by sending a detach request. The Detach Request has a detach type - "Reattach not required" when it does not expect the MS to attach again for GPRS services. <b>Triggers:</b> Increments upon reception of a Cancel-Location (subscription-withdrawn) or a DSD (all-gprs-subscription withdrawn). <b>Availability:</b> per RA, per RNC, per SGSN service
2G-Nw-Init-Reattach-Not-Req	<b>Description:</b> During the network initiated detach for 2G service, the SGSN informs the MS that it has been detached by sending a detach request. The Detach Request has a detach type - "Reattach not required" when it does not expect the MS to attach again for GPRS services. <b>Triggers:</b> Increments upon reception of a Cancel-Location (subscription-withdrawn) or a DSD (all-gprs-subscription withdrawn). <b>Availability:</b> per RA, per RNC, per GPRS service
3G-Nw-Init-IMSI-Detach	<b>Description:</b> When the SGSN loses the GS-context for the MS due to a VLR-reset indication, it notifies the MS by sending an IMSI-detach on the next signalling activity by the MS. <b>Triggers:</b> Increments upon VLR-reset indication and a next uplink activity from MS. <b>Availability:</b> per RA, per RNC, per SGSN service
2G-Nw-Init-IMSI-Detach	<b>Description:</b> When the SGSN loses the GS-context for the MS due to a VLR-reset indication, it notifies the MS by sending an IMSI-detach on the next signalling activity by the MS. <b>Triggers:</b> Increments upon VLR-reset indication and a next uplink activity from MS. <b>Availability:</b> per RA, per RNC, per GPRS service
Detach Accept	Indicates the statistics of detach request accept messages.
Total-Detach-Acc	Total number of detach request accept messages.
Total-MS-Init-Detach-Acc	Total number of MS initiated detach request accepted.
3G-MS-Init-Detach-Acc	Total number of MS initiated GPRS detach request accepted for 3G service.
2G-MS-Init-Detach-Acc	Total number of MS initiated IMSI detach request accepted for 2G service.

Field	Description
Total-Nw-Init-Detach-Acc	Total number of network initiated detach request accepted.
3G-Nw-Init-Detach-Acc	Total number of network initiated detach request for 3G service.
3G-Nw-Init-GPRS-Detach-Acc	Total number of network initiated GPRS (PS) detach request accepted for 3G service.
3G-Nw-Init-IMSI-Detach-Acc	Total number of network initiated IMSI (CS) detach request accepted for 3G service.
3G-Nw-Init-Comb-Detach-Acc	Total number of network initiated combined (PS and CS) detach request accepted for 3G service.
2G-Nw-Init-Detach-Acc	Total number of network initiated detach request for 2G service.
2G-Nw-Init-GPRS-Detach-Acc	Total number of network initiated GPRS (PS) detach request accepted for 2G service.
2G-Nw-Init-IMSI-Detach-Acc	Total number of network initiated IMSI (CS) detach request accepted for 2G service.
2G-Nw-Init-Comb-Detach-Acc	Total number of network initiated combined (PS and CS) detach request accepted for 2G service.
Service Request	Indicates the statistics of service request messages.
Total-Serv-Req	Indicates the statistics of total service request messages.
Total-Signalling-Serv-Req	Total signalling service requests messages.
3G-Signalling-Serv-Req	Total signalling service requests messages for 3G service.
2G-Signalling-Serv-Req	Total signalling service requests messages for 2G service.
Total-Page-Rsp-Serv-Req	Total paging response for service requests messages.
3G-Page-Rsp-Serv-Req	Total paging response for service requests messages for 3G service.
2G-Page-Rsp-Serv-Req	Total paging response for service requests messages for 2G service.
Total-Data-Serv-Req	Total data service requests messages.
3G-Data-Serv-Req	Total data service requests messages for 3G service.
2G-Data-Serv-Req	Total data service requests messages for 2G service.
Service Accept	Indicates the statistics of service request messages.
Total-Serv-Resp	Total service response messages.
3G-Service-Resp	Total service response messages for 3G service.
2G-Service-Resp	Total service response messages for 2G service.
Service Reject	Total paging response for service requests messages.
Total-Serv-Rej	Total service reject messages.
3G-Service-Rej	Total service reject messages for 3G service.
2G-Service-Rej	Total service reject messages for 2G service.
Paging Initiated	Indicates the statistics of paging initiated procedure.
Total-Page-Requests	Total paging request messages.
3G-PS-Page-Requests	Total paging request messages in packet switching (PS) domain for 3G service.

Field	Description
3G-CS-Page-Requests	Total paging request messages in circuit switching (CS) domain for 3G service.
2G-PS-Page-Requests	Total paging request messages in packet switching (PS) domain for 2G service.
2G-CS-Page-Requests	Total paging request messages in circuit switching (CS) domain for 2G service.
Total-Page-Responses	Total paging request response messages.
3G-PS-Page-Responses	Total paging request response messages in packet switching (PS) domain for 3G service.
3G-CS-Page-Responses	Total paging request response messages in circuit switching (CS) domain for 3G service.
2G-PS-Page-Responses	Total paging request response messages in packet switching (PS) domain for 2G service.
2G-CS-Page-Responses	Total paging request response messages in circuit switching (CS) domain for 2G service.
Gmm Status Message	Indicates the statistics of GPRS mobility management procedure status messages.
Total-Gmm-Status-Sent	Total GPRS mobility management procedure status messages sent.
3G-Gmm-Status-Sent	Total GPRS mobility management procedure status messages sent for 3G service.
2G-Gmm-Status-Sent	Total GPRS mobility management procedure status messages sent for 2G service.
Total-Gmm-Status-Rcvd	Total GPRS mobility management procedure status messages received.
3G-Gmm-Status-Rcvd	Total GPRS mobility management procedure status messages received for 3G service.
2G-Gmm-Status-Rcvd	Total GPRS mobility management procedure status messages received for 2G service.
Gmm Information Sent	Indicates the statistics of messages sent with GPRS mobility management information.
Total-Gmm-Information-Sent	Total messages sent with GPRS mobility management information.
3G-Gmm-Information-Sent	Total messages sent with GPRS mobility management information for 3G service.
2G-Gmm-Information-Sent	Total messages sent with GPRS mobility management information for 2G service.
Common Procedures	Indicates the statistics of common procedures in GPRS mobility management procedure.
Authentication And Ciphering Request	Indicates the statistics of authentication and ciphering request messages.
Total-Auth-Cipher-Req	Total authentication and ciphering request messages.
3G-Auth-Cipher-Req	Total authentication and ciphering request messages for 3G service.
2G-Auth-Cipher-Req	Total authentication and ciphering request messages for 2G service.
Authentication And Ciphering Response	Indicates the statistics of authentication and ciphering request response messages.
Total-Auth-Cipher-Resp	Total authentication and ciphering request response messages.
3G-Auth-Cipher-Resp	Total authentication and ciphering request response messages for 3G service.
2G-Auth-Cipher-Resp	Total authentication and ciphering request response messages for 2G service.
Authentication And Ciphering Response With SRES Mismatch	Indicates the statistics of authentication and ciphering request response messages having Signed RESponse (SRES) mismatch.

Field	Description
Total-Auth-Cipher-Resp with Sres Mismatch	Total authentication and ciphering request response messages having Signed RESponse (SRES) mismatch.
3G-Auth-Cipher-Resp with Sres Mismatch	Total authentication and ciphering request response messages having Signed RESponse (SRES) mismatch for 3G service.
2G-Auth-Cipher-Resp with Sres Mismatch	Total authentication and ciphering request response messages having Signed RESponse (SRES) mismatch for 2G service.
Authentication And Ciphering Reject	Indicates the statistics of authentication and ciphering request reject messages.
Total-Auth-Cipher-Rej	Total authentication and ciphering request reject messages.
3G-Auth-Cipher-Rej	Total authentication and ciphering request reject messages for 3G service.
2G-Auth-Cipher-Rej	Total authentication and ciphering request reject messages for 2G service.
Authentication And Ciphering Failure	Indicates the statistics of authentication and ciphering request failures.
Total-Auth-Cipher-Failure	Total authentication and ciphering request failures.
3G-Auth-Cipher-Mac-Failure	Total authentication and ciphering failures due to message authentication code (MAC) for 3G service.
2G-Auth-Cipher-Mac-Failure	Total authentication and ciphering failures due to message authentication code (MAC) for 2G service.
3G-Auth-Cipher-Sync-Failure	Total authentication and ciphering failures due to synchronisation for 3G service.
2G-Auth-Cipher-Syn-Failure	Total authentication and ciphering failures due to synchronisation for 2G service.
3G-Auth-Unacceptable	Total authentication and ciphering failures due to unacceptable delay for 3G service.
2G-Auth-Unacceptable	Total authentication and ciphering failures due to unacceptable delay for 2G service.
P-TMSI Realloc	Indicates the statistics of Packet-Temporary Mobile Subscriber Identity (P-TMSI) reallocation procedure.
Total-PTMSI Realloc	Total Packet-Temporary Mobile Subscriber Identity (P-TMSI) reallocation procedure.
3G-PTMSI Realloc	Total Packet-Temporary Mobile Subscriber Identity reallocation procedure for 3G service.
2G-PTMSI Realloc	Total Packet-Temporary Mobile Subscriber Identity reallocation procedure for 2G service.
P-TMSI Realloc Complete	Indicates the statistics of Packet-Temporary Mobile Subscriber Identity reallocation procedure completed.
Total-PTMSI Realloc Complete	Total Packet-Temporary Mobile Subscriber Identity reallocation procedure completed.
3G-PTMSI Realloc Complete	Total Packet-Temporary Mobile Subscriber Identity reallocation procedure completed for 3G service.
2G-PTMSI Realloc Complete	Total Packet-Temporary Mobile Subscriber Identity reallocation procedure completed for 2G service.
Identity Request	Indicates the statistics of identity request messages.
Total-Identity-Req	Total identity request messages.

Field	Description
Total-IMSI-Identity-Req	Total international mobile subscriber identity (IMSI) identity request messages.
3G-IMSI-Identity-Req	Total IMSI identity request messages for 3G service.
2G-IMSI-Identity-Req	Total IMSI identity request messages for 2G service.
Total-IMEI-Identity-Req	Total international mobile equipment identity (IMEI) request messages.
3G-IMEI-Identity-Req	Total IMEI identity request messages for 3G service.
2G-IMEI-Identity-Req	Total IMEI identity request messages for 2G service.
Total-IMEISV-Identity-Req	Total international mobile equipment identity-software version (IMEI-SV) identity request messages.
3G-IMEISV-Identity-Req	Total IMEI-SV identity request messages for 3G service.
2G-IMEISV-Identity-Req	Total IMEI-SV identity request messages for 2G service.
Total-(P)TMSI-Identity-Req	Total Packet-Temporary Mobile Subscriber Identity (P-TMSI) request messages.
3G-(P)TMSI-Identity-Req	Total P-TMSI identity request messages for 3G service.
2G-(P)TMSI-Identity-Req	Total P-TMSI identity request messages for 2G service.
Identity Response	Indicates the statistics of identity request messages.
Total-Identity-Rsp	Total identity request response messages.
Total-IMSI-Identity-Rsp	Total international mobile subscriber identity (IMSI) identity request response messages.
3G-IMSI-Identity-Rsp	Total IMSI identity request response messages for 3G service.
2G-IMSI-Identity-Rsp	Total IMSI identity request response messages for 2G service.
Total-IMEI-Identity-Rsp	Total international mobile equipment identity (IMEI) request response messages.
3G-IMEI-Identity-Rsp	Total IMEI identity request response messages for 3G service.
2G-IMEI-Identity-Rsp	Total IMEI identity request response messages for 2G service.
Total-IMEISV-Identity-Rsp	Total international mobile equipment identity-software version (IMEI-SV) identity request response messages.
3G-IMEISV-Identity-Rsp	Total IMEI-SV identity request response messages for 3G service.
2G-IMEISV-Identity-Rsp	Total IMEI-SV identity request response messages for 2G service.
Total-(P)TMSI-Identity-Rsp	Total Packet-Temporary Mobile Subscriber Identity (P-TMSI) request response messages.
3G-(P)TMSI-Identity-Rsp	Total P-TMSI identity request response messages for 3G service.
2G-(P)TMSI-Identity-Rsp	Total P-TMSI identity request response messages for 2G service.
Total-Unknown-Identity-Rsp	Total identity request response messages for unknown identity.
3G-Unknown-Identity-Rsp	Total identity request response messages for unknown identity for 3G service.
2G-Unknown-Identity-Rsp	Total identity request response messages for unknown identity for 2G service.
Timers	Indicates the statistics of different message and procedure timers.
Total-T3350-Expiry	Total number of times the T3350 timer timed-out.

Field	Description
3G-T3350-Expiry	Total number of times the T3350 timer timed-out for 3G service.
2G-T3350-Expiry	Total number of times the T3350 timer timed-out for 2G service.
Total-T3360-Expiry	Total number of times the T3360 timer timed-out.
3G-T3360-Expiry	Total number of times the T3360 timer timed-out for 3G service.
2G-T3360-Expiry	Total number of times the T3360 timer timed-out for 2G service.
Total-T3370-Expiry	Total number of times the T3370 timer timed-out.
3G-T3370-Expiry	Total number of times the T3370 timer timed-out for 3G service.
2G-T3370-Expiry	Total number of times the T3370 timer timed-out for 2G service.
Total-T3322-Expiry	Total number of times the T3322 timer timed-out.
3G-T3322-Expiry	Total number of times the T3322 timer timed-out for 3G service.
2G-T3322-Expiry	Total number of times the T3322 timer timed-out for 2G service.
Total-T3313-Expiry	Total number of times the T3313 timer timed-out.
3G-T3313-Expiry	Total number of times the T3313 timer timed-out for 3G service.
2G-T3313-Expiry	Total number of times the T3313 timer timed-out for 2G service.
Ranap Procedures	Indicates the statistics of Radio Access Network Application Part (RANAP) procedures.
Initial UE Rcvd	Total number of initial user equipment (UE) messages received.
Common Id sent	Total number of common identifier messages sent.
Direct Transfer Sent	Total number of direct transfer messages sent.
Direct Transfer Rcvd	Total number of direct transfer messages received.
Security Mode Command	Total number of security mode commands received.
Security Mode Complete	Total number of security mode completed.
Security Mode Reject	Total number of security mode commands rejected.
Iu Release Request	Total number of Iu interface release request received.
Iu Release Command	Total number of Iu interface release commands received.
Iu Release Complete	Total number of Iu interface release completed.
Reset Rcvd	Total number of reset requests received.
Retransmitted Reset Rcvd	Total number of retransmitted reset requests received.
Reset Ack Sent	Total number of reset request acknowledgement sent.
Reset Sent	Total number of reset requests sent.
Retransmitted Reset Sent	Total number of reset requests retransmitted.
Reset Ack Rcvd	Total number of reset request acknowledgement received.
Resource Reset Rcvd	Total number of resource reset requests received.

Field	Description
Resource Reset Ack Sent	Total number of resource reset request acknowledgement sent.
Resource Reset Sent	Total number of resource reset request sent.
Resource Reset Ack Rcvd	Total number of resource reset request acknowledgement received.
Overload ctrl Rcvd	Total number of resource overload control message received.
PC Congested Received	Total number of point code (PC) congested message received.
Error Indication Rcvd	Total number of error indication message received.
Error Indication Sent	Total number of error indication message sent.
Relocation Required	Total number of message received for Serving Radio Network Subsystem (SRNS) relocation required.
Relocation Command	Total number of message received with SRNS relocation command.
Relocation Request	Total number of SRNS relocation requests received.
Relocation Request Ack	Total number of SRNS relocation requests Ack sent.
Relocation Failure	Total number of SRNS relocation failure messages received.
Relocation Prep Failure	Total number of SRNS relocation preparation failure messages received.
Relocation Cancel	Total number of SRNS relocation cancel messages received.
Relocation Cancel Ack	Total number of SRNS relocation cancel acknowledge messages sent.
Relocation Detect	Total number of SRNS relocation detected.
Relocation Complete	Total number of SRNS relocation completed.
Forward SRNS Context	Total number of SRNS contexts forwarded.
NAS-PDU Stats	Indicates the statistics of PDUs for network access server (NAS).
Received	Indicates the total all type of protocol data units received through NAS interface.
Sent	Indicates the total all type of protocol data units sent through NAS interface.
Total-Received-NAS-Pdu	Total all type of protocol data units received through NAS interface.
Total-Sent-NAS-Pdu	Total all type of protocol data units sent through NAS interface.
GMM-Received-NAS-Pdu	Total protocol data units received by GPRS mobility management (GMM) service through NAS interface.
GMM-Sent-NAS-Pdu	Total protocol data units sent by GMM service through NAS interface.
SM-Received-NAS-Pdu	Total protocol data units received by Service Management (SM) service through NAS interface.
SM-Sent-NAS-Pdu	Total protocol data units sent by SM service through NAS interface.
UnIdentified-NAS-Pdu	Total number of unknown type PDUs received through NAS interface.
Dropped NAS-PDUS	Indicates the statistics of protocol data units dropped through NAS interface.
Total-Dropped-NAS-Pdu	Total number of PDUs dropped through NAS interface.
Redirection Indication	Indicates the causes for redirection indication.

Field	Description
PLMN not allowed	<b>Description:</b> The Attach/RAU Reject is sent with GMM cause “PLMN not allowed” or any other values not specifically mapped to the other causes. <b>Triggers:</b> Increments when Attach-reject/RAU-reject is sent in a MOCN configuration and the RNC tries the Attach/RAU at the next SGSN with the specific cause. <b>Availability:</b> per RA, per RNC, per SGSN service
Location area not allowed	<b>Description:</b> The Attach/RAU Reject is sent with GMM cause “Location Area not allowed”. <b>Triggers:</b> Increments when Attach-reject/RAU-reject is sent in a MOCN configuration and the RNC tries the Attach/RAU at the next SGSN with the specific cause. <b>Availability:</b> per RA, per RNC, per SGSN service
Roaming not allowed in LA	<b>Description:</b> The Attach/RAU Reject is sent with GMM cause “Roaming not allowed in this location area”. <b>Triggers:</b> Increments when Attach-reject/RAU-reject is sent in a MOCN configuration and the RNC tries the Attach/RAU at the next SGSN with the specific cause. <b>Availability:</b> per RA, per RNC, per SGSN service
No GPRS services in PLMN	<b>Description:</b> The Attach/RAU Reject is sent with GMM cause “GPRS services not allowed in this PLMN”. <b>Triggers:</b> Increments when Attach-reject/RAU-reject is sent in a MOCN configuration and the RNC tries the Attach/RAU at the next SGSN with the specific cause. <b>Availability:</b> per RA, per RNC, per SGSN service
CS/PS co-ord required	<b>Description:</b> When the SGSN interacts with the IMSI of the MS, it rejects the MS to facilitate the RNC to choose the right CN operator. <b>Triggers:</b> Increments when Attach-reject/RAU-reject is sent in a MOCN configuration and the RNC tries the Attach/RAU at the next SGSN with the specific cause. <b>Availability:</b> per RA, per RNC, per SGSN service
Unknown Reasons	<b>Description:</b> The RANAP message is sent with none of the above mentioned valid cause values. If the value is non-zero, it reflects an error in SGSN software. <b>Triggers:</b> Increments when Attach-reject/RAU-reject is sent in a MOCN configuration and the RNC tries the Attach/RAU at the next SGSN with the specific cause. <b>Availability:</b> per RA, per RNC, per SGSN service
SMS Error Stats	Indicates the statistics of errors for short message service (SMS).
CP-ERROR (Tx)	Total number of control program errors sent ( in upload direction) for short message service (SMS).
<b>Network Overload Protection</b>	
Attach requests queued in the pacing queue	Indicates the current total number of Attach Request messages in the pacing queue waiting to be processed.
Inter SGSN RAU requests queued in the pacing queue	Indicates the total number of Inter SGSN RAU Request messages that have been buffered in the pacing queue.
Number of Inter SGSN RAU and Attach requests in the pacing queue	Indicates the total number of Attach Request messages and Inter SGSN RAU Request messages that have been buffered in the pacing queue.
Attach requests successfully dequeued from the pacing queue	Indicates the total number of Attach Request messages that have been successfully removed from the pacing queue to be sent to the session manager for further processing.

Field	Description
Inter SGSN RAU requests successfully dequeued from the pacing queue	Indicates the total number of Inter SGSN RAU Request messages that have successfully been removed from the pacing queue and sent to the session manager for further processing.
Attaches rejected	Indicates the total number of Attach Requests that were rejected due to a network overload situation.
Inter SGSN RAUs rejected	Indicates the total number of Inter SGSN RAU Requests that were rejected due to a network overload situation
Attaches dropped	Indicates the total number of Attaches that were dropped due to a network overload situation.
Inter SGSN RAUs dropped	Indicates the total number of Inter SGSN RAU Requests that were dropped due to a network overload situation
Attaches discarded due to excess wait time in the pacing queue	Indicates the total number of Attach Request messages that were discarded because the requests waited in the pacing queue for more than the t3310 time which would have resulted in a timeout at the MS.
Inter SGSN RAUs discarded due to excess wait time in the pacing queue	Indicates the total number of Inter SGSN RAU messages that were discarded from the pacing queue as the requests waited more than the t3315 time which would have resulted in a timeout at the MS.
<b>Session Management Messages Statistics</b>	
Activate Context Request	Indicates the statistics of context activate request in session management service.
Total-Actv-Request	Total number of request messages received for 2G and 3G context activation including primary and secondary.
3G-Actv-Request	Total number of request messages received for 3G context activation including primary and secondary.
2G-Actv Request	Total number of request messages received for 2G context activation including primary and secondary.
Primary-Actv-Request	Total number of request messages received for 2G and 3G primary context activation.
3G-Primary-Actv-Request	Total number of request messages received for 3G primary context activation.
2G-Primary-Actv-Request	Total number of request messages received for 2G primary context activation.
Secondary-Actv-Request	Total number of request messages received for 2G and 3G secondary context activation.
3G-Secondary-Actv-Request	Total number of request messages received for 3G secondary context activation.
2G-Secondary-Actv-Request	Total number of request messages received for 2G secondary context activation.
Activate Context Accept	Indicates the statistics of context activate request accepted in session management service.
Total-Actv-Accept	Total number of request messages accepted for 2G and 3G context activation including primary and secondary type.
3G-Actv-Accept	Total number of request messages accepted for 3G context activation including primary and secondary type.
2G-Actv Accept	Total number of request messages accepted for 2G context activation including primary and secondary type.
Primary-Actv-Accept	Total number of request messages accepted for 2G and 3G primary context activation.

Field	Description
3G-Primary-Actv-Accept	Total number of request messages accepted for 3G primary context activation.
2G-Primary-Actv-Accept	Total number of request messages accepted for 2G primary context activation.
Secondary-Actv-Accept	Total number of request messages accepted for 2G and 3G secondary context activation.
3G-Secondary-Actv-Accept	Total number of request messages accepted for 3G secondary context activation.
2G-Secondary-Actv-Accept	Total number of request messages accepted for 2G secondary context activation.
Activate Context Reject	Indicates the statistics of request messages rejected for 2G and 3G context activation including primary and secondary type.
Total-Actv-Reject	Total number of request messages rejected for 2G and 3G context activation including primary and secondary type.
3G-Actv-Reject	Total number of request messages rejected for 3G context activation including primary and secondary type.
2G-Actv-Reject	Total number of request messages rejected for 2G context activation including primary and secondary type.
Primary-Actv-Reject	Total number of request messages rejected for 2G and 3G primary context activation.
3G-Primary-Actv-Reject	Total number of request messages rejected for 3G primary context activation.
2G-Primary-Actv-Reject	Total number of request messages rejected for 2G primary context activation.
Secondary-Actv-Reject	Total number of request messages rejected for 2G and 3G secondary context activation.
3G-Secondary-Actv-Reject	Total number of request messages rejected for 3G secondary context activation.
2G-Secondary-Actv-Reject	Total number of request messages rejected for 2G secondary context activation.
Activate Context Failure	Indicates the statistics of context activation failure for 2G and 3G service including primary and secondary type.
Total-Actv-Failure	Total number of context activation for 2G and 3G service (including primary and secondary type) failed.
3G-Actv-Failure	Total number of context activation for 3G service (including primary and secondary type) failed.
2G-Actv Failure	Total number of context activation for 2G service (including primary and secondary type) failed.
Primary-Actv-Failure	Total number of primary context activation for 2G and 3G service failed.
3G-Primary-Actv-Failure	Total number of primary context activation for 3G service failed.
2G-Primary-Actv-Failure	Total number of primary context activation for 2G service failed.
Secondary-Actv-Failure	Total number of secondary context activation for 2G and 3G service failed.
3G-Secondary-Actv-Failure	Total number of secondary context activation for 3G service failed.
2G-Secondary-Actv-Failure	Total number of secondary context activation for 2G and 3G service failed.
Duplicate Activate Request	Indicates the statistics of duplicate context activation requests for 2G and 3G service received.
Total-Dup-Actv Req Received	Total number of duplicate context activation requests for 2G and 3G service received.

Field	Description
Total-Dup-3G-Actv Req Received	Total number of duplicate context activation requests for 3G service received.
3G-Dup Req In PDP-ACTIVE State	Indicates the statistics of duplicate context activation requests for 3G service in PDP activate state.
Duplicate TI	Total number of duplicate context activation requests for 3G service in PDP active state with duplicate transaction identifiers (TIs).
Duplicate NSAPI	Total number of duplicate context activation requests for 3G service in PDP active state with duplicate Network Service Access Point Identifier (NSAPI) for 3G service.
Duplicate PDP-Addr and APN	Total number of duplicate context activation requests for 3G service in PDP active state with duplicate PDP address and access point name for 3G service.
Total-Dup-2G-Actv Req Received	Total number of duplicate context activation requests for 2G service received.
2G-Dup Req In PDP-ACTIVE State	Indicates the statistics of duplicate context activation requests for 2G service in PDP activate state.
Duplicate TI	Total number of duplicate context activation requests for 2G service in PDP active state with duplicate transaction identifiers (TIs).
Duplicate NSAPI	Total number of duplicate context activation requests for 2G service in PDP active state with duplicate Network Service Access Point Identifier (NSAPI).
Duplicate PDP-Addr and APN	Total number of duplicate context activation requests for 2G service in PDP active state with duplicate PDP address and access point name.
3G-Dup Req In NOT PDP-ACTIVE State	Indicates the statistics of duplicate context activation requests for 3G service which are not in PDP active state.
Duplicate TI	Total number of duplicate context activation requests for 3G service which are not in PDP active state with duplicate transaction identifiers (TIs).
Duplicate NSAPI	Total number of duplicate context activation requests for 3G service which are not in PDP active state with duplicate Network Service Access Point Identifier (NSAPI).
Duplicate PDP-Addr and APN	Total number of duplicate context activation requests for 3G service which are not in PDP active state with duplicate PDP address and access point name.
2G-Dup Req In NOT PDP-ACTIVE State	Indicates the statistics of duplicate context activation requests for 2G service which are not in PDP active state.
Duplicate TI	Total number of duplicate context activation requests for 2G service which are not in PDP active state with duplicate transaction identifiers (TIs).
Duplicate NSAPI	Total number of duplicate context activation requests for 2G service which are not in PDP active state with duplicate Network Service Access Point Identifier (NSAPI).
Duplicate PDP-Addr and APN	Total number of duplicate context activation requests for 2G service which are not in PDP active state with duplicate PDP address and access point name.
Request Pdp Context Activation	Indicates the statistics of PDP context activation requests for 2G and 3G service.
Total-Request-Pdp-Ctxt-Req	Total number of PDP context activation requests received for 2G and 3G service.
3G-Request-Pdp-Ctxt-Req	Total number of PDP context activation requests received for 3G service.

Field	Description
2G-Request-Pdp-Ctxt-Req	Total number of PDP context activation requests received for 2G service.
Request Pdp Context Activation Reject	Indicates the statistics of PDP context activation requests rejected for 2G and 3G service.
Total-Request-Pdp-Ctxt-Req Reject	Total number of PDP context activation requests rejected for 2G and 3G service.
3G-Request-Pdp-Ctxt-Req Reject	Total number of PDP context activation requests rejected for 3G service.
2G-Request-Pdp-Ctxt-Req Reject	Total number of PDP context activation requests rejected for 2G service.
Modify Context Request	Indicates the statistics of MS and network initiated PDP context modification requests received for 2G and 3G service.
Total-Modify-Request	Total number of MS and network initiated PDP context modification requests received for 2G and 3G service.
3G-Modify-Request	Total number of MS and network initiated PDP context modification requests received for 3G service.
2G-Modify Request	Total number of MS and network initiated PDP context modification requests received for 2G service.
MS-Modify-Request	Total number of MS initiated PDP context modification requests received for 2G and 3G service.
3G-MS-Modify-Request	Total number of MS initiated PDP context modification requests received for 3G service.
2G-MS-Modify-Request	Total number of MS initiated PDP context modification requests received for 2G service.
NW-Modify-Request	Total number of network initiated PDP context modification requests received for 2G and 3G service.
3G-NW-Modify-Request	Total number of network initiated PDP context modification requests received for 3G service.
2G-NW-Modify-Request	Total number of network initiated PDP context modification requests received for 2G service.
Modify Context Accept	Indicates the statistics of MS and network initiated PDP context modification requests accepted for 2G and 3G service.
Total-Modify-Accept	Total number of MS and network initiated PDP context modification requests accepted for 2G and 3G service.
3G-Modify-Accept	Total number of MS and network initiated PDP context modification requests accepted for 3G service.
2G-Modify-Accept	Total number of MS and network initiated PDP context modification requests accepted for 2G service.
MS-Modify-Accept	Total number of MS initiated PDP context modification requests accepted for 2G and 3G service.
3G-MS-Modify-Accept	Total number of MS initiated PDP context modification requests accepted for 3G service.
2G-MS-Modify-Accept	Total number of MS initiated PDP context modification requests accepted for 2G service.

Field	Description
NW-Modify-Accept	Total number of network initiated PDP context modification requests accepted for 2G and 3G service.
3G-NW-Modify-Accept	Total number of network initiated PDP context modification requests received for 3G service.
2G-NW-Modify-Accept	Total number of network initiated PDP context modification requests accepted for 2G service.
Modify Context Reject	Indicates the statistics of MS and network initiated PDP context modification requests rejected for 2G and 3G service.
Total-Modify-Reject	Total number of MS and network initiated PDP context modification requests rejected for 2G and 3G service.
3G-Modify-Reject	Total number of MS and network initiated PDP context modification requests rejected for 3G service.
2G-Modify-Reject	Total number of MS and network initiated PDP context modification requests rejected for 2G service.
MS-Modify-Reject	Total number of MS initiated PDP context modification requests rejected for 2G and 3G service.
3G-MS-Modify-Reject	Total number of MS initiated PDP context modification requests rejected for 3G service.
2G-MS-Modify-Reject	Total number of MS initiated PDP context modification requests rejected for 2G service.
NW-Modify-Reject	Total number of network initiated PDP context modification requests rejected for 2G and 3G service.
3G-NW-Modify-Reject	Total number of network initiated PDP context modification requests rejected for 3G service.
2G-NW-Modify-Reject	Total number of network initiated PDP context modification requests rejected for 2G service.
Deactivate Context Request	Indicates the statistics of MS and network initiated PDP context deactivation requests received for 2G and 3G service.
Total-Deactv-Request	Total number of MS and network initiated PDP context deactivation requests received for 2G and 3G service.
3G-Deactv-Request	Total number of MS and network initiated PDP context deactivation requests received for 3G service.
2G-Deactv-Request	Total number of MS and network initiated PDP context deactivation requests received for 2G service.
MS-Deactv-Request	Total number of MS initiated PDP context deactivation requests received for 2G and 3G service.
3G-MS-Deactv-Request	Total number of MS initiated PDP context deactivation requests received for 3G service.
2G-MS-Deactv-Request	Total number of MS initiated PDP context deactivation requests received for 2G service.
NW-Deactv-Request	Total number of network initiated PDP context deactivation requests received for 2G and 3G service.
3G-NW-Deactv-Request	Total number of network initiated PDP context deactivation requests received for 3G service.
2G-NW-Deactv-Request	Total number of network initiated PDP context deactivation requests received for 2G service.
Deactivate Context Accept	Indicates the statistics of MS and network initiated PDP context deactivation requests accepted for 2G and 3G service.

Field	Description
Total-Deactiv-Accept	Total number of MS and network initiated PDP context deactivation requests accepted for 2G and 3G service.
3G-Deactiv-Accept	Total number of MS and network initiated PDP context deactivation requests accepted for 3G service.
2G-Deactiv-Accept	Total number of MS and network initiated PDP context deactivation requests accepted for 2G service.
MS-Deactiv-Accept	Total number of MS initiated PDP context deactivation requests accepted for 2G and 3G service.
3G-MS-Deactiv-Accept	Total number of MS initiated PDP context deactivation requests accepted for 3G service.
2G-MS-Deactiv-Accept	Total number of MS initiated PDP context deactivation requests accepted for 2G service.
NW-Deactiv-Accept	Total number of network initiated PDP context deactivation requests accepted for 2G and 3G service.
3G-NW-Deactiv-Accept	Total number of network initiated PDP context deactivation requests accepted for 3G service.
2G-NW-Deactiv-Accept	Total number of network initiated PDP context deactivation requests accepted for 2G service.
SM Status Messages	Indicates the statistics of the service manager status messages for 2G and 3G service.
Total-SM-Status-Sent	Total number of service manager status messages sent for 2G and 3G service
3G-SM-Status-Sent	Total number of service manager status messages sent for 3G service
2G-SM-Status-Sent	Total number of service manager status messages sent for 2G service
Total-SM-Status-Rcvd	Total number of service manager status messages received for 2G and 3G service
3G-SM-Status-Rcvd	Total number of service manager status messages received for 3G service
2G-SM-Status-Rcvd	Total number of service manager status messages received for 2G service
RNC Initiated RAB Messages	Indicates the statistics of the radio network controller (RNC) initiated radio access bearer (RAB) messages for 2G and 3G service.
Total Rab Mod Requested	Total number of requests for radio access bearer modification initiated by radio network controller.
Num Rab Mod	Total number of RAB modified on requests for modification initiated by radio network controller.
Total Rab Rel Requested	Total number of requests for radio access bearer release initiated by radio network controller.
Num Rab Rel	Total number of RAB modified on requests for release initiated by radio network controller.
SGSN Initiated RAB Messages	Indicates the statistics of the SGSN initiated radio access bearer (RAB) messages for 2G and 3G service.
Total Rab Assign Requested	Total number of SGSN initiated RAB assign requests messages received.
Total Rab Assign Rsp Rcvd	Total number of SGSN initiated RAB assign response messages received.
Rab Setup/Mod Attempted	Total number of SGSN initiated setup and modification attempted for RAB.
Rab Setup/Mod Accepted	Total number of SGSN initiated setup and modification accepted for RAB.

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Field	Description
Rab Setup/Mod Timer Expired	Total number of SGSN initiated RAB setup and modification events where procedure timer exhausted.
Rab Setup/Mod Failed	Total number of SGSN initiated RAB setup and modification events failed.
Rab Rel Attempted	Total number of SGSN initiated RAB release procedure attempted.
Rab Rel Accepted	Total number of SGSN initiated RAB release procedure accepted.
Rab Rel Timer Expired	Total number of SGSN initiated RAB release procedure where procedure timer exhausted.
Rab Rel Failed	Total number of SGSN initiated RAB release procedure failed.
Rab Queued	Total number of SGSN initiated RAB messages in queue.
Rab Setup Reattempted (Diff IP)	Total number of SGSN initiated RAB setup reattempted with different IP address.
Total Set/Mod/Rel Rab Rejected	Total number of SGSN initiated RAB setup, modification/release rejected.
SRNS Context Transfer Messages	Indicates the statistics of SGSN radio network subsystem context transfer messages.
SRNS Context Req Send	Total number of SGSN radio network subsystem context transfer request messages sent.
SRNS Context Rsp Rcvd	Total number of SGSN radio network subsystem context transfer response messages received.
SRNS Context Req Timer Expired	Total number of events when timer exhausted for SGSN radio network subsystem context transfer request messages.
Total PDP-Ctxt Accepted	Total number of PDP context accepted for SGSN radio network subsystem.
Total PDP-Ctxt Rejected	Total number of PDP context rejected for SGSN radio network subsystem.
SRNS Data Fwd Cmd Send	Total number of SGSN radio network subsystem data forward commands sent.

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Table 186. show gmm-sm statistics verbose Command Output Descriptions

Field	Description
Session Statistics	
Attached Subscribers	Statistics for attached subscribers.
Total Attached	Total subscribers attached for 2G and 3G.
3G Attached	Total subscribers attached for 3G only.
2G Attached	Total subscribers attached for 3G only.
Home Subscribers	Statistics for attached home subscribers.
Total Home	Total home subscribers attached for 2G and 3G.
3G Home	Total home subscribers attached for 3G only.
2G Home	Total home subscribers attached for 3G only.
Visiting National Subscribers	Statistics for attached visiting national subscribers.
Total-Visiting-National	Total visiting national subscribers attached for 2G and 3G.
3G-Visiting-National	Total visiting national subscribers attached for 3G only.
2G-Visiting-National	Total visiting national subscribers attached for 3G only.
Visiting Foreign Subscribers	Statistics for attached visiting foreign subscribers.
Total-Visiting-Foreign	Total visiting foreign subscribers attached for 2G and 3G.
3G-Visiting-Foreign	Total visiting foreign subscribers attached for 3G only.
2G-Visiting-Foreign	Total visiting foreign subscribers attached for 2G only.
Network Sharing Subscribers	This group displays the statistics for network sharing subscribers.
3G-Supporting-UE	This proprietary statistic indicates the total number of 3G Network Sharing Supporting User Equipment currently in the system. <b>Triggers:</b> Increments when a network sharing supporting UE connects with the 3G SGSN. <b>Availability:</b> per SGSN service, per RNC, per RA
3G-Non-Supporting-UE	This proprietary statistic indicates the total number of 3G Network Sharing Non-supporting User Equipment currently in the system. <b>Triggers:</b> Increments when a network sharing non-supporting UE connects with the 3G SGSN. <b>Availability:</b> per SGSN service, per RNC, per RA
Subscribers in PMM-REGISTERED state	Total subscribers in packet mobility management-registered (PMM-REGISTERED) state, including connected and idle.
PMM-CONNECTED	Total subscriber in PMM connected state.
PMM-IDLE	Total subscriber in PMM idle state.

Field	Description
Subscribers in GPRS-CONNECTED state	Total number of subscribers in GPRS-CONNECTED state. It is a Gauge type of counter.
GPRS-STANDBY	Total number of subscribers in GPRS-STANDBY state. It is a Gauge type of counter.
GPRS-READY	Total number of subscribers in GPRS-READY state. It is a Gauge type of counter.
Activated Subscribers	Indicates the statistics of activated subscribers.
Total Activated	Total number of activated 2G and 3G subscriber.
3G Activated	Total number of activated 3G subscribers only.
2G Activated	Total number of activated 2G subscribers only.
Activate PDP Contexts	Indicates the statistics of activated PDP contexts.
Total Actv PDP Ctx	Total number of activated 2G and 3G PDP contexts.
3G-Actv Pdp Ctx	Total number of activated 3G PDP contexts only.
2G-Actv Pdp Ctx	Total number of activated 2G PDP contexts only.
Total Actv Pdp Ctx with Direct Tunnel	Total number of activated PDP contexts through direct tunnel.
Message Statistics	Indicates the statistics of messages.
Specific Procedures	Indicates the statistics related to specific procedures.
Attach Request	Total number of messages for Attach Request.
Total-Attach	Indicates the statistics of total attach.
IMSI	Indicates the statistics of total attach through international mobile subscriber identity (IMSI).
Total-IMSI-Attach	Total international mobile subscriber identity (IMSI) attach including 2G and 3G.
3G-IMSI-Attach	Indicates the 3G-IMSI attach statistics for GPRS and non-GPRS.
GPRS-only Attached	Total 3G-IMSI attach with GPRS only access.
Combined Attached	Total 3G-IMSI attach with combined (PS and CS) access.
2G-IMSI-Attach	Indicates the 2G-IMSI attach statistics for GPRS and non-GPRS.
GPRS-only Attached	Total 2G-IMSI attach with GPRS only access.
Combined Attached	Total 2G-IMSI attach with combined (PS and CS) access.
PTMSI	Indicates the statistics of total attach through Packet-Temporary Mobile Subscriber Identity (P-TMSI).
Total-PTMSI-Attach	Total Packet-Temporary Mobile Subscriber Identity (P-TMSI) attach including 2G and 3G.
3G-PTMSI-Attach	Indicates the 3G-P-TMSI attach statistics for GPRS and non-GPRS.
GPRS-only Attached	Total 3G-P-TMSI attach with GPRS only access.
Combined Attached	Total 3G-P-TMSI attach with combined (PS and CS) access.

Field	Description
2G-PTMSI-Attach	Indicates the 2G-P-TMSI attach statistics for GPRS and non-GPRS.
GPRS-only Attached	Total 2G-P-TMSI attach with GPRS only access.
Combined Attached	Total 2G-P-TMSI attach with combined (PS and CS) access.
Local-PTMSI	Indicates the statistics of total attach through local Packet-Temporary Mobile Subscriber Identity (P-TMSI).
Total-loc-PTMSI-Attach	Total local Packet-Temporary Mobile Subscriber Identity (P-TMSI) attach including 2G and 3G.
3G-loc-PTMSI-Attach	Indicates the local 3G-P-TMSI attach statistics for GPRS and non-GPRS.
GPRS-only Attached	Total local 3G-P-TMSI attach with GPRS only access.
Combined Attached	Total local 3G-P-TMSI attach with combined (PS and CS) access.
2G-loc-PTMSI-Attach	Indicates the local 2G-P-TMSI attach statistics for GPRS and non-GPRS.
GPRS-only Attached	Total local 2G-P-TMSI attach with GPRS only access.
Combined Attached	Total local 2G-P-TMSI attach with combined (PS and CS) access.
Remote-PTMSI	Indicates the statistics of total attach through remote Packet-Temporary Mobile Subscriber Identity (P-TMSI).
Total-remo-PTMSI-Attach	Total remote Packet-Temporary Mobile Subscriber Identity (P-TMSI) attach including 2G and 3G.
3G-remote-PTMSI-Attach	Indicates the remote 3G-P-TMSI attach statistics for GPRS and non-GPRS.
GPRS-only Attached	Total remote 3G-P-TMSI attach with GPRS only access.
Combined Attached	Total remote 3G-P-TMSI attach with combined (PS and CS) access.
2G-remote-PTMSI-Attach	Indicates the remote 2G-P-TMSI attach statistics for GPRS and non-GPRS.
GPRS-only Attached	Total remote 2G-P-TMSI attach with GPRS only access.
Combined Attached	Total remote 2G-P-TMSI attach with combined (PS and CS) access.
Retransmission	Indicates the statistics of messages retransmitted.
Ret-Total-Attach	Indicates the statistics of total attach requests retransmitted.
IMSI	Indicates the statistics of total attach through international mobile subscriber identity (IMSI) retransmitted.
Ret-Total-IMSI-Attach	Total international mobile subscriber identity (IMSI) attach including 2G and 3G retransmitted.
Ret-3G-IMSI-Attach	Indicates the 3G-IMSI attach statistics for GPRS and non-GPRS retransmitted.
GPRS-only Attached	Total 3G-IMSI attach with GPRS only access retransmitted.
Combined Attached	Total 3G-IMSI attach with combined (PS and CS) access misusages retransmitted.
Ret-2G-IMSI-Attach	Indicates the 2G-IMSI attach statistics for GPRS and non-GPRS retransmitted.
GPRS-only Attached	Total 2G-IMSI attach with GPRS only access retransmitted retransmitted.
Combined Attached	Total 2G-IMSI attach with combined (PS and CS) access retransmitted.

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Field	Description
PTMSI	Indicates the statistics of total attach through Packet-Temporary Mobile Subscriber Identity (P-TMSI) retransmitted.
Ret-Total-PTMSI-Attach	Total Packet-Temporary Mobile Subscriber Identity (P-TMSI) attach including 2G and 3G retransmitted.
Ret-3G-PTMSI-Attach	Indicates the 3G-P-TMSI attach statistics for GPRS and non-GPRS retransmitted.
GPRS-only Attached	Total 3G-P-TMSI attach with GPRS only access retransmitted.
Combined Attached	Total 3G-P-TMSI attach with combined (PS and CS) access retransmitted.
Ret-2G-PTMSI-Attach	Indicates the 2G-P-TMSI attach statistics for GPRS and non-GPRS retransmitted.
GPRS-only Attached	Total 2G-P-TMSI attach with GPRS only access retransmitted.
Combined Attached	Total 2G-P-TMSI attach with combined (PS and CS) access retransmitted.
Local-PTMSI	Indicates the statistics of total attach through local Packet-Temporary Mobile Subscriber Identity (P-TMSI) retransmitted.
Ret-Total-loc-PTMSI-Attach	Total local Packet-Temporary Mobile Subscriber Identity (P-TMSI) attach including 2G and 3G retransmitted.
Ret-3G-loc-PTMSI-Attach	Indicates the local 3G-P-TMSI attach statistics for GPRS and non-GPRS retransmitted.
GPRS-only Attached	Total local 3G-P-TMSI attach with GPRS only access retransmitted.
Combined Attached	Total local 3G-P-TMSI attach with combined (PS and CS) access retransmitted.
Ret-2G-loc-PTMSI-Attach	Indicates the local 2G-P-TMSI attach statistics for GPRS and non-GPRS retransmitted.
GPRS-only Attached	Total local 2G-P-TMSI attach with GPRS only access retransmitted.
Combined Attached	Total local 2G-P-TMSI attach with combined (PS and CS) access retransmitted.
Remote-PTMSI	Indicates the statistics of total attach through remote Packet-Temporary Mobile Subscriber Identity (P-TMSI) retransmitted.
Ret-Total-remo-PTMSI-Attach	Total remote Packet-Temporary Mobile Subscriber Identity (P-TMSI) attach including 2G and 3G retransmitted.
Ret-3G-remote-PTMSI-Attach	Indicates the remote 3G-P-TMSI attach statistics for GPRS and non-GPRS retransmitted.
GPRS-only Attached	Total remote 3G-P-TMSI attach with GPRS only access retransmitted.
Combined Attached	Total remote 3G-P-TMSI attach with combined (PS and CS) access retransmitted.
Ret-2G-remote-PTMSI-Attach	Indicates the remote 2G-P-TMSI attach statistics for GPRS and non-GPRS retransmitted.
GPRS-only Attached	Total remote 2G-P-TMSI attach with GPRS only access retransmitted.
Combined Attached	Total remote 2G-P-TMSI attach with combined (PS and CS) access retransmitted.
Attach Accept	Indicates the statistics of total attach accepts.
Total-Attach-Accept	Total attach accepts including 2G and 3G.
3G-Attach-Accept	Indicates the 3G-attach accept statistics for GPRS and non-GPRS.

Field	Description
Gprs-Attached	Total 3G-attach accepts with GPRS only access.
Comb-Attached	Total 3G-attach accepts with combined (PS and CS) access.
2G-Attach-Accept	Indicates the 2G-attach accept statistics for GPRS and non-GPRS.
Gprs-Attached	Total 2G-attach accepts with GPRS only access.
Comb-Attached	Total 2G-attach accepts with combined (PS and CS) access.
Retransmission	Indicates the statistics of total attach accepts retransmitted.
Ret-Total-Attach-Accept	Total attach accepts including 2G and 3G retransmitted.
Ret-3G-Attach-Accept	Indicates the 3G-attach accept retransmitted statistics for GPRS and non-GPRS.
Gprs-Attached	Total 3G-attach accepts with GPRS only access retransmitted.
Comb-Attached	Total 3G-attach accepts with combined (PS and CS) access retransmitted.
Ret-2G-Attach-Accept	Indicates the 2G-attach accept statistics for GPRS and non-GPRS retransmitted.
Gprs-Attached	Total 2G-attach accepts with GPRS only access retransmitted.
Comb-Attached	Total 2G-attach accepts with combined (PS and CS) access retransmitted.
Attach Complete	Indicates the statistics of total attach completed.
Total-Attach-Complete	Total attach completed including 2G and 3G.
3G-Attach-Complete	Indicates the 3G-attach complete statistics for GPRS and non-GPRS.
2G-Attach-Complete	Total 3G-attach completed with GPRS only access.
Attach Reject	Total 3G-attach completed with combined (PS and CS) access.
Total-Attach-Reject	Indicates the 2G-attach complete statistics for GPRS and non-GPRS.
3G-Attach-Reject	Total 2G-attach completed with GPRS only access.
2G-Attach-Reject	Total 2G-attach completed with combined (PS and CS) access.
Gprs-Attach Reject Causes	Indicates the statistics of causes for GPRS attach rejected for 2G and 3G service.
3G-IMSI Unknown in HLR	Total number of GPRS attach rejected for 3G service due to unknown IMSI in HLR.
2G-IMSI Unknown in HLR	Total number of GPRS attach rejected for 2G service due to unknown IMSI in HLR.
3G-Illegal MS	Total number of GPRS attach rejected for 3G service due to illegal mobile subscriber.
2G-Illegal MS	Total number of GPRS attach rejected for 2G service due to illegal mobile subscriber.
3G-Illegal ME	Total number of GPRS attach rejected for 3G service due to illegal mobile equipment.
2G-Illegal ME	Total number of GPRS attach rejected for 2G service due to illegal mobile equipment.
3G-GPRS service not allowed	Total number of GPRS attach rejected for 3G service due to GPRS service not allowed for subscriber.
2G-GPRS service not allowed	Total number of GPRS attach rejected for 2G service due to GPRS service not allowed for subscriber.

Field	Description
3G-GPRS and Non-GPRS service not allowed	Total number of GPRS attach rejected for 3G service due to GPRS and non-GPRS service not allowed for subscriber.
2G-GPRS and Non-GPRS service not allowed	Total number of GPRS attach rejected for 2G service due to GPRS and non-GPRS service not allowed for subscriber.
3G-MSID not derived by Nw	Total number of GPRS attach rejected for 3G service due to network failed to derive MSID from attach message.
2G-MSID not derived by Nw	Total number of GPRS attach rejected for 2G service due to network failed to derive MSID from attach message.
3G-Implicitly detached	Total number of GPRS attach rejected for 3G service due to implicitly detach.
2G-Implicitly detached	Total number of GPRS attach rejected for 2G service due to implicitly detach.
3G-PLMN not allowed	Total number of GPRS attach rejected for 3G service due to specific PLMN not allowed.
2G-PLMN not allowed	Total number of GPRS attach rejected for 2G service due to specific PLMN not allowed.
3G-Location Area not allowed	Total number of GPRS attach rejected for 3G service due to specific location area not allowed.
2G-Location Area not allowed	Total number of GPRS attach rejected for 2G service due to specific location area not allowed.
3G-Roaming not allowed in this Location Area	Total number of GPRS attach rejected for 3G service due to roaming not allowed in specific location area.
2G-Roaming not allowed in this Location Area	Total number of GPRS attach rejected for 2G service due to roaming not allowed in specific location area.
3G-GPRS service not allowed in this PLMN	Total number of GPRS attach rejected for 3G service due to GPRS service not allowed in specific PLMN.
2G-GPRS service not allowed in this PLMN	Total number of GPRS attach rejected for 2G service due to GPRS service not allowed in specific PLMN.
3G-No suitable cells in this Location Area	Total number of GPRS attach rejected for 3G service due to non availability of suitable cell in specific location area.
2G-No suitable cells in this Location Area	Total number of GPRS attach rejected for 2G service due to non availability of suitable cell in specific location area.
3G-MSC not reachable	Total number of GPRS attach rejected for 3G service as MSC not reachable.
2G-MSC not reachable	Total number of GPRS attach rejected for 2G service as MSC not reachable.
3G-Network Failure	Total number of GPRS attach rejected for 3G service due to network failure.
2G-Network Failure	Total number of GPRS attach rejected for 2G service due to network failure.
3G-MAC Failure	Total number of GPRS attach rejected for 3G service due to message authenticate code (MAC) failure.
2G-MAC Failure	Total number of GPRS attach rejected for 2G service due to MAC failure.
3G-SYNC Failure	Total number of GPRS attach rejected for 3G service due to context synchronization failure.
2G-SYNC Failure	Total number of GPRS attach rejected for 2G service due to context synchronization failure.

Field	Description
3G-Congestion	Total number of GPRS attach rejected for 3G service due to network congestion.
2G-Congestion	Total number of GPRS attach rejected for 2G service due to network congestion.
3G-GSM Auth Unacceptable	Total number of GPRS attach rejected for 3G service due to unacceptable authentication from GSM network.
2G-GSM Auth Unacceptable	Total number of GPRS attach rejected for 2G service due to unacceptable authentication from GSM network.
3G-No PDP contexts activated	Total number of GPRS attach rejected for 3G service as PDP context is not activated.
2G-No PDP contexts activated	Total number of GPRS attach rejected for 2G service as PDP context is not activated.
3G-Retry from new cell	Total number of GPRS attach rejected for 3G service as PDP context activation was tried from new mobile cell.
2G-Retry from new cell	Total number of GPRS attach rejected for 2G service as PDP context activation was tried from new mobile cell.
3G-Semantically Wrong Msg	Total number of GPRS attach rejected for 3G service as attach request message is semantically wrong.
2G-Semantically Wrong Msg	Total number of GPRS attach rejected for 2G service as attach request message is semantically wrong.
3G-Invalid Mandatory Info	Total number of GPRS attach rejected for 3G service as mandatory information in message is invalid.
2G-Invalid Mandatory Info	Total number of GPRS attach rejected for 2G service as mandatory information in message is invalid.
3G-MSG type Non Existent	Total number of GPRS attach rejected for 3G service due to non-existent type of message.
2G-MSG type Non Existent	Total number of GPRS attach rejected for 2G service due to non-existent type of message.
3G-MSG type not compatible with protocol state	Total number of GPRS attach rejected for 3G service as message type is not compatible with protocol state.
2G-MSG type not compatible with protocol state	Total number of GPRS attach rejected for 2G service as message type is not compatible with protocol state.
3G-IE Non Existent	Total number of GPRS attach rejected for 3G service rejected due to non-existence of information element.
2G-IE Non Existent	Total number of GPRS attach rejected for 2G service rejected due to non-existence of information element.
3G-Conditional IE Error	Total number of GPRS attach rejected for 3G service due to error in conditional information element.
2G-conditional IE Error	Total number of GPRS attach rejected for 2G service due to error in conditional information element.
3G-Message not compatible with protocol state	Total number of GPRS attach rejected for 3G service as message is not compatible with protocol state.

Field	Description
2G-Message not compatible with protocol state	Total number of GPRS attach rejected for 2G service as message is not compatible with protocol state.
3G-protocol Error	Total number of GPRS attach rejected for 3G service due to protocol error in message.
2G-protocol Error	Total number of GPRS attach rejected for 2G service due to protocol error in message.
3G-Unknown cause	Total number of GPRS attach rejected for 3G service where cause is unknown or not specified here.
2G-Unknown cause	Total number of GPRS attach rejected for 2G service where cause is unknown or not specified here.
Comb-Attach Reject Causes	Indicates the statistics of causes for combined GPRS (PS and CS) attach rejected for 2G and 3G service.
3G-IMSI Unknown in HLR	Total number of combined GPRS (PS and CS) attach rejected for 3G service due to unknown IMSI in HLR.
2G-IMSI Unknown in HLR	Total number of combined GPRS (PS and CS) attach rejected for 2G service due to unknown IMSI in HLR.
3G-Illegal MS	Total number of combined GPRS (PS and CS) attach rejected for 3G service due to illegal mobile subscriber.
2G-Illegal MS	Total number of combined GPRS (PS and CS) attach rejected for 2G service due to illegal mobile subscriber.
3G-Illegal ME	Total number of combined GPRS (PS and CS) attach rejected for 3G service due to illegal mobile equipment.
2G-Illegal ME	Total number of combined GPRS (PS and CS) attach rejected for 2G service due to illegal mobile equipment.
3G-GPRS service not allowed	Total number of combined GPRS (PS and CS) attach rejected for 3G service due to GPRS service not allowed for subscriber.
2G-GPRS service not allowed	Total number of combined GPRS (PS and CS) attach rejected for 2G service due to GPRS service not allowed for subscriber.
3G-GPRS and Non-GPRS service not allowed	Total number of combined GPRS (PS and CS) attach rejected for 3G service due to GPRS and non-GPRS service not allowed for subscriber.
2G-GPRS and Non-GPRS service not allowed	Total number of combined GPRS (PS and CS) attach rejected for 2G service due to GPRS and non-GPRS service not allowed for subscriber.
3G-MSId not derived by Nw	Total number of combined GPRS (PS and CS) attach rejected for 3G service due to network failed to derive MSID from attach message.
2G-MSId not derived by Nw	Total number of combined GPRS (PS and CS) attach rejected for 2G service due to network failed to derive MSID from attach message.
3G-Implicitly detached	Total number of combined GPRS (PS and CS) attach rejected for 3G service due to implicitly detach.
2G-Implicitly detached	Total number of combined GPRS (PS and CS) attach rejected for 2G service due to implicitly detach.
3G-PLMN not allowed	Total number of combined GPRS (PS and CS) attach rejected for 3G service due to specific PLMN not allowed.

Field	Description
2G-PLMN not allowed	Total number of combined GPRS (PS and CS) attach rejected for 2G service due to specific PLMN not allowed.
3G-Location Area not allowed	Total number of combined GPRS (PS and CS) attach rejected for 3G service due to specific location area not allowed.
2G-Location Area not allowed	Total number of combined GPRS (PS and CS) attach rejected for 2G service due to specific location area not allowed.
3G-Roaming not allowed in this Location Area	Total number of combined GPRS (PS and CS) attach rejected for 3G service due to roaming not allowed in specific location area.
2G-Roaming not allowed in this Location Area	Total number of combined GPRS (PS and CS) attach rejected for 2G service due to roaming not allowed in specific location area.
3G-GPRS service not allowed in this PLMN	Total number of combined GPRS (PS and CS) attach rejected for 3G service due to GPRS service not allowed in specific PLMN.
2G-GPRS service not allowed in this PLMN	Total number of combined GPRS (PS and CS) attach rejected for 2G service due to GPRS service not allowed in specific PLMN.
3G-No suitable cells in this Location Area	Total number of combined GPRS (PS and CS) attach rejected for 3G service due to non availability of suitable cell in specific location area.
2G-No suitable cells in this Location Area	Total number of combined GPRS (PS and CS) attach rejected for 2G service due to non availability of suitable cell in specific location area.
3G-MSC not reachable	Total number of combined GPRS (PS and CS) attach rejected for 3G service as MSC not reachable.
2G-MSC not reachable	Total number of combined GPRS (PS and CS) attach rejected for 2G service as MSC not reachable.
3G-Network Failure	Total number of combined GPRS (PS and CS) attach rejected for 3G service due to network failure.
2G-Network Failure	Total number of combined GPRS (PS and CS) attach rejected for 2G service due to network failure.
3G-MAC Failure	Total number of combined GPRS (PS and CS) attach rejected for 3G service due to message authenticate code (MAC) failure.
2G-MAC Failure	Total number of combined GPRS (PS and CS) attach rejected for 2G service due to MAC failure.
3G-SYNC Failure	Total number of combined GPRS (PS and CS) attach rejected for 3G service due to context synchronization failure.
2G-SYNC Failure	Total number of combined GPRS (PS and CS) attach rejected for 2G service due to context synchronization failure.
3G-Congestion	Total number of combined GPRS (PS and CS) attach rejected for 3G service due to network congestion.
2G-Congestion	Total number of combined GPRS (PS and CS) attach rejected for 2G service due to network congestion.
3G-GSM Auth Unacceptable	Total number of combined GPRS (PS and CS) attach rejected for 3G service due to unacceptable authentication from GSM network.

Field	Description
2G-GSM Auth Unacceptable	Total number of combined GPRS (PS and CS) attach rejected for 2G service due to unacceptable authentication from GSM network.
3G-No PDP contexts activated	Total number of combined GPRS (PS and CS) attach rejected for 3G service as PDP context is not activated.
2G-No PDP contexts activated	Total number of combined GPRS (PS and CS) attach rejected for 2G service as PDP context is not activated.
3G-Retry from new cell	Total number of combined GPRS (PS and CS) attach rejected for 3G service as PDP context activation was tried from new mobile cell.
2G-Retry from new cell	Total number of combined GPRS (PS and CS) attach rejected for 2G service as PDP context activation was tried from new mobile cell.
3G-Semantically Wrong Msg	Total number of combined GPRS (PS and CS) attach rejected for 3G service as attach request message is semantically wrong.
2G-Semantically Wrong Msg	Total number of combined GPRS (PS and CS) attach rejected for 2G service as attach request message is semantically wrong.
3G-Invalid Mandatory Info	Total number of combined GPRS (PS and CS) attach rejected for 3G service as mandatory information in message is invalid.
2G-Invalid Mandatory Info	Total number of combined GPRS (PS and CS) attach rejected for 2G service as mandatory information in message is invalid.
3G-MSG type Non Existent	Total number of combined GPRS (PS and CS) attach rejected for 3G service due to non-existent type of message.
2G-MSG type Non Existent	Total number of combined GPRS (PS and CS) attach rejected for 2G service due to non-existent type of message.
3G-MSG type not compatible with protocol state	Total number of combined GPRS (PS and CS) attach rejected for 3G service as message type is not compatible with protocol state.
2G-MSG type not compatible with protocol state	Total number of combined GPRS (PS and CS) attach rejected for 2G service as message type is not compatible with protocol state.
3G-IE Non Existent	Total number of combined GPRS (PS and CS) attach rejected for 3G service due to inclusion of non-existent information element (IE) in message.
2G-IE Non Existent	Total number of combined GPRS (PS and CS) attach rejected for 2G service due to inclusion of non-existent information element (IE) in message.
3G-Conditional IE Error	Total number of combined GPRS (PS and CS) attach rejected for 3G service due to error in conditional information element.
2G-Conditional IE Error	Total number of combined GPRS (PS and CS) attach rejected for 2G service due to error in conditional information element.
3G-Message not compatible with protocol state	Total number of combined GPRS (PS and CS) attach rejected for 3G service as message is not compatible with protocol state.
2G-Message not compatible with protocol state	Total number of combined GPRS (PS and CS) attach rejected for 2G service as message is not compatible with protocol state.
3G-protocol Error	Total number of combined GPRS (PS and CS) attach rejected for 3G service due to protocol error in message.

Field	Description
2G-protocol Error	Total number of combined GPRS (PS and CS) attach rejected for 2G service due to protocol error in message.
3G-Unknown cause	Total number of combined GPRS (PS and CS) attach rejected for 3G service where cause is unknown or not specified here.
2G-Unknown cause	Total number of combined GPRS (PS and CS) attach rejected for 2G service where cause is unknown or not specified here.
Attach Failure	This group displays the statistics for failures occurred during attach procedure.
Total Attach Failure	This group displays the statistics for total failures occurred during 2G and 3G attach procedure.
3G-Attach-Failure	Total number of failures occurred during attach procedure for 3G service.
Gprs-Attach-Failure	Total number of failures occurred during GPRS attach procedure for 3G service.
Comb-Attach-Failure	Total number of failures occurred during combined (PS and CS) service attach procedure for 3G service.
2G-Attach-Failure	Total number of failures occurred during attach procedure for 2G service.
Gprs-Attach-Failure	Total number of failures occurred during GPRS attach procedure for 2G service.
Comb-Attach-Failure	Total number of failures occurred during combined (PS and CS) service attach procedure for 2G service.
Gprs-Attach Failure Causes	This group displays the causes for failure occurred during GPRS attach procedure.
3G-Iu release before Attach over	Total number of 3G GPRS attach procedure failures due to 3G Iu interface release happened before attach procedure completed.
3G-Failure due to Other Ongoing Procedure	Total number of 3G GPRS attach procedure failed due to other procedure was in process while attach requested.
2G-Failure due to Other Ongoing Procedure	Total number of 2G attach procedure failed due to other procedure was in process while attach requested.
Comb-Attach Failure Causes	This group displays the causes for failure occurred during combined (PS and CS) service attach procedure.
3G-Iu release before Attach over	Total number of combined attach procedure failed due to 3G Iu interface release happened before completion of attach procedure
3G-Failure due to Other Ongoing Procedure	Total number of combined 3G attach procedure failed due to other procedure was in process while attach requested.
2G-Failure due to Other Ongoing Procedure	Total number of combined 2G attach procedure failed due to other procedure was in process while attach requested.
Routing Area Update Request	Indicates the statistics of RAU request.
Total-RAU	Indicates the total RAU request.
Total-Intra-SGSN-RAU	Total intra-SGSN RAU request messages.
Total-Ra-Up-Intra-SGSN-RAU	Total routing area update request messages for intra-SGSN RA updates.
3G-Ra-Up-Intra-SGSN-RAU	Total routing area update request messages for intra-SGSN RA updates for 3G.

Field	Description
2G-Ra-Up-Intra-SGSN-RAU	Total routing area update request messages for intra-SGSN RA updates for 2G.
Total-Periodic-Intra-RAU	Total periodic intra-RA update messages.
3G-Periodic-Intra-RAU	Total periodic intra-RA update messages for 3G.
2G-Periodic-Intra-RAU	Total periodic intra-RA update messages for 2G.
Total-Comb-Intra-SGSN-RAU	Total intra-SGSN RAU request messages for combined (PS and CS) services.
3G-Comb-Intra-SGSN-RAU	Total intra-SGSN RAU request messages for combined (PS and CS) 3G services.
2G-Comb-Intra-SGSN-RAU	Total intra-SGSN RAU request messages for combined (PS and CS) 2G services.
Total-PS-Inter-SGSN-RAU	Total packet switching inter-SGSN-RA update request messages.
3G-PS-Inter-SGSN-RAU	Total packet switched inter-SGSN-RA update request messages for 3G service.
2G-PS-Inter-SGSN-RAU	Total packet switched inter-SGSN-RA update request messages for 2G service.
Total-Comb-Inter-SGSN-RAU	Total combined (PS and CS) inter-SGSN-RA update request messages.
3G-Comb-Inter-SGSN-RAU	Total combined (PS and CS) inter-SGSN-RA update request messages for 3G service.
2G-Comb-Inter-SGSN-RAU	Total combined (PS and CS) inter-SGSN-RA update request messages for 2G service.
Total-Ps-Inter-Rat-RAU	<b>Description:</b> Total number of GPRS only Inter RAT RAU Requests received in both 2G and 3G services. <b>Availability:</b> per RA, per RNC, per GPRS/SGSN service
3G-Ps-Inter-Rat-RAU	<b>Description:</b> Total number of GPRS only Inter RAT RAU Requests received in a 3G service from a 2G service. <b>Availability:</b> per RA, per RNC, per SGSN service
2G-Ps-Inter-Rat-RAU	<b>Description:</b> Total number of GPRS only Inter RAT RAU Requests received in a 2G service from a 3G service. <b>Availability:</b> per RA, per GPRS service
Total-Comb-Inter-Rat-RAU	<b>Description:</b> Total number of Combined Inter RAT RAU Requests received in both 2G and 3G services. <b>Availability:</b> per RA, per RNC, per GPRS/SGSN service
3G-Comb-Inter-Rat-RAU	<b>Description:</b> Total number of Combined Inter RAT RAU Requests received in a 3G service from a 2G service. <b>Availability:</b> per RA, per RNC, per SGSN service
2G-Comb-Inter-Rat-RAU	<b>Description:</b> Total number of Combined Inter RAT RAU Requests received in a 2G service from a 3G service. <b>Availability:</b> per RA, per GPRS service
Total-Ps-Inter-Serv-RAU	<b>Description:</b> Total number of GPRS only Inter Service RAU Requests received in both 2G and 3G services. <b>Availability:</b> per RA, per RNC, per GPRS/SGSN service
3G-Ps-Inter-Serv-RAU	<b>Description:</b> Total number of GPRS only Inter Service RAU Requests from one 3G service to another 3G service. <b>Availability:</b> per RA, per RNC, per SGSN service

Field	Description
2G-Ps-Inter-Serv-RAU	<b>Description:</b> Total number of GPRS only Inter Service RAU Requests from one 2G service to another 2G service. <b>Availability:</b> per RA, per GPRS service
Total-Comb-Inter-Serv-RAU	<b>Description:</b> Total number of Combined Inter Service RAU Requests received in both 2G and 3G services. <b>Availability:</b> per RA, per RNC, per GPRS/SGSN service
3G-Comb-Inter-Serv-RAU	<b>Description:</b> Total number of Combined Inter Service RAU Requests from one 3G service to another 3G service. <b>Availability:</b> per RA, per RNC, per SGSN service
2G-Comb-Inter-Serv-RAU	<b>Description:</b> Total number of Combined Inter Service RAU Requests from one 2G service to another 2G service. <b>Availability:</b> per RA, per GPRS service
Retransmission	Indicates the statistics of RAU requests retransmitted.
Ret-Total-RAU	Indicates the total RAU requests retransmitted.
Ret-Total-Intra-SGSN-RAU	Total intra-SGSN RAU request messages retransmitted.
Ret-Total-Ra-Up-Intra-SGSN	Total routing area update request messages retransmitted for intra-SGSN RA updates.
Ret-3G-Ra-Up-Intra-SGSN	Total routing area update request messages retransmitted for intra-SGSN RA updates for 3G.
Ret-2G-Ra-Up-Intra-SGSN	Total routing area update request messages retransmitted for intra-SGSN RA updates for 2G.
Ret-Total-Perio-Intra-RAU	Total periodic intra-RA update messages retransmitted.
Ret-3G-Perio-Intra-RAU	Total periodic intra-RA update messages retransmitted for 3G.
Ret-2G-Perio-Intra-RAU	Total periodic intra-RA update messages retransmitted for 2G.
Ret-Total-Comb-Intra-RAU	Total intra-SGSN RAU request messages retransmitted for combined (PS and CS) services.
Ret-3G-Comb-Intra-RAU	Total intra-RAU request messages retransmitted for combined (PS and CS) 3G services.
Ret-2G-Comb-Intra-RAU	Total intra-RAU request messages retransmitted for combined (PS and CS) 2G services.
Ret-Total-PS-Inter-SGSN-RAU	Total packet switching inter-SGSN-RA update request messages retransmitted.
Ret-3G-PS-Inter-SGSN-RAU	Total packet switched inter-SGSN-RA update request messages retransmitted for 3G service.
Ret-2G-PS-Inter-SGSN-RAU	Total packet switched inter-SGSN-RA update request messages retransmitted for 2G service.
Ret-Total-Comb-Inter-RAU	Total combined (PS and CS) inter-SGSN-RA update request messages retransmitted.
Ret-3G-Comb-Inter-RAU	Total combined (PS and CS) inter-SGSN-RA update request messages retransmitted for 3G service.
Ret-2G-Comb-Inter-RAU	Total combined (PS and CS) inter-SGSN-RA update request messages retransmitted for 2G service.
Ret-Total-Ps-Inter-Rat-RAU	<b>Description:</b> Total number of retransmitted GPRS only Inter RAT RAU Requests received in both 2G and 3G services. <b>Availability:</b> per RA, per RNC, per GPRS/SGSN service

Field	Description
Ret-3G-Ps-Inter-Rat-RAU	<b>Description:</b> Total number of retransmitted GPRS only Inter RAT RAU Requests received in a 3G service from a 2G service. <b>Availability:</b> per RA, per RNC, per SGSN service
Ret-2G-Ps-Inter-Rat-RAU	<b>Description:</b> Total number of retransmitted GPRS only Inter RAT RAU Requests received in a 2G service from a 3G service. <b>Availability:</b> per RA, per GPRS service
Ret-Total-Comb-Inter-Rat-RAU	<b>Description:</b> Total number of retransmitted Combined Inter RAT RAU Requests received in both 2G and 3G services. <b>Availability:</b> per RA, per RNC, per GPRS/SGSN service
Ret-3G-Comb-Inter-Rat-RAU	<b>Description:</b> Total number of retransmitted Combined Inter RAT RAU Requests received in a 3G service from a 2G service. <b>Availability:</b> per RA, per RNC, per SGSN service
Ret-2G-Comb-Inter-Rat-RAU	<b>Description:</b> Total number of retransmitted Combined Inter RAT RAU Requests received in a 2G service from a 3G service. <b>Availability:</b> per RA, per GPRS service
Ret-Total-Ps-Inter-Serv-RAU	<b>Description:</b> Total number of retransmitted GPRS only Inter Service RAU Requests received in both 2G and 3G services. <b>Availability:</b> per RA, per RNC, per GPRS/SGSN service
Ret-3G-Ps-Inter-Serv-RAU	<b>Description:</b> Total number of retransmitted GPRS only Inter Service RAU Requests from one 3G service to another 3G service. <b>Availability:</b> per RA, per RNC, per SGSN service
Ret-2G-Ps-Inter-Serv-RAU	<b>Description:</b> Total number of retransmitted GPRS only Inter Service RAU Requests from one 2G service to another 2G service. <b>Availability:</b> per RA, per GPRS service
Ret-Total-Comb-Inter-Serv-RAU	<b>Description:</b> Total number of retransmitted Combined Inter Service RAU Requests received in both 2G and 3G services. <b>Availability:</b> per RA, per RNC, per GPRS/SGSN service
Ret-3G-Comb-Inter-Serv-RAU	<b>Description:</b> Total number of retransmitted Combined Inter Service RAU Requests from one 3G service to another 3G service. <b>Availability:</b> per RA, per RNC, per SGSN service
Ret-2G-Comb-Inter-Serv-RAU	<b>Description:</b> Total number of retransmitted Combined Inter Service RAU Requests from one 2G service to another 2G service. <b>Availability:</b> per RA, per GPRS service
Routing Area Update Accept	Indicates the statistics of routing area update accept messages on system.
Total-RAU-Accept	Total number of routing area update accept messages sent by SGSN.
Total-Intra-RAU-Accept	Total number of intra-SGSN routing area update accept messages sent by SGSN.
Total-Ra-Up-Intra-RAU-Acc	Total number of intra-SGSN RAU accept messages sent by SGSN for 2G and 3G service.
3G-Ra-Up-Intra-RAU-Accept	Total number of intra-SGSN RAU accept messages sent by SGSN for 3G service.
2G-Ra-Up-Intra-RAU-Accept	Total number of intra-SGSN RAU accept messages sent by SGSN for 2G service.

Field	Description
Total-Periodic-RAU-Accept	Total number of periodic RAU accept messages sent by SGSN for 2G and 3G service.
3G-Periodic-RAU-Accept	Total number of periodic RAU accept messages sent by SGSN for 3G service.
2G-Periodic-RAU-Accept	Total number of periodic RAU accept messages sent by SGSN for 2G service.
Total-Comb-Intra-RAU-Acc	Total number of combined (PS and CS) intra-RAU accept messages sent by SGSN for 2G and 3G service.
3G-Comb-Intra-RAU-Acc	Total number of combined (PS and CS) intra-RAU accept messages sent by SGSN for 3G service.
2G-Comb-Intra-RAU-Acc	Total number of combined (PS and CS) intra-RAU accept messages sent by SGSN for 2G service.
Total-Inter-SGSN-RAU-Acc	This group displays inter SGSN RAU Accept message statistics on SGSN.
Total-PS-Inter-RAU-Acc	Total number of inter SGSN RAU accept messages in PS network for 2G and 3G services sent by SGSN.
3G-PS-Inter-RAU-Acc	Total number of inter SGSN RAU accept messages in PS network for 3G service sent by SGSN.
2G-PS-Inter-RAU-Acc	Total number of inter SGSN RAU accept messages in PS network for 2G service sent by SGSN.
Total-Comb-Inter-RAU-Acc	Total number of inter SGSN RAU accept messages in combined (PS and CS) network for 2G and 3G services sent by SGSN.
3G-Comb-Inter-RAU-Acc	Total number of inter SGSN RAU accept messages in combined (PS and CS) network for 3G services sent by SGSN.
2G-Comb-Inter-RAU-Acc	Total number of inter SGSN RAU accept messages in combined (PS and CS) network for 2G services sent by SGSN.
Total-Ps-Inter-Rat-RAU-Acc	<b>Description:</b> Total number of GPRS only Inter RAT RAU Accepts sent in both 2G and 3G services. <b>Availability:</b> per RA, per RNC, per GPRS/SGSN service
3G-Ps-Inter-Rat-RAU-Acc	<b>Description:</b> Total number of GPRS only Inter RAT RAU Accepts sent against RAU Requests from subscribers moving from a 2G service to a 3G service. <b>Availability:</b> per RA, per RNC, per SGSN service
2G-Ps-Inter-Rat-Acc	<b>Description:</b> Total number of GPRS only Inter RAT RAU Accepts sent against RAU Requests from subscribers moving from a 3G service to a 2G service. <b>Availability:</b> per RA, per GPRS service
Total-Comb-Inter-Rat-RAU-Acc	<b>Description:</b> Total number of Combined Inter RAT RAU Accepts sent in both 2G and 3G services. <b>Availability:</b> per RA, per RNC, per GPRS/SGSN service
3G-Comb-Inter-Rat-RAU-Acc	<b>Description:</b> Total number of Combined Inter RAT RAU Accepts sent against RAU Requests from subscribers moving from a 2G service to a 3G service. <b>Availability:</b> per RA, per RNC, per SGSN service
2G-Comb-Inter-Rat-Acc	<b>Description:</b> Total number of Combined Inter RAT RAU Accepts sent against RAU Requests from subscribers moving from a 3G service to a 2G service. <b>Availability:</b> per RA, per GPRS service
Total-Ps-Inter-Serv-RAU-Acc	<b>Description:</b> Total number of GPRS only Inter Service RAU Accepts sent in both 2G and 3G services. <b>Availability:</b> per RA, per RNC, per GPRS/SGSN service

Field	Description
3G-Ps-Inter-Serv-RAU-Acc	<b>Description:</b> Total number of GPRS only Inter Service RAU Accepts sent against RAU Requests from subscribers moving from one 3G service to another 3G service. <b>Availability:</b> per RA, per RNC, per SGSN service
2G-Ps-Inter-Serv-RAU-Acc	<b>Description:</b> Total number of GPRS only Inter Service RAU Accepts sent against RAU Requests from subscribers moving from one 2G service to another 2G service. <b>Availability:</b> per RA, per GPRS service
Total-Comb-Inter-Serv-RAU-Acc	<b>Description:</b> Total number of Combined Inter Service RAU Accepts sent in both 2G and 3G services. <b>Availability:</b> per RA, per RNC, per GPRS/SGSN service
3G-Comb-Inter-Serv-RAU-Acc	<b>Description:</b> Total number of Combined Inter Service RAU Accepts sent against RAU Requests from subscribers moving from one 3G service to another 3G service. <b>Availability:</b> per RA, per RNC, per SGSN service
2G-Comb-Inter-Serv-RAU-Acc	<b>Description:</b> Total number of Combined Inter Service RAU Accepts sent against RAU Requests from subscribers moving from one 2G service to another 2G service. <b>Availability:</b> per RA, per GPRS service
Retransmission	Indicates the statistics of routing area update messages retransmitted.
Ret-Total-RAU-Accept	Total number of routing area update accept messages retransmitted by SGSN.
Ret-Total-Intra-RAU-Accept	Total number of intra-SGSN routing area update accept messages retransmitted by SGSN.
Ret-Total-Ra-Up-Intra-RAU-Acc	Total number of intra-SGSN RAU accept messages retransmitted by SGSN for 2G and 3G service.
Ret-3G-Ra-Up-Intra-RAU-Acc	Total number of intra-SGSN RAU accept messages retransmitted by SGSN for 3G service.
Ret-2G-Ra-Up-Intra-RAU-Acc	Total number of intra-SGSN RAU accept messages retransmitted by SGSN for 2G service.
Ret-Total-Periodic-RAU-Acc	Total number of periodic RAU accept messages retransmitted by SGSN for 2G and 3G service.
Ret-3G-Periodic-RAU-Acc	Total number of periodic RAU accept messages retransmitted by SGSN for 3G service.
Ret-2G-Periodic-RAU-Acc	Total number of periodic RAU accept messages retransmitted by SGSN for 2G service.
Ret-Total-Comb-Intra-RAU-Acc	Total number of combined (PS and CS) intra-RAU accept messages retransmitted by SGSN for 2G and 3G service.
Ret-3G-Comb-Intra-RAU-Acc	Total number of combined (PS and CS) intra-RAU accept messages retransmitted by SGSN for 3G service.
Ret-2G-Comb-Intra-RAU-Acc	Total number of combined (PS and CS) intra-RAU accept messages retransmitted by SGSN for 2G service.
Ret-Total-Inter-SGSN-RAU-Acc	This group displays inter SGSN RAU Accept message statistics on SGSN.
Ret-Total-PS-Inter-RAU-Acc	Total number of inter SGSN RAU accept messages in PS network for 2G and 3G services retransmitted by SGSN.
Ret-3G-PS-Inter-RAU-Acc	Total number of inter SGSN RAU accept messages in PS network for 3G service retransmitted by SGSN.

Field	Description
Ret-2G-PS-Inter-RAU-Acc	Total number of inter SGSN RAU accept messages in PS network for 2G service retransmitted by SGSN.
Ret-Total-Comb-Inter-RAU-Acc	Total number of inter SGSN RAU accept messages in combined (PS and CS) network for 2G and 3G services retransmitted by SGSN.
Ret-3G-Comb-Inter-RAU-Acc	Total number of inter SGSN RAU accept messages in combined (PS and CS) network for 3G services retransmitted by SGSN.
Ret-2G-Comb-Inter-RAU-Acc	Total number of inter SGSN RAU accept messages in combined (PS and CS) network for 2G services retransmitted by SGSN.
Ret-Total-Ps-Inter-Rat-RAU-Acc	<b>Description:</b> Total number of retransmitted GPRS only Inter RAT RAU Accepts sent in both 2G and 3G services. <b>Availability:</b> per RA, per RNC, per GPRS/SGSN service
Ret-3G-Ps-Inter-Rat-RAU-Acc	<b>Description:</b> Total number of retransmitted GPRS only Inter RAT RAU Accepts sent against RAU Requests from subscribers moving from a 2G service to a 3G service. <b>Availability:</b> per RA, per RNC, per SGSN service
Ret-2G-Ps-Inter-Rat-Acc	<b>Description:</b> Total number of retransmitted GPRS only Inter RAT RAU Accepts sent against RAU Requests from subscribers moving from a 3G service to a 2G service. <b>Availability:</b> per RA, per GPRS service
Ret-Total-Comb-Inter-Rat-RAU-Acc	<b>Description:</b> Total number of retransmitted Combined Inter RAT RAU Accepts sent in both 2G and 3G services. <b>Availability:</b> per RA, per RNC, per GPRS/SGSN service
Ret-3G-Comb-Inter-Rat-RAU-Acc	<b>Description:</b> Total number of retransmitted Combined Inter RAT RAU Accepts sent against RAU Requests from subscribers moving from a 3G service to a 2G service. <b>Availability:</b> per RA, per RNC, per SGSN service
Ret-2G-Comb-Inter-Rat-Acc	<b>Description:</b> Total number of retransmitted Combined Inter RAT RAU Accepts sent against RAU Requests from subscribers moving from a 2G service to a 3G service. <b>Availability:</b> per RA, per GPRS service
Ret-Total-Ps-Inter-Serv-RAU-Acc	<b>Description:</b> Total number of retransmitted GPRS only Inter Service RAU Accepts sent in both 2G and 3G services. <b>Availability:</b> per RA, per RNC, per GPRS/SGSN service
Ret-3G-Ps-Inter-Serv-RAU-Acc	<b>Description:</b> Total number of retransmitted GPRS only Inter Service RAU Accepts sent against RAU Requests from subscribers moving from one 3G service to another 3G service. <b>Availability:</b> per RA, per RNC, per SGSN service
Ret-2G-Ps-Inter-Serv-RAU-Acc	<b>Description:</b> Total number of retransmitted GPRS only Inter Service RAU Accepts sent against RAU Requests from subscribers moving from one 2G service to another 2G service. <b>Availability:</b> per RA, per GPRS service
Ret-Total-Comb-Inter-Serv-RAU-Acc	<b>Description:</b> Total number of retransmitted Combined Inter Service RAU Accepts sent in both 2G and 3G services. <b>Availability:</b> per RA, per RNC, per GPRS/SGSN service
Ret-3G-Comb-Inter-Serv-RAU-Acc	<b>Description:</b> Total number of retransmitted Combined Inter Service RAU Accepts sent against RAU Requests from subscribers moving from one 3G service to another 3G service. <b>Availability:</b> per RA, per RNC, per SGSN service

Field	Description
Ret-2G-Comb-Inter-Serv-RAU-Acc	<b>Description:</b> Total number of retransmitted Combined Inter Service RAU Accepts sent against RAU Requests from subscribers moving from one 2G service to another 2G service. <b>Availability:</b> per RA, per GPRS service
Routing Area Update Complete	Indicates the statistics of routing area update complete messages.
Total-RAU-Complete	Total number of routing area update complete messages.
3G-RAU-Complete	Total number of routing area update complete messages for 3G service.
2G-RAU-Complete	Total number of routing area update complete messages for 2G service.
Routing Area Update Reject	Indicates the statistics of routing area update reject messages.
Total-RAU-Reject	Total number of routing area update reject messages.
Total-Intra-RAU-Reject	Total number of intra-SGSN routing area update reject messages sent by SGSN.
Total-Ra-up-Intra-RAU-Rej	Total number of intra-SGSN RAU reject messages reject by SGSN for 2G and 3G service.
3G-Ra-Up-Intra-RAU-Reject	Total number of intra-SGSN RAU reject messages sent by SGSN for 3G service.
2G-Ra-Up-Intra-RAU-Reject	Total number of intra-SGSN RAU reject messages sent by SGSN for 2G service.
Total-Periodic-RAU-Reject	Total number of periodic RAU reject messages sent by SGSN for 2G and 3G service.
3G-Periodic-RAU-Reject	Total number of periodic RAU reject messages sent by SGSN for 3G service.
2G-Periodic-RAU-Reject	Total number of periodic RAU reject messages sent by SGSN for 2G service.
Total-Comb-Intra-RAU-Rej	Total number of combined (PS and CS) intra-RAU reject messages sent by SGSN for 2G and 3G service.
3G-Comb-Intra-RAU-Reject	Total number of combined (PS and CS) intra-RAU reject messages sent by SGSN for 3G service.
2G-Comb-Intra-RAU-Reject	Total number of combined (PS and CS) intra-RAU reject messages sent by SGSN for 2G service.
Total-Inter-SGSN-RAU-Rej	This group displays inter SGSN RAU reject message statistics on SGSN.
Total-PS-Inter-RAU-Rej	Total number of inter SGSN RAU reject messages in PS network for 2G and 3G services sent by SGSN.
3G-PS-Inter-RAU-Rej	Total number of inter SGSN RAU reject messages in PS network for 3G service sent by SGSN.
2G-PS-Inter-RAU-Rej	Total number of inter SGSN RAU reject messages in PS network for 2G service sent by SGSN.
Total-Comb-Inter-RAU-Rej	Total number of inter SGSN RAU reject messages in combined (PS and CS) network for 2G and 3G services sent by SGSN.
3G-Comb-Inter-RAU-Rej	Total number of inter SGSN RAU reject messages in combined (PS and CS) network for 3G services sent by SGSN.
2G-Comb-Inter-RAU-Rej	Total number of inter SGSN RAU reject messages in combined (PS and CS) network for 2G services sent by SGSN.
Total-Inter-RAT-RAU-Rej	This group displays inter Radio Access Technology (RAT) RAU reject message statistics on SGSN.
Total-PS-Inter-RAT-RAU-Rej	Total number of inter RAT RAU reject messages in PS network for 2G and 3G services sent by SGSN.

Field	Description
3G-PS-Inter-RAT-RAU-Rej	Total number of inter RAT RAU reject messages in PS network for 3G service sent by SGSN.
2G-PS-Inter-RAT-RAU-Rej	Total number of inter RAT RAU reject messages in PS network for 2G service sent by SGSN.
Total-Comb-Inter-RAT-RAU-Rej	Total number of inter RAT RAU reject messages in combined (PS and CS) network for 2G and 3G services sent by SGSN.
3G-Comb-Inter-RAT-RAU-Rej	Total number of inter RAT RAU reject messages in combined (PS and CS) network for 3G services sent by SGSN.
2G-Comb-Inter-RAT-RAU-Rej	Total number of inter RAT RAU reject messages in combined (PS and CS) network for 2G services sent by SGSN.
Total-Inter-SRV-RAU-Rej	This group displays inter-SRV RAU reject message statistics on SGSN.
Total-PS-Inter-SRV-RAU-Rej	Total number of inter SRV RAU reject messages in PS network for 2G and 3G services sent by SGSN.
3G-PS-Inter-SRV-RAU-Rej	Total number of inter SRV RAU reject messages in PS network for 3G service sent by SGSN.
2G-PS-Inter-SRV-RAU-Rej	Total number of inter SRV RAU reject messages in PS network for 2G service sent by SGSN.
Total-Comb-Inter-SRV-RAU-Rej	Total number of inter SRV RAU reject messages in combined (PS and CS) network for 2G and 3G services sent by SGSN.
3G-Comb-Inter-SRV-RAU-Rej	Total number of inter SRV RAU reject messages in combined (PS and CS) network for 3G services sent by SGSN.
2G-Comb-Inter-SRV-RAU-Rej	Total number of inter SRV RAU reject messages in combined (PS and CS) network for 2G services sent by SGSN.
Intra Ra-Updated Routing Area Update Reject Causes	This group displays the causes for intra-RAT routing area update reject messages.
3G-IMSI Unknown in HLR	Total number of intra RAT routing area update requests rejected for 3G service due to unknown IMSI in HLR.
2G-IMSI Unknown in HLR	Total number of intra RAT routing area update requests rejected for 2G service due to unknown IMSI in HLR.
3G-Illegal MS	Total number of intra RAT routing area update requests rejected for 3G service due to illegal mobile subscriber.
2G-Illegal MS	Total number of intra RAT routing area update requests rejected for 2G service due to illegal mobile subscriber.
3G-Illegal ME	Total number of intra RAT routing area update requests rejected for 3G service due to illegal mobile equipment.
2G-Illegal ME	Total number of intra RAT routing area update requests rejected for 2G service due to illegal mobile equipment.
3G-GPRS service not allowed	Total number of intra RAT routing area update requests rejected for 3G service due to GPRS service not allowed for subscriber.
2G-GPRS service not allowed	Total number of intra RAT routing area update requests rejected for 2G service due to GPRS service not allowed for subscriber.
3G-GPRS and Non-GPRS service not allowed	Total number of intra RAT routing area update requests rejected for 3G service due to GPRS and non-GPRS service not allowed for subscriber.

■ show gmm-sm statistics verbose

Field	Description
2G-GPRS and Non-GPRS service not allowed	Total number of intra RAT routing area update requests rejected for 2G service due to GPRS and non-GPRS service not allowed for subscriber.
3G-MSID not derived by Nw	Total number of intra RAT routing area update requests rejected for 3G service due to network failed to derive MSID from attach message.
2G-MSID not derived by Nw	Total number of intra RAT routing area update requests rejected for 2G service due to network failed to derive MSID from attach message.
3G-Implicitly detached	Total number of intra RAT routing area update requests rejected for 3G service due to implicitly detach.
2G-Implicitly detached	Total number of intra RAT routing area update requests rejected for 2G service due to implicitly detach.
3G-PLMN not allowed	Total number of intra RAT routing area update requests rejected for 3G service due to specific PLMN not allowed.
2G-PLMN not allowed	Total number of intra RAT routing area update requests rejected for 2G service due to specific PLMN not allowed.
3G-Location Area not allowed	Total number of intra RAT routing area update requests rejected for 3G service due to specific location area not allowed.
2G-Location Area not allowed	Total number of intra RAT routing area update requests rejected for 2G service due to specific location area not allowed.
3G-Roaming not allowed in this location area	Total number of intra RAT routing area update requests rejected for 3G service due to roaming not allowed in specific location area.
2G-Roaming not allowed in this location area	Total number of intra RAT routing area update requests rejected for 2G service due to roaming not allowed in specific location area.
3G-GPRS service not allowed in this PLMN	Total number of intra RAT routing area update requests rejected for 3G service due to GPRS service not allowed in specific PLMN.
2G-GPRS service not allowed in this PLMN	Total number of intra RAT routing area update requests rejected for 2G service due to GPRS service not allowed in specific PLMN.
3G-No suitable cells in this Location Area	Total number of intra RAT routing area update requests rejected for 3G service due to non availability of suitable cell in specific location area.
2G-No suitable cells in this Location Area	Total number of intra RAT routing area update requests rejected for 2G service due to non availability of suitable cell in specific location area.
3G-MS-C not reachable	Total number of intra RAT routing area update requests rejected for 3G service as MSC not reachable.
2G-MS-C not reachable	Total number of intra RAT routing area update requests rejected for 2G service as MSC not reachable.
3G-Network Failure	Total number of intra RAT routing area update requests rejected for 3G service due to network failure.
2G-Network Failure	Total number of intra RAT routing area update requests rejected for 2G service due to network failure.
3G-MAC Failure	Total number of intra RAT routing area update requests rejected for 3G service due to message authenticate code (MAC) failure.

Field	Description
2G-MAC Failure	Total number of intra RAT routing area update requests rejected for 2G service due to MAC failure.
3G-SYNC Failure	Total number of intra RAT routing area update requests rejected for 3G service due to context synchronization failure.
2G-SYNC Failure	Total number of intra RAT routing area update requests rejected for 2G service due to context synchronization failure.
3G-Congestion	Total number of intra RAT routing area update requests rejected for 3G service due to network congestion.
2G-Congestion	Total number of intra RAT routing area update requests rejected for 2G service due to network congestion.
3G-GSM Auth Unacceptable	Total number of intra RAT routing area update requests rejected for 3G service due to unacceptable authentication from GSM network.
2G-GSM Auth Unacceptable	Total number of intra RAT routing area update requests rejected for 2G service due to unacceptable authentication from GSM network.
3G-No PDP contexts activated	Total number of intra RAT routing area update requests rejected for 3G service as PDP context is not activated.
2G-No PDP contexts activated	Total number of intra RAT routing area update requests rejected for 2G service as PDP context is not activated.
3G-Retry from new cell	Total number of intra RAT routing area update requests rejected for 3G service as UE retried the update from new cell.
2G-Retry from new cell	Total number of intra RAT routing area update requests rejected for 2G service as UE retried the update from new cell.
3G-Semantically Wrong Msg	Total number of intra RAT routing area update request rejected for 3G service as attach request message is semantically wrong.
2G-Semantically Wrg Msg	Total number of intra RAT routing area update request rejected for 2G service as attach request message is semantically wrong.
3G-Invalid Mandatory Info	Total number of intra RAT routing area update request rejected for 3G service as mandatory information in message is invalid.
2G-Invalid Mandatory Info	Total number of intra RAT routing area update request rejected for 2G service as mandatory information in message is invalid.
3G-MSG type Non Existent	Total number of intra RAT routing area update request rejected for 3G service due to non-existent type of message.
2G-MSG type Non Existent	Total number of intra RAT routing area update request rejected for 2G service due to non-existent type of message.
3G-MSG type not compatible with protocol state	Total number of intra RAT routing area update request rejected for 3G service as message type is not compatible with protocol state.
2G-MSG type not compatible with protocol state	Total number of intra RAT routing area update request rejected for 2G service as message type is not compatible with protocol state.
3G-IE Non Existent	Total number of intra RAT routing area update request rejected for 3G service due to inclusion of non-existent information element (IE) in message.

Field	Description
2G-IE Non Existent	Total number of intra RAT routing area update request rejected for 2G service due to inclusion of non-existent information element (IE) in message.
3G-Conditional IE Error	Total number of intra RAT routing area update request rejected for 3G service due to error in conditional informational element.
2G-Conditional IE Error	Total number of intra RAT routing area update request rejected for 2G service due to error in conditional informational element.
3G-Message not compatible with protocol state	Total number of intra RAT routing area update request rejected for 3G service due to incompatible protocol state in message.
2G-Message not compatible with protocol state	Total number of intra RAT routing area update request rejected for 2G service due to incompatible protocol state in message
3G-Protocol Error	Total number of intra RAT routing area update request rejected for 3G service due to protocol error in message.
2G-Protocol Error	Total number of intra RAT routing area update request rejected for 2G service due to protocol error in message
3G-Unknown cause	Total number of intra RAT routing area update request rejected for 3G service due to reasons other than listed here in message.
2G-Unknown cause	Total number of intra RAT routing area update request rejected for 2G service due to reasons other than listed here in message.
Intra Periodic Routing Area Update Reject Causes	This group displays the intra RAT periodic RAU reject causes on SGSN.
3G-IMSI Unknown in HLR	Total number of intra RAT periodic RAU requests rejected for 3G service due to unknown IMSI in HLR.
2G-IMSI Unknown in HLR	Total number of intra RAT periodic RAU requests rejected for 2G service due to unknown IMSI in HLR.
3G-Illegal MS	Total number of intra RAT periodic RAU requests rejected for 3G service due to illegal mobile subscriber.
2G-Illegal MS	Total number of intra RAT periodic RAU requests rejected for 2G service due to illegal mobile subscriber.
3G-Illegal ME	Total number of intra RAT periodic RAU requests rejected for 3G service due to illegal mobile equipment.
2G-Illegal ME	Total number of intra RAT periodic RAU requests rejected for 2G service due to illegal mobile equipment.
3G-GPRS service not allowed	Total number of intra RAT periodic RAU requests rejected for 3G service due to GPRS service not allowed for subscriber.
2G-GPRS service not allowed	Total number of intra RAT periodic RAU requests rejected for 2G service due to GPRS service not allowed for subscriber.
3G-GPRS and Non-GPRS service not allowed	Total number of intra RAT periodic RAU requests rejected for 3G service due to GPRS and non-GPRS service not allowed for subscriber.
2G-GPRS and Non-GPRS service not allowed	Total number of intra RAT periodic RAU requests rejected for 2G service due to GPRS and non-GPRS service not allowed for subscriber.

Field	Description
3G-MSID not derived by Nw	Total number of intra RAT periodic RAU requests rejected for 3G service due to network failed to derive MSID from attach message.
2G-MSID not derived by Nw	Total number of intra RAT periodic RAU requests rejected for 2G service due to network failed to derive MSID from attach message.
3G-Implicitly Detached	Total number of intra RAT periodic RAU requests rejected for 3G service due to implicitly detach.
2G-Implicitly Detached	Total number of intra RAT periodic RAU requests rejected for 2G service due to implicitly detach.
3G-PLMN not allowed	Total number of intra RAT periodic RAU requests rejected for 3G service due to specific PLMN not allowed.
2G-PLMN not allowed	Total number of intra RAT periodic RAU requests rejected for 2G service due to specific PLMN not allowed.
3G-Location Area not allowed	Total number of intra RAT periodic RAU requests rejected for 3G service due to specific location area not allowed.
2G-Location Area not allowed	Total number of intra RAT periodic RAU requests rejected for 2G service due to specific location area not allowed.
3G-Roaming not allowed in this Location Area	Total number of intra RAT periodic RAU requests rejected for 3G service due to roaming not allowed in specific location area.
2G-Roaming not allowed in this Location Area	Total number of intra RAT periodic RAU requests rejected for 2G service due to roaming not allowed in specific location area.
3G-GPRS service not allowed in this PLMN	Total number of intra RAT periodic RAU requests rejected for 3G service due to GPRS service not allowed in specific PLMN.
2G-GPRS service not allowed in this PLMN	Total number of intra RAT periodic RAU requests rejected for 2G service due to GPRS service not allowed in specific PLMN.
3G-No suitable cells in this Location Area	Total number of intra RAT periodic RAU requests rejected for 3G service due to non availability of suitable cell in specific location area.
2G-No suitable cells in this Location Area	Total number of intra RAT periodic RAU requests rejected for 2G service due to non availability of suitable cell in specific location area.
3G-MSC not reachable	Total number of intra RAT periodic RAU requests rejected for 3G service as MSC not reachable.
2G-MSC not reachable	Total number of intra RAT periodic RAU requests rejected for 2G service as MSC not reachable.
3G-Network Failure	Total number of intra RAT periodic RAU requests rejected for 3G service due to network failure.
2G-Network Failure	Total number of intra RAT periodic RAU requests rejected for 2G service due to network failure.
3G-MAC Failure	Total number of intra RAT periodic RAU requests rejected for 3G service due to message authenticate code (MAC) failure.
2G-MAC Failure	Total number of intra RAT periodic RAU requests rejected for 2G service due to MAC failure.
3G-SYNC Failure	Total number of intra RAT periodic RAU requests rejected for 3G service due to context synchronization failure.
2G-SYNC Failure	Total number of intra RAT periodic RAU requests rejected for 2G service due to context synchronization failure.

Field	Description
3G-Congestion	Total number of intra RAT periodic RAU requests rejected for 3G service due to network congestion.
2G-Congestion	Total number of intra RAT periodic RAU requests rejected for 2G service due to network congestion.
3G-GSM Auth Unacceptable	Total number of intra RAT periodic RAU requests rejected for 3G service due to unacceptable authentication from GSM network.
2G-GSM Auth Unacceptable	Total number of intra RAT periodic RAU requests rejected for 2G service due to unacceptable authentication from GSM network.
3G-No PDP contexts activated	Total number of intra RAT periodic RAU requests rejected for 3G service as PDP context is not activated.
2G-No PDP contexts activated	Total number of intra RAT periodic RAU requests rejected for 2G service as PDP context is not activated.
3G-Retry from new cell	Total number of intra RAT periodic RAU requests rejected for 3G service as UE retried the update from new cell.
2G-Retry from new cell	Total number of intra RAT periodic RAU requests rejected for 2G service as UE retried the update from new cell.
3G-Semantically Wrong Msg	Total number of intra RAT periodic RAU requests rejected for 3G service as attach request message is semantically wrong.
2G-Semantically Wrg Msg	Total number of intra RAT periodic RAU requests rejected for 2G service as attach request message is semantically wrong.
3G-Invalid Mandatory Info	Total number of intra RAT periodic RAU requests rejected for 3G service as mandatory information in message is invalid.
2G-Invalid Mandatory Info	Total number of intra RAT periodic RAU requests rejected for 2G service as mandatory information in message is invalid.
3G-MSG type Non Existent	Total number of intra RAT periodic RAU requests rejected for 3G service due to non-existent type of message.
2G-MSG type Non Existent	Total number of intra RAT periodic RAU requests rejected for 2G service due to non-existent type of message.
3G-MSG type not compatible with protocol state	Total number of intra RAT periodic RAU requests rejected for 3G service as message type is not compatible with protocol state.
2G-MSG type not compatible with protocol state	Total number of intra RAT periodic RAU requests rejected for 2G service as message type is not compatible with protocol state.
3G-IE Non Existent	Total number of intra RAT periodic RAU requests rejected for 3G service due to inclusion of non-existent information element (IE) in message.
2G-IE Non Existent	Total number of intra RAT periodic RAU requests rejected for 2G service due to inclusion of non-existent information element (IE) in message.
3G-Conditional IE Error	Total number of intra RAT periodic RAU requests rejected for 3G service due to error in conditional informational element.
2G-Conditionanl IE Error	Total number of intra RAT periodic RAU requests rejected for 2G service due to error in conditional informational element.

Field	Description
3G-Message not compatible with protocol state	Total number of intra RAT periodic RAU requests rejected for 3G service due to incompatible protocol state in message.
2G-Message not compatible with protocol state	Total number of intra RAT periodic RAU requests rejected for 2G service due to incompatible protocol state in message
3G-Protocol Error	Total number of intra RAT periodic RAU requests rejected for 3G service due to protocol error in message.
2G-Protocol Error	Total number of intra RAT periodic RAU requests rejected for 2G service due to protocol error in message
3G-Unknown cause	Total number of intra RAT periodic RAU requests rejected for 3G service due to reasons other than listed here in message.
2G-Unknown cause	Total number of intra RAT periodic RAU requests rejected for 2G service due to reasons other than listed here in message.
Intra Combo. Routing Area Update Reject Causes	This group displays the intra RAT combined (PS and CS) RAU request reject causes on SGSN.
3G-IMSI Unknown in HLR	Total number of intra RAT combined (PS and CS) RAU requests rejected for 3G service due to unknown IMSI in HLR.
2G-IMSI Unknown in HLR	Total number of intra RAT combined (PS and CS) RAU requests rejected for 2G service due to unknown IMSI in HLR.
3G-Illegal MS	Total number of intra RAT combined (PS and CS) RAU requests rejected for 3G service due to illegal mobile subscriber.
2G-Illegal MS	Total number of intra RAT combined (PS and CS) RAU requests rejected for 2G service due to illegal mobile subscriber.
3G-Illegal ME	Total number of intra RAT combined (PS and CS) RAU requests rejected for 3G service due to illegal mobile equipment.
2G-Illegal ME	Total number of intra RAT combined (PS and CS) RAU requests rejected for 2G service due to illegal mobile equipment.
3G-GPRS service not allowed	Total number of intra RAT combined (PS and CS) RAU requests rejected for 3G service due to GPRS service not allowed for subscriber.
2G-GPRS service not allowed	Total number of intra RAT combined (PS and CS) RAU requests rejected for 2G service due to GPRS service not allowed for subscriber.
3G-GPRS and Non-GPRS service not allowed	Total number of intra RAT combined (PS and CS) RAU requests rejected for 3G service due to GPRS and non-GPRS service not allowed for subscriber.
2G-GPRS and Non-GPRS service not allowed	Total number of intra RAT combined (PS and CS) RAU requests rejected for 2G service due to GPRS and non-GPRS service not allowed for subscriber.
3G-MsId not derived by Nw	Total number of intra RAT combined (PS and CS) RAU requests rejected for 3G service due to network failed to derive MSID from attach message.
2G-MsId not derived by Nw	Total number of intra RAT combined (PS and CS) RAU requests rejected for 2G service due to network failed to derive MSID from attach message.
3G-Implicitly Detached	Total number of intra RAT combined (PS and CS) RAU requests rejected for 3G service due to implicitly detach.

Field	Description
2G-Implicitly Detached	Total number of intra RAT combined (PS and CS) RAU requests rejected for 2G service due to implicitly detach.
3G-PLMN not allowed	Total number of intra RAT combined (PS and CS) RAU requests rejected for 3G service due to specific PLMN not allowed.
2G-PLMN not allowed	Total number of intra RAT combined (PS and CS) RAU requests rejected for 2G service due to specific PLMN not allowed.
3G-Location Area not allowed	Total number of intra RAT combined (PS and CS) RAU requests rejected for 3G service due to specific location area not allowed.
2G-Location Area not allowed	Total number of intra RAT combined (PS and CS) RAU requests rejected for 2G service due to specific location area not allowed.
3G-Roaming not allowed in this Location Area	Total number of intra RAT combined (PS and CS) RAU requests rejected for 3G service due to roaming not allowed in specific location area.
2G-Roaming not allowed in this Location Area	Total number of intra RAT combined (PS and CS) RAU requests rejected for 2G service due to roaming not allowed in specific location area.
3G-GPRS service not allowed in this PLMN	Total number of intra RAT combined (PS and CS) RAU requests rejected for 3G service due to GPRS service not allowed in specific PLMN.
2G-GPRS service not allowed in this PLMN	Total number of intra RAT combined (PS and CS) RAU requests rejected for 2G service due to GPRS service not allowed in specific PLMN.
3G-No suitable cells in this Location Area	Total number of intra RAT combined (PS and CS) RAU requests rejected for 3G service due to non availability of suitable cell in specific location area.
2G-No suitable cells in this Location Area	Total number of intra RAT combined (PS and CS) RAU requests rejected for 2G service due to non availability of suitable cell in specific location area.
3G-MSC not reachable	Total number of intra RAT combined (PS and CS) RAU requests rejected for 3G service as MSC not reachable.
2G-MSC not reachable	Total number of intra RAT combined (PS and CS) RAU requests rejected for 2G service as MSC not reachable.
3G-Network Failure	Total number of intra RAT combined (PS and CS) RAU requests rejected for 3G service due to network failure.
2G-Network Failure	Total number of intra RAT combined (PS and CS) RAU requests rejected for 2G service due to network failure.
3G-MAC Failure	Total number of intra RAT combined (PS and CS) RAU requests rejected for 3G service due to message authenticate code (MAC) failure.
2G-MAC Failure	Total number of intra RAT combined (PS and CS) RAU requests rejected for 2G service due to MAC failure.
3G-SYNC Failure	Total number of intra RAT combined (PS and CS) RAU requests rejected for 3G service due to context synchronization failure.
2G-SYNC Failure	Total number of intra RAT combined (PS and CS) RAU requests rejected for 2G service due to context synchronization failure.
3G-Congestion	Total number of intra RAT combined (PS and CS) RAU requests rejected for 3G service due to network congestion.

Field	Description
2G-Congestion	Total number of intra RAT combined (PS and CS) RAU requests rejected for 2G service due to network congestion.
3G-GSM Auth Unacceptable	Total number of intra RAT combined (PS and CS) RAU requests rejected for 3G service due to unacceptable authentication from GSM network.
2G-GSM Auth Unacceptable	Total number of intra RAT combined (PS and CS) RAU requests rejected for 2G service due to unacceptable authentication from GSM network.
3G-No PDP contexts activated	Total number of intra RAT combined (PS and CS) RAU requests rejected for 3G service as PDP context is not activated.
2G-No PDP contexts activated	Total number of intra RAT combined (PS and CS) RAU requests rejected for 2G service as PDP context is not activated.
3G-Retry from new cell	Total number of intra RAT combined (PS and CS) RAU requests rejected for 3G service as UE retried the update from new cell.
2G-Retry from new cell	Total number of intra RAT combined (PS and CS) RAU requests rejected for 2G service as UE retried the update from new cell.
3G-Semantically Wrong Msg	Total number of intra RAT combined (PS and CS) RAU requests rejected for 3G service as attach request message is semantically wrong.
2G-Semantically Wrg Msg	Total number of intra RAT combined (PS and CS) RAU requests rejected for 2G service as attach request message is semantically wrong.
3G-Invalid Mandatory Info	Total number of intra RAT combined (PS and CS) RAU requests rejected for 3G service as mandatory information in message is invalid.
2G-Invalid Mandatory Info	Total number of intra RAT combined (PS and CS) RAU requests rejected for 2G service as mandatory information in message is invalid.
3G-MSG type Non Existent	Total number of intra RAT combined (PS and CS) RAU requests rejected for 3G service due to non-existent type of message.
2G-MSG type Non Existent	Total number of intra RAT combined (PS and CS) RAU requests rejected for 2G service due to non-existent type of message.
3G-MSG type not compatible with protocol state	Total number of intra RAT combined (PS and CS) RAU requests rejected for 3G service as message type is not compatible with protocol state.
2G-MSG type not compatible with protocol state	Total number of intra RAT combined (PS and CS) RAU requests rejected for 2G service as message type is not compatible with protocol state.
3G-IE Non Existent	Total number of intra RAT combined (PS and CS) RAU requests rejected for 3G service due to inclusion of non-existent information element (IE) in message.
2G-IE Non Existent	Total number of intra RAT combined (PS and CS) RAU requests rejected for 2G service due to inclusion of non-existent information element (IE) in message.
3G-Conditional IE Error	Total number of intra RAT combined (PS and CS) RAU requests rejected for 3G service due to error in conditional informational element.
2G-Conditional IE Error	Total number of intra RAT combined (PS and CS) RAU requests rejected for 2G service due to error in conditional informational element.
3G-Message not compatible with protocol state	Total number of intra RAT combined (PS and CS) RAU requests rejected for 3G service due to incompatible protocol state in message.

Field	Description
2G-Message not compatible with protocol state	Total number of intra RAT combined (PS and CS) RAU requests rejected for 2G service due to incompatible protocol state in message
3G-protocol Error	Total number of intra RAT combined (PS and CS) RAU requests rejected for 3G service due to protocol error in message.
2G-protocol Error	Total number of intra RAT combined (PS and CS) RAU requests rejected for 2G service due to protocol error in message
3G-Unknown cause	Total number of intra RAT combined (PS and CS) RAU requests rejected for 3G service due to reasons other than listed here in message.
2G-Unknown cause	Total number of intra RAT combined (PS and CS) RAU requests rejected for 2G service due to reasons other than listed here in message.
Inter SGSN PS Only Routing Area Update Reject Causes	This group displays the inter SGSN PS-only RAU request reject causes on SGSN.
3G-IMSI Unknown in HLR	Total number of inter SGSN PS-only RAU requests rejected for 3G service due to unknown IMSI in HLR.
2G-IMSI Unknown in HLR	Total number of inter SGSN PS-only RAU requests rejected for 2G service due to unknown IMSI in HLR.
3G-Illegal MS	Total number of inter SGSN PS-only RAU requests rejected for 3G service due to illegal mobile subscriber.
2G-Illegal MS	Total number of inter SGSN PS-only RAU requests rejected for 2G service due to illegal mobile subscriber.
3G-Illegal ME	Total number of inter SGSN PS-only RAU requests rejected for 3G service due to illegal mobile equipment.
2G-Illegal ME	Total number of inter SGSN PS-only RAU requests rejected for 2G service due to illegal mobile equipment.
3G-GPRS service not allowed	Total number of inter SGSN PS-only RAU requests rejected for 3G service due to GPRS service not allowed for subscriber.
2G-GPRS service not allowed	Total number of inter SGSN PS-only RAU requests rejected for 2G service due to GPRS service not allowed for subscriber.
3G-GPRS and Non-GPRS service not allowed	Total number of inter SGSN PS-only RAU requests rejected for 3G service due to GPRS and non-GPRS service not allowed for subscriber.
2G-GPRS and Non-GPRS service not allowed	Total number of inter SGSN PS-only RAU requests rejected for 2G service due to GPRS and non-GPRS service not allowed for subscriber.
3G-MSId not derived by Nw	Total number of inter SGSN PS-only RAU requests rejected for 3G service due to network failed to derive MSID from attach message.
2G-MSId not derived by Nw	Total number of inter SGSN PS-only RAU requests rejected for 2G service due to network failed to derive MSID from attach message.
3G-Implicitly Detached	Total number of inter SGSN PS-only RAU requests rejected for 3G service due to implicitly detach.
2G-Implicitly Detached	Total number of inter SGSN PS-only RAU requests rejected for 2G service due to implicitly detach.

Field	Description
3G-PLMN not allowed	Total number of inter SGSN PS-only RAU requests rejected for 3G service due to specific PLMN not allowed.
2G-PLMN not allowed	Total number of inter SGSN PS-only RAU requests rejected for 2G service due to specific PLMN not allowed.
3G-Location Area not allowed	Total number of inter SGSN PS-only RAU requests rejected for 3G service due to specific location area not allowed.
2G-Location Area not allowed	Total number of inter SGSN PS-only RAU requests rejected for 2G service due to specific location area not allowed.
3G-Roaming not allowed in this Location Area	Total number of inter SGSN PS-only RAU requests rejected for 3G service due to roaming not allowed in specific location area.
2G-Roaming not allowed in this Location Area	Total number of inter SGSN PS-only RAU requests rejected for 2G service due to roaming not allowed in specific location area.
3G-GPRS service not allowed in this PLMN	Total number of inter SGSN PS-only RAU requests rejected for 3G service due to GPRS service not allowed in specific PLMN.
2G-GPRS service not allowed in this PLMN	Total number of inter SGSN PS-only RAU requests rejected for 2G service due to GPRS service not allowed in specific PLMN.
3G-No suitable cells in this Location Area	Total number of inter SGSN PS-only RAU requests rejected for 3G service due to non availability of suitable cell in specific location area.
2G-No suitable cells in this Location Area	Total number of inter SGSN PS-only RAU requests rejected for 2G service due to non availability of suitable cell in specific location area.
3G-MSC not reachable	Total number of inter SGSN PS-only RAU requests rejected for 3G service as MSC not reachable.
2G-MSC not reachable	Total number of inter SGSN PS-only RAU requests rejected for 2G service as MSC not reachable.
3G-Network Failure	Total number of inter SGSN PS-only RAU requests rejected for 3G service due to network failure.
2G-Network Failure	Total number of inter SGSN PS-only RAU requests rejected for 2G service due to network failure.
3G-MAC Failure	Total number of inter SGSN PS-only RAU requests rejected for 3G service due to message authenticate code (MAC) failure.
2G-MAC Failure	Total number of inter SGSN PS-only RAU requests rejected for 2G service due to MAC failure.
3G-SYNC Failure	Total number of inter SGSN PS-only RAU requests rejected for 3G service due to context synchronization failure.
2G-SYNC Failure	Total number of inter SGSN PS-only RAU requests rejected for 2G service due to context synchronization failure.
3G-Congestion	Total number of inter SGSN PS-only RAU requests rejected for 3G service due to network congestion.
2G-Congestion	Total number of inter SGSN PS-only RAU requests rejected for 2G service due to network congestion.
3G-GSM Auth Unacceptable	Total number of inter SGSN PS-only RAU requests rejected for 3G service due to unacceptable authentication from GSM network.

Field	Description
2G-GSM Auth Unacceptable	Total number of inter SGSN PS-only RAU requests rejected for 2G service due to unacceptable authentication from GSM network.
3G-No PDP contexts activated	Total number of inter SGSN PS-only RAU requests rejected for 3G service as PDP context is not activated.
2G-No PDP contexts activated	Total number of inter SGSN PS-only RAU requests rejected for 2G service as PDP context is not activated.
3G-Retry from new cell	Total number of inter SGSN PS-only RAU requests rejected for 3G service as UE retried the update from new cell.
2G-Retry from new cell	Total number of inter SGSN PS-only RAU requests rejected for 2G service as UE retried the update from new cell.
3G-Semantically Wrong Msg	Total number of inter SGSN PS-only RAU requests rejected for 3G service as attach request message is semantically wrong.
2G-Semantically Wrg Msg	Total number of inter SGSN PS-only RAU requests rejected for 2G service as attach request message is semantically wrong.
3G-Invalid Mandatory Info	Total number of inter SGSN PS-only RAU requests rejected for 3G service as mandatory information in message is invalid.
2G-Invalid Mandatory Info	Total number of inter SGSN PS-only RAU requests rejected for 2G service as mandatory information in message is invalid.
3G-MSG type Non Existent	Total number of inter SGSN PS-only RAU requests rejected for 3G service due to non-existent type of message.
2G-MSG type Non Existent	Total number of inter SGSN PS-only RAU requests rejected for 2G service due to non-existent type of message.
3G-MSG type not compatible with protocol state	Total number of inter SGSN PS-only RAU requests rejected for 3G service as message type is not compatible with protocol state.
2G-MSG type not compatible with protocol state	Total number of inter SGSN PS-only RAU requests rejected for 2G service as message type is not compatible with protocol state.
3G-IE Non Existent	Total number of inter SGSN PS-only RAU requests rejected for 3G service due to inclusion of non-existent information element (IE) in message.
2G-IE Non Existent	Total number of inter SGSN PS-only RAU requests rejected for 2G service due to inclusion of non-existent information element (IE) in message.
3G-Conditional IE Error	Total number of inter SGSN PS-only RAU requests rejected for 3G service due to error in conditional informational element.
2G-Conditional IE Error	Total number of inter SGSN PS-only RAU requests rejected for 2G service due to error in conditional informational element.
3G-Message not compatible with protocol state	Total number of inter SGSN PS-only RAU requests rejected for 3G service due to incompatible protocol state in message.
2G-Message not compatible with protocol state	Total number of inter SGSN PS-only RAU requests rejected for 2G service due to incompatible protocol state in message.
3G-Protocol Error	Total number of inter SGSN PS-only RAU requests rejected for 3G service due to protocol error in message.

Field	Description
2G-Protocol Error	Total number of inter SGSN PS-only RAU requests rejected for 2G service due to protocol error in message
3G-Unknown cause	Total number of inter SGSN PS-only RAU requests rejected for 3G service due to reasons other than listed here in message.
2G-Unknown cause	Total number of inter SGSN PS-only RAU requests rejected for 2G service due to reasons other than listed here in message.
Inter SGSN Comb. Routing Area Update Reject Causes	This group displays the combined (PS and CS) inter-SGSN RAU request reject causes on SGSN.
3G-IMSI Unknown in HLR	Total number of combined (PS and CS) inter-SGSN routing area update requests rejected for 3G service due to unknown IMSI in HLR.
2G-IMSI Unknown in HLR	Total number of combined (PS and CS) inter-SGSN routing area update requests rejected for 2G service due to unknown IMSI in HLR.
3G-Illegal MS	Total number of combined (PS and CS) inter-SGSN routing area update requests rejected for 3G service due to illegal mobile subscriber.
2G-Illegal MS	Total number of combined (PS and CS) inter-SGSN routing area update requests rejected for 2G service due to illegal mobile subscriber.
3G-Illegal ME	Total number of combined (PS and CS) inter-SGSN routing area update requests rejected for 3G service due to illegal mobile equipment.
2G-Illegal ME	Total number of combined (PS and CS) inter-SGSN routing area update requests rejected for 2G service due to illegal mobile equipment.
3G-GPRS service not allowed	Total number of combined (PS and CS) inter-SGSN routing area update requests rejected for 3G service due to GPRS service not allowed for subscriber.
2G-GPRS service not allowed	Total number of combined (PS and CS) inter-SGSN routing area update requests rejected for 2G service due to GPRS service not allowed for subscriber.
3G-GPRS and Non-GPRS service not allowed	Total number of combined (PS and CS) inter-SGSN routing area update requests rejected for 3G service due to GPRS and non-GPRS service not allowed for subscriber.
2G-GPRS and Non-GPRS service not allowed	Total number of combined (PS and CS) inter-SGSN routing area update requests rejected for 2G service due to GPRS and non-GPRS service not allowed for subscriber.
3G-MsId not derived by Nw	Total number of combined (PS and CS) inter-SGSN routing area update requests rejected for 3G service due to network failed to derive MSID from attach message.
2G-MsId not derived by Nw	Total number of combined (PS and CS) inter-SGSN routing area update requests rejected for 2G service due to network failed to derive MSID from attach message.
3G-Implicitly detached	Total number of combined (PS and CS) inter-SGSN routing area update requests rejected for 3G service due to implicitly detach.
2G-Implicitly detached	Total number of combined (PS and CS) inter-SGSN routing area update requests rejected for 2G service due to implicitly detach.
3G-PLMN not allowed	Total number of combined (PS and CS) inter-SGSN routing area update requests rejected for 3G service due to specific PLMN not allowed.
2G-PLMN not allowed	Total number of combined (PS and CS) inter-SGSN routing area update requests rejected for 2G service due to specific PLMN not allowed.

Field	Description
3G-Location Area not allowed	Total number of combined (PS and CS) inter-SGSN routing area update requests rejected for 3G service due to specific location area not allowed.
2G-Location Area not allowed	Total number of combined (PS and CS) inter-SGSN routing area update requests rejected for 2G service due to specific location area not allowed.
3G-Roaming not allowed in this location area	Total number of combined (PS and CS) inter-SGSN routing area update requests rejected for 3G service due to roaming not allowed in specific location area.
2G-Roaming not allowed in this location area	Total number of combined (PS and CS) inter-SGSN routing area update requests rejected for 2G service due to roaming not allowed in specific location area.
3G-GPRS service not allowed in this PLMN	Total number of combined (PS and CS) inter-SGSN routing area update requests rejected for 3G service due to GPRS service not allowed in specific PLMN.
2G-GPRS service not allowed in this PLMN	Total number of combined (PS and CS) inter-SGSN routing area update requests rejected for 2G service due to GPRS service not allowed in specific PLMN.
3G-No suitable cells in this Location Area	Total number of combined (PS and CS) inter-SGSN routing area update requests rejected for 3G service due to non availability of suitable cell in specific location area.
2G-No suitable cells in this Location Area	Total number of combined (PS and CS) inter-SGSN routing area update requests rejected for 2G service due to non availability of suitable cell in specific location area.
3G-MSC not reachable	Total number of combined (PS and CS) inter-SGSN routing area update requests rejected for 3G service as MSC not reachable.
2G-MSC not reachable	Total number of combined (PS and CS) inter-SGSN routing area update requests rejected for 2G service as MSC not reachable.
3G-Network Failure	Total number of combined (PS and CS) inter-SGSN routing area update requests rejected for 3G service due to network failure.
2G-Network Failure	Total number of combined (PS and CS) inter-SGSN routing area update requests rejected for 2G service due to network failure.
3G-MAC Failure	Total number of combined (PS and CS) inter-SGSN routing area update requests rejected for 3G service due to message authenticate code (MAC) failure.
2G-MAC Failure	Total number of combined (PS and CS) inter-SGSN routing area update requests rejected for 2G service due to MAC failure.
3G-SYNC Failure	Total number of combined (PS and CS) inter-SGSN routing area update requests rejected for 3G service due to context synchronization failure.
2G-SYNC Failure	Total number of combined (PS and CS) inter-SGSN routing area update requests rejected for 2G service due to context synchronization failure.
3G-Congestion	Total number of combined (PS and CS) inter-SGSN routing area update requests rejected for 3G service due to network congestion.
2G-Congestion	Total number of combined (PS and CS) inter-SGSN routing area update requests rejected for 2G service due to network congestion.
3G-GSM Auth Unacceptable	Total number of combined (PS and CS) inter-SGSN routing area update requests rejected for 3G service due to unacceptable authentication from GSM network.
2G-GSM Auth Unacceptable	Total number of combined (PS and CS) inter-SGSN routing area update requests rejected for 2G service due to unacceptable authentication from GSM network.

Field	Description
3G-No PDP contexts activated	Total number of combined (PS and CS) inter-SGSN routing area update requests rejected for 3G service as PDP context is not activated.
2G-No PDP contexts activated	Total number of combined (PS and CS) inter-SGSN routing area update requests rejected for 2G service as PDP context is not activated.
3G-Retry from new cell	Total number of combined (PS and CS) inter-SGSN routing area update requests rejected for 3G service as update was retried from different cell than original RAU request by MS.
2G-Retry from new cell	Total number of combined (PS and CS) inter-SGSN routing area update requests rejected for 2G service as update was retried from different cell than original RAU request by MS.
3G-Semantically Wrong Msg	Total number of combined (PS and CS) inter-SGSN routing area update requests rejected for 3G service as attach request message is semantically wrong.
2G-Semantically Wrg Msg	Total number of combined (PS and CS) inter-SGSN routing area update requests rejected for 2G service as attach request message is semantically wrong.
3G-Invalid Mandatory Info	Total number of combined (PS and CS) inter-SGSN routing area update requests rejected for 3G service as mandatory information in message is invalid.
2G-Invalid Mandatory Info	Total number of combined (PS and CS) inter-SGSN routing area update requests rejected for 2G service as mandatory information in message is invalid.
3G-MSG type Non Existent	Total number of combined (PS and CS) inter-SGSN routing area update requests rejected for 3G service due to non-existent type of message.
2G-MSG type Non Existent	Total number of combined (PS and CS) inter-SGSN routing area update requests rejected for 2G service due to non-existent type of message.
3G-MSG type not compatible with protocol state	Total number of combined (PS and CS) inter-SGSN routing area update requests rejected for 3G service as message type is not compatible with protocol state.
2G-MSG type not compatible with protocol state	Total number of combined (PS and CS) inter-SGSN routing area update requests rejected for 2G service as message type is not compatible with protocol state.
3G-IE Non Existent	Total number of combined (PS and CS) inter-SGSN routing area update requests rejected for 3G service due to inclusion of non-existent information element (IE) in message.
2G-IE Non Existent	Total number of combined (PS and CS) inter-SGSN routing area update requests rejected for 2G service due to inclusion of non-existent information element (IE) in message.
3G-Conditional IE Error	Total number of combined (PS and CS) inter-SGSN routing area update requests rejected for 3G service due to error in conditional information element.
2G-Conditional IE Error	Total number of combined (PS and CS) inter-SGSN routing area update requests rejected for 2G service due to error in conditional information element.
3G-Message not compatible with protocol state	Total number of combined (PS and CS) inter-SGSN routing area update requests rejected for 3G service as message is not compatible with protocol state.
2G-Message not compatible with protocol state	Total number of combined (PS and CS) inter-SGSN routing area update requests rejected for 2G service as message is not compatible with protocol state.
3G-protocol Error	Total number of combined (PS and CS) inter-SGSN routing area update requests rejected for 3G service due to protocol error in message.
2G-protocol Error	Total number of combined (PS and CS) inter-SGSN routing area update requests rejected for 3G service due to protocol error in message.

Field	Description
3G-Unknown cause	Total number of combined (PS and CS) inter-SGSN attach rejected for 3G service where cause is unknown or not specified here.
2G-Unknown cause	Total number of combined (PS and CS) inter-SGSN attach rejected for 2G service where cause is unknown or not specified here.
Inter RAT PS Only Routing Area Update Reject Causes	
3G-IMSI Unknown in HLR	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 3G service with cause “IMSI unknown at HLR”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On HLR sending a bad response to SAI-Req/GLU-Req</li> <li>• On getting zero auth vectors for HLR for a SAI-Req</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-IMSI Unknown in HLR	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 2G service with cause “IMSI unknown at HLR”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On HLR sending a bad response to SAI-Req/GLU-Req</li> <li>• On getting zero auth vectors for HLR for a SAI-Req</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p>
3G-Illegal MS	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 3G service with cause “Illegal MS”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On HLR sending a bad response to SAI-Req/GLU-Req</li> <li>• On getting zero auth vectors for HLR for a SAI-Req</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-Illegal MS	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 2G service with cause “Illegal MS”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per GPRS service</p>
3G-Illegal ME	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 3G service with cause “Illegal ME”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• Unable to retrieve IMEI/IMEISV from MS</li> <li>• On IMEI verification failure with EIR</li> <li>• On getting unknown equipment failure from EIR/HLR</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>

Field	Description
2G-Illegal ME	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 2G service with cause “Illegal ME”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On IMEI verification failure with EIR</li> <li>• On getting unknown equipment failure from EIR/HLR</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p>
3G-GPRS service not allowed	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects sent with cause “GPRS services not allowed in this PLMN” against Inter-service-RAU Requests in 3G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On getting a cl (subs-with) while an attach/RAU is in progress</li> <li>• On getting “Subscriber Unknown” failure from HLR for SAI-Req/GLU-Req</li> <li>• For rejecting attaches due to subscriber control inactivity</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-GPRS service not allowed	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects sent with cause “GPRS services not allowed in this PLMN” against Inter-service-RAU Requests in 2G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On getting a cl (subs-with) while an attach/RAU is in progress</li> <li>• On getting “Subscriber Unknown” failure from HLR for SAI-Req/GLU-Req</li> <li>• For rejecting attaches due to subscriber control inactivity</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p>
3G-GPRS and Non-GPRS service not allowed	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects sent with cause “GPRS and non-GPRS service not allowed for subscriber” against Inter-service-RAU Requests in 3G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On getting “IMSI unknown” from HLR for SAI-Req/GLU-Req</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-GPRS and Non-GPRS service not allowed	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects sent with cause “GPRS and non-GPRS service not allowed for subscriber” against Inter-service-RAU Requests in 2G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On getting “IMSI unknown” from HLR for SAI-Req/GLU-Req</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p>

Field	Description
3G-MSId not derived by Nw	<p><b>Description:</b> Total number of GPRS only inter-service routing area update request rejects sent with cause “MSID not derived by network” against Inter-Service-RAU requests in 3G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On getting periodic RAU with old RAI as a non-local RAI</li> <li>• When PTMSI-IE is missing in RAU</li> <li>• When old RAI has invalid location area values (0x0000 or 0xffff) for PTMSI-attaches/RAUs</li> <li>• When getting a RAU with old RAI in 2G and PTMSI is unknown</li> <li>• When getting PTMSI-SIG-MISMATCH for a SGSN Context Request sent with IMSI Validated</li> <li>• When getting a RAU Request while an attach with the same peer-SGSN-PTMSI is in progress</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-MSId not derived by Nw	<p><b>Description:</b> Total number of GPRS only inter-service routing area update request rejects sent with cause “MSID not derived by network” against Inter-Service-RAU requests in 3G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• When SGSN-Context-Resp arrives with any cause other than “accepted”</li> <li>• When GMM-Identity-Req with MS fails</li> <li>• When GTP-Identity-Req with MS fails</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p>
3G-Implicitly Detached	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 3G service with cause “Implicitly detached”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• RAU at 3G when subscriber was detached from 2G</li> <li>• When we get a different IMSI in SGSN Context Response for an SGSN Context Request sent with IMSI validated</li> <li>• When we get RAU while awaiting a Detach Accept</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-Implicitly Detached	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 3G service with cause “Implicitly detached”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• When we get an RAU from an unknown MS</li> <li>• On T3350 expiry for the Attach-accept</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p>

Field	Description
3G-PLMN not allowed	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 3G service with cause “PLMN not allowed”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-PLMN not allowed	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 2G service with cause “PLMN not allowed”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per GPRS service</p>
3G-Location Area not allowed	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 3G service with cause “Location area not allowed”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-Location Area not allowed	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 2G service with cause “Location area not allowed”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per GPRS service</p>
3G-Roaming not allowed in this Location Area	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 3G service with cause “Roaming area not allowed in the given location area”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• When rejecting as a shared SGSN due to no operator accepting the given IMSI</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-Roaming not allowed in this Location Area	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 2G service with cause “Roaming area not allowed in the given location area”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• When rejecting as a shared SGSN due to no operator accepting the given IMSI</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p>
3G-GPRS service not allowed in this PLMN	<p><b>Description:</b> Total number of GPRS only RAU Rejects sent with cause “GPRS service not allowed in this PLMN” against Inter-Service-RAU Requests in 3G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On getting “Roaming not allowed” from HLR for SAI-Req/GLU-Req</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-GPRS service not allowed in this PLMN	<p><b>Description:</b> Total number of GPRS only RAU Rejects sent with cause “GPRS service not allowed in this PLMN” against Inter-Service-RAU Requests in 2G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On getting “Roaming not allowed” from HLR for SAI-Req/GLU-Req</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p>

Field	Description
3G-No suitable cells in this Location Area	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 3G service with cause “No cells in location area”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On getting “UMTS access control” from Siemens HLR for SAI-Req/GLU-Req</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-No suitable cells in this Location Area	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 2G service with cause “No cells in location area”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On getting “UMTS access control” from Siemens HLR for SAI-Req/GLU-Req</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p>
3G-MS-C not reachable	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 3G service with cause “MS-C not reachable”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On sending an attach/RAU Accept with cause “GPRS only attached” or “RA updated” for a combined CS/PS request either because: <ul style="list-style-type: none"> <li>• the request is timed out</li> <li>• inability to send to VLR</li> </ul> </li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-MS-C not reachable	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 2G service with cause “MS-C not reachable”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On sending an attach/RAU Accept with cause “GPRS only attached” or “RA updated” for a combined CS/PS request either because: <ul style="list-style-type: none"> <li>• the request is timed out</li> <li>• inability to send to VLR</li> </ul> </li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p>

Field	Description
3G-Network Failure	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 3G service with cause “Network Failure”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• RNC is overloaded</li> <li>• Not enough credits at session manager</li> <li>• On getting cause “data missing from HLR” in SAI-Req/GLU-Req</li> <li>• Too many IUs for the same IMSI</li> <li>• On getting a RAU with a peer SGSN PTMSI when another Attach is ongoing with the same PTMSI</li> <li>• On congestion, if configured for attach-throttling</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-Network Failure	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 2G service with cause “Network Failure”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On getting cause “data missing from HLR” in SAI-Req/GLU-Req</li> <li>• On XID failure for RAU</li> <li>• Inability to send an SGSN-Ctx-Req out for an RAU.</li> <li>• Inability to send a Check-IMEI Request out</li> <li>• On congestion, if configured for attach-throttling</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p>
3G-MAC Failure	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 3G service with cause “Message Authenticate Code (MAC) Failure”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-MAC Failure	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 2G service with cause “Message Authenticate Code (MAC) Failure”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per GPRS service</p>
3G-SYNC Failure	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 3G service with cause “Context Synchronization Failure”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-SYNC Failure	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 2G service with cause “Context Synchronization Failure”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per GPRS service</p>

Field	Description
3G-Congestion	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 3G service with cause “Network Congestion”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On congestion, if configured for attach-throttling</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-Congestion	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 2G service with cause “Network Congestion”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On congestion, if configured for attach-throttling</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p>
3G-GSM Auth Unacceptable	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 3G service with cause “GSM Authentication unacceptable”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-GSM Auth Unacceptable	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 2G service with cause “GSM Authentication unacceptable”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per GPRS service</p>
3G-No PDP contexts activated	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 3G service with cause “PDP context not activated”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-No PDP contexts activated	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 2G service with cause “PDP context not activated”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per GPRS service</p>
3G-Retry from new cell	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 3G service with cause “Subscriber retried from a new cell”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-Retry from new cell	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 2G service with cause “Subscriber retried from a new cell”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per GPRS service</p>

Field	Description
3G-Semantically Wrong Msg	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 3G service with cause “Semantically wrong message”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On decode failure of messages</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-Semantically Wrong Msg	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 2G service with cause “Semantically wrong message”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On decode failure of messages</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p>
3G-Invalid Mandatory Info	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 3G service with cause “Invalid Mandatory Info”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On decode failure of messages</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-Invalid Mandatory Info	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 2G service with cause “Invalid Mandatory Info”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On decode failure of messages</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p>
3G-MSG type Non Existent	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 3G service with cause “Message type does not exist”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On decode failure of messages</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-MSG type Non Existent	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 2G service with cause “Message type does not exist”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On decode failure of messages</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p>

Field	Description
3G-MSG type not compatible with protocol state	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 3G service with cause “Message type not compatible with protocol state”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On decode failure of messages</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-MSG type not compatible with protocol state	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 2G service with cause “Message type not compatible with protocol state”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On decode failure of messages</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p>
3G-IE Non Existent	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 3G service with cause “Information element not existent”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On decode failure of messages</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-IE Non Existent	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 2G service with cause “Information element not existent”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On decode failure of messages</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p>
3G-Conditional IE Error	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 3G service with cause “error in conditional informational element”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On decode failure of messages</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-Conditional IE Error	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 2G service with cause “error in conditional informational element”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On decode failure of messages</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p>

Field	Description
3G-Message not compatible with protocol state	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 3G service with cause “message not compatible with protocol state”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• When getting an Attach Request before getting Relocation-complete during SRNS</li> <li>• When getting periodic RAU in a direct transfer message</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-Message not compatible with protocol state	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 2G service with cause “message not compatible with protocol state”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per GPRS service</p>
3G-Protocol Error	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 3G service with cause “protocol error”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-Protocol Error	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 2G service with cause “protocol error”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• When the PLMN ID in BSSGP message does not match the configured PLMN at GPRS service</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p>
3G-Unknown cause	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 3G service with cause “unknown error”.</p> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-Unknown cause	<p><b>Description:</b> Total number of GPRS only Inter RAT RAU Rejects in 2G service with cause “unknown error”.</p> <p><b>Availability:</b> per RA, per GPRS service</p>
Inter RAT Comb. Routing Area Update Reject Causes	
3G-IMSI Unknown in HLR	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 3G service with cause “IMSI unknown at HLR”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On HLR sending a bad response to a SAI-Req/GLU-Req</li> <li>• On getting zero auth vectors for HLR for a SAI-Req</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-IMSI Unknown in HLR	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 2G service with cause “IMSI unknown at HLR”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per GPRS service</p>

Field	Description
3G-Illegal MS	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 3G service with cause “Illegal MS”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• Unable to retrieve IMEI/IMEISV from MS</li> <li>• On IMEI verification failure with EIR</li> <li>• On getting unknown equipment failure from EIR/HLR</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-Illegal MS	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 2G service with cause “Illegal MS”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On IMEI verification failure with EIR</li> <li>• On getting unknown equipment failure from EIR/HLR</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p>
3G-Illegal ME	<p><b>Description:</b> Total number of Combined Inter RAT RAU rejects in 3G service with cause “Illegal ME”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• Unable to retrieve IMEI/IMEISV from MS</li> <li>• On IMEI verification failure with EIR</li> <li>• On getting unknown equipment failure from EIR/HLR</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-Illegal ME	<p><b>Description:</b> Total number of Combined Inter RAT RAU rejects in 3G service with cause “Illegal ME”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On IMEI verification failure with EIR</li> <li>• On getting unknown equipment failure from EIR/HLR</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p>
3G-GPRS service not allowed	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects sent with cause “GPRS services not allowed in this PLMN” against Inter-service-RAU Requests in 3G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On getting a cl (subs-with) while an attach/RAU is in progress</li> <li>• On getting “Subscriber Unknown” failure from HLR for SAI-Req/GLU-Req</li> <li>• For rejecting attaches due to subscriber control inactivity</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>

Field	Description
2G-GPRS service not allowed	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects sent with cause “GPRS services not allowed in this PLMN” against Inter-service-RAU Requests in 3G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On getting a cl (subs-with) while an attach/RAU is in progress</li> <li>• On getting “Subscriber Unknown” failure from HLR for SAI-Req/GLU-Req</li> <li>• For rejecting attaches due to subscriber control inactivity</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p>
3G-GPRS and Non-GPRS service not allowed	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects sent with cause “GPRS and non-GPRS service not allowed for subscriber” against Inter-service-RAU Requests in 3G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On getting “IMSI unknown” from HLR for SAI-Req/GLU-Req</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-GPRS and Non-GPRS service not allowed	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects sent with cause “GPRS and non-GPRS service not allowed for subscriber” against Inter-service-RAU Requests in 2G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On getting “IMSI unknown” from HLR for SAI-Req/GLU-Req</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p>
3G-MSId not derived by Nw	<p><b>Description:</b> Total number of Combined Inter Service RAU Request Rejects sent with cause “MSID not derived by network” against Inter-Service-RAU Requests in 3G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On getting periodic RAU with old RAI as a non-local RAI</li> <li>• When PTMSI-IE is missing in RAU</li> <li>• When old RAI has invalid location area values (0x0000 or 0xffff) for PTMSI-attaches/RAUs</li> <li>• When getting a RAU with old RAI in 2G and PTMSI is unknown</li> <li>• When getting PTMSI-SIG-MISMATCH for a SGSN Context Request sent with IMSI Validated</li> <li>• When getting a RAU Request while an attach with the same peer-SGSN-PTMSI is in progress</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>

Field	Description
2G-MSId not derived by Nw	<p><b>Description:</b> Total number of Combined Inter Service RAU Request Rejects sent with cause “MSID not derived by network” against Inter-Service-RAU Requests in 2G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• When SGSN-Context-Resp arrives with any cause other than “accepted”</li> <li>• When GMM-Identity-Req with MS fails</li> <li>• When GTP-Identity-Req with MS fails</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p>
3G-Implicitly Detached	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 3G service with cause “Implicitly detached”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• RAU at 3G when subscriber was detached from 2G</li> <li>• When we get a different IMSI in SGSN Context Response for an SGSN Context Request sent with IMSI validated</li> <li>• When we get RAU while awaiting a Detach Accept</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-Implicitly Detached	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 2G service with cause “Implicitly detached”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• When we get an RAU from an unknown MS</li> <li>• On T3350 expiry for the attach-accept</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p>
3G-PLMN not allowed	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 3G service with cause “PLMN not allowed”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-PLMN not allowed	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 2G service with cause “PLMN not allowed”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per GPRS service</p>
3G-Location Area not allowed	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 3G service with cause “Location area not allowed”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>

Field	Description
2G-Location Area not allowed	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 2G service with cause “Location area not allowed”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per GPRS service</p>
3G-Roaming not allowed in this Location Area	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 3G service with cause “Roaming area not allowed in the given location area”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• When rejecting as a shared SGSN due to no operator accepting the given IMSI</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-Roaming not allowed in this Location Area	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 2G service with cause “Roaming area not allowed in the given location area”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per GPRS service</p>
3G-GPRS service not allowed in this PLMN	<p><b>Description:</b> Total number of Combined RAU Rejects sent with cause “GPRS service not allowed in this PLMN” against Inter-Service-RAU Requests in 3G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On getting “Roaming not allowed” from HLR for SAI-Req/GLU-Req</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-GPRS service not allowed in this PLMN	<p><b>Description:</b> Total number of Combined RAU Rejects sent with cause “GPRS service not allowed in this PLMN” against Inter-Service-RAU Requests in 2G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On getting “Roaming not allowed” from HLR for SAI-Req/GLU-Req</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p>
3G-No suitable cells in this Location Area	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 3G service with cause “No cells in location area”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On getting “UMTS access control” from Siemens HLR for SAI-Req/GLU-Req</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-No suitable cells in this Location Area	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 2G service with cause “No cells in location area”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On getting “UMTS access control” from Siemens HLR for SAI-Req/GLU-Req</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p>

Field	Description
3G-MSC not reachable	<p><b>Description:</b> Total number of Combined Inter RAT RAU rejects in 3G service with cause “MSC not reachable”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On sending an attach/RAU Accept with cause “GPRS only attached” or “RA updated” for a combined CS/PS request either because: <ul style="list-style-type: none"> <li>the request is timed out</li> <li>inability to send to VLR</li> </ul> </li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-MSC not reachable	<p><b>Description:</b> Total number of Combined Inter RAT RAU rejects in 2G service with cause “MSC not reachable”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On sending an attach/RAU Accept with cause “GPRS only attached” or “RA updated” for a combined CS/PS request either because: <ul style="list-style-type: none"> <li>the request is timed out</li> <li>inability to send to VLR</li> </ul> </li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p>
3G-Network Failure	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 3G service with cause “Network Failure”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>RNC is overloaded</li> <li>Not enough credits at session manager</li> <li>On getting cause “data missing from HLR” in SAI-Req/GLU-Req</li> <li>Too many IUs for the same IMSI</li> <li>On getting a RAU with a peer SGSN PTMSI when another Attach is ongoing with the same PTMSI</li> <li>On congestion, if configured for attach-throttling</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-Network Failure	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 2G service with cause “Network Failure”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On getting cause “data missing from HLR” in SAI-Req/GLU-Req</li> <li>On XID failure for RAU</li> <li>Inability to send an SGSN-Ctx-Req out for an RAU</li> <li>Inability to send a Check-IMEI Request out</li> <li>On congestion, if configured for attach-throttling</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p>

Field	Description
3G-MAC Failure	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 3G service with cause “Message Authenticate Code (MAC) Failure”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-MAC Failure	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 2G service with cause “Message Authenticate Code (MAC) Failure”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per GPRS service</p>
3G-SYNC Failure	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 3G service with cause “Context Synchronization Failure”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-SYNC Failure	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 2G service with cause “Context Synchronization Failure”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per GPRS service</p>
3G-Congestion	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 3G service with cause “Network Congestion”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On congestion, if configured for attach-throttling</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-Congestion	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 2G service with cause “Network Congestion”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On congestion, if configured for attach-throttling</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p>
3G-GSM Auth Unacceptable	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 3G service with cause “GSM Authentication unacceptable”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-GSM Auth Unacceptable	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 2G service with cause “GSM Authentication unacceptable”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per GPRS service</p>

Field	Description
3G-No PDP contexts activated	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 3G service with cause “PDP context not activated”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-No PDP contexts activated	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 2G service with cause “PDP context not activated”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per GPRS service</p>
3G-Retry from new cell	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 3G service with cause “Subscriber retried from a new cell”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-Retry from new cell	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 2G service with cause “Subscriber retried from a new cell”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per GPRS service</p>
3G-Semantically Wrong Msg	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 3G service with cause “Semantically wrong message”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On decode failure of messages</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-Semantically Wrong Msg	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 3G service with cause “Semantically wrong message”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On decode failure of messages</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p>
3G-Invalid Mandatory Info	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 3G service with cause “Invalid Mandatory Info”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On decode failure of messages</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-Invalid Mandatory Info	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 2G service with cause “Invalid Mandatory Info”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On decode failure of messages</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p>

Field	Description
3G-MSG type Non Existent	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 3G service with cause “Message type does not exist”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On decode failure of messages</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-MSG type Non Existent	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 2G service with cause “Message type does not exist”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On decode failure of messages</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p>
3G-MSG type not compatible with protocol state	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 3G service with cause “Message type not compatible with protocol state”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On decode failure of messages</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-MSG type not compatible with protocol state	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 2G service with cause “Message type not compatible with protocol state”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On decode failure of messages</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p>
3G-IE Non Existent	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 3G service with cause “Information element not existent”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On decode failure of messages</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-IE Non Existent	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 2G service with cause “Information element not existent”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On decode failure of messages</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p>

Field	Description
3G-Conditional IE Error	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 3G service with cause “error in conditional informational element”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On decode failure of messages</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-Conditional IE Error	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 2G service with cause “error in conditional informational element”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On decode failure of messages</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p>
3G-Message not compatible with protocol state	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 3G service with cause “message not compatible with protocol state”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• When getting an Attach Request before getting Relocation-complete during SRNS</li> <li>• When getting periodic RAU in a direct transfer message</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-Message not compatible with protocol state	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 2G service with cause “message not compatible with protocol state”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per GPRS service</p>
3G-Protocol Error	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 3G service with cause “protocol error”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-Protocol Error	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 2G service with cause “protocol error”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• When the PLMN ID in BSSGP message does not match the configured PLMN at GPRS service</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p>
3G-Unknown cause	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 3G service with cause “unknown error”.</p> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-Unknown cause	<p><b>Description:</b> Total number of Combined Inter RAT RAU Rejects in 2G service with cause “unknown error”.</p> <p><b>Availability:</b> per RA, per GPRS service</p>

Field	Description
Inter Service PS Only Routing Area Update Reject Causes	
3G-IMSI Unknown in HLR	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 3G service with cause “IMSI unknown at HLR”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On HLR sending a bad response to a SAI-Req or GLU-Req</li> <li>• On getting zero auth vectors for HLR for a SAI-Req</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-IMSI Unknown in HLR	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 2G service with cause “IMSI unknown at HLR”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On HLR sending a bad response to a SAI-Req or GLU-Req</li> <li>• On getting zero auth vectors for HLR for a SAI-Req</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p>
3G-Illegal MS	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 3G service with cause “Illegal M”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On HLR sending a bad response to a SAI-Req or GLU-Req</li> <li>• On getting zero auth vectors for HLR for a SAI-Req</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-Illegal MS	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 2G service with cause “Illegal MS”.</p> <ul style="list-style-type: none"> <li>• <b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p>
3G-Illegal ME	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 3G service with cause “Illegal ME”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• Unable to retrieve IMEI/IMEISV from MS</li> <li>• On IMEI verification failure with EIR</li> <li>• On getting unknown equipment failure from EIR/HLR</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>

Field	Description
2G-Illegal ME	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 2G service with cause “Illegal ME”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On IMEI verification failure with EIR</li> <li>• On getting unknown equipment failure from EIR/HLR</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p>
3G-GPRS service not allowed	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects sent with cause “GPRS services not allowed in this PLMN” against Inter-service-RAU Requests in 3G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On getting a cl (subs-with) while an attach/RAU is in progress</li> <li>• On getting “Subscriber Unknown” failure from HLR for SAI-Req/GLU-Req</li> <li>• For rejecting attaches due to subscriber control inactivity</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-GPRS service not allowed	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects sent with cause “GPRS services not allowed in this PLMN” against Inter-service-RAU Requests in 2G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On getting a cl (subs-with) while an attach/RAU is in progress</li> <li>• On getting “Subscriber Unknown” failure from HLR for SAI-Req/GLU-Req</li> <li>• For rejecting attaches due to subscriber control inactivity</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p>
3G-GPRS and Non-GPRS service not allowed	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects sent with cause “GPRS and non-GPRS service not allowed for subscriber” against Inter-service-RAU Requests in 3G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On getting “IMSI unknown” from HLR for SAI-Req/GLU-Req</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-GPRS and Non-GPRS service not allowed	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects sent with cause “GPRS and non-GPRS service not allowed for subscriber” against Inter-service-RAU Requests in 2G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On getting “IMSI unknown” from HLR for SAI-Req/GLU-Req</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p>

Field	Description
3G-MSId not derived by Nw	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Request Rejects sent with cause “MSID not derived by network” against Inter-Service-RAU Requests in 3G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On getting periodic RAU with old RAI as a non-local RAI</li> <li>• When PTMSI-IE is missing in RAU</li> <li>• When old RAI has invalid location area values (0x0000 or 0xffff) for PTMSI-attaches/RAUs</li> <li>• When getting a RAU with old RAI in 2G and PTMSI is unknown</li> <li>• When getting PTMSI-SIG-MISMATCH for a SGSN Context Request sent with IMSI Validated</li> <li>• When getting a RAU Request while an attach with the same peer-SGSN-PTMSI is in progress</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-MSId not derived by Nw	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Request Rejects sent with cause “MSID not derived by network” against Inter-Service-RAU Requests in 2G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• When SGSN-Context-Resp arrives with any cause other than “accepted”</li> <li>• When GMM-Identity-Req with MS fails</li> <li>• When GTP-Identity-Req with MS fails</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p>
3G-Implicitly Detached	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 3G service with cause “Implicitly detached”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• RAU at 3G when subscriber was detached from 2G</li> <li>• When we get a different IMSI in SGSN Context Response for an SGSN Context Request sent with IMSI validated</li> <li>• When we get RAU while awaiting a Detach Accept</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-Implicitly Detached	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 2G service with cause “Implicitly detached”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• When we get an RAU from an unknown MS</li> <li>• On T3350 expiry for the attach-accept</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p>

Field	Description
3G-PLMN not allowed	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 3G service with cause “PLMN not allowed”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-PLMN not allowed	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 2G service with cause “PLMN not allowed”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per GPRS service</p>
3G-Location Area not allowed	<p><b>Description:</b> Total number of GPRS only Inter Service RAU rejects in 3G service with cause “Location area not allowed”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-Location Area not allowed	<p><b>Description:</b> Total number of GPRS only Inter Service RAU rejects in 2G service with cause “Location area not allowed”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per GPRS service</p>
3G-Roaming not allowed in this Location Area	<p><b>Description:</b> Total number of GPRS only Inter Service RAU rejects in 3G service with cause “Roaming area not allowed in the given location area”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• When rejecting as a shared SGSN due to no operator accepting the given IMSI</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-Roaming not allowed in this Location Area	<p><b>Description:</b> Total number of GPRS only Inter Service RAU rejects in 2G service with cause “Roaming area not allowed in the given location area”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per GPRS service</p>
3G-GPRS service not allowed in this PLMN	<p><b>Description:</b> Total number of GPRS only RAU Rejects sent with cause “GPRS service not allowed in this PLMN” against Inter-Service-RAU Requests in 3G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On getting “Roaming not allowed” from HLR for SAI-Req/GLU-Req</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-GPRS service not allowed in this PLMN	<p><b>Description:</b> Total number of GPRS only RAU Rejects sent with cause “GPRS service not allowed in this PLMN” against Inter-Service-RAU Requests in 2G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On getting “Roaming not allowed” from HLR for SAI-Req/GLU-Req</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p>

Field	Description
3G-No suitable cells in this Location Area	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 3G service with cause “No cells in location area”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On getting “UMTS access control” from Siemens HLR for SAI-Req/GLU-Req</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-No suitable cells in this Location Area	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 2G service with cause “No cells in location area”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On getting “UMTS access control” from Siemens HLR for SAI-Req/GLU-Req</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p>
3G-MSC not reachable	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 3G service with cause “MSC not reachable”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On sending an attach/RAU Accept with cause “GPRS only attached” or “RA updated” for a combined CS/PS request either because: <ul style="list-style-type: none"> <li>the request is timed out</li> <li>inability to send to VLR</li> </ul> </li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-MSC not reachable	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 2G service with cause “MSC not reachable”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On sending an attach/RAU Accept with cause “GPRS only attached” or “RA updated” for a combined CS/PS request either because: <ul style="list-style-type: none"> <li>the request is timed out</li> <li>inability to send to VLR</li> </ul> </li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p>

Field	Description
3G-Network Failure	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 3G service with cause “Network Failure”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• RNC is overloaded</li> <li>• Not enough credits at session manager</li> <li>• On getting cause “data missing from HLR” in SAI-Req/GLU-Req</li> <li>• Too many IUs for the same IMSI</li> <li>• On getting a RAU with a peer SGSN PTMSI when another Attach is ongoing with the same PTMSI</li> <li>• On congestion, if configured for attach-throttling</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-Network Failure	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 2G service with cause “Network Failure”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On getting cause “data missing from HLR” in SAI-Req/GLU-Req</li> <li>• On XID failure for RAU</li> <li>• Inability to send an SGSN-Ctx-Req out for an RAU.</li> <li>• Inability to send a Check-IMEI Request out</li> <li>• On congestion, if configured for attach-throttling</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p>
3G-MAC Failure	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 3G service with cause “Message Authenticate Code (MAC) Failure”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-MAC Failure	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 2G service with cause “Message Authenticate Code (MAC) Failure”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per GPRS service</p>
3G-SYNC Failure	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 3G service with cause “Context Synchronization Failure”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-SYNC Failure	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 2G service with cause “Context Synchronization Failure”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per GPRS service</p>

Field	Description
3G-Congestion	<p><b>Description:</b> Total number of GPRS Only Inter Service RAU Rejects in 3G service with cause “Network Congestion”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On congestion, if configured for attach-throttling</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-Congestion	<p><b>Description:</b> Total number of GPRS Only Inter Service RAU Rejects in 2G service with cause “Network Congestion”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On congestion, if configured for attach-throttling</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p>
3G-GSM Auth Unacceptable	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 3G service with cause “GSM Authentication unacceptable”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-GSM Auth Unacceptable	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 2G service with cause “GSM Authentication unacceptable”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per GPRS service</p>
3G-No PDP contexts activated	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 3G service with cause “PDP context not activated”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-No PDP contexts activated	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 2G service with cause “PDP context not activated”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per GPRS service</p>
3G-Retry from new cell	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 3G service with cause “Subscriber retried from a new cell”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-Retry from new cell	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 2G service with cause “Subscriber retried from a new cell”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per GPRS service</p>

Field	Description
3G-Semantically Wrong Msg	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 3G service with cause “Semantically wrong message”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On decode failure of messages</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-Semantically Wrong Msg	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 2G service with cause “Semantically wrong message”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On decode failure of messages</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p>
3G-Invalid Mandatory Info	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 3G service with cause “Invalid Mandatory Info”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On decode failure of messages</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-Invalid Mandatory Info	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 2G service with cause “Invalid Mandatory Info”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On decode failure of messages</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p>
3G-MSG type Non Existent	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 3G service with cause “Message type does not exist”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On decode failure of messages</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-MSG type Non Existent	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 2G service with cause “Message type does not exist”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On decode failure of messages</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p>

Field	Description
3G-MSG type not compatible with protocol state	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 3G service with cause “Message type not compatible with protocol state”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On decode failure of messages</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-MSG type not compatible with protocol state	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 2G service with cause “Message type not compatible with protocol state”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On decode failure of messages</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p>
3G-IE Non Existent	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 3G service with cause “Information element not existent”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On decode failure of messages</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-IE Non Existent	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 2G service with cause “Information element not existent”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On decode failure of messages</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p>
3G-Conditional IE Error	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 3G service with cause “error in conditional informational element”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On decode failure of messages</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-Conditional IE Error	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 2G service with cause “error in conditional informational element”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On decode failure of messages</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p>

Field	Description
3G-Message not compatible with protocol state	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 3G service with cause “message not compatible with protocol state”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• When getting an Attach Request before getting Relocation-complete during SRNS</li> <li>• When getting periodic RAU in a direct transfer message</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-Message not compatible with protocol state	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 2G service with cause “message not compatible with protocol state”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per GPRS service</p>
3G-Protocol Error	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 2G service with cause “message not compatible with protocol state”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per RNC, per GPRS service</p>
2G-Protocol Error	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 3G service with cause “protocol error”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per SGSN service</p>
3G-Unknown cause	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 3G service with cause “unknown error”.</p> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-Unknown cause	<p><b>Description:</b> Total number of GPRS only Inter Service RAU Rejects in 2G service with cause “unknown error”.</p> <p><b>Availability:</b> per RA, per GPRS service</p>
Inter Service Comb. Routing Area Update Reject Causes	
3G-IMSI Unknown in HLR	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects in 3G service with cause “IMSI unknown at HLR”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On HLR sending a bad response to a SAI-Req/GLU-Req</li> <li>• On getting zero auth vectors for HLR for a SAI-Req</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-IMSI Unknown in HLR	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects in 2G service with cause “IMSI unknown at HLR”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per GPRS service</p>

Field	Description
3G-Illegal MS	<p><b>Description:</b> Total number of Combined Inter Service RAU rejects in 3G service with cause “Illegal MS”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• Unable to retrieve IMEI/IMEISV from MS</li> <li>• On IMEI verification failure with EIR</li> <li>• On getting unknown equipment failure from EIR/HLR</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-Illegal MS	<p><b>Description:</b> Total number of Combined Inter Service RAU rejects in 2G service with cause “Illegal MS”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On IMEI verification failure with EIR</li> <li>• On getting unknown equipment failure from EIR/HLR</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p>
3G-Illegal ME	<p><b>Description:</b> Total number of Combined Inter Service RAU rejects in 3G service with cause “Illegal ME”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• Unable to retrieve IMEI/IMEISV from MS</li> <li>• On IMEI verification failure with EIR</li> <li>• On getting unknown equipment failure from EIR/HLR</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-Illegal ME	<p><b>Description:</b> Total number of Combined Inter Service RAU rejects in 2G service with cause “Illegal ME”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On IMEI verification failure with EIR</li> <li>• On getting unknown equipment failure from EIR/HLR</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p>
3G-GPRS service not allowed	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects sent with cause “GPRS services not allowed in this PLMN” against Inter-service-RAU Requests in 3G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On getting a cl (subs-with) while an attach/RAU is in progress</li> <li>• On getting “Subscriber Unknown” failure from HLR for SAI-Req/GLU-Req</li> <li>• For rejecting attaches due to subscriber control inactivity</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>

Field	Description
2G-GPRS service not allowed	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects sent with cause “GPRS services not allowed in this PLMN” against Inter-service-RAU Requests in 2G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On getting a cl (subs-with) while an attach/RAU is in progress</li> <li>• On getting “Subscriber Unknown” failure from HLR for SAI-Req/GLU-Req</li> <li>• For rejecting attaches due to subscriber control inactivity</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p>
3G-GPRS and Non-GPRS service not allowed	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects sent with cause “GPRS and non-GPRS service not allowed for subscriber” against Inter-service-RAU Requests in 3G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On getting “IMSI unknown” from HLR for SAI-Req/GLU-Req</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-GPRS and Non-GPRS service not allowed	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects sent with cause “GPRS and non-GPRS service not allowed for subscriber” against Inter-service-RAU Requests in 2G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On getting “IMSI unknown” from HLR for SAI-Req/GLU-Req</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p>
3G-MsId not derived by Nw	<p><b>Description:</b> Total number of Combined Inter Service RAU Request Rejects sent with cause “MSID not derived by network” against Inter-Service-RAU Requests in 3G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On getting periodic RAU with old RAI as a non-local RAI</li> <li>• When PTMSI-IE is missing in RAU</li> <li>• When old RAI has invalid location area values (0x0000 or 0xfffe) for PTMSI-attaches/RAUs</li> <li>• When getting a RAU with old RAI in 2G and PTMSI is unknown</li> <li>• When getting PTMSI-SIG-MISMATCH for a SGSN Context Request sent with IMSI Validated</li> <li>• When getting a RAU Request while an attach with the same peer-SGSN-PTMSI is in progress</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>

Field	Description
2G-MSId not derived by Nw	<p><b>Description:</b> Total number of Combined Inter Service RAU Request Rejects sent with cause “MSID not derived by network” against Inter-Service-RAU Requests in 2G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• When SGSN-Context-Resp arrives with any cause other than “accepted”</li> <li>• When GMM-Identity-Req with MS fails</li> <li>• When GTP-Identity-Req with MS fails</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p>
3G-Implicitly Detached	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects in 3G service with cause “Implicitly detached”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• RAU at 3G when subscriber was detached from 2G</li> <li>• When we get a different IMSI in SGSN Context Response for an SGSN Context Request sent with IMSI validated</li> <li>• When we get RAU while awaiting a Detach Accept</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-Implicitly Detached	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects in 2G service with cause “Implicitly detached”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• When we get an RAU from an unknown MS</li> <li>• On T3350 expiry for the attach-accept</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p>
3G-PLMN not allowed	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects in 3G service with cause “PLMN not allowed”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-PLMN not allowed	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects in 2G service with cause “PLMN not allowed”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per GPRS service</p>
3G-Location Area not allowed	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects in 3G service with cause “Location area not allowed”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>

Field	Description
2G-Location Area not allowed	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects in 2G service with cause “Location area not allowed”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per GPRS service</p>
3G-Roaming not allowed in this Location Area	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects in 3G service with cause “Roaming area not allowed in the given location area”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• When rejecting as a shared SGSN due to no operator accepting the given IMSI</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-Roaming not allowed in this Location Area	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects in 2G service with cause “Roaming area not allowed in the given location area”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per GPRS service</p>
3G-GPRS service not allowed in this PLMN	<p><b>Description:</b> Total number of Combined RAU Rejects sent with cause “GPRS service not allowed in this PLMN” against Inter-Service-RAU Requests in 3G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On getting “Roaming not allowed” from HLR for SAI-Req/GLU-Req</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-GPRS service not allowed in this PLMN	<p><b>Description:</b> Total number of Combined RAU Rejects sent with cause “GPRS service not allowed in this PLMN” against Inter-Service-RAU Requests in 2G service.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On getting “Roaming not allowed” from HLR for SAI-Req/GLU-Req</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p>
3G-No suitable cells in this Location Area	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects in 3G service with cause “No cells in location area”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On getting “UMTS access control” from Siemens HLR for SAI-Req/GLU-Req</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-No suitable cells in this Location Area	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects in 2G service with cause “No cells in location area”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On getting “UMTS access control” from Siemens HLR for SAI-Req/GLU-Req</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p>

Field	Description
3G-MSC not reachable	<p><b>Description:</b> Total number of Combined Inter Service RAU rejects in 3G service with cause “MSC not reachable”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On sending an attach/RAU Accept with cause “GPRS only attached” or “RA updated” for a combined CS/PS request either because: <ul style="list-style-type: none"> <li>the request is timed out</li> <li>inability to send to VLR</li> </ul> </li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-MSC not reachable	<p><b>Description:</b> Total number of Combined Inter Service RAU rejects in 2G service with cause “MSC not reachable”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On sending an attach/RAU Accept with cause “GPRS only attached” or “RA updated” for a combined CS/PS request either because: <ul style="list-style-type: none"> <li>the request is timed out</li> <li>inability to send to VLR</li> </ul> </li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p>
3G-Network Failure	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects in 3G service with cause “Network Failure”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>RNC is overloaded</li> <li>Not enough credits at session manager</li> <li>On getting cause “data missing from HLR” in SAI-Req/GLU-Req</li> <li>Too many IUs for the same IMSI</li> <li>On getting a RAU with a peer SGSN PTMSI when another Attach is ongoing with the same PTMSI</li> <li>On congestion, if configured for attach-throttling</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-Network Failure	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects in 2G service with cause “Network Failure”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On getting cause “data missing from HLR” in SAI-Req/GLU-Req</li> <li>On XID failure for RAU</li> <li>Inability to send an SGSN-Ctx-Req out for an RAU</li> <li>Inability to send a Check-IMEI Request out</li> <li>On congestion, if configured for attach-throttling</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p>

Field	Description
3G-MAC Failure	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects in 3G service with cause “Message Authenticate Code (MAC) Failure”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-MAC Failure	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects in 2G service with cause “Message Authenticate Code (MAC) Failure”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per GPRS service</p>
3G-SYNC Failure	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects in 3G service with cause “Context Synchronization Failure”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-SYNC Failure	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects in 2G service with cause “Context Synchronization Failure”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per GPRS service</p>
3G-Congestion	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects in 3G service with cause “Network Congestion”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On congestion, if configured for attach-throttling</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-Congestion	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects in 2G service with cause “Network Congestion”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On congestion, if configured for attach-throttling</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p>
3G-GSM Auth Unacceptable	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects in 3G service with cause “GSM Authentication unacceptable”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-GSM Auth Unacceptable	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects in 2G service with cause “GSM Authentication unacceptable”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per GPRS service</p>

Field	Description
3G-No PDP contexts activated	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects in 3G service with cause “PDP context not activated”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-No PDP contexts activated	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects in 2G service with cause “PDP context not activated”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per GPRS service</p>
3G-Retry from new cell	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects in 3G service with cause “Subscriber retried from a new cell”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-Retry from new cell	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects in 2G service with cause “Subscriber retried from a new cell”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per GPRS service</p>
3G-Semantically Wrong Msg	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects in 3G service with cause “Semantically wrong message”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On decode failure of messages</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-Semantically Wrong Msg	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects in 2G service with cause “Semantically wrong message”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On decode failure of messages</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p>
3G-Invalid Mandatory Info	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects in 3G service with cause “Invalid Mandatory Info”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On decode failure of messages</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-Invalid Mandatory Info	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects in 2G service with cause “Invalid Mandatory Info”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On decode failure of messages</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p>

Field	Description
3G-MSG type Non Existent	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects in 3G service with cause “Message type does not exist”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On decode failure of messages</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-MSG type Non Existent	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects in 2G service with cause “Message type does not exist”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On decode failure of messages</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p>
3G-MSG type not compatible with protocol state	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects in 3G service with cause “Message type not compatible with protocol state”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On decode failure of messages</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-MSG type not compatible with protocol state	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects in 3G service with cause “Message type not compatible with protocol state”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On decode failure of messages</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p>
3G-IE Non Existent	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects in 3G service with cause “Information element not existent”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On decode failure of messages</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-IE Non Existent	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects in 2G service with cause “Information element not existent”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• On decode failure of messages</li> <li>• When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p>

Field	Description
3G-Conditional IE Error	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects in 3G service with cause “error in conditional informational element”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On decode failure of messages</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-Conditional IE Error	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects in 2G service with cause “error in conditional informational element”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>On decode failure of messages</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p>
3G-Message not compatible with protocol state	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects in 3G service with cause “message not compatible with protocol state”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>When getting an Attach Request before getting Relocation-complete during SRNS</li> <li>When getting periodic RAU in a direct transfer message</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-Message not compatible with protocol state	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects in 2G service with cause “message not compatible with protocol state”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per GPRS service</p>
3G-Protocol Error	<p><b>Description:</b> Total number of Combined Inter Service RAU rejects in 3G service with cause “protocol error”.</p> <p><b>Triggers:</b> Increments when operator policy is configured with this value as the reject cause for attaches/RAUs.</p> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-Protocol Error	<p><b>Description:</b> Total number of Combined Inter Service RAU rejects in 2G service with cause “protocol error”.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>When the PLMN ID in BSSGP message does not match the configured PLMN at GPRS service</li> <li>When operator policy is configured with this value as the reject cause for attaches/RAUs</li> </ul> <p><b>Availability:</b> per RA, per GPRS service</p>
3G-Unknown cause	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects in 3G service with cause “unknown error”.</p> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-Unknown cause	<p><b>Description:</b> Total number of Combined Inter Service RAU Rejects in 2G service with cause “unknown error”.</p> <p><b>Availability:</b> per RA, per GPRS service</p>

Field	Description
Routing Area Update Failure	This group displays the statistics of total RAU failures on SGSN.
Total-RAU-Failure	This subgroup indicates all type of Routing Area Update message failures including 2G and 3G occurred on SGSN.
Total-Intra-RAU-Failure	Total all type of intra-routing area RAU failures including 2G and 3G occurred on SGSN.
Total-Ra-Up-Intra-RAU-Fail	Total intra-routing area RAU failures including 2G and 3G occurred on SGSN.
3G-Ra-Up-Intra-RAU-Failure	Total intra-routing area RAU failures occurred on SGSN for 3G service.
2G-Ra-Up-Intra-RAU-Failure	Total intra-routing area RAU failures occurred on SGSN for 2G service.
Total-Periodic-RAU-Failure	Total periodic RAU failures including 2G and 3G occurred on SGSN.
3G-Periodic-RAU-Failure	Total periodic RAU failures occurred on SGSN for 3G service.
2G-Periodic-RAU-Failure	Total periodic RAU failures occurred on SGSN for 2G service.
Total-Comb-Intra-RAU-Fail	Total combined (PS and CS) RAU failures including 2G and 3G occurred on SGSN.
3G-Comb-Intra-RAU-Failure	Total combined (PS and CS) RAU failures occurred on SGSN for 3G service.
2G-Comb-Intra-RAU-Failure	Total combined (PS and CS) RAU failures occurred on SGSN for 2G service.
Total-Inter-SGSN-RAU-Fail	Total all type of inter-SGSN RAU failures including 2G and 3G occurred on SGSN.
Total-PS-Inter-RAU-Failure	Total inter-SGSN RAU failures including 2G and 3G occurred on SGSN for PS-only service.
3G-PS-Inter-RAU-Failure	Total inter-SGSN RAU failures for 3G occurred on SGSN for PS-only service.
2G-PS-Inter-RAU-Failure	Total inter-SGSN RAU failures for 2G occurred on SGSN for PS-only service.
Total-Comb-Inter-RAU-Fail	Total inter-SGSN RAU failures including 2G and 3G occurred on SGSN for combined (PS and CS) service.
3G-Comb-Inter-RAU-Failure	Total inter-SGSN RAU failures for 3G occurred on SGSN for combined (PS and CS) service.
2G-Comb-Inter-RAU-Failure	Total inter-SGSN RAU failures for 2G occurred on SGSN for combined (PS and CS) service.
Total-Ps-Inter-Rat-RAU-Fail	Total PS-only inter-RAT RAU failures including 2G and 3G services occurred on SGSN.
3G-Ps-Inter-Rat-RAU-Fail	Total PS-only inter-RAT RAU failures for 3G service occurred on SGSN.
2G-Ps-Inter-Rat-Fail	Total PS-only inter-RAT RAU failures for 2G service occurred on SGSN.
Total-Comb-Inter-Rat-RAU-Fai	Total combined (PS and CS) inter-RAT RAU failures including 2G and 3G services occurred on SGSN.
3G-Comb-Inter-Rat-RAU-Fail	Total combined (PS and CS) inter-RAT RAU failures for 3G service occurred on SGSN.
2G-Comb-Inter-Rat-Fail	Total combined (PS and CS) inter-RAT RAU failures for 2G service occurred on SGSN.
Total-Ps-Inter-Serv-RAU-Fail	Total PS-only inter-service RAU failures including 2G and 3G services occurred on SGSN.
3G-Ps-Inter-Serv-RAU-Fail	Total PS-only inter-service RAU failures for 3G service occurred on SGSN.
2G-Ps-Inter-Serv-RAU-Fail	Total PS-only inter-service RAU failures for 2G service occurred on SGSN.

Field	Description
Total-Comb-Inter-Ser-RAU-Fai	Total combined (PS and CS) inter-service RAU failures including 2G and 3G services occurred on SGSN.
3G-Comb-Inter-Ser-RAU-Fai	Total combined (PS and CS) inter-service RAU failures for 3G service occurred on SGSN.
2G-Comb-Inter-Ser-RAU-Fai	Total combined (PS and CS) inter-service RAU failures for 2G service occurred on SGSN.
Intra Ra-Upd Routing Area Update Failure Causes	This group displays the failure causes for intra-routing area RAU request failures on SGSN.
3G-Iu release before RAU over	Total number of intra-routing area RAU request failures occurred due to 3G Iu released before RAU procedure was over.
3G-Failure due to Other Ongoing Procedure	Total number of intra-routing area RAU request failures occurred as another procedure was ongoing in 3G service.
2G-Failure due to Other Ongoing Procedure	Total number of intra-routing area RAU request failures occurred as another procedure was ongoing in 2G service.
Intra Periodic Routing Area Update Failure Causes	This group displays the failure causes for periodic area RAU request failures on SGSN.
3G-Iu release before RAU over	Total number of periodic RAU request failures occurred due to 3G Iu released before RAU procedure was over.
3G-Failure due to Other Ongoing Procedure	Total number of periodic RAU request failures occurred as another procedure was ongoing in 3G service.
2G-Failure due to Other Ongoing Procedure	Total number of periodic RAU request failures occurred as another procedure was ongoing in 2G service.
Intra Combo. Routing Area Update Failure Causes	This group displays the failure causes for combined (PS and CS) RAU request failures on SGSN.
3G-Iu release before RAU over	Total number of combined (PS and CS) RAU request failures occurred due to 3G Iu released before RAU procedure was over.
3G-Failure due to Other Ongoing Procedure	Total number of combined (PS and CS) RAU request failures occurred as another procedure was ongoing in 3G service.
2G-Failure due to Other Ongoing Procedure	Total number of combined (PS and CS) RAU request failures occurred as another procedure was ongoing in 2G service.
Inter SGSN PS Only Routing Area Update Failure Causes	This group displays the failure causes for PS-only RAU request failures on SGSN.
3G-Iu release before RAU over	Total number of PS-only RAU request failures occurred due to 3G Iu released before RAU procedure was over.
3G-Failure due to Other Ongoing Procedure	Total number of PS-only RAU request failures occurred as another procedure was ongoing in 3G service.
2G-Failure due to Other Ongoing Procedure	Total number of PS-only RAU request failures occurred as another procedure was ongoing in 2G service.
Inter SGSN Comb. Routing Area Update Failure Causes	This group displays the failure causes for inter-SGSN combined (PS and CS) RAU request failures on SGSN.
3G-Iu release before RAU over	Total number of inter-SGSN combined (PS and CS) RAU request failures occurred due to 3G Iu released before RAU procedure was over.

Field	Description
3G-Failure due to Other Ongoing Procedure	Total number of inter-SGSN combined (PS and CS) RAU request failures occurred as another procedure was ongoing in 3G service.
2G-Failure due to Other Ongoing Procedure	Total number of inter-SGSN combined (PS and CS) RAU request failures occurred as another procedure was ongoing in 2G service.
Detach Request	Indicates the statistics of detach request messages.
Total-Detach-Req	Total number of detach request messages.
Total-MS-Init-Detach-Req	Total number of MS initiated detach request.
3G-MS-Init-GPRS-Detach-Req	Total number of MS initiated GPRS (PS) detach request for 3G service.
2G-MS-Init-GPRS-Detach-Req	Total number of MS initiated GPRS detach request for 2G service.
3G-MS-Init-IMSI-Detach-Req	Total number of MS initiated IMSI (CS) detach request for 3G service.
2G-MS-Init-IMSI-Detach-Req	Total number of MS initiated IMSI detach request for 2G service.
3G-MS-Init-Comb-Detach-Req	Total number of MS initiated combined (IMSI and GPRS) detach request for 3G service.
2G-MS-Init-Comb-Detach-Req	Total number of MS initiated combined (PS and CS) detach request for 2G service.
Total-Nw-Init-Detach-Req	Total number of network initiated detach request.
3G-Nw-Init-Reattach-Req	<b>Description:</b> During the network initiated detach for 3G service, the SGSN informs the MS that it has been detached by sending a detach request. The Detach Request has a detach type - "Reattach required" when it wants the MS to attach again for GPRS services. <b>Triggers:</b> Increments when a clear subscriber is performed. <b>Availability:</b> per RA, per RNC, per SGSN service
2G-Nw-Init-Reattach-Req	<b>Description:</b> During the network initiated detach for 2G service, the SGSN informs the MS that it has been detached by sending a detach request. The Detach Request has a detach type - "Reattach required" when it wants the MS to attach again for GPRS services. <b>Triggers:</b> Increments when a clear subscriber is performed. <b>Availability:</b> per RA, per RNC, per GPRS service
3G-Nw-Init-Reattach-Not-Req	<b>Description:</b> During the network initiated detach for 3G service, the SGSN informs the MS that it has been detached by sending a detach request. The Detach Request has a detach type - "Reattach not required" when it does not expect the MS to attach again for GPRS services. <b>Triggers:</b> Increments upon reception of a Cancel-Location (subscription-withdrawn) or a DSD (all-gprs-subscription withdrawn). <b>Availability:</b> per RA, per RNC, per SGSN service
2G-Nw-Init-Reattach-Not-Req	<b>Description:</b> During the network initiated detach for 2G service, the SGSN informs the MS that it has been detached by sending a detach request. The Detach Request has a detach type - "Reattach not required" when it does not expect the MS to attach again for GPRS services. <b>Triggers:</b> Increments upon reception of a Cancel-Location (subscription-withdrawn) or a DSD (all-gprs-subscription withdrawn). <b>Availability:</b> per RA, per RNC, per GPRS service

Field	Description
3G-Nw-Init-IMSI-Detach	<b>Description:</b> When the SGSN loses the GS-context for the MS due to a VLR-reset indication, it notifies the MS by sending an IMSI-detach on the next signalling activity by the MS. <b>Triggers:</b> Increments upon VLR-reset indication and a next uplink activity from MS. <b>Availability:</b> per RA, per RNC, per SGSN service
2G-Nw-Init-IMSI-Detach	<b>Description:</b> When the SGSN loses the GS-context for the MS due to a VLR-reset indication, it notifies the MS by sending an IMSI-detach on the next signalling activity by the MS. <b>Triggers:</b> Increments upon VLR-reset indication and a next uplink activity from MS. <b>Availability:</b> per RA, per RNC, per GPRS service
Retransmission	Indicates the statistics of detach request messages retransmitted.
Ret-Total-Detach-Req	Total number of detach request messages retransmitted.
Ret-Total-MS-Init-Det-Req	Total number of MS initiated detach request messages retransmitted.
Ret-3G-MS-Init-GPRS-Det-Re	Total number of MS initiated GPRS (PS) detach request messages retransmitted for 3G service.
Ret-3G-MS-Init-IMSI-Det-Re	Total number of MS initiated IMSI (CS) detach request messages retransmitted for 3G service.
Ret-3G-MS-Init-Comb-Det-Re	Total number of MS initiated combined (IMSI and GPRS) detach request messages retransmitted for 3G service.
Ret-2G-MS-Init-GPRS-Det-Re	Total number of MS initiated GPRS detach request messages retransmitted for 2G service.
Ret-2G-MS-Init-IMSI-Det-Re	Total number of MS initiated IMSI detach request messages retransmitted for 2G service.
Ret-2G-MS-Init-Comb-Det-Re	Total number of MS initiated combined (PS and CS) detach request messages retransmitted for 2G service.
Ret-Total-Nw-Init-Det-Req	Total number of network initiated detach request messages retransmitted.
Ret-3G-Nw-Init-Reattach-Req	<b>Description:</b> During the network initiated detach for 3G service, the SGSN informs the MS that it has been detached by sending a detach request. The Detach Request has a detach type - "Reattach required" when it wants the MS to attach again for GPRS services. <b>Triggers:</b> Increments upon the 1st, 2nd, 3rd and 4th expiry of T3322 for a detach of type "Reattach Required". <b>Availability:</b> per RA, per RNC, per SGSN service
Ret-2G-Nw-Init-Reattach-Req	<b>Description:</b> During the network initiated detach for 2G service, the SGSN informs the MS that it has been detached by sending a detach request. The Detach Request has a detach type - "Reattach required" when it wants the MS to attach again for GPRS services. <b>Triggers:</b> Increments upon the 1st, 2nd, 3rd and 4th expiry of T3322 for a detach of type "Reattach Required". <b>Availability:</b> per RA, per RNC, per GPRS service
Ret-3G-Nw-Init-Reattach-Not	<b>Description:</b> During the network initiated detach for 3G service, the SGSN informs the MS that it has been detached by sending a detach request. The Detach Request has a detach type - "Reattach not required" when it does not expect the MS to attach again for GPRS services. <b>Triggers:</b> Increments upon the 1st, 2nd, 3rd and 4th expiry of T3322 for a detach of type "Reattach Not Required". <b>Availability:</b> per RA, per RNC, per SGSN service

Field	Description
Ret-2G-Nw-Init-Reattach-Not	<p><b>Description:</b> During the network initiated detach, the SGSN informs the MS that it has been detached by sending a detach request. The Detach Request has a detach type - “Reattach not required” when it does not expect the MS to attach again for GPRS services.</p> <p><b>Triggers:</b> Increments upon the 1st, 2nd, 3rd and 4th expiry of T3322 for a detach of type “Reattach Not Required”.</p> <p><b>Availability:</b> per RA, per RNC, per GPRS service</p>
Ret-3G-Nw-Init-IMSI-Detach	<p><b>Description:</b> When the SGSN loses the GS-context for the MS due to a VLR-reset indication, it notifies the MS by sending an IMSI-detach on the next signalling activity by the MS in a 3G service.</p> <p><b>Triggers:</b> Increments upon the 1st, 2nd, 3rd and 4th expiry of T3322 for a detach of type “IMSI Detach”.</p> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
Ret-2G-Nw-Init-IMSI-Detach	<p><b>Description:</b> When the SGSN loses the GS-context for the MS due to a VLR-reset indication, it notifies the MS by sending an IMSI-detach on the next signalling activity by the MS in a 2G service.</p> <p><b>Triggers:</b> Increments upon the 1st, 2nd, 3rd and 4th expiry of T3322 for a detach of type “IMSI Detach”.</p> <p><b>Availability:</b> per RA, per RNC, per GPRS service</p>
Detach Accept	Indicates the statistics of detach request accept messages.
Total-Detach-Acc	Total number of detach request accept messages.
Total-MS-Init-Detach-Acc	Total number of MS initiated detach request accepted.
3G-MS-Init-Detach-Acc	Total number of MS initiated GPRS detach request accepted for 3G service.
2G-MS-Init-Detach-Acc	Total number of MS initiated IMSI detach request accepted for 2G service.
Total-Nw-Init-Detach-Acc	Total number of network initiated detach request accepted.
3G-Nw-Init-Detach-Acc	Total number of network initiated detach request for 3G service.
2G-Nw-Init-Detach-Acc	Total number of network initiated detach request for 2G service.
3G-Nw-Init-GPRS-Detach-Acc	Total number of network initiated GPRS (PS) detach request accepted for 3G service.
2G-Nw-Init-GPRS-Detach-Acc	Total number of network initiated GPRS (PS) detach request accepted for 2G service.
3G-Nw-Init-IMSI-Detach-Acc	Total number of network initiated IMSI (CS) detach request accepted for 3G service.
2G-Nw-Init-IMSI-Detach-Acc	Total number of network initiated IMSI (CS) detach request accepted for 2G service.
3G-Nw-Init-Comb-Detach-Acc	Total number of network initiated combined (PS and CS) detach request accepted for 3G service.
2G-Nw-Init-Comb-Detach-Acc	Total number of network initiated combined (PS and CS) detach request accepted for 2G service.
Service Request	Indicates the statistics of service request messages.
Total-Serv-Req	Indicates the statistics of total service request messages.

Field	Description
Total-Signalling-Serv-Req	Total signalling service requests messages.
3G-Signalling-Serv-Req	Total signalling service requests messages for 3G service.
2G-Signalling-Serv-Req	Total signalling service requests messages for 2G service.
Total-Page-Rsp-Serv-Req	Total paging response for service requests messages.
3G-Page-Rsp-Serv-Req	Total paging response for service requests messages for 3G service.
2G-Page-Rsp-Serv-Req	Total paging response for service requests messages for 2G service.
Total-Data-Serv-Req	Total data service requests messages.
3G-Data-Serv-Req	Total data service requests messages for 3G service.
2G-Data-Serv-Req	Total data service requests messages for 2G service.
Retransmission	Indicates the statistics of service request messages retransmitted.
Ret-Total-Serv-Req	Indicates the statistics of total service request messages retransmitted.
Ret-Total-Sig-Serv-Req	Total signalling service requests messages retransmitted.
Ret-3G-Sig-Serv-Req	Total signalling service requests messages retransmitted for 3G service.
Ret-2G-Signalling-Serv-Req	Total signalling service requests messages retransmitted for 2G service.
Ret-Total-PageRsp-Serv-Req	Total paging response for service requests messages retransmitted.
Ret-3G-PageRsp-Serv-Req	Total paging response for service requests messages retransmitted for 3G service.
Ret-2G-Page-Rsp-Serv-Req	Total paging response for service requests messages retransmitted for 2G service.
Ret-Total-Data-Serv-Req	Total data service requests messages retransmitted.
Ret-3G-Data-Serv-Req	Total data service requests messages retransmitted for 3G service.
Ret-2G-Data-Serv-Req	Total data service requests messages retransmitted for 2G service.
Service Accept	Indicates the statistics of service request messages.
Total-Serv-Resp	Total service response messages.
3G-Service-Resp	Total service response messages for 3G service.
2G-Service-Resp	Total service response messages for 2G service.
Service Reject	Total paging response for service requests messages.
Total-Serv-Rej	Total service reject messages.
3G-Service-Rej	Total service reject messages for 3G service.
2G-Service-Rej	Total service reject messages for 2G service.
Service Reject Causes	Indicates the statistics of causes for service request reject for 2G and 3G service.
3G-Network Failure	Total number of service request rejected for 3G service due to network failure.
2G-Network Failure	Total number of service request rejected for 2G service due to network failure.
3G-IMSI Unknown in HLR	Total number of service request rejected for 3G service due to unknown IMSI in HLR.

Field	Description
2G-IMSI Unknown in HLR	Total number of service request rejected for 2G service due to unknown IMSI in HLR.
3G-MSId can not derived by Nw	Total number of service request rejected for 3G service as MSID can not derived by network from message.
2G-MSId can not derived by Nw	Total number of service request rejected for 3G service as MSID can not derived by network from message.
3G-Implicitly detached	Total number of service request rejected for 3G service due to implicitly detach.
2G-Implicitly detached	Total number of service request rejected for 2G service due to implicitly detach.
3G-Illegal MS	Total number of service request rejected for 3G service due to illegal mobile subscriber.
2G-Illegal MS	Total number of service request rejected for 2G service due to illegal mobile subscriber.
3G-Message not compatible with protocol state	Total number of service request rejected for 3G service as message is not compatible with protocol state.
2G-Message not compatible with protocol state	Total number of service request rejected for 2G service as message is not compatible with protocol state.
3G-No PDP contexts activated	Total number of service request rejected for 3G service as no PDP context is activated.
2G-No PDP contexts activated	Total number of service request rejected for 2G service as no PDP context is activated.
3G-Semantically Wrong Msg	Total number of service request rejected for 3G service as request message is semantically wrong.
2G-Semantically Wrong Msg	Total number of service request rejected for 2G service as request message is semantically wrong.
3G-Unknown cause	Total number of service request rejected for 3G service due to unknown cause or reason not specified here.
2G-Unknown cause	Total number of service request rejected for 3G service due to unknown cause or reason not specified here.
Paging Initiated	Indicates the statistics of paging initiated procedure.
Total-Page-Requests	Total paging request messages.
3G-PS-Page-Requests	Total paging request messages in packet switching (PS) domain for 3G service.
3G-CS-Page-Requests	Total paging request messages in circuit switching (CS) domain for 3G service.
2G-PS-Page-Requests	Total paging request messages in packet switching (PS) domain for 2G service.
2G-CS-Page-Requests	Total paging request messages in circuit switching (CS) domain for 2G service.
Total-Page-Responses	Total paging request response messages.
3G-PS-Page-Responses	Total paging request response messages in packet switching (PS) domain for 3G service.
3G-CS-Page-Responses	Total paging request response messages in circuit switching (CS) domain for 3G service.
2G-PS-Page-Responses	Total paging request response messages in packet switching (PS) domain for 2G service.
2G-CS-Page-Responses	Total paging request response messages in circuit switching (CS) domain for 2G service.
Retransmission	Indicates the statistics of paging initiated procedure retransmitted.

Field	Description
Ret-Total-Page-Requests	Total paging request messages.
Ret-3G-Page-Requests	Total paging request messages retransmitted in for 3G service.
Ret-2G-Page-Requests	Total paging request messages retransmitted in for 2G service.
Gmm Status Message	Indicates the statistics of GPRS mobility management procedure status messages.
Total-Gmm-Status-Sent	Total GPRS mobility management procedure status messages sent.
3G-Gmm-Status-Sent	Total GPRS mobility management procedure status messages sent for 3G service.
2G-Gmm-Status-Sent	Total GPRS mobility management procedure status messages sent for 2G service.
Total-Gmm-Status-Rcvd	Total GPRS mobility management procedure status messages received.
3G-Gmm-Status-Rcvd	Total GPRS mobility management procedure status messages received for 3G service.
2G-Gmm-Status-Rcvd	Total GPRS mobility management procedure status messages received for 2G service.
GMM Status Sent Causes	Indicates the statistics of causes for GPRS mobility management status messages sent for 2G and 3G service.
3G-IMSI Unknown in HLR	Total number of GMM status messages sent for 3G service due to unknown IMSI in HLR.
2G-IMSI Unknown in HLR	Total number of GMM status messages sent for 2G service due to unknown IMSI in HLR.
3G-Illegal MS	Total number of GMM status messages sent for 3G service due to illegal mobile subscriber.
2G-Illegal MS	Total number of GMM status messages sent for 2G service due to illegal mobile subscriber.
3G-Illegal ME	Total number of GMM status messages sent for 3G service due to illegal mobile equipment.
2G-Illegal ME	Total number of GMM status messages sent for 2G service due to illegal mobile equipment.
3G-GPRS service not allowed	Total number of GMM status messages sent for 3G service due to GPRS service not allowed for subscriber.
2G-GPRS service not allowed	Total number of GMM status messages sent for 2G service due to GPRS service not allowed for subscriber.
3G-GPRS & Non-GPRS services not allowed	Total number of GMM status messages sent for 3G service due to GPRS and non-GPRS service not allowed for subscriber.
2G-GPRS & Non-GPRS services not allowed	Total number of GMM status messages sent for 2G service due to GPRS and non-GPRS service not allowed for subscriber.
3G-MsId not derived by Nw	Total number of GMM status messages sent for 3G service due to network failed to derive MSID from attach message.
2G-MsId not derived by Nw	Total number of GMM status messages sent for 2G service due to network failed to derive MSID from attach message.
3G-Implicitly detached	Total number of GMM status messages sent for 3G service due to implicitly detach.
2G-Implicitly detached	Total number of GMM status messages sent for 2G service due to implicitly detach.
3G-PLMN not allowed	Total number of GMM status messages sent for 3G service due to specific PLMN not allowed.
2G-PLMN not allowed	Total number of GMM status messages sent for 2G service due to specific PLMN not allowed.

Field	Description
3G-Location Area not allowed	Total number of GMM status messages sent for 3G service due to specific location area not allowed.
2G-Location Area not allowed	Total number of GMM status messages sent for 2G service due to specific location area not allowed.
3G-Roaming not allowed in this Location Area	Total number of GMM status messages sent for 3G service due to roaming not allowed in specific location area.
2G-Roaming not allowed in this Location Area	Total number of GMM status messages sent for 2G service due to roaming not allowed in specific location area.
3G-GPRS service not allowed in this PLMN	Total number of GMM status messages sent for 3G service due to GPRS service not allowed in specific PLMN.
2G-GPRS service not allowed in this PLMN	Total number of GMM status messages sent for 2G service due to GPRS service not allowed in specific PLMN.
3G-No suitable cells in this Location Area	Total number of GMM status messages sent for 3G service due to non availability of suitable cell in specific location area.
2G-No suitable cells in this Location Area	Total number of GMM status messages sent for 2G service due to non availability of suitable cell in specific location area.
3G-MSC not reachable	Total number of GMM status messages sent for 3G service as MSC not reachable.
2G-MSC not reachable	Total number of GMM status messages sent for 2G service as MSC not reachable.
3G-Network Failure	Total number of GMM status messages sent for 3G service due to network failure.
2G-Network Failure	Total number of GMM status messages sent for 2G service due to network failure.
3G-MAC Failure	Total number of GMM status messages sent for 3G service due to message authenticate code (MAC) failure.
2G-MAC Failure	Total number of GMM status messages sent for 2G service due to MAC failure.
3G-SYNC Failure	Total number of GMM status messages sent for 3G service due to context synchronization failure.
2G-SYNC Failure	Total number of GMM status messages sent for 2G service due to context synchronization failure.
3G-Congestion	Total number of GMM status messages sent for 3G service due to network congestion.
2G-Congestion	Total number of GMM status messages sent for 2G service due to network congestion.
3G-GSM Auth Unacceptable	Total number of GMM status messages sent for 3G service due to unacceptable authentication from GSM network.
2G-GSM Auth Unacceptable	Total number of GMM status messages sent for 2G service due to unacceptable authentication from GSM network.
3G-No PDP contexts activated	Total number of GMM status messages sent for 3G service as PDP context is not activated.
2G-No PDP contexts activated	Total number of GMM status messages sent for 2G service as PDP context is not activated.
3G-Semantically Wrong Msg	Total number of GMM status messages sent for 3G service as attach request message is semantically wrong.

Field	Description
2G-Semantically Wrg Msg	Total number of GMM status messages sent for 2G service as attach request message is semantically wrong.
3G-Invalid Mandatory Info	Total number of GMM status messages sent for 3G service as mandatory information in message is invalid.
2G-Invalid Mandatory Info	Total number of GMM status messages sent for 2G service as mandatory information in message is invalid.
3G-MSG type Non Existent	Total number of GMM status messages sent for 3G service due to non-existent type of message.
2G-MSG type Non Existent	Total number of GMM status messages sent for 2G service due to non-existent type of message.
3G-MSG type not compatible with protocol state	Total number of GMM status messages sent for 3G service as message type is not compatible with protocol state.
2G-MSG type not compatible with protocol state	Total number of GMM status messages sent for 2G service as message type is not compatible with protocol state.
3G-Conditional IE Error	Total number of GMM status messages sent for 3G service due to error in conditional information element.
2G-conditional IE Error	Total number of GMM status messages sent for 2G service due to error in conditional information element.
3G-Message not compatible with protocol state	Total number of GMM status messages sent for 3G service as message is not compatible with protocol state.
2G-Message not compatible with protocol state	Total number of GMM status messages sent for 2G service as message is not compatible with protocol state.
3G-protocol Error	Total number of GMM status messages sent for 3G service due to protocol error in message.
2G-protocol Error	Total number of GMM status messages sent for 2G service due to protocol error in message.
GMM Status Rcvd Causes	Indicates the statistics of causes for GPRS mobility management status messages received for 2G and 3G service.
3G-IMSI Unknown in HLR	Total number of GMM status messages received for 3G service due to unknown IMSI in HLR.
2G-IMSI Unknown in HLR	Total number of GMM status messages received for 2G service due to unknown IMSI in HLR.
3G-Illegal MS	Total number of GMM status messages received for 3G service due to illegal mobile subscriber.
2G-Illegal MS	Total number of GMM status messages received for 2G service due to illegal mobile subscriber.
3G-Illegal ME	Total number of GMM status messages received for 3G service due to illegal mobile equipment.
2G-Illegal ME	Total number of GMM status messages received for 2G service due to illegal mobile equipment.
3G-GPRS service not allowed	Total number of GMM status messages received for 3G service due to GPRS service not allowed for subscriber.
2G-GPRS service not allowed	Total number of GMM status messages received for 2G service due to GPRS service not allowed for subscriber.
3G-GPRS & Non-GPRS services not allowed	Total number of GMM status messages received for 3G service due to GPRS and non-GPRS service not allowed for subscriber.
2G-GPRS & Non-GPRS services not allowed	Total number of GMM status messages received for 2G service due to GPRS and non-GPRS service not allowed for subscriber.

Field	Description
3G-MSId not derived by Nw	Total number of GMM status messages received for 3G service due to network failed to derive MSID from attach message.
2G-MSId not derived by Nw	Total number of GMM status messages received for 2G service due to network failed to derive MSID from attach message.
3G-Implicitly detached	Total number of GMM status messages received for 3G service due to implicitly detach.
2G-Implicitly detached	Total number of GMM status messages received for 2G service due to implicitly detach.
3G-PLMN not allowed	Total number of GMM status messages received for 3G service due to specific PLMN not allowed.
2G-PLMN not allowed	Total number of GMM status messages received for 2G service due to specific PLMN not allowed.
3G-Location Area not allowed	Total number of GMM status messages received for 3G service due to specific location area not allowed.
2G-Location Area not allowed	Total number of GMM status messages received for 2G service due to specific location area not allowed.
3G-Roaming not allowed in this Location Area	Total number of GMM status messages received for 3G service due to roaming not allowed in specific location area.
2G-Roaming not allowed in this Location Area	Total number of GMM status messages received for 2G service due to roaming not allowed in specific location area.
3G-GPRS service not allowed in this PLMN	Total number of GMM status messages received for 3G service due to GPRS service not allowed in specific PLMN.
2G-GPRS service not allowed in this PLMN	Total number of GMM status messages received for 2G service due to GPRS service not allowed in specific PLMN.
3G-No suitable cells in this Location Area	Total number of GMM status messages received for 3G service due to non availability of suitable cell in specific location area.
2G-No suitable cells in this Location Area	Total number of GMM status messages received for 2G service due to non availability of suitable cell in specific location area.
3G-MS-C not reachable	Total number of GMM status messages received for 3G service as MSC not reachable.
2G-MS-C not reachable	Total number of GMM status messages received for 2G service as MSC not reachable.
3G-Network Failure	Total number of GMM status messages received for 3G service due to network failure.
2G-Network Failure	Total number of GMM status messages received for 2G service due to network failure.
3G-MAC Failure	Total number of GMM status messages received for 3G service due to message authenticate code (MAC) failure.
2G-MAC Failure	Total number of GMM status messages received for 2G service due to MAC failure.
3G-SYNC Failure	Total number of GMM status messages received for 3G service due to context synchronization failure.
2G-SYNC Failure	Total number of GMM status messages received for 2G service due to context synchronization failure.
3G-Congestion	Total number of GMM status messages received for 3G service due to network congestion.

Field	Description
2G-Congestion	Total number of GMM status messages received for 2G service due to network congestion.
3G-GSM Auth Unacceptable	Total number of GMM status messages received for 3G service due to unacceptable authentication from GSM network.
2G-GSM Auth Unacceptable	Total number of GMM status messages received for 2G service due to unacceptable authentication from GSM network.
3G-No PDP contexts activated	Total number of GMM status messages received for 3G service as PDP context is not activated.
2G-No PDP contexts activated	Total number of GMM status messages received for 2G service as PDP context is not activated.
3G-Semantically Wrong Msg	Total number of GMM status messages received for 3G service as attach request message is semantically wrong.
2G-Semantically Wrong Msg	Total number of GMM status messages received for 2G service as attach request message is semantically wrong.
3G-Invalid Mandatory Info	Total number of GMM status messages received for 3G service as mandatory information in message is invalid.
2G-Invalid Mandatory Info	Total number of GMM status messages received for 2G service as mandatory information in message is invalid.
3G-MSG type Non Existent	Total number of GMM status messages received for 3G service due to non-existent type of message.
2G-MSG type Non Existent	Total number of GMM status messages received for 2G service due to non-existent type of message.
3G-MSG type not compatible with protocol state	Total number of GMM status messages received for 3G service as message type is not compatible with protocol state.
2G-MSG type not compatible with protocol state	Total number of GMM status messages received for 2G service as message type is not compatible with protocol state.
3G-Conditional IE Error	Total number of GMM status messages received for 3G service due to error in conditional information element.
2G-conditional IE Error	Total number of GMM status messages received for 2G service due to error in conditional information element.
3G-Message not compatible with protocol state	Total number of GMM status messages received for 3G service as message is not compatible with protocol state.
2G-Message not compatible with protocol state	Total number of GMM status messages received for 2G service as message is not compatible with protocol state.
3G-protocol Error	Total number of GMM status messages received for 3G service due to protocol error in message.
2G-protocol Error	Total number of GMM status messages received for 2G service due to protocol error in message.
Gmm Information Sent	Indicates the statistics of messages sent with GPRS mobility management information.
Total-Gmm-Information-Sent	Total messages sent with GPRS mobility management information.
3G-Gmm-Information-Sent	Total messages sent with GPRS mobility management information for 3G service.

Field	Description
2G-Gmm-Information-Sent	Total messages sent with GPRS mobility management information for 2G service.
Inter-System Procedures	This group displays the statistics of inter-system procedures.
3G-Ra-Up-RAU	Total numbers of RAU messages (Accept+Reject) sent for 3G routing area update procedure.
2G-Ra-Up-RAU	Total numbers of RAU messages (Accept+Reject) sent for 2G routing area update procedure.
3G-Comb-RAU	Total numbers of combined (PS and CS) RAU messages (Accept+Reject) sent for 3G routing area update procedure.
2G-Comb-RAU	Total numbers of combined (PS and CS) RAU messages (Accept+Reject) sent for 2G routing area update procedure.
3G-Ra-Up-RAU-Rej	Total numbers of RAU Reject messages sent for 3G routing area update procedure.
2G-Ra-Up-RAU-Rej	Total numbers of RAU Reject messages sent for 2G routing area update procedure.
3G-Comb-RAU-Rej	Total numbers of combined (PS and CS) RAU Reject messages sent for 3G routing area update procedure.
2G-Comb-RAU-Rej	Total numbers of combined (PS and CS) RAU Reject messages sent for 2G routing area update procedure.
3G-Ra-Up-RAU-Acc	Total numbers of RAU Accept messages sent for 3G routing area update procedure.
2G-Ra-Up-RAU-Acc	Total numbers of RAU Accept messages sent for 2G routing area update procedure.
3G-Comb-RAU-Acc	Total numbers of combined (PS and CS) RAU Accept messages sent for 3G routing area update procedure.
2G-Comb-RAU-Acc	Total numbers of combined (PS and CS) RAU Accept messages sent for 2G routing area update procedure.
3G-Attach	Total numbers of Attach messages (Accept+Reject) sent for 3G subscriber attach procedure.
2G-Attach	Total numbers of Attach messages (Accept+Reject) sent for 2G subscriber attach procedure.
3G-Comb-Attach	Total numbers of combined (PS and CS) Attach messages (Accept+Reject) sent for 3G subscriber attach procedure.
2G-Comb-Attach	Total numbers of combined (PS and CS) Attach messages (Accept+Reject) sent for 3G subscriber attach procedure.
3G-Attach-Rej	Total numbers of Attach Reject messages sent for 3G subscriber attach procedure.
2G-Attach-Rej	Total numbers of Attach Reject messages sent for 2G subscriber attach procedure.
3G-Comb-Attach-Rej	Total numbers of combined (PS and CS) Attach Reject messages sent for 3G subscriber attach procedure.
2G-Comb-Attach-Rej	Total numbers of combined (PS and CS) Attach Reject messages sent for 2G subscriber attach procedure.
3G-Attach-Acc	Total numbers of Attach Accept messages sent for 3G subscriber attach procedure.
2G-Attach-Acc	Total numbers of Attach Accept messages sent for 2G subscriber attach procedure.
3G-Comb-Attach-Acc	Total numbers of combined (PS and CS) Attach Accept messages sent for 3G subscriber attach procedure.

Field	Description
2G-Comb-Attach-Acc	Total numbers of combined (PS and CS) Attach Accept messages sent for 2G subscriber attach procedure.
Common Procedures	Indicates the statistics of common procedures in GPRS mobility management procedure.
Authentication And Ciphering Request	Indicates the statistics of authentication and ciphering request messages.
Total-Auth-Cipher-Req	Total authentication and ciphering request messages.
3G-Auth-Cipher-Req	Total authentication and ciphering request messages for 3G service.
2G-Auth-Cipher-Req	Total authentication and ciphering request messages for 2G service.
Retransmission	Indicates the statistics of authentication and ciphering request messages retransmitted.
Ret-Total-Auth-Cipher-Req	Total authentication and ciphering request messages retransmitted.
Ret-3G-Auth-Cipher-Req	Total authentication and ciphering request messages retransmitted for 3G service.
Ret-2G-Auth-Cipher-Req	Total authentication and ciphering request messages retransmitted for 2G service.
Authentication And Ciphering Response	Indicates the statistics of authentication and ciphering request response messages.
Total-Auth-Cipher-Resp	Total authentication and ciphering request response messages.
3G-Auth-Cipher-Resp	Total authentication and ciphering request response messages for 3G service.
2G-Auth-Cipher-Resp	Total authentication and ciphering request response messages for 2G service.
Authentication And Ciphering Response With SRES Mismatch	Indicates the statistics of authentication and ciphering request response messages having Signed RESponse (SRES) mismatch.
Total-Auth-Cipher-Resp with Sres Mismatch	Total authentication and ciphering request response messages having Signed RESponse (SRES) mismatch.
3G-Auth-Cipher-Resp with Sres Mismatch	Total authentication and ciphering request response messages having Signed RESponse (SRES) mismatch for 3G service.
2G-Auth-Cipher-Resp with Sres Mismatch	Total authentication and ciphering request response messages having Signed RESponse (SRES) mismatch for 2G service.
Authentication And Ciphering Reject	Indicates the statistics of authentication and ciphering request reject messages.
Total-Auth-Cipher-Rej	Total authentication and ciphering request reject messages.
3G-Auth-Cipher-Rej	Total authentication and ciphering request reject messages for 3G service.
2G-Auth-Cipher-Rej	Total authentication and ciphering request reject messages for 2G service.
Authentication And Ciphering Reject Reasons	Indicates the statistics of reasons for authentication and ciphering request rejects.
3G-XRes Mismatch	Total authentication and ciphering requests rejected for 3G service due to mismatch in expected authentication response (XRES) from subscriber.
2G-XRes Mismatch	Total authentication and ciphering requests rejected for 2G service due to mismatch in expected authentication response (XRES) from subscriber

Field	Description
3G-SYNC does not have AUTS	Total authentication and ciphering requests rejected for 3G service where synchronization is missing Authentication Token for Re-synchronization (AUTS).
2G-SYNC does not have AUTS	Total authentication and ciphering requests rejected for 2G service where synchronization is missing Authentication Token for Re-synchronization (AUTS).
3G-Too many SYNC Failures	Total authentication and ciphering requests rejected for 3G service due to synchronization failure beyond allowed number of time.
2G-Too many SYNC Failures	Total authentication and ciphering requests rejected for 3G service due to synchronization failure beyond allowed number of time.
3G-Too many MAC Failures	Total authentication and ciphering requests rejected for 3G service due to message authentication code failure beyond allowed number of time.
2G-Too many MAC Failures	Total authentication and ciphering requests rejected for 2G service due to message authentication code failure beyond allowed number of time.
3G-Gsm Auth Unacc	Total GSM authentication and ciphering requests rejected for 3G service due to unacceptable GSM network failure in procedure.
3G-Gsm Auth Unacc	Total GSM authentication and ciphering requests rejected for 2G service due to unacceptable GSM network failure in procedure.
Authentication And Ciphering Failure	Indicates the statistics of authentication and ciphering request failures.
Total-Auth-Cipher-Failure	Total authentication and ciphering request failures.
3G-Auth-Cipher-Mac-Failure	Total authentication and ciphering failures due to message authentication code (MAC) for 3G service.
2G-Auth-Cipher-Mac-Failure	Total authentication and ciphering failures due to message authentication code (MAC) for 2G service.
3G-Auth-Cipher-Sync-Failure	Total authentication and ciphering failures due to synchronisation for 3G service.
2G-Auth-Cipher-Syn-Failure	Total authentication and ciphering failures due to synchronisation for 2G service.
3G-Auth-Unacceptable	Total authentication and ciphering failures due to unacceptable delay for 3G service.
2G-Auth-Unacceptable	Total authentication and ciphering failures due to unacceptable delay for 2G service.
P-TMSI Realloc	Indicates the statistics of Packet-Temporary Mobile Subscriber Identity (P-TMSI) reallocation procedure.
Total-PTMSI Realloc	Total Packet-Temporary Mobile Subscriber Identity (P-TMSI) reallocation procedure.
3G-PTMSI Realloc	Total Packet-Temporary Mobile Subscriber Identity reallocation procedure for 3G service.
2G-PTMSI Realloc	Total Packet-Temporary Mobile Subscriber Identity reallocation procedure for 2G service.
Retransmission	Indicates the statistics of Packet-Temporary Mobile Subscriber Identity (P-TMSI) reallocation messages retransmitted.
Ret-Total-PTMSI Realloc	Total Packet-Temporary Mobile Subscriber Identity (P-TMSI) reallocation procedure messages retransmitted.

Field	Description
Ret-3G-PTMSI Realloc	Total Packet-Temporary Mobile Subscriber Identity reallocation messages retransmitted for 3G service.
Ret-2G-PTMSI Realloc	Total Packet-Temporary Mobile Subscriber Identity reallocation procedure messages retransmitted for 2G service.
P-TMSI Realloc Complete	Indicates the statistics of Packet-Temporary Mobile Subscriber Identity reallocation procedure completed.
Total-PTMSI Realloc Complete	Total Packet-Temporary Mobile Subscriber Identity reallocation procedure completed.
3G-PTMSI Realloc Complete	Total Packet-Temporary Mobile Subscriber Identity reallocation procedure completed for 3G service.
2G-PTMSI Realloc Complete	Total Packet-Temporary Mobile Subscriber Identity reallocation procedure completed for 2G service.
Identity Request	Indicates the statistics of identity request messages.
Total-Identity-Req	Total identity request messages.
Total-IMSI-Identity-Req	Total international mobile subscriber identity (IMSI) identity request messages.
3G-IMSI-Identity-Req	Total IMSI identity request messages for 3G service.
2G-IMSI-Identity-Req	Total IMSI identity request messages for 2G service.
Total-IMEI-Identity-Req	Total international mobile equipment identity (IMEI) request messages.
3G-IMEI-Identity-Req	Total IMEI identity request messages for 3G service.
2G-IMEI-Identity-Req	Total IMEI identity request messages for 2G service.
Total-IMEISV-Identity-Req	Total international mobile equipment identity-software version (IMEI-SV) identity request messages.
3G-IMEISV-Identity-Req	Total IMEI-SV identity request messages for 3G service.
2G-IMEISV-Identity-Req	Total IMEI-SV identity request messages for 2G service.
Total-(P)TMSI-Identity-Req	Total Packet-Temporary Mobile Subscriber Identity (P-TMSI) request messages.
3G-(P)TMSI-Identity-Req	Total P-TMSI identity request messages for 3G service.
2G-(P)TMSI-Identity-Req	Total P-TMSI identity request messages for 2G service.
Retransmission	Indicates the statistics of identity request messages retransmitted.
Ret-Tot-Identity-Req	Total identity request messages.
Ret-Tot-IMSI-Identity-Req	Total international mobile subscriber identity (IMSI) identity request messages retransmitted.
Ret-3G-IMSI-Identity-Req	Total IMSI identity request messages retransmitted for 3G service.
Ret-2G-IMSI-Identity-Req	Total IMSI identity request messages retransmitted for 2G service.
Ret-Tot-IMEI-Identity-Req	Total international mobile equipment identity (IMEI) request messages retransmitted.
Ret-3G-IMEI-Identity-Req	Total IMEI identity request messages retransmitted for 3G service.
Ret-2G-IMEI-Identity-Req	Total IMEI identity request messages retransmitted for 2G service.

Field	Description
Ret-Tot-IMEISV-Identity-Req	Total international mobile equipment identity-software version (IMEI-SV) identity request messages retransmitted.
Ret-3G-IMEISV-Identity-Req	Total IMEI-SV identity request messages retransmitted for 3G service.
Ret-2G-IMEISV-Identity-Req	Total IMEI-SV identity request messages retransmitted for 2G service.
Ret-Tot-(P)TMSI-Ident-Req	Total Packet-Temporary Mobile Subscriber Identity (P-TMSI) request messages retransmitted.
Ret-3G-(P)TMSI-Ident-Req	Total P-TMSI identity request messages retransmitted for 3G service.
Ret-2G-(P)TMSI-Ident-Req	Total P-TMSI identity request messages retransmitted for 2G service.
Identity Response	Indicates the statistics of identity request messages.
Total-Identity-Rsp	Total identity request response messages.
Total-IMSI-Identity-Rsp	Total international mobile subscriber identity (IMSI) identity request response messages.
3G-IMSI-Identity-Rsp	Total IMSI identity request response messages for 3G service.
2G-IMSI-Identity-Rsp	Total IMSI identity request response messages for 2G service.
Total-IMEI-Identity-Rsp	Total international mobile equipment identity (IMEI) request response messages.
3G-IMEI-Identity-Rsp	Total IMEI identity request response messages for 3G service.
2G-IMEI-Identity-Rsp	Total IMEI identity request response messages for 2G service.
Total-IMEISV-Identity-Rsp	Total international mobile equipment identity-software version (IMEI-SV) identity request response messages.
3G-IMEISV-Identity-Rsp	Total IMEI-SV identity request response messages for 3G service.
2G-IMEISV-Identity-Rsp	Total IMEI-SV identity request response messages for 2G service.
Total-(P)TMSI-Identity-Rsp	Total Packet-Temporary Mobile Subscriber Identity (P-TMSI) request response messages.
3G-(P)TMSI-Identity-Rsp	Total P-TMSI identity request response messages for 3G service.
2G-(P)TMSI-Identity-Rsp	Total P-TMSI identity request response messages for 2G service.
Total-Unknown-Identity-Rsp	Total identity response messages for unknown identity.
3G-Unknown-Identity-Rsp	Total identity response messages for unknown identity for 3G service.
2G-Unknown-Identity-Rsp	Total identity response messages for unknown identity for 2G service.
Timers	Indicates the statistics of different message and procedure timers.
Total-T3350-Expiry	Total number of times the T3350 timer timed-out.
3G-T3350-Expiry	Total number of times the T3350 timer timed-out for 3G service.
2G-T3350-Expiry	Total number of times the T3350 timer timed-out for 2G service.
Total-T3360-Expiry	Total number of times the T3360 timer timed-out.
3G-T3360-Expiry	Total number of times the T3360 timer timed-out for 3G service.

Field	Description
2G-T3360-Expiry	Total number of times the T3360 timer timed-out for 2G service.
Total-T3370-Expiry	Total number of times the T3370 timer timed-out.
3G-T3370-Expiry	Total number of times the T3370 timer timed-out for 3G service.
2G-T3370-Expiry	Total number of times the T3370 timer timed-out for 2G service.
Total-T3322-Expiry	Total number of times the T3322 timer timed-out.
3G-T3322-Expiry	Total number of times the T3322 timer timed-out for 3G service.
2G-T3322-Expiry	Total number of times the T3322 timer timed-out for 2G service.
Total-T3313-Expiry	Total number of times the T3313 timer timed-out.
3G-T3313-Expiry	Total number of times the T3313 timer timed-out for 3G service.
2G-T3313-Expiry	Total number of times the T3313 timer timed-out for 2G service.
2G Specific Timers	Indicates the statistics of 2G specific timers timeout events.
T3314-Expiry(Ready Timer)	Total number of times the 2G specific ready timer timed-out for 2G service.
Ranap Procedures	Indicates the statistics of Radio Access Network Application Part (RANAP) procedures.
Initial UE Rcvd	Total number of initial user equipment (UE) messages received.
Common Id sent	Total number of common identifier messages sent.
Direct Transfer Sent	Total number of direct transfer messages sent.
Direct Transfer Rcvd	Total number of direct transfer messages received.
Security Mode Command	Total number of security mode commands received.
Security Mode Complete	Total number of security mode completed.
Security Mode Reject	Total number of security mode commands rejected.
Iu Release Request	Total number of Iu interface release request received.
Iu Release Command	Total number of Iu interface release commands received.
Iu Release Complete	Total number of Iu interface release completed.
Reset Rcvd	Total number of reset requests received.
Retransmitted Reset Rcvd	Total number of retransmitted reset requests received.
Reset Ack Sent	Total number of reset request acknowledgement sent.
Reset Sent	Total number of reset requests sent.
Retransmitted Reset Sent	Total number of reset requests retransmitted.
Reset Ack Rcvd	Total number of reset request acknowledgement received.
Resource Reset Rcvd	Total number of resource reset requests received.
Resource Reset Ack Sent	Total number of resource reset request acknowledgement sent.
Resource Reset Sent	Total number of resource reset request sent.

Field	Description
Resource Reset Ack Rcvd	Total number of resource reset request acknowledgement received.
Overload ctrl Rcvd	Total number of resource overload control message received.
PC Congested Received	Total number of point code (PC) congested message received.
Error Indication Rcvd	Total number of error indication message received.
Error Indication Sent	Total number of error indication message sent.
Location Reporting Control	Total umber of Location Reporting Control procedure messages sent from SGSN.
Location Report	Total umber of messages sent with Location Report from SGSN.
Relocation Required	Total number of message received for Serving Radio Network Subsystem (SRNS) relocation required.
Relocation Command	Total number of message received with SRNS relocation command.
Relocation Request	Total number of SRNS relocation requests received.
Relocation Request Ack	Total number of SRNS relocation requests Ack sent.
Relocation Failure	Total number of SRNS relocation failure messages received.
Relocation Prep Failure	Total number of SRNS relocation preparation failure messages received.
Relocation Cancel	Total number of SRNS relocation cancel messages received.
Relocation Cancel Ack	Total number of SRNS relocation cancel acknowledge messages sent.
Relocation Detect	Total number of SRNS relocation detected.
Relocation Complete	Total number of SRNS relocation completed.
Forward SRNS Context Rcvd	Total number of SRNS contexts forward messages received.
Forward SRNS Context Sent	Total number of SRNS contexts forward messages sent.
NAS-PDU Stats	Indicates the statistics of PDUs for Non-Access Stratum (NAS) signalling procedure.
Received	Indicates the total all type of protocol data units received for NAS procedure.
Sent	Indicates the total all type of protocol data units sent for NAS procedure.
Total-Received-NAS-Pdu	Total all type of protocol data units received for NAS procedure.
Total-Sent-NAS-Pdu	Total all type of protocol data units sent for NAS signalling procedure.
GMM-Received-NAS-Pdu	Total protocol data units received by GPRS mobility management (GMM) service through NAS signalling procedure.
GMM-Sent-NAS-Pdu	Total protocol data units sent by GMM service through NAS signalling procedure.
SM-Recieved-NAS-Pdu	Total protocol data units received by Service Management (SM) service through NAS procedure.
SM-Sent-NAS-Pdu	Total protocol data units sent by SM service for NAS procedure.
SMS-Recieved-NAS-Pdu	Total number of SMS messages received by SGSN with NAS packet data unit (PDU).
SMS-Sent-NAS-Pdu	Total number of SMS messages sent by SGSN with NAS packet data unit (PDU).
UnIdentified-NAS-Pdu	Total number of unknown type PDUs received for NAS procedure.

Field	Description
Dropped NAS-PDUS	Indicates the statistics of protocol data units dropped for NAS procedure.
Total-Dropped-NAS-Pdu	Total number of PDUs dropped for NAS procedure.
Redirection Indication	This group indicates the statistics of counters related to Redirection indication reasons.
PLMN not allowed	Total number of redirections occurred due to requested PLMN not allowed for specific session.
Location area not allowed	Total number of redirections occurred due to requested Location Area not allowed for specific session.
Roaming not allowed in LA	Total number of redirections occurred due to roaming was not allowed in a location area for specific session.
No GPRS services in PLMN	Total number of redirections occurred due to non-availability of GPRS service in PLMN for specific session.
CS/PS co-ord required	Total number of redirections occurred as co-ordination between CS and PS service was missing for specific session.
Unknown Reasons	Total number of redirections occurred for specific session due to reasons other than listed in this table.
Drop Reason	Indicates the statistics of NAS protocol data unit drop reasons.
Nas-Un-identified type	Total number of NAS-PDUs dropped due to unidentified type of PDU.
Nas-Invalid Remote Address	Total number of NAS-PDUs dropped due to invalid remote address in PDU.
Nas-NAS-PDU not present	Total number of NAS-PDUs dropped due to missing NAS information.
Nas-Invalid Local Address	Total number of NAS-PDUs dropped due to invalid local address in PDU.
Nas-From unknown RNC	Total number of NAS-PDUs dropped as PDU from unknown RNC.
Nas-From unknown RA	Total number of NAS-PDUs dropped as PDU from unknown routing area.
Nas-From unknown Subscriber	Total number of NAS-PDUs dropped as PDU from unknown subscriber.
Duplicate-iu-con-id	Total number of NAS-PDUs dropped as PDU contains duplicate Iu control identifier.
Iu-Con-id processing failed	The total number of PDUs dropped for NAS procedure as Iu connection id processing failed in procedure.
Nas-From unknown PLMN	The total number of PDUs dropped for NAS procedures as NAS signalling was requested from unknown PLMN.
Another iu or 2g available	The total number of PDUs dropped for NAS procedures as another Iu interface of 2G session was available for specific NAS signalling procedure.
Internal Errors	Indicates the statistics of NAS protocol data unit dropped due to internal errors.
Total-Internal-Errors	Total number of NAS PDU dropped due to internal errors.
Attach Requests Drops	Indicates the statistics of NAS PDU dropped due to attach request errors.
Memory Failures	Total number of NAS PDU dropped due to memory failures.
Decode Failures	Total number of NAS PDU dropped due to decoding failures.
Msg in Invalid state	Total number of NAS PDU dropped due to invalid state of message.

Field	Description
Another Proc in Progress	Total number of NAS PDU dropped as another procedure is in progress.
Sent Msg Unavailable	Total number of NAS PDU dropped due to unavailability of sent messages.
Other Failures	Total number of NAS PDU dropped due to failures other than listed in this table.
Routing Area Update Requests Drops	Indicates the statistics of NAS PDU dropped due to routing area update request drops.
Memory Failures	Total number of NAS PDUs dropped due to routing area update request drops by memory failures.
Decode Failures	Total number of NAS PDUs dropped due to routing area update request drops by decoding failures.
Msg in Invalid state	Total number of NAS PDUs dropped due to routing area update request drops where message is not in valid state.
Another Proc in Progress	Total number of NAS PDUs dropped due to routing area update request drops where another procedure is in progress.
Sent Msg Unavailable	Total number of NAS PDUs dropped due to routing area update request drops where sent messages are not available.
Other Failures	Total number of NAS PDUs dropped due to routing area update request drops where reasons are other than listed in this table.
Detach Requests Drops	Indicates the statistics of NAS PDU dropped due to detach request drops.
Memory Failures	Total number of NAS PDUs dropped due to detach request drops by memory failures.
Decode Failures	Total number of NAS PDUs dropped due to detach request drops by decoding failures.
Msg in Invalid state	Total number of NAS PDUs dropped due to detach request drops where message is not in valid state.
Another Proc in Progress	Total number of NAS PDUs dropped due to detach request drops where another procedure is in progress.
Sent Msg Unavailable	Total number of NAS PDUs dropped due to detach request drops where sent messages are not available.
Other Failures	Total number of NAS PDUs dropped due to detach request drops where reasons are other than listed in this table.
Service Requests Drops	Indicates the statistics of NAS PDU dropped due to service request drops.
Memory Failures	Total number of NAS PDUs dropped due to service request drops by memory failures.
Decode Failures	Total number of NAS PDUs dropped due to service request drops by decoding failures.
Msg in Invalid state	Total number of NAS PDUs dropped due to service request drops where message is not in valid state.
Another Proc in Progress	Total number of NAS PDUs dropped due to service request drops where another procedure is in progress.
Sent Msg Unavailable	Total number of NAS PDUs dropped due to service request drops where sent messages are not available.

Field	Description
Other Failures	Total number of NAS PDUs dropped due to service request drops where reasons are other than listed in this table.
SMS Message Drops	Indicates the statistics of NAS PDU dropped due to SMS Message drops.
Memory Failures	Total number of NAS PDUs dropped due to SMS Message drops by memory failures.
Decode Failures	Total number of NAS PDUs dropped due to SMS Message drops by decoding failures.
Msg in Invalid state	Total number of NAS PDUs dropped due to SMS Message drops where message is not in valid state.
Unexpected Message	Total number of NAS PDUs dropped due to SMS Message drops where reason as unexpected message arrived.
Other Drops	Indicates the statistics of NAS PDU dropped due to other drops.
Memory Failures	Total number of NAS PDUs dropped due to other drops by memory failures.
Decode Failures	Total number of NAS PDUs dropped due to other drops by decoding failures.
Msg in Invalid state	Total number of NAS PDUs dropped due to other drops where message is not in valid state.
Other Failures	Total number of NAS PDUs dropped due to other drops where reasons are other than listed in this table.
Iu cleared due to other failures	Indicates the statistics of causes for NAS PDU dropped due to Iu interface cleared by other failures.
Reset-received	Total number of NAS PDU dropped due to Iu interface cleared when reset message received.
Reset-resource-received	Total number of NAS PDU dropped due to Iu interface cleared when reset resource message received.
RNC-PC-Down	Total number of NAS PDU dropped due to Iu interface cleared by RNC and/or PC down.
Total Relocation Failure	This group displays the statistics of total relocation procedure failures.
Relocation Failure Causes	This group displays the statistics of relocation procedure failure causes.
RAB Preempted	Total number of relocation procedure failure occurred due to RAB Preempted cause.
Trelocoverall Expiry	Total number of relocation procedure failure occurred due to expiry of Relocation Overall timer.
Trelocprep Expiry	Total number of relocation procedure failure occurred due to expiry of Relocation Preparation timer.
Treloc complete Expiry	Total number of relocation procedure failure occurred due to expiry of Relocation Complete timer.
Tqueuing Expiry	Total number of relocation procedure failure occurred due to expiry of Relocation Queuing timer.
Relocation Triggered	Total number of relocation procedures failed due to triggering of another relocation procedure.
Unable to establ dur reloc	Total number of relocation procedures failed due to unable to establish the connection during relocation procedure.
Unknown Target RNC	Total number of relocation procedures failed due to unknown target RNC.
Relocation Cancelled	Total number of relocation procedures failed due to cancellation of relocation procedures.

Field	Description
Successful Relocation	Total number of relocation procedures failed due to successful completion of relocation procedure.
Req integ protec algo NS	Total number of relocation procedures failed due to required integrity protection algorithms in name server (NS) system.
Conflict with integ proc	Total number of relocation procedures failed due to conflict with integrity procedure.
Failure in Radio Intf Proc	Total number of relocation procedures failed due to failure in radio interface procedure.
Release due to UTRAN	Total number of relocation procedures failed due to RELEASE command from UTRAN.
User Inactivity	Total number of relocation procedures failed due to inactivity at user level.
Time Critical Relocation	Total number of relocation procedures failed due to time critical relocation procedure happened or triggered.
Requested Traffic Class NA	Total number of relocation procedures failed due to non-availability to requested traffic class for user session.
Invalid RAB Params value	Total number of relocation procedures failed due to invalid value in RAB parameters.
Requested Max Bit Rate NA	Total number of relocation procedures failed due to non-availability to requested MBR for user session in uplink and downlink direction.
Req Max Bit Rate NA for DL	Total number of relocation procedures failed due to non-availability to requested MBR for user session in downlink direction.
Req Max Bit Rate NA for UL	Total number of relocation procedures failed due to non-availability to requested MBR for user session in uplink direction.
Req Guaran Bit Rate NA	Total number of relocation procedures failed due to non-availability to requested GBR for user session in uplink and downlink direction.
Req Guaran Bit Rate NA DL	Total number of relocation procedures failed due to non-availability to requested GBR for user session in downlink direction.
Req Guaran Bit Rate NA UL	Total number of relocation procedures failed due to non-availability to requested GBR for user session in uplink direction.
Req Trans-delay not achiev	Total number of relocation procedures failed as requested transmission delay was not achieved.
Invalid RAB params comb	Total number of relocation procedures failed due to invalid combination in RAB parameters.
Cond violation for SDU	Total number of relocation procedures failed due to condition violation for service data unit (SDU).
Cond viol traff handling	Total number of relocation procedures failed due to condition violation in traffic handling.
Cond viol guaran bit rate	Total number of relocation procedures failed due to condition violation in GBR.
User plane vers no support	Total number of relocation procedures failed as user plan version is not supported.
Iu UP Failure	Total number of relocation procedures failed due to user plan failure in Iu interface.
TRELOCalloc Expiry	Total number of relocation procedures failed due to expiry to relocation timer.
Reloc Fail in Tgt system	Total number of relocation procedures failed due to relocation procedure failure in target system.
Invalid RAB ID	Total number of relocation procedures failed due to invalid RAB identifier.

Field	Description
No Remaining RAB	Total number of relocation procedures failed as no RAB was available for this procedure.
Interact with other proc	Total number of relocation procedures failed as system was interacting with other system procedures at the time of relocation trigger.
Repeated Integ Check Fail	Total number of relocation procedures failed due to repeated failure in integrity check.
Requested Req type not sup	Total number of relocation procedures failed as request type was not supported.
Request superseded	Total number of relocation procedures failed as relocation procedure request was superseded by another request.
UE gen signal conn release	Total number of relocation procedures failed as signal connection was released by UE.
Resource opt relocation	Total number of relocation procedures failed due to optimization of resource during relocation procedure.
Requested info not avail	Total number of relocation procedures failed as requested information for this procedure was not available.
Relocation desirable for radio reasons	Total number of relocation procedures failed as relocation was desirable for radio reasons and now not required.
Relocation no sup in tgt	Total number of relocation procedures failed as relocation procedure was not supported in target system.
Directed Retry	Total number of relocation procedures failed because system directed the Retry command.
Radio conn with UE lost	Total number of relocation procedures failed due to radio connection lost with UE.
RNC unabl to establish RFC	Total number of relocation procedures failed as RNC couldn't establish all RAB subflow combinations indicated within the RAB Parameters IE.
Deciphering keys not avail	Total number of relocation procedures failed due to non-availability of de-ciphering keys.
Dedicated Assist data NA	Total number of relocation procedures failed because RNC is not able to successfully deliver the requested dedicated assistance data to the UE.
Relocation tgt not allow	Total number of relocation procedures failed as relocation is not allowed on the target system.
Location report congestion	Total number of relocation procedures failed due to congestion status in location report.
Reduce load in serving cel	Total number of relocation procedures failed as system was reducing load in service cell.
No radio res in tgt cell	Total number of relocation procedures failed due to no radio resource was available in target cell.
GERAN Iu-mode failure	Total number of relocation procedures failed as the GERAN cannot provide an appropriate RAB due to limited capabilities within GERAN.
Access restricted due to shared nws	Total number of relocation procedures failed as access to target system restricted due to shared networks.
Incoming relocation no support due to PUESBINE	Total number of relocation procedures failed as the incoming relocation cannot be accepted by the target RNC because of the Provision of UE Specific Behavior Information to Network Entities (PUESBINE) feature.
Load in tgt great than src	Total number of relocation procedures failed because the target cell's traffic load is higher than that in the source cell.
MBMS-No multicast for UE	Total number of relocation procedures failed because the UE does not have any active multicast service.

Field	Description
MBMS-Unknown UE ID	Total number of relocation procedures failed because the CN does not know the UE or unknown UE identifier.
MBMS session start success no data bearer necessary	Total number of relocation procedures failed because the MBMS Session Start procedure was successfully performed, but the RNC does not have any interested UE.
MBMS-supersede due to NNSF	Total number of relocation procedures failed as the MBMS Session Start procedure was rejected because NAS Node Selection Function (NNSF) towards another CN node.
MBMS-UE link already done	Total number of relocation procedures failed because the UE has already been linked to the given Multicast service
MBMS-UE delink failure	Total number of relocation procedures failed because the UE had not been linked to the given Multicast service.
TMGI Unknown	Total number of relocation procedures failed due to requested MBMS action failure because of the indicated Temporary Mobile Group Identity (TMGI) is unknown.
IP Multicast addr & APN invalid	Total number of relocation procedures failed due to requested MBMS registration failed as the IP Multicast Address and APN are not valid.
MBMS deregistration reject	Total number of relocation procedures failed as the MBMS De-registration was rejected because of implicit registration.
MBMS-Request superseded	Total number of relocation procedures failed as MBMS Registration or De-registration was superseded due to another ongoing procedure.
MBMS Dereg during sess nal	Total number of relocation procedures failed as MBMS De-registration is not allowed during the MBMS session.
MBMS-No data bearer necess	Total number of relocation procedures failed as the RNC no longer have any UEs interested in the MBMS data bearer.
Periodic Loc info no avail	Total number of relocation procedures failed as no UE position estimate or location information was available when the periodic report was triggered.
GTP resources unavailable	Total number of relocation procedures failed as the RNC initiates RAB Release Request procedure when GTP resource was not available and error cause value, if it received, with a GTP-U error indication.
TMGI in use and overlap MBMS srvc in area	Total number of relocation procedures failed as the RNC has an MBMS Session up and running with that Temporary Mobile Group Identity (TMGI) and a parallel MBMS session with the same TMGI in another overlapping MBMS Service Area is not allowed.
MBMS-no cell in MBMS area	Total number of relocation procedures failed as the RNC does not have any cell of the indicated MBMS Service Area.
No Iu CS UP relocation	Total number of relocation procedures failed as the relocation is triggered by CS call and the source RNC has no Iu CS user plane.
Successful MBMS sess start IP MC bearer established	Total number of relocation procedures failed because the MBMS Session Start procedure was successfully performed and IP multicast bearer already established.
CS Fallback triggered	Total number of relocation procedures failed as CS fallback to support earlier version of service triggered.
Unknown	Total number of relocation procedures failed due to reasons not listed in this table or unknown to system.

Field	Description
Miscellaneous Statistics	Indicates the miscellaneous statistics of causes for NAS PDU dropped.
Mismatching PTMSI signatures	Indicates the statistics of number of NAS PDU dropped due to mismatch in P-TMSI signatures.
Total-PTMSI-Sig-Mismtach	Total number of NAS PDU dropped due to mismatch in P-TMSI signatures for attach and detach procedures.
Total-Att-PTMSI-Sig-Mismatch	Total number of NAS PDU dropped due to mismatch in P-TMSI signatures in attach procedures for 2G and 3G service.
3G-Att-PTMSI-Sig-Mismatch	Total number of NAS PDU dropped due to mismatch in P-TMSI signatures in attach procedures for 3G service.
2G-Att-PTMSI-Sig-Mismatch	Total number of NAS PDU dropped due to mismatch in P-TMSI signatures in attach procedures for 2G service.
Total-Det-PTMSI-Sig-Mismatch	Total number of NAS PDU dropped due to mismatch in P-TMSI signatures in detach procedures for 2G and 3G service.
3G-Det-PTMSI-Sig-Mismatch	Total number of NAS PDU dropped due to mismatch in P-TMSI signatures in detach procedures for 3G service.
2G-Det-PTMSI-Sig-Mismatch	Total number of NAS PDU dropped due to mismatch in P-TMSI signatures in detach procedures for 2G service.
Total-Rau-PTMSI-Sig-Mismatch	Total number of NAS PDU dropped due to mismatch in P-TMSI signatures in routing area update procedures for 2G and 3G service.
3G-Rau-PTMSI-Sig-Mismatch	Total number of NAS PDU dropped due to mismatch in P-TMSI signatures in routing area update procedures for 3G service.
2G-Rau-PTMSI-Sig-Mismatch	Total number of NAS PDU dropped due to mismatch in P-TMSI signatures in routing area update procedures for 2G service.
Auth Triplets Reuse Counter	<p><b>Description:</b> Total authentication triplet reuse by SGSN. SGSN tries to get authentication vectors from HLR; when it does not receive response/vectors from HLR, SGSN authenticates MS successfully using existing/locally stored vectors provided reuse of the triplet vector is enabled in configuration.</p> <p><b>Triggers:</b> Increments when the SGSN sends Auth Request to MS with total triplet reuse of vectors (2G and 3G) for the above condition.</p> <p><b>Availability:</b> per RA, per RNC, per GPRS/SGSN service</p>
3G-Auth Triplets Reuse	<p><b>Description:</b> Total authentication triplet reuse for 3G service. SGSN tries to get authentication vectors from HLR; when it does not receive response/vectors from HLR, SGSN authenticates MS successfully using existing/locally stored vectors provided reuse of the triplet vector is enabled in configuration.</p> <p><b>Triggers:</b> Increments when the SGSN sends Auth Request to MS with 3G triplet reuse of vector for the above condition.</p> <p><b>Availability:</b> per RA, per RNC, per SGSN service</p>
2G-Auth Triplets Reuse	<p><b>Description:</b> Total authentication triplet reuse for 2G service. SGSN tries to get authentication vectors from HLR; when it does not receive response/vectors from HLR, SGSN authenticates MS successfully using existing/locally stored vectors provided reuse of the triplet vector is enabled in configuration.</p> <p><b>Triggers:</b> Increments when the SGSN sends Auth Request to MS with 2G triplet reuse of vector for the above condition.</p> <p><b>Availability:</b> per RA, per RNC, per GPRS service</p>

Field	Description
New Connection rejected due to overload	Total number of NAS PDU dropped as new connection rejected due to overload.
Rnc Overload Statistics	Indicates the RNC overload statistics.
Total Procedures Rejected due to overload	Total number of procedures rejected due to overload at RNC.
Dropped Attaches	Total number of attach procedures dropped due to overload at RNC.
Dropped Serv-req(data)	Total number of service request procedures dropped due to overload at RNC.
Skipped Ptsmi reallocations	Total number of P-TMSI reallocation requests skipped due to overload at RNC.
Skipped Authentication	Total number of authentication procedures skipped due to overload at RNC.
SMS Error Stats	Indicates the statistics of errors for short message service (SMS).
CP-ERROR (Tx)	Total number of control program errors sent (in upload direction) for short message service (SMS).
Congestion	Total number of control program errors sent (in upload direction) for short message service (SMS) due to congestion.
Invalid Mandatory Info	Total number of control program errors sent (in upload direction) for short message service (SMS) due to invalid information in mandatory field.
Invalid Message Type	Total number of control program errors sent (in upload direction) for short message service (SMS) due to invalid message type.
Invalid semantic	Total number of control program errors sent (in upload direction) for short message service (SMS) due to invalid semantic in message.
Invalid Protocol State	Total number of control program errors sent (in upload direction) for short message service (SMS) due to invalid state of protocol in message.
Invalid IE	Total number of control program errors sent (in upload direction) for short message service (SMS) due to invalid information element in message.
Protocol Error	Total number of control program errors sent (in upload direction) for short message service (SMS) due to invalid protocol error.
Network Overload Protection	This group displays the statistics related to network overload protection function.
Attach requests queued in the pacing queue	Total number of attach requests queued in the pacing queue by network overload protection function.
Inter SGSN RAU requests queued in the pacing queue	Total number of Inter SGSN RAU requests queued in the pacing queue by network overload protection function.
Number of Inter SGSN RAU and Attach requests in the pacing queue	Total number of Inter SGSN RAU and attach requests queued in the pacing queue by network overload protection function.
Attach requests successfully dequeued from the pacing queue	Total number of attach requests successfully removed from the pacing queue by network overload protection function.

Field	Description
Inter SGSN RAU requests successfully dequeued from the pacing queue	Total number of Inter SGSN RAU requests successfully removed from the pacing queue by network overload protection function.
Attaches rejected	Total number of attach requests rejected by network overload protection function.
Inter SGSN RAUs rejected	Total number of Inter SGSN RAUs requests rejected by network overload protection function.
Attaches dropped	Total number of attach requests dropped by network overload protection function.
Inter SGSN RAUs dropped	Total number of Inter SGSN RAUs requests dropped by network overload protection function.
Attaches discarded due to excess wait time in the pacing queue	Total number of attach requests discarded by network overload protection function due to excess wait time in the pacing queue.
Inter SGSN RAUs discarded due to excess wait time in the pacing queue	Total number of Inter SGSN RAUs requests discarded by network overload protection function due to excess wait time in the pacing queue.
Session Management Messages Statistics	
Activate Context Request	Indicates the statistics of context activate request in session management service.
Total-Actv-Request	Total number of request messages received for 2G and 3G context activation including primary and secondary.
3G-Actv-Request	Total number of request messages received for 3G context activation including primary and secondary.
2G-Actv Request	Total number of request messages received for 2G context activation including primary and secondary.
Primary-Actv-Request	Total number of request messages received for 2G and 3G primary context activation.
3G-Primary-Actv-Request	Total number of request messages received for 3G primary context activation.
2G-Primary-Actv-Request	Total number of request messages received for 2G primary context activation.
Secondary-Actv-Request	Total number of request messages received for 2G and 3G secondary context activation.
3G-Secondary-Actv-Request	Total number of request messages received for 3G secondary context activation.
2G-Secondary-Actv-Request	Total number of request messages received for 2G secondary context activation.
Actv-Request-Nrpca	Total number of network requested PDP context activation request messages received from GGSN.
Activate Context Accept	Indicates the statistics of context activate request accepted in session management service.
Total-Actv-Accept	Total number of request messages accepted for 2G and 3G context activation including primary and secondary type.
3G-Actv-Accept	Total number of request messages accepted for 3G context activation including primary and secondary type.
2G-Actv Accept	Total number of request messages accepted for 2G context activation including primary and secondary type.
Primary-Actv-Accept	Total number of request messages accepted for 2G and 3G primary context activation.

Field	Description
3G-Primary-Actv-Accept	Total number of request messages accepted for 3G primary context activation.
2G-Primary-Actv-Accept	Total number of request messages accepted for 2G primary context activation.
Secondary-Actv-Accept	Total number of request messages accepted for 2G and 3G secondary context activation.
3G-Secondary-Actv-Accept	Total number of request messages accepted for 3G secondary context activation.
2G-Secondary-Actv-Accept	Total number of request messages accepted for 2G secondary context activation.
Activate Context Reject	Indicates the statistics of request messages rejected for 2G and 3G context activation including primary and secondary type.
Total-Actv-Reject	Total number of request messages rejected for 2G and 3G context activation including primary and secondary type.
3G-Actv-Reject	Total number of request messages rejected for 3G context activation including primary and secondary type.
2G-Actv-Reject	Total number of request messages rejected for 2G context activation including primary and secondary type.
Primary-Actv-Reject	Total number of request messages rejected for 2G and 3G primary context activation.
3G-Primary-Actv-Reject	Total number of request messages rejected for 3G primary context activation.
2G-Primary-Actv-Reject	Total number of request messages rejected for 2G primary context activation.
Secondary-Actv-Reject	Total number of request messages rejected for 2G and 3G secondary context activation.
3G-Secondary-Actv-Reject	Total number of request messages rejected for 3G secondary context activation.
2G-Secondary-Actv-Reject	Total number of request messages rejected for 2G secondary context activation.
Activate Context Failure	Indicates the statistics of context activation failure for 2G and 3G service including primary and secondary type.
Total-Actv-Failure	Total number of context activation for 2G and 3G service (including primary and secondary type) failed.
3G-Actv-Failure	Total number of context activation for 3G service (including primary and secondary type) failed.
2G-Actv Failure	Total number of context activation for 2G service (including primary and secondary type) failed.
Primary-Actv-Failure	Total number of primary context activation for 2G and 3G service failed.
3G-Primary-Actv-Failure	Total number of primary context activation for 3G service failed.
2G-Primary-Actv-Failure	Total number of primary context activation for 2G service failed.
Secondary-Actv-Failure	Total number of secondary context activation for 2G and 3G service failed.
3G-Secondary-Actv-Failure	Total number of secondary context activation for 3G service failed.
2G-Secondary-Actv-Failure	Total number of secondary context activation for 2G and 3G service failed.
Activate Primary PDP Context Denied	Indicates the statistics of reason to deny primary PDP context activation for 2G and 3G service denied.
3G-Operator Determined Barring	Total number of requests to activate primary PDP context for 3G service rejected due to operator determined barring.

Field	Description
2G-Operator Determined Barring	Total number of requests to activate primary PDP context for 2G service rejected due to operator determined barring.
3G-Insufficient Resources	Total number of requests to activate primary PDP context for 3G service rejected due to insufficient resources.
2G-Insufficient Resources	Total number of requests to activate primary PDP context for 2G service rejected due to insufficient resources.
3G-Network Failure	Total number of requests to activate primary PDP context for 3G service rejected due to network failure.
2G-Network Failure	Total number of requests to activate primary PDP context for 2G service rejected due to network failure.
3G-Mising or Unknow APN	Total number of requests to activate primary PDP context for 3G service rejected due to missing or unknown APN in request message.
2G-Mising or Unknow APN	Total number of requests to activate primary PDP context for 2G service rejected due to missing or unknown APN in request message.
3G-Unknown PDP Addr/type	Total number of requests to activate primary PDP context for 3G service rejected due to unknown type/address in request.
2G-Unknown PDP Addr/type	Total number of requests to activate primary PDP context for 2G service rejected due to unknown type/address in request.
3G-User Auth Failed	Total number of requests to activate primary PDP context for 3G service rejected due to failure in user authentication.
2G-User Auth Failed	Total number of requests to activate primary PDP context for 2G service rejected due to failure in user authentication.
3G-Rejected By GGSN	Total number of requests to activate primary PDP context for 3G service rejected as request rejected by the GGSN.
2G-Rejected By GGSN	Total number of requests to activate primary PDP context for 2G service rejected as request rejected by the GGSN.
3G-Unspecified Error	Total number of requests to activate primary PDP context for 3G service rejected due to error which is not specified in this table or unknown.
2G-Unspecified Error	Total number of requests to activate primary PDP context for 2G service rejected due to error which is not specified in this table or unknown.
3G-Svc Option Not Supported	Total number of requests to activate primary PDP context for 3G service rejected as requested service is not supported.
2G-Svc Option Not Supported	Total number of requests to activate primary PDP context for 2G service rejected as requested service is not supported.
3G-Svc Opt Not Subscribed	Total number of requests to activate primary PDP context for 3G service rejected as subscriber is not subscriber to requested service.
2G-Svc Opt Not Subscribed	Total number of requests to activate primary PDP context for 2G service rejected as subscriber is not subscriber to requested service.
3G-Svc Opt Tmp Out of Order	Total number of requests to activate primary PDP context for 3G service rejected as requested service option is temporarily out of order.

Field	Description
2G-Svc Opt Tmp Out of Order	Total number of requests to activate primary PDP context for 2G service rejected as requested service option is temporarily out of order.
3G-APN-Restriction Incompatible	Total number of requests to activate primary PDP context for 3G service rejected due to restriction of aPN or incompatibility of APN for service.
2G-APN-Restriction Incompatible	Total number of requests to activate primary PDP context for 2G service rejected due to restriction of aPN or incompatibility of APN for service.
3G-Semantically Incorrect	Total number of requests to activate primary PDP context for 3G service rejected due to semantically incorrect message.
2G-Semantically Incorrect	Total number of requests to activate primary PDP context for 2G service rejected due to semantically incorrect message.
3G-Invalid Mandatory Info	Total number of requests to activate primary PDP context for 3G service rejected as mandatory information in message is invalid.
2G-Invalid Mandatory Info	Total number of requests to activate primary PDP context for 2G service rejected as mandatory information in message is invalid.
3G-Msg Non Existent	Total number of requests to activate primary PDP context for 3G service rejected due to non-existent type of message.
2G-Msg Non Existent	Total number of requests to activate primary PDP context for 2G service rejected due to non-existent type of message.
3G-IE Non Existent	Total number of requests to activate primary PDP context for 3G service rejected due to non-existence of information element.
2G-IE Non Existent	Total number of requests to activate primary PDP context for 2G service rejected due to non-existence of information element.
3G-Conditional IE Error	Total number of requests to activate primary PDP context for 3G service rejected due to error in conditional information element.
2G-Conditional IE Error	Total number of requests to activate primary PDP context for 2G service rejected due to error in conditional information element.
3G-Msg Not Compatible with State	Total number of requests to activate primary PDP context for 3G service rejected as message type is not compatible with protocol state.
2G-Msg Not Compatible with State	Total number of requests to activate primary PDP context for 2G service rejected as message type is not compatible with protocol state.
3G-Recovery on Timer Expiry	Total number of requests to activate primary PDP context for 3G service rejected as timer expired for recovery.
2G-Recovery on Timer Expiry	Total number of requests to activate primary PDP context for 2G service rejected as timer expired for recovery.
3G-Proto Err Unspecified	Total number of requests to activate primary PDP context for 3G service rejected due to unspecified protocol error.
2G-Proto Err Unspecified	Total number of requests to activate primary PDP context for 2G service rejected due to unspecified protocol error.
Activate Secondary PDP Context Denied	Indicates the statistics of reason to deny secondary PDP context activation for 2G and 3G service denied.

Field	Description
3G-Operator Determined Barring	Total number of requests to activate primary PDP context for 3G service rejected due to operator determined barring.
2G-Operator Determined Barring	Total number of requests to activate primary PDP context for 2G service rejected due to operator determined barring.
3G-Insufficient Resources	Total number of requests to activate secondary PDP context for 3G service rejected due to insufficient resources.
2G-Insufficient Resources	Total number of requests to activate secondary PDP context for 2G service rejected due to insufficient resources.
3G-Rej By Ggsn	Total number of requests to activate secondary PDP context for 3G service rejected as request rejected by the GGSN.
2G-Rej By Ggsn	Total number of requests to activate secondary PDP context for 2G service rejected as request rejected by the GGSN.
3G-Actv Rej Unspecified	Total number of requests to activate secondary PDP context for 3G service rejected due to error which is not specified in this table or unknown.
2G-Actv Rej Unspecified	Total number of requests to activate secondary PDP context for 2G service rejected due to error which is not specified in this table or unknown.
3G-Svc Opt Not Supported	Total number of requests to activate secondary PDP context for 3G service rejected as requested service option is not supported.
2G-Svc Opt Not Supported	Total number of requests to activate secondary PDP context for 2G service rejected as requested service option is not supported.
3G-Svc Opt Not Subscribed	Total number of requests to activate secondary PDP context for 3G service rejected as subscriber is not subscriber to requested service.
2G-Svc Opt Not Subscribed	Total number of requests to activate secondary PDP context for 2G service rejected as subscriber is not subscriber to requested service.
3G-Svc Option Tmp Out Of Order	Total number of requests to activate secondary PDP context for 3G service rejected as requested service option is temporarily out of order.
2G-Svc Option Tmp Out Of Order	Total number of requests to activate secondary PDP context for 2G service rejected as requested service option is temporarily out of order.
3G-Sem Error In TFT Op	Total number of requests to activate secondary PDP context for 3G service rejected due to semantic error in subscriber traffic flow template operation.
2G-Sem Error In TFT Op	Total number of requests to activate secondary PDP context for 2G service rejected due to semantic error in subscriber traffic flow template operation.
3G-Syn Error In TFT Op	Total number of requests to activate secondary PDP context for 3G service rejected due to syntax error in subscriber traffic flow template operation.
2G-Syn Error In TFT Op	Total number of requests to activate secondary PDP context for 2G service rejected due to syntax error in subscriber traffic flow template operation.
3G-Unknown Ctx	Total number of requests to activate secondary PDP context for 3G service rejected due to unknown PDP context name in request message.
2G-Unknown Ctx	Total number of requests to activate secondary PDP context for 2G service rejected due to unknown PDP context name in request message.

Field	Description
3G-Sem Error In Pkt Filter	Total number of requests to activate secondary PDP context for 3G service rejected due to semantic error in packet filter.
2G-Sem Error In Pkt Filter	Total number of requests to activate secondary PDP context for 2G service rejected due to semantic error in packet filter.
3G-Syn Errors In Pkt Filter	Total number of requests to activate secondary PDP context for 3G service rejected due to syntax error in packet filter.
2G-Syn Errors In Pkt Filter	Total number of requests to activate secondary PDP context for 2G service rejected due to syntax error in packet filter.
3G-Ctx No-TFT Already Actv	Total number of requests to activate secondary PDP context for 3G service rejected as no TFT is active for subscriber.
2G-Ctx No-TFT Already Actv	Total number of requests to activate secondary PDP context for 2G service rejected as no TFT is active for subscriber.
3G-Sem Incorrect Msg	Total number of requests to activate secondary PDP context for 3G service rejected due to semantically incorrect message.
2G-Sem Incorrect Msg	Total number of requests to activate secondary PDP context for 2G service rejected due to semantically incorrect message.
3G-Invalid Mandatory Info	Total number of requests to activate secondary PDP context for 3G service rejected as mandatory information in message is invalid.
2G-Invalid Mandatory Info	Total number of requests to activate secondary PDP context for 2G service rejected as mandatory information in message is invalid.
3G-Msg Non Existent	Total number of requests to activate secondary PDP context for 3G service rejected due to non-existent type of message.
2G-Msg Non Existent	Total number of requests to activate secondary PDP context for 2G service rejected due to non-existent type of message.
3G-IE Non Existent	Total number of requests to activate secondary PDP context for 3G service rejected due to non-existence of information element.
2G-IE Non Existent	Total number of requests to activate secondary PDP context for 2G service rejected due to non-existence of information element.
3G-Conditional IE error	Total number of requests to activate secondary PDP context for 3G service rejected due to error in conditional information element.
2G-Conditional IE error	Total number of requests to activate secondary PDP context for 2G service rejected due to error in conditional information element.
3G-Msg Not Compatible with State	Total number of requests to activate secondary PDP context for 3G service rejected as message type is not compatible with protocol state.
2G-Msg Not Compatible with State	Total number of requests to activate secondary PDP context for 2G service rejected as message type is not compatible with protocol state.
3G-Recovery on Timer Expiry	Total number of requests to activate secondary PDP context for 3G service rejected as timer expired for recovery.
2G-Recovery on Timer Expiry	Total number of requests to activate secondary PDP context for 2G service rejected as timer expired for recovery.

Field	Description
3G-Proto Err Unspecified	Total number of requests to activate secondary PDP context for 3G service rejected due to unspecified protocol error.
2G-Proto Err Unspecified	Total number of requests to activate secondary PDP context for 2G service rejected due to unspecified protocol error.
Activate Context Failure Causes	Indicates the statistics of reasons for context activation procedures for 2G and 3G service.
3G-Iu release before Activate over	Total number of context activation procedures rejected for 3G service due to Iu released before completion of activation procedure.
3G-Guard Timer Expiry	Total number of PDP context activation for 3G failed due to guard timer expiry.
2G-Guard Timer Expiry	Total number of PDP context activation for 2G failed due to guard timer expiry.
3G-Duplicate Activation	Total number of PDP context activation for 3G failed due to duplicate request for activation.
2G-Duplicate Activation	Total number of PDP context activation for 2G failed due to duplicate request for activation.
3G-Failure due to Other Ongoing Procedure	Total number of PDP context activation for 3G failed as other activation procedure for same request is in progress.
2G-Failure due to Other Ongoing Procedure	Total number of PDP context activation for 2G failed as other activation procedure for same request is in progress.
3G-Tunnel Deactivation	Total number of PDP context activation for 3G failed as session tunnel deactivated.
2G-Tunnel Deactivation	Total number of PDP context activation for 2G failed as session tunnel deactivated.
3G-HandOff before Activate over	Total number of PDP context activation for 3G failed as handoff happened before activation procedure completed.
2G-HandOff before Activate over	Total number of PDP context activation for 2G failed as handoff happened before activation procedure completed.
3G-Detach before Activate over	Total number of PDP context activation for 2G failed as detach procedure started before activation procedure completed.
2G-Detach before Activate over	Total number of PDP context activation for 2G failed as detach procedure started before activation procedure completed.
3G-Phase-2-Offload Failures	<b>Description:</b> This proprietary counter indicates the total number of PDP Activation failures due to Phase 2 offloading in 3G service. <b>Triggers:</b> Increments when PDP Activation fails due to Phase 2 offloading. <b>Availability:</b> per SGSN service, per RA, per RNC
2G-Phase-2-Offload Failures	<b>Description:</b> This proprietary counter indicates the total number of PDP Activation failures due to Phase 2 offloading in 2G service. <b>Triggers:</b> Increments when PDP Activation fails due to Phase 2 offloading. <b>Availability:</b> per GPRS service, per RA
3G-Invalid Msg Content	Total number of PDP context activation for 3G failed as request message contains invalid information.
2G-Invalid Msg Content	Total number of PDP context activation for 2G failed as request message contains invalid information.
Duplicate Activate Request	Indicates the statistics of duplicate context activation requests for 2G and 3G service received.

Field	Description
Total-Dup-Actv Req Received	Total number of duplicate context activation requests for 2G and 3G service received.
Total-Dup-3G-Actv Req Received	Total number of duplicate context activation requests for 3G service received.
Total-Dup-2G-Actv Req Received	Total number of duplicate context activation requests for 2G service received.
3G-Dup Req In PDP-ACTIVE State	Indicates the statistics of duplicate context activation requests for 3G service in PDP activate state.
Duplicate TI	Total number of duplicate context activation requests for 3G service in PDP active state with duplicate transaction identifiers (TIs).
Duplicate NSAPI	Total number of duplicate context activation requests for 3G service in PDP active state with duplicate Network Service Access Point Identifier (NSAPI) for 3G service.
Duplicate PDP-Addr and APN	Total number of duplicate context activation requests for 3G service in PDP active state with duplicate PDP address and access point name for 3G service.
2G-Dup Req In PDP-ACTIVE State	Indicates the statistics of duplicate context activation requests for 2G service in PDP activate state.
Duplicate TI	Total number of duplicate context activation requests for 2G service in PDP active state with duplicate transaction identifiers (TIs).
Duplicate NSAPI	Total number of duplicate context activation requests for 2G service in PDP active state with duplicate Network Service Access Point Identifier (NSAPI).
Duplicate PDP-Addr and APN	Total number of duplicate context activation requests for 2G service in PDP active state with duplicate PDP address and access point name.
3G-Dup Req In NOT PDP-ACTIVE State	Indicates the statistics of duplicate context activation requests for 3G service which are not in PDP active state.
Duplicate TI	Total number of duplicate context activation requests for 3G service which are not in PDP active state with duplicate transaction identifiers (TIs).
Duplicate NSAPI	Total number of duplicate context activation requests for 3G service which are not in PDP active state with duplicate Network Service Access Point Identifier (NSAPI).
Duplicate PDP-Addr and APN	Total number of duplicate context activation requests for 3G service which are not in PDP active state with duplicate PDP address and access point name.
2G-Dup Req In NOT PDP-ACTIVE State	Indicates the statistics of duplicate context activation requests for 2G service which are not in PDP active state.
Duplicate TI	Total number of duplicate context activation requests for 2G service which are not in PDP active state with duplicate transaction identifiers (TIs).
Duplicate NSAPI	Total number of duplicate context activation requests for 2G service which are not in PDP active state with duplicate Network Service Access Point Identifier (NSAPI).
Duplicate PDP-Addr and APN	Total number of duplicate context activation requests for 2G service which are not in PDP active state with duplicate PDP address and access point name.
Request Pdp Context Activation	Indicates the statistics of PDP context activation requests for 2G and 3G service.

Field	Description
Total-Request-Pdp-Ctxt-Req	Total number of PDP context activation requests received for 2G and 3G service.
3G-Request-Pdp-Ctxt-Req	Total number of PDP context activation requests received for 3G service.
2G-Request-Pdp-Ctxt-Req	Total number of PDP context activation requests received for 2G service.
Retransmission	Indicates the statistics of PDP context activation requests retransmitted for 2G and 3G service.
Total-Request-Pdp-Ctxt-Req	Total number of PDP context activation requests retransmitted for 2G and 3G service.
3G-Request-Pdp-Ctxt-Req	Total number of PDP context activation requests retransmitted for 3G service.
2G-Request-Pdp-Ctxt-Req	Total number of PDP context activation requests retransmitted for 2G service.
Request Pdp Context Activation Reject	Indicates the statistics of PDP context activation requests rejected for 2G and 3G service.
Total-Request-Pdp-Ctxt-Reject	Total number of PDP context activation requests rejected for 2G and 3G service.
3G-Request-Pdp-Ctxt-Reject	Total number of PDP context activation requests rejected for 3G service.
2G-Request-Pdp-Ctxt-Reject	Total number of PDP context activation requests rejected for 2G service.
Request Pdp Context Activation Denied	Indicates the statistics of PDP context activation requests Denied for 2G and 3G service.
3G-Insufficient Resources	Total PDP context activation requests denied due to insufficient resources in 3G service.
2G-Insufficient Resources	Total PDP context activation requests denied due to insufficient resources in 2G service.
3G-Actv Rej Unspecified	Total PDP context activation requests denied due to unspecified reasons in 3G service.
2G-Actv Rej Unspecified	Total PDP context activation requests denied due to unspecified reasons in 2G service.
3G-Feature Not Supported	Total PDP context activation requests denied due to requested feature not supported in 3G service.
2G-Feature Not Supported	Total PDP context activation requests denied due to requested feature not supported in 2G service.
3G-Svc Opt Tmp Out of Order	Total PDP context activation requests denied due to service option was temporarily out of order in 3G service.
2G-Svc Opt Tmp Out of Order	Total PDP context activation requests denied due to service option was temporarily out of order in 2G service.
Modify Context Request	Indicates the statistics of MS and network initiated PDP context modification requests received for 2G and 3G service.
Total-Modify-Request	Total number of MS and network initiated PDP context modification requests received for 2G and 3G service.
3G-Modify-Request	Total number of MS and network initiated PDP context modification requests received for 3G service.
2G-Modify Request	Total number of MS and network initiated PDP context modification requests received for 2G service.
Modify-Request Rx	Total number of MS initiated PDP context modification requests received for 2G and 3G service.
3G-Modify-Request Rx	Total number of MS initiated PDP context modification requests received for 3G service.
2G-Modify-Request Rx	Total number of MS initiated PDP context modification requests received for 2G service.

■ show gmm-sm statistics verbose

Field	Description
Modify-Request Tx	Total number of network initiated PDP context modification requests received for 2G and 3G service.
3G-Modify-Request Tx	Total number of network initiated PDP context modification requests received for 3G service.
2G-Modify-Request Tx	Total number of network initiated PDP context modification requests received for 2G service.
Retransmission	Indicates the statistics of network initiated PDP context modification requests retransmitted for 2G and 3G service.
Total-Modify-Request Tx	Total number of network initiated PDP context modification requests retransmitted for 2G and 3G service.
3G-Modify-Request Tx	Total number of network initiated PDP context modification requests retransmitted for 3G service.
2G-Modify-Request Tx	Total number of network initiated PDP context modification requests retransmitted for 2G service.
Modify Context Accept	Indicates the statistics of MS and network initiated PDP context modification requests accepted for 2G and 3G service.
Total-Modify-Accept	Total number of MS and network initiated PDP context modification requests accepted for 2G and 3G service.
3G-Modify-Accept	Total number of MS and network initiated PDP context modification requests accepted for 3G service.
2G-Modify-Accept	Total number of MS and network initiated PDP context modification requests accepted for 2G service.
Modify-Accept Tx	Total number of MS initiated PDP context modification requests accepted for 2G and 3G service.
3G-Modify-Accept Tx	Total number of MS initiated PDP context modification requests accepted for 3G service.
2G-Modify-Accept Tx	Total number of MS initiated PDP context modification requests accepted for 2G service.
Modify-Accept Rx	Total number of network initiated PDP context modification requests accepted for 2G and 3G service.
3G-Modify-Accept Rx	Total number of network initiated PDP context modification requests received for 3G service.
2G-Modify-Accept Rx	Total number of network initiated PDP context modification requests accepted for 2G service.
Modify Context Reject	Indicates the statistics of MS and network initiated PDP context modification requests rejected for 2G and 3G service.
Total-Modify-Reject	Total number of MS and network initiated PDP context modification requests rejected for 2G and 3G service.
3G-Modify-Reject	Total number of MS and network initiated PDP context modification requests rejected for 3G service.
2G-Modify-Reject	Total number of MS and network initiated PDP context modification requests rejected for 2G service.
Modify-Reject Tx	Total number of MS initiated PDP context modification requests rejected for 2G and 3G service.
3G-Modify-Reject Tx	Total number of MS initiated PDP context modification requests rejected for 3G service.
2G-Modify-Reject Tx	Total number of MS initiated PDP context modification requests rejected for 2G service.

Field	Description
Modify-Reject Rx	Total number of network initiated PDP context modification requests rejected for 2G and 3G service.
3G-Modify-Reject Rx	Total number of network initiated PDP context modification requests rejected for 3G service.
2G-Modify-Reject Rx	Total number of network initiated PDP context modification requests rejected for 2G service.
Modify PDP Context Denied Tx	Indicates the statistics of reason to deny MS initiated PDP context modification for 2G and 3G service denied.
3G-Insufficient Resources	Total number of MS initiated requests to modify PDP context for 3G service rejected due to insufficient resources.
2G-Insufficient Resources	Total number of MS initiated requests to modify PDP context for 2G service rejected due to insufficient resources.
3G-Svc Option Not Supported	Total number of MS initiated requests to modify PDP context for 3G service rejected as requested service option is not supported.
2G-Svc Option Not Supported	Total number of MS initiated requests to modify PDP context for 2G service rejected as requested service option is not supported.
3G-Sem Err in TFT OP	Total number of MS initiated requests to modify PDP context for 3G service rejected due to semantic error in subscriber traffic flow template operation.
2G-Sem Err in TFT OP	Total number of MS initiated requests to modify PDP context for 2G service rejected due to semantic error in subscriber traffic flow template operation.
3G-Syntactic Err in TFT OP	Total number of MS initiated requests to modify PDP context for 3G service rejected due to syntax error in subscriber traffic flow template operation.
2G-Syntactic Err in TFT OP	Total number of MS initiated requests to modify PDP context for 2G service rejected due to syntax error in subscriber traffic flow template operation.
3G-Sem Err in Pkt Filter	Total number of MS initiated requests to modify PDP context for 3G service rejected due to semantic error in packet filter.
2G-Sem Err in Pkt Filter	Total number of MS initiated requests to modify PDP context for 2G service rejected due to semantic error in packet filter.
3G-Syntactic Err in Pkt Filter	Total number of MS initiated requests to modify PDP context for 3G service rejected due to syntax error in packet filter.
2G-Syntactic Err in Pkt Filter	Total number of MS initiated requests to modify PDP context for 2G service rejected due to syntax error in packet filter.
3G-Sem Incorrect Msg	Total number of MS initiated requests to modify PDP context for 3G service rejected due to semantically incorrect message.
2G-Sem Incorrect Msg	Total number of MS initiated requests to modify PDP context for 2G service rejected due to semantically incorrect message.
3G-Invalid Mandatory Info	Total number of MS initiated requests to modify PDP context for 3G service rejected as mandatory information in message is invalid.
2G-Invalid Mandatory Info	Total number of MS initiated requests to modify PDP context for 2G service rejected as mandatory information in message is invalid.
3G-Msg Non Existent	Total number of MS initiated requests to modify PDP context for 3G service rejected due to non-existent type of message.

Field	Description
2G-Msg Non Existent	Total number of MS initiated requests to modify PDP context for 2G service rejected due to non-existent type of message.
3G-IE Non Existent	Total number of MS initiated requests to modify PDP context for 3G service rejected due to non-existence of information element.
2G-IE Non Existent	Total number of MS initiated requests to modify PDP context for 2G service rejected due to non-existence of information element.
3G-Conditional IE Error	Total number of MS initiated requests to modify PDP context for 3G service rejected due to error in conditional information element.
2G-Conditional IE Error	Total number of MS initiated requests to modify PDP context for 2G service rejected due to error in conditional information element.
3G-Msg Not Compatible with State	Total number of MS initiated requests to modify PDP context for 3G service rejected as message type is not compatible with protocol state.
2G-Msg Not Compatible with State	Total number of MS initiated requests to modify PDP context for 2G service rejected as message type is not compatible with protocol state.
3G-Recovery on Timer Expiry	Total number of MS initiated requests to modify PDP context for 3G service rejected as timer expired for recovery.
2G-Recovery on Timer Expiry	Total number of MS initiated requests to modify PDP context for 2G service rejected as timer expired for recovery.
3G-Proto Err Unspecified	Total number of MS initiated requests to modify PDP context for 3G service rejected due to unspecified protocol error.
2G-Proto Err Unspecified	Total number of MS initiated requests to modify PDP context for 2G service rejected due to unspecified protocol error.
Modify PDP Context Rx	Indicates the statistics of reason to deny SGSN initiated PDP context modification for 2G and 3G service denied.
3G-Insufficient Resources	Total number of SGSN initiated requests received to modify PDP context for 3G service rejected due to insufficient resources.
2G-Insufficient Resources	Total number of SGSN initiated requests to modify PDP context for 3G service rejected due to insufficient resources.
3G-Svc Option Not Supported	Total number of SGSN initiated requests to modify PDP context for 3G service rejected as requested service option is not supported.
2G-Svc Option Not Supported	Total number of SGSN initiated requests to modify PDP context for 2G service rejected as requested service option is not supported.
3G-Sem Err in TFT OP	Total number of SGSN initiated requests to modify PDP context for 3G service rejected due to semantic error in subscriber traffic flow template operation.
2G-Sem Err in TFT OP	Total number of SGSN initiated requests to modify PDP context for 2G service rejected due to semantic error in subscriber traffic flow template operation.
3G-Syntactic Err in TFT OP	Total number of SGSN initiated requests to modify PDP context for 3G service rejected due to syntax error in subscriber traffic flow template operation.
2G-Syntactic Err in TFT OP	Total number of SGSN initiated requests to modify PDP context for 2G service rejected due to syntax error in subscriber traffic flow template operation.

Field	Description
3G-Sem Err in Pkt Filter	Total number of SGSN initiated requests to modify PDP context for 3G service rejected due to semantic error in packet filter.
2G-Sem Err in Pkt Filter	Total number of SGSN initiated requests to modify PDP context for 2G service rejected due to semantic error in packet filter.
3G-Syntactic Err in Pkt Filter	Total number of SGSN initiated requests to modify PDP context for 3G service rejected due to syntax error in packet filter.
2G-Syntactic Err in Pkt Filter	Total number of SGSN initiated requests to modify PDP context for 2G service rejected due to syntax error in packet filter.
3G-Sem Incorrect Msg	Total number of SGSN initiated requests to modify PDP context for 3G service rejected due to semantically incorrect message.
2G-Sem Incorrect Msg	Total number of SGSN initiated requests to modify PDP context for 2G service rejected due to semantically incorrect message.
3G-Invalid Mandatory Info	Total number of SGSN initiated requests to modify PDP context for 3G service rejected as mandatory information in message is invalid.
2G-Invalid Mandatory Info	Total number of SGSN initiated requests to modify PDP context for 2G service rejected as mandatory information in message is invalid.
3G-Msg Non Existent	Total number of SGSN initiated requests to modify PDP context for 3G service rejected due to non-existent type of message.
2G-Msg Non Existent	Total number of SGSN initiated requests to modify PDP context for 2G service rejected due to non-existent type of message.
3G-IE Non Existent	Total number of SGSN initiated requests to modify PDP context for 3G service rejected due to non-existence of information element.
2G-IE Non Existent	Total number of SGSN initiated requests to modify PDP context for 2G service rejected due to non-existence of information element.
3G-Conditional IE Error	Total number of SGSN initiated requests to modify PDP context for 3G service rejected due to error in conditional information element.
2G-Conditional IE Error	Total number of SGSN initiated requests to modify PDP context for 2G service rejected due to error in conditional information element.
3G-Msg Not Compatible with State	Total number of SGSN initiated requests to modify PDP context for 3G service rejected as message type is not compatible with protocol state.
2G-Msg Not Compatible with State	Total number of SGSN initiated requests to modify PDP context for 2G service rejected as message type is not compatible with protocol state.
3G-Recovery on Timer Expiry	Total number of SGSN initiated requests to modify PDP context for 3G service rejected as timer expired for recovery.
2G-Recovery on Timer Expiry	Total number of SGSN initiated requests to modify PDP context for 2G service rejected as timer expired for recovery.
3G-Proto Err Unspecified	Total number of SGSN initiated requests to modify PDP context for 3G service rejected due to unspecified protocol error.
2G-Proto Err Unspecified	Total number of SGSN initiated requests to modify PDP context for 2G service rejected due to unspecified protocol error.

Field	Description
Deactivate Context Request	Indicates the statistics of MS and network initiated PDP context deactivation requests received for 2G and 3G service.
Total-Deactv-Request	Total number of MS and network initiated PDP context deactivation requests received for 2G and 3G service.
3G-Deactv-Request	Total number of MS and network initiated PDP context deactivation requests received for 3G service.
2G-Deactv-Request	Total number of MS and network initiated PDP context deactivation requests received for 2G service.
MS-Deactv-Request	Total number of MS initiated PDP context deactivation requests received for 2G and 3G service.
3G-MS-Deactv-Request	Total number of MS initiated PDP context deactivation requests received for 3G service.
2G-MS-Deactv-Request	Total number of MS initiated PDP context deactivation requests received for 2G service.
SGSN-Deactv-Request	Total number of SGSN initiated PDP context deactivation requests received for 2G and 3G service.
3G-SGSN-Deactv-Request	Total number of SGSN initiated PDP context deactivation requests received for 3G service.
2G-SGSN-Deactv-Request	Total number of SGSN initiated PDP context deactivation requests received for 2G service.
HLR-Deactv-Request	Total number of home location register (HLR) initiated PDP context deactivation requests received for 2G and 3G service.
3G-HLR-Deactv-Request	Total number of HLR initiated PDP context deactivation requests received for 3G service.
2G-HLR-Deactv-Request	Total number of HLR initiated PDP context deactivation requests received for 2G service.
GGSN-Deactv-Request	Total number of GGSN initiated PDP context deactivation requests received for 2G and 3G service.
3G-GGSN-Deactv-Request	Total number of GGSN initiated PDP context deactivation requests received for 3G service.
2G-GGSN-Deactv-Request	Total number of GGSN initiated PDP context deactivation requests received for 2G service.
Retransmission	Indicates the statistics of network initiated PDP context deactivation requests retransmitted for 2G and 3G service
Total-SGSN-Deactv-Request	Total number of SGSN initiated PDP context deactivation requests retransmitted for 2G and 3G service.
3G-SGSN-Deactv-Request	Total number of SGSN initiated PDP context deactivation requests retransmitted for 3G service.
2G-SGSN-Deactv-Request	Total number of SGSN initiated PDP context deactivation requests retransmitted for 2G service.
Total-HLR-Deactv-Request	Total number of home location register (HLR) initiated PDP context deactivation requests retransmitted for 2G and 3G service.
3G-HLR-Deactv-Request	Total number of HLR initiated PDP context deactivation requests retransmitted for 3G service.
2G-HLR-Deactv-Request	Total number of HLR initiated PDP context deactivation requests retransmitted for 2G service.
Total-GGSN-Deactv-Request	Total number of GGSN initiated PDP context deactivation requests retransmitted for 2G and 3G service.
3G-GGSN-Deactv-Request	Total number of GGSN initiated PDP context deactivation requests retransmitted for 3G service.

Field	Description
2G-GGSN-Deactiv-Request	Total number of GGSN initiated PDP context deactivation requests retransmitted for 2G service.
Deactivate Context Accept	Indicates the statistics of MS and network initiated PDP context deactivation requests accepted for 2G and 3G service.
Total-Deactiv-Accept	Total number of MS and network initiated PDP context deactivation requests accepted for 2G and 3G service.
3G-Deactiv-Accept	Total number of MS and network initiated PDP context deactivation requests accepted for 3G service.
2G-Deactiv-Accept	Total number of MS and network initiated PDP context deactivation requests accepted for 2G service.
MS-Deactiv-Accept	Total number of MS initiated PDP context deactivation requests accepted for 2G and 3G service.
3G-MS-Deactiv-Accept	Total number of MS initiated PDP context deactivation requests accepted for 3G service.
2G-MS-Deactiv-Accept	Total number of MS initiated PDP context deactivation requests accepted for 2G service.
SGSN-Deactiv-Accept	Total number of SGSN initiated PDP context deactivation requests accepted for 2G and 3G service.
3G-SGSN-Deactiv-Accept	Total number of SGSN initiated PDP context deactivation requests accepted for 3G service.
2G-SGSN-Deactiv-Accept	Total number of SGSN initiated PDP context deactivation requests accepted for 2G service.
HLR-Deactiv-Accept	Total number of home location register (HLR) initiated PDP context deactivation requests accepted for 2G and 3G service.
3G-HLR-Deactiv-Accept	Total number of HLR initiated PDP context deactivation requests accepted for 3G service.
2G-HLR-Deactiv-Accept	Total number of HLR initiated PDP context deactivation requests accepted for 2G service.
GGSN-Deactiv-Accept	Total number of GGSN initiated PDP context deactivation requests accepted for 2G and 3G service.
3G-GGSN-Deactiv-Accept	Total number of GGSN initiated PDP context deactivation requests accepted for 3G service.
2G-GGSN-Deactiv-Accept	Total number of GGSN initiated PDP context deactivation requests accepted for 2G service.
Deactivation Causes Rx	This group displays the statistics of PDP context deactivation causes received by SGSN.
3G-Barred Due to ODB	The PDP contexts deactivated due to operator determined barring in 3G service network.
2G-Barred Due to ODB	The PDP contexts deactivated due to operator determined barring in 2G service network.
3G-Mbms Cap Insufficient Svc	The PDP contexts deactivated due to insufficient capacity for MBMS service in 3G service network.
2G-Mbms Cap Insufficient Svc	The PDP contexts deactivated due to insufficient capacity for MBMS service in 2G service network.
3G-Llc Or Sndcp Failure GB Mode	The PDP contexts deactivated due to failure of Logical Link Control or Sub Network Dependent Convergence Protocol (SND CP) on Gb interface in 3G service network.
2G-Llc Or Sndcp Failure GB Mode	The PDP contexts deactivated due to failure of Logical Link Control or Sub Network Dependent Convergence Protocol (SND CP) on Gb interface in 2G service network.
3G-Insufficient Resources	The PDP contexts deactivated due to insufficient resources in 3G service network.

Field	Description
2G-Insufficient Resources	The PDP contexts deactivated due to insufficient resources in 2G service network.
3G-Missing Or Unknown Apn	The PDP contexts deactivated due to unknown or missing APN in 3G service network.
2G-Missing Or Unknown Apn	The PDP contexts deactivated due to unknown or missing APN in 2G service network.
3G-Unknown Pdp Add Or Pdp Type	The PDP contexts deactivated due to unknown PDP context address or PDP context type in 3G service network.
2G-Unknown Pdp Add Or Pdp Type	The PDP contexts deactivated due to unknown PDP context address or PDP context type in 2G service network.
3G-User Auth Failed	The PDP contexts deactivated due to user authentication failure in 3G service network.
2G-User Auth Failed	The PDP contexts deactivated due to user authentication failure in 2G service network.
3G-Actv Rej By Ggsn	The PDP contexts deactivated as PDP context activation rejected by GGSN in 3G service network.
2G-Actv Rej By Ggsn	The PDP contexts deactivated as PDP context activation rejected by GGSN in 2G service network.
3G-Actv Rej Unspecified	The PDP contexts deactivated as PDP context activation rejection was not specified by network in 3G service network.
2G-Actv Rej Unspecified	The PDP contexts deactivated as PDP context activation rejection was not specified by network in 2G service network.
3G-Svc Option Not Supported	The PDP contexts deactivated as service option was not supported in 3G service network.
2G-Svc Option Not Supported	The PDP contexts deactivated as service option was not supported in 2G service network.
3G-Req Svc Option Not Subscribed	The PDP contexts deactivated as requested service option was not subscribed by respective subscriber in 3G service network.
2G-Req Svc Option Not Subscribed	The PDP contexts deactivated as requested service option was not subscribed by respective subscriber in 2G service network.
3G-Svc Option Tmp Out Of Order	The PDP contexts deactivated as requested service option was temporarily out of order or not available in 3G service network.
2G-Svc Option Tmp Out Of Order	The PDP contexts deactivated as requested service option was temporarily out of order or not available in 2G service network.
3G-Nsapi Already Used	The PDP contexts deactivated as requested Network Service Access Point Identifier (NSAPI) was already used in 3G service network.
2G-Nsapi Already Used	The PDP contexts deactivated as requested Network Service Access Point Identifier (NSAPI) was already used in 2G service network.
3G-Regular Deactv	The PDP contexts deactivated due to periodic deactivation in 3G service network.
2G-Regular Deactv	The PDP contexts deactivated due to periodic deactivation in 2G service network.
3G-Qos Not Accepted	The PDP contexts deactivated as requested QoS for session was not accepted by system in 3G service network.

Field	Description
2G-Qos Not Accepted	The PDP contexts deactivated as requested QoS for session was not accepted by system in 2G service network.
3G-Network Failure	The PDP contexts deactivated due to network failure in 3G service network.
2G-Network Failure	The PDP contexts deactivated due to network failure in 2G service network.
3G-Reactv Required	The PDP contexts deactivated as reactivation was required for PDP context in 3G service network.
2G-Reactv Required	The PDP contexts deactivated as reactivation was required for PDP context in 2G service network.
3G-Feature Not Supported	The PDP contexts deactivated as requested feature was not supported in 3G service network.
2G-Feature Not Supported	The PDP contexts deactivated as requested feature was not supported in 2G service network.
3G-Sem Error In The Tft Op	The PDP contexts deactivated due to semantic error in traffic flow template options in 3G service network.
2G-Sem Error In The Tft Op	The PDP contexts deactivated due to semantic error in traffic flow template options in 2G service network.
3G-Synt Error In The Tft Op	The PDP contexts deactivated due to syntax error in traffic flow template options in 3G service network.
2G-Synt Error In The Tft Op	The PDP contexts deactivated due to syntax error in traffic flow template options in 2G service network.
3G-Unknown Ctx	The PDP contexts deactivated due to unknown PDP context in 3G service network.
2G-Unknown Ctx	The PDP contexts deactivated due to unknown PDP context in 2G service network.
3G-Ctx No-Tft Already Activated	The PDP contexts deactivated as no PDP context was available for activated TFT in 3G service network.
2G-Ctx No-Tft Already Activated	The PDP contexts deactivated as no PDP context was available for activated TFT in 2G service network.
3G-M-Cast Grp Membership Time Out	The PDP contexts deactivated due to timeout in multicast group membership for particular subscriber in 3G service network.
2G-M-Cast Grp Membership Time Out	The PDP contexts deactivated due to timeout in multicast group membership for particular subscriber in 2G service network.
3G-Sem Errors In Pkt Filter	The PDP contexts deactivated due to semantic error in packet filter in 3G service network.
2G-Sem Errors In Pkt Filter	The PDP contexts deactivated due to semantic error in packet filter in 2G service network.
3G-Synt Errors In Pkt Filter	The PDP contexts deactivated due to syntax error in packet filter in 3G service network.
2G-Synt Errors In Pkt Filter	The PDP contexts deactivated due to syntax error in packet filter in 2G service network.
3G-Invalid Transaction Id Val	The PDP contexts deactivated due to invalid transaction id value in message in 3G service network.
2G-Invalid Transaction Id Val	The PDP contexts deactivated due to invalid transaction id value in message in 2G service network.
3G-Sem Incorrect Msg	The PDP contexts deactivated due to semantically incorrect message in 3G service network.

Field	Description
2G-Sem Incorrect Msg	The PDP contexts deactivated due to semantically incorrect message in 2G service network.
3G-Invalid Mandatory Info	The PDP contexts deactivated due to invalid information in mandatory field of message in 3G service network.
2G-Invalid Mandatory Info	The PDP contexts deactivated due to invalid information in mandatory field of message in 2G service network.
3G-Msg Non Existent	The PDP contexts deactivated due to non-existent type of message received in 3G service network.
2G-Msg Non Existent	The PDP contexts deactivated due to non-existent type of message received in 2G service network.
3G-Ie Non Existent	The PDP contexts deactivated due to non-existent type of information element received in 3G service network.
2G-Ie Non Existent	The PDP contexts deactivated due to non-existent type of information element received in 2G service network.
3G-Conditional Ie Error	The PDP contexts deactivated due to error in conditional information element received in 3G service network.
2G-Conditional Ie Error	The PDP contexts deactivated due to error in conditional information element received in 2G service network.
3G-Proto Err Unspecified	The PDP contexts deactivated due to unspecified protocol error in message received in 3G service network.
2G-Proto Err Unspecified	The PDP contexts deactivated due to unspecified protocol error in message received in 2G service network.
3G-Apn Restr val Incomp With Ctx	The PDP contexts deactivated due as APN restore value was incompatible with PDP context in 3G service network.
2G-Apn Restr val Incomp With Ctx	The PDP contexts deactivated due as APN restore value was incompatible with PDP context in 2G service network.
3G-Msg Not Comp With State	The PDP contexts deactivated due as received message was incompatible with session state in 3G service network.
2G-Msg Not Comp With State	The PDP contexts deactivated due as received message was incompatible with session state in 2G service network.
3G-Recovery On Timer Expiry	The PDP contexts deactivated due recovery of context started after expiry of deactivation timer 3G service network.
2G-Recovery On Timer Expiry	The PDP contexts deactivated due recovery of context started after expiry of deactivation timer 2G service network.
Deactivation Causes Tx	This group displays the statistics of PDP context deactivation causes sent by SGSN.
3G-Barred Due to ODB	The PDP contexts deactivated due to operator determined barring in 3G service network.
2G-Barred Due to ODB	The PDP contexts deactivated due to operator determined barring in 2G service network.
3G-Mbms Cap Insufficient Svc	The PDP contexts deactivated due to insufficient capacity for MBMS service in 3G service network.

Field	Description
2G-Mbms Cap Insufficient Svc	The PDP contexts deactivated due to insufficient capacity for MBMS service in 2G service network.
3G-Llc Or Sndcp Failure GB Mode	The PDP contexts deactivated due to failure of Logical Link Control or Sub Network Dependent Convergence Protocol (SNDCP) on Gb interface in 3G service network.
2G-Llc Or Sndcp Failure GB Mode	The PDP contexts deactivated due to failure of Logical Link Control or Sub Network Dependent Convergence Protocol (SNDCP) on Gb interface in 2G service network.
3G-Insufficient Resources	The PDP contexts deactivated due to insufficient resources in 3G service network.
2G-Insufficient Resources	The PDP contexts deactivated due to insufficient resources in 2G service network.
3G-Missing Or Unknown Apn	The PDP contexts deactivated due to unknown or missing APN in 3G service network.
2G-Missing Or Unknown Apn	The PDP contexts deactivated due to unknown or missing APN in 2G service network.
3G-Unknown Pdp Add Or Pdp Type	The PDP contexts deactivated due to unknown PDP context address or PDP context type in 3G service network.
2G-Unknown Pdp Add Or Pdp Type	The PDP contexts deactivated due to unknown PDP context address or PDP context type in 2G service network.
3G-User Auth Failed	The PDP contexts deactivated due to user authentication failure in 3G service network.
2G-User Auth Failed	The PDP contexts deactivated due to user authentication failure in 2G service network.
3G-Actv Rej By Ggsn	The PDP contexts deactivated as PDP context activation rejected by GGSN in 3G service network.
2G-Actv Rej By Ggsn	The PDP contexts deactivated as PDP context activation rejected by GGSN in 2G service network.
3G-Actv Rej Unspecified	The PDP contexts deactivated as PDP context activation rejection was not specified by network in 3G service network.
2G-Actv Rej Unspecified	The PDP contexts deactivated as PDP context activation rejection was not specified by network in 2G service network.
3G-Svc Option Not Supported	The PDP contexts deactivated as service option was not supported in 3G service network.
2G-Svc Option Not Supported	The PDP contexts deactivated as service option was not supported in 2G service network.
3G-Req Svc Option Not Subscribed	The PDP contexts deactivated as requested service option was not subscribed by respective subscriber in 3G service network.
2G-Req Svc Option Not Subscribed	The PDP contexts deactivated as requested service option was not subscribed by respective subscriber in 2G service network.
3G-Svc Option Tmp Out Of Order	The PDP contexts deactivated as requested service option was temporarily out of order or not available in 3G service network.
2G-Svc Option Tmp Out Of Order	The PDP contexts deactivated as requested service option was temporarily out of order or not available in 2G service network.

Field	Description
3G-Nsapi Already Used	The PDP contexts deactivated as requested Network Service Access Point Identifier (NSAPI) was already used in 3G service network.
2G-Nsapi Already Used	The PDP contexts deactivated as requested Network Service Access Point Identifier (NSAPI) was already used in 2G service network.
3G-Regular Deactiv	The PDP contexts deactivated due to periodic deactivation in 3G service network.
2G-Regular Deactiv	The PDP contexts deactivated due to periodic deactivation in 2G service network.
3G-Qos Not Accepted	The PDP contexts deactivated as requested QoS for session was not accepted by system in 3G service network.
2G-Qos Not Accepted	The PDP contexts deactivated as requested QoS for session was not accepted by system in 2G service network.
3G-Network Failure	The PDP contexts deactivated due to network failure in 3G service network.
2G-Network Failure	The PDP contexts deactivated due to network failure in 2G service network.
3G-Reactv Required	The PDP contexts deactivated as reactivation was required for PDP context in 3G service network.
2G-Reactv Required	The PDP contexts deactivated as reactivation was required for PDP context in 2G service network.
3G-Feature Not Supported	The PDP contexts deactivated as requested feature was not supported in 3G service network.
2G-Feature Not Supported	The PDP contexts deactivated as requested feature was not supported in 2G service network.
3G-Sem Error In The Tft Op	The PDP contexts deactivated due to semantic error in traffic flow template options in 3G service network.
2G-Sem Error In The Tft Op	The PDP contexts deactivated due to semantic error in traffic flow template options in 2G service network.
3G-Synt Error In The Tft Op	The PDP contexts deactivated due to syntax error in traffic flow template options in 3G service network.
2G-Synt Error In The Tft Op	The PDP contexts deactivated due to syntax error in traffic flow template options in 2G service network.
3G-Unknown Ctx	The PDP contexts deactivated due to unknown PDP context in 3G service network.
2G-Unknown Ctx	The PDP contexts deactivated due to unknown PDP context in 2G service network.
3G-Ctx No-Tft Already Activated	The PDP contexts deactivated as no PDP context was available for activated TFT in 3G service network.
2G-Ctx No-Tft Already Activated	The PDP contexts deactivated as no PDP context was available for activated TFT in 2G service network.
3G-M-Cast Grp Membership Time Out	The PDP contexts deactivated due to timeout in multicast group membership for particular subscriber in 3G service network.
2G-M-Cast Grp Membership Time Out	The PDP contexts deactivated due to timeout in multicast group membership for particular subscriber in 2G service network.
3G-Sem Errors In Pkt Filter	The PDP contexts deactivated due to semantic error in packet filter in 3G service network.
2G-Sem Errors In Pkt Filter	The PDP contexts deactivated due to semantic error in packet filter in 2G service network.

Field	Description
3G-Synt Errors In Pkt Filter	The PDP contexts deactivated due to syntax error in packet filter in 3G service network.
2G-Synt Errors In Pkt Filter	The PDP contexts deactivated due to syntax error in packet filter in 2G service network.
3G-Invalid Transaction Id Val	The PDP contexts deactivated due to invalid transaction id value in message in 3G service network.
2G-Invalid Transaction Id Val	The PDP contexts deactivated due to invalid transaction id value in message in 2G service network.
3G-Sem Incorrect Msg	The PDP contexts deactivated due to semantically incorrect message in 3G service network.
2G-Sem Incorrect Msg	The PDP contexts deactivated due to semantically incorrect message in 2G service network.
3G-Invalid Mandatory Info	The PDP contexts deactivated due to invalid information in mandatory field of message in 3G service network.
2G-Invalid Mandatory Info	The PDP contexts deactivated due to invalid information in mandatory field of message in 2G service network.
3G-Msg Non Existent	The PDP contexts deactivated due to non-existent type of message received in 3G service network.
2G-Msg Non Existent	The PDP contexts deactivated due to non-existent type of message received in 2G service network.
3G-Ie Non Existent	The PDP contexts deactivated due to non-existent type of information element received in 3G service network.
2G-Ie Non Existent	The PDP contexts deactivated due to non-existent type of information element received in 2G service network.
3G-Conditional Ie Error	The PDP contexts deactivated due to error in conditional information element received in 3G service network.
2G-Conditional Ie Error	The PDP contexts deactivated due to error in conditional information element received in 2G service network.
3G-Proto Err Unspecified	The PDP contexts deactivated due to unspecified protocol error in message received in 3G service network.
2G-Proto Err Unspecified	The PDP contexts deactivated due to unspecified protocol error in message received in 2G service network.
3G-Apn Restr val Incomp With Ctx	The PDP contexts deactivated due as APN restore value was incompatible with PDP context in 3G service network.
2G-Apn Restr val Incomp With Ctx	The PDP contexts deactivated due as APN restore value was incompatible with PDP context in 2G service network.
3G-Msg Not Comp With State	The PDP contexts deactivated due as received message was incompatible with session state in 3G service network.
2G-Msg Not Comp With State	The PDP contexts deactivated due as received message was incompatible with session state in 2G service network.
3G-Recovery On Timer Expiry	The PDP contexts deactivated due recovery of context started after expiry of deactivation timer 3G service network.

■ show gmm-sm statistics verbose

Field	Description
2G-Recovery On Timer Expiry	The PDP contexts deactivated due recovery of context started after expiry of deactivation timer 2G service network.
SM Status Messages	This group displays the statistics of the service manager status messages for 2G and 3G service.
Total-SM-Status-Tx	Total number of service manager status messages sent for 2G and 3G service
3G-SM-Status-Tx	Total number of service manager status messages sent for 3G service
2G-SM-Status-Tx	Total number of service manager status messages sent for 2G service
Total-SM-Status-Rx	Total number of service manager status messages received for 2G and 3G service
3G-SM-Status-Rx	Total number of service manager status messages received for 3G service
2G-SM-Status-Rx	Total number of service manager status messages received for 2G service
SM Status Rcvd Causes	This group displays the statistics of session manager status messages received by SGSN.
3G-Barred Due to ODB	The PDP contexts deactivated due to operator determined barring in 3G service network.
2G-Barred Due to ODB	The PDP contexts deactivated due to operator determined barring in 2G service network.
3G-Mbms Cap Insufficient Svc	The PDP contexts deactivated due to insufficient capacity for MBMS service in 3G service network.
2G-Mbms Cap Insufficient Svc	The PDP contexts deactivated due to insufficient capacity for MBMS service in 2G service network.
3G-Llc Or Sndcp Failure GB Mode	The PDP contexts deactivated due to failure of Logical Link Control or Sub Network Dependent Convergence Protocol (SNDCCP) on Gb interface in 3G service network.
2G-Llc Or Sndcp Failure GB Mode	The PDP contexts deactivated due to failure of Logical Link Control or Sub Network Dependent Convergence Protocol (SNDCCP) on Gb interface in 2G service network.
3G-Insufficient Resources	The PDP contexts deactivated due to insufficient resources in 3G service network.
2G-Insufficient Resources	The PDP contexts deactivated due to insufficient resources in 2G service network.
3G-Missing Or Unknown Apn	The PDP contexts deactivated due to unknown or missing APN in 3G service network.
2G-Missing Or Unknown Apn	The PDP contexts deactivated due to unknown or missing APN in 2G service network.
3G-Unknown Pdp Add Or Pdp Type	The PDP contexts deactivated due to unknown PDP context address or PDP context type in 3G service network.
2G-Unknown Pdp Add Or Pdp Type	The PDP contexts deactivated due to unknown PDP context address or PDP context type in 2G service network.
3G-User Auth Failed	The PDP contexts deactivated due to user authentication failure in 3G service network.
2G-User Auth Failed	The PDP contexts deactivated due to user authentication failure in 2G service network.
3G-Actv Rej By Ggsn	The PDP contexts deactivated as PDP context activation rejected by GGSN in 3G service network.
2G-Actv Rej By Ggsn	The PDP contexts deactivated as PDP context activation rejected by GGSN in 2G service network.

Field	Description
3G-Actv Rej Unspecified	The PDP contexts deactivated as PDP context activation rejection was not specified by network in 3G service network.
2G-Actv Rej Unspecified	The PDP contexts deactivated as PDP context activation rejection was not specified by network in 2G service network.
3G-Svc Option Not Supported	The PDP contexts deactivated as service option was not supported in 3G service network.
2G-Svc Option Not Supported	The PDP contexts deactivated as service option was not supported in 2G service network.
3G-Req Svc Option Not Subscribed	The PDP contexts deactivated as requested service option was not subscribed by respective subscriber in 3G service network.
2G-Req Svc Option Not Subscribed	The PDP contexts deactivated as requested service option was not subscribed by respective subscriber in 2G service network.
3G-Svc Option Tmp Out Of Order	The PDP contexts deactivated as requested service option was temporarily out of order or not available in 3G service network.
2G-Svc Option Tmp Out Of Order	The PDP contexts deactivated as requested service option was temporarily out of order or not available in 2G service network.
3G-Nsapi Already Used	The PDP contexts deactivated as requested Network Service Access Point Identifier (NSAPI) was already used in 3G service network.
2G-Nsapi Already Used	The PDP contexts deactivated as requested Network Service Access Point Identifier (NSAPI) was already used in 2G service network.
3G-Regular Deactv	The PDP contexts deactivated due to periodic deactivation in 3G service network.
2G-Regular Deactv	The PDP contexts deactivated due to periodic deactivation in 2G service network.
3G-Qos Not Accepted	The PDP contexts deactivated as requested QoS for session was not accepted by system in 3G service network.
2G-Qos Not Accepted	The PDP contexts deactivated as requested QoS for session was not accepted by system in 2G service network.
3G-Network Failure	The PDP contexts deactivated due to network failure in 3G service network.
2G-Network Failure	The PDP contexts deactivated due to network failure in 2G service network.
3G-Reactv Required	The PDP contexts deactivated as reactivation was required for PDP context in 3G service network.
2G-Reactv Required	The PDP contexts deactivated as reactivation was required for PDP context in 2G service network.
3G-Feature Not Supported	The PDP contexts deactivated as requested feature was not supported in 3G service network.
2G-Feature Not Supported	The PDP contexts deactivated as requested feature was not supported in 2G service network.
3G-Sem Error In The Tft Op	The PDP contexts deactivated due to semantic error in traffic flow template options in 3G service network.
2G-Sem Error In The Tft Op	The PDP contexts deactivated due to semantic error in traffic flow template options in 2G service network.

Field	Description
3G-Synt Error In The Tft Op	The PDP contexts deactivated due to syntax error in traffic flow template options in 3G service network.
2G-Synt Error In The Tft Op	The PDP contexts deactivated due to syntax error in traffic flow template options in 2G service network.
3G-Unknown Ctx	The PDP contexts deactivated due to unknown PDP context in 3G service network.
2G-Unknown Ctx	The PDP contexts deactivated due to unknown PDP context in 2G service network.
3G-Ctx No-Tft Already Activated	The PDP contexts deactivated as no PDP context was available for activated TFT in 3G service network.
2G-Ctx No-Tft Already Activated	The PDP contexts deactivated as no PDP context was available for activated TFT in 2G service network.
3G-M-Cast Grp Membership Time Out	The PDP contexts deactivated due to timeout in multicast group membership for particular subscriber in 3G service network.
2G-M-Cast Grp Membership Time Out	The PDP contexts deactivated due to timeout in multicast group membership for particular subscriber in 2G service network.
3G-Sem Errors In Pkt Filter	The PDP contexts deactivated due to semantic error in packet filter in 3G service network.
2G-Sem Errors In Pkt Filter	The PDP contexts deactivated due to semantic error in packet filter in 2G service network.
3G-Synt Errors In Pkt Filter	The PDP contexts deactivated due to syntax error in packet filter in 3G service network.
2G-Synt Errors In Pkt Filter	The PDP contexts deactivated due to syntax error in packet filter in 2G service network.
3G-Invalid Transaction Id Val	The PDP contexts deactivated due to invalid transaction id value in message in 3G service network.
2G-Invalid Transaction Id Val	The PDP contexts deactivated due to invalid transaction id value in message in 2G service network.
3G-Sem Incorrect Msg	The PDP contexts deactivated due to semantically incorrect message in 3G service network.
2G-Sem Incorrect Msg	The PDP contexts deactivated due to semantically incorrect message in 2G service network.
3G-Invalid Mandatory Info	The PDP contexts deactivated due to invalid information in mandatory field of message in 3G service network.
2G-Invalid Mandatory Info	The PDP contexts deactivated due to invalid information in mandatory field of message in 2G service network.
3G-Msg Non Existent	The PDP contexts deactivated due to non-existent type of message received in 3G service network.
2G-Msg Non Existent	The PDP contexts deactivated due to non-existent type of message received in 2G service network.
3G-Msg Type Not Comp With State	The PDP contexts deactivated as message type was not compatible with session state in 3G service network.
2G-Msg Type Not Comp With State	The PDP contexts deactivated as message type was not compatible with session state in 2G service network.
3G-Ie Non Existent	The PDP contexts deactivated due to non-existent type of information element received in 3G service network.

Field	Description
2G-Ie Non Existent	The PDP contexts deactivated due to non-existent type of information element received in 2G service network.
3G-Conditional Ie Error	The PDP contexts deactivated due to error in conditional information element received in 3G service network.
2G-Conditional Ie Error	The PDP contexts deactivated due to error in conditional information element received in 2G service network.
3G-Proto Err Unspecified	The PDP contexts deactivated due to unspecified protocol error in message received in 3G service network.
2G-Proto Err Unspecified	The PDP contexts deactivated due to unspecified protocol error in message received in 2G service network.
3G-Apn Restr val Incomp With Ctx	The PDP contexts deactivated due as APN restore value was incompatible with PDP context in 3G service network.
2G-Apn Restr val Incomp With Ctx	The PDP contexts deactivated due as APN restore value was incompatible with PDP context in 2G service network.
3G-Msg Not Compatible With State	The PDP contexts deactivated due as received message was incompatible with session state in 3G service network.
2G-Msg Not Compatible With State	The PDP contexts deactivated due as received message was incompatible with session state in 2G service network.
3G-Recovery On Timer Expiry	The PDP contexts deactivated due recovery of context started after expiry of deactivation timer 3G service network.
2G-Recovery On Timer Expiry	The PDP contexts deactivated due recovery of context started after expiry of deactivation timer 2G service network.
SM Status Sent Causes	This group displays the statistics of session manager status messages sent by SGSN.
3G-Barred Due to ODB	The PDP contexts deactivated due to operator determined barring in 3G service network.
2G-Barred Due to ODB	The PDP contexts deactivated due to operator determined barring in 2G service network.
3G-Mbms Cap Insufficient Svc	The PDP contexts deactivated due to insufficient capacity for MBMS service in 3G service network.
2G-Mbms Cap Insufficient Svc	The PDP contexts deactivated due to insufficient capacity for MBMS service in 2G service network.
3G-Llc Or Sndcp Failure GB Mode	The PDP contexts deactivated due to failure of Logical Link Control or Sub Network Dependent Convergence Protocol (SND CP) on Gb interface in 3G service network.
2G-Llc Or Sndcp Failure GB Mode	The PDP contexts deactivated due to failure of Logical Link Control or Sub Network Dependent Convergence Protocol (SND CP) on Gb interface in 2G service network.
3G-Insufficient Resources	The PDP contexts deactivated due to insufficient resources in 3G service network.
2G-Insufficient Resources	The PDP contexts deactivated due to insufficient resources in 2G service network.
3G-Missing Or Unknown Apn	The PDP contexts deactivated due to unknown or missing APN in 3G service network.
2G-Missing Or Unknown Apn	The PDP contexts deactivated due to unknown or missing APN in 2G service network.

Field	Description
3G-Unknown Pdp Add Or Pdp Type	The PDP contexts deactivated due to unknown PDP context address or PDP context type in 3G service network.
2G-Unknown Pdp Add Or Pdp Type	The PDP contexts deactivated due to unknown PDP context address or PDP context type in 2G service network.
3G-User Auth Failed	The PDP contexts deactivated due to user authentication failure in 3G service network.
2G-User Auth Failed	The PDP contexts deactivated due to user authentication failure in 2G service network.
3G-Actv Rej By Ggsn	The PDP contexts deactivated as PDP context activation rejected by GGSN in 3G service network.
2G-Actv Rej By Ggsn	The PDP contexts deactivated as PDP context activation rejected by GGSN in 2G service network.
3G-Actv Rej Unspecified	The PDP contexts deactivated as PDP context activation rejection was not specified by network in 3G service network.
2G-Actv Rej Unspecified	The PDP contexts deactivated as PDP context activation rejection was not specified by network in 2G service network.
3G-Svc Option Not Supported	The PDP contexts deactivated as service option was not supported in 3G service network.
2G-Svc Option Not Supported	The PDP contexts deactivated as service option was not supported in 2G service network.
3G-Req Svc Option Not Subscribed	The PDP contexts deactivated as requested service option was not subscribed by respective subscriber in 3G service network.
2G-Req Svc Option Not Subscribed	The PDP contexts deactivated as requested service option was not subscribed by respective subscriber in 2G service network.
3G-Svc Option Tmp Out Of Order	The PDP contexts deactivated as requested service option was temporarily out of order or not available in 3G service network.
2G-Svc Option Tmp Out Of Order	The PDP contexts deactivated as requested service option was temporarily out of order or not available in 2G service network.
3G-Nsapi Already Used	The PDP contexts deactivated as requested Network Service Access Point Identifier (NSAPI) was already used in 3G service network.
2G-Nsapi Already Used	The PDP contexts deactivated as requested Network Service Access Point Identifier (NSAPI) was already used in 2G service network.
3G-Regular Deactv	The PDP contexts deactivated due to periodic deactivation in 3G service network.
2G-Regular Deactv	The PDP contexts deactivated due to periodic deactivation in 2G service network.
3G-Qos Not Accepted	The PDP contexts deactivated as requested QoS for session was not accepted by system in 3G service network.
2G-Qos Not Accepted	The PDP contexts deactivated as requested QoS for session was not accepted by system in 2G service network.
3G-Network Failure	The PDP contexts deactivated due to network failure in 3G service network.
2G-Network Failure	The PDP contexts deactivated due to network failure in 2G service network.

Field	Description
3G-Reactv Required	The PDP contexts deactivated as reactivation was required for PDP context in 3G service network.
2G-Reactv Required	The PDP contexts deactivated as reactivation was required for PDP context in 2G service network.
3G-Feature Not Supported	The PDP contexts deactivated as requested feature was not supported in 3G service network.
2G-Feature Not Supported	The PDP contexts deactivated as requested feature was not supported in 2G service network.
3G-Sem Error In The Tft Op	The PDP contexts deactivated due to semantic error in traffic flow template options in 3G service network.
2G-Sem Error In The Tft Op	The PDP contexts deactivated due to semantic error in traffic flow template options in 2G service network.
3G-Synt Error In The Tft Op	The PDP contexts deactivated due to syntax error in traffic flow template options in 3G service network.
2G-Synt Error In The Tft Op	The PDP contexts deactivated due to syntax error in traffic flow template options in 2G service network.
3G-Unknown Ctx	The PDP contexts deactivated due to unknown PDP context in 3G service network.
2G-Unknown Ctx	The PDP contexts deactivated due to unknown PDP context in 2G service network.
3G-Ctx No-Tft Already Activated	The PDP contexts deactivated as no PDP context was available for activated TFT in 3G service network.
2G-Ctx No-Tft Already Activated	The PDP contexts deactivated as no PDP context was available for activated TFT in 2G service network.
3G-M-Cast Grp Membership Time Out	The PDP contexts deactivated due to timeout in multicast group membership for particular subscriber in 3G service network.
2G-M-Cast Grp Membership Time Out	The PDP contexts deactivated due to timeout in multicast group membership for particular subscriber in 2G service network.
3G-Sem Errors In Pkt Filter	The PDP contexts deactivated due to semantic error in packet filter in 3G service network.
2G-Sem Errors In Pkt Filter	The PDP contexts deactivated due to semantic error in packet filter in 2G service network.
3G-Synt Errors In Pkt Filter	The PDP contexts deactivated due to syntax error in packet filter in 3G service network.
2G-Synt Errors In Pkt Filter	The PDP contexts deactivated due to syntax error in packet filter in 2G service network.
3G-Invalid Transaction Id Val	The PDP contexts deactivated due to invalid transaction id value in message in 3G service network.
2G-Invalid Transaction Id Val	The PDP contexts deactivated due to invalid transaction id value in message in 2G service network.
3G-Sem Incorrect Msg	The PDP contexts deactivated due to semantically incorrect message in 3G service network.
2G-Sem Incorrect Msg	The PDP contexts deactivated due to semantically incorrect message in 2G service network.
3G-Invalid Mandatory Info	The PDP contexts deactivated due to invalid information in mandatory field of message in 3G service network.
2G-Invalid Mandatory Info	The PDP contexts deactivated due to invalid information in mandatory field of message in 2G service network.

Field	Description
3G-Msg Non Existent	The PDP contexts deactivated due to non-existent type of message received in 3G service network.
2G-Msg Non Existent	The PDP contexts deactivated due to non-existent type of message received in 2G service network.
3G-Msg Type Not Comp With State	The PDP contexts deactivated as message type was not compatible with session state in 3G service network.
2G-Msg Type Not Comp With State	The PDP contexts deactivated as message type was not compatible with session state in 2G service network.
3G-Ie Non Existent	The PDP contexts deactivated due to non-existent type of information element received in 3G service network.
2G-Ie Non Existent	The PDP contexts deactivated due to non-existent type of information element received in 2G service network.
3G-Conditional Ie Error	The PDP contexts deactivated due to error in conditional information element received in 3G service network.
2G-Conditional Ie Error	The PDP contexts deactivated due to error in conditional information element received in 2G service network.
3G-Proto Err Unspecified	The PDP contexts deactivated due to unspecified protocol error in message received in 3G service network.
2G-Proto Err Unspecified	The PDP contexts deactivated due to unspecified protocol error in message received in 2G service network.
3G-Apn Restr val Incomp With Ctx	The PDP contexts deactivated due as APN restore value was incompatible with PDP context in 3G service network.
2G-Apn Restr val Incomp With Ctx	The PDP contexts deactivated due as APN restore value was incompatible with PDP context in 2G service network.
3G-Msg Not Compatible With State	The PDP contexts deactivated due as received message was incompatible with session state in 3G service network.
2G-Msg Not Compatible With State	The PDP contexts deactivated due as received message was incompatible with session state in 2G service network.
3G-Recovery On Timer Expiry	The PDP contexts deactivated due recovery of context started after expiry of deactivation timer 3G service network.
2G-Recovery On Timer Expiry	The PDP contexts deactivated due recovery of context started after expiry of deactivation timer 2G service network.
RNC Initiated RAB Messages	Indicates the statistics of the radio network controller (RNC) initiated radio access bearer (RAB) messages for 2G and 3G service.
Total Rab Mod Requested	Total number of requests for radio access bearer modification initiated by radio network controller.
Num Rab Mod	Total number of RAB modified on requests for modification initiated by radio network controller.
Total Rab Rel Requested	Total number of requests for radio access bearer release initiated by radio network controller.
Num Rab Rel	Total number of RAB modified on requests for release initiated by radio network controller.

Field	Description
SGSN Initiated RAB Messages	Indicates the statistics of the SGSN initiated radio access bearer (RAB) messages for 2G and 3G service.
Total Rab Assign Requested	Total number of SGSN initiated RAB assign requests messages received.
Total Rab Assign Rsp Rcvd	Total number of SGSN initiated RAB assign response messages received.
Rab Setup/Mod Attempted	Total number of SGSN initiated setup and modification attempted for RAB.
Rab Setup/Mod Accepted	Total number of SGSN initiated setup and modification accepted for RAB.
Rab Setup/Mod Timer Expired	Total number of SGSN initiated RAB setup and modification events where procedure timer exhausted.
Rab Setup/Mod Failed	Total number of SGSN initiated RAB setup and modification events failed.
Rab Rel Attempted	Total number of SGSN initiated RAB release procedure attempted.
Rab Rel Accepted	Total number of SGSN initiated RAB release procedure accepted.
Rab Rel Timer Expired	Total number of SGSN initiated RAB release procedure where procedure timer exhausted.
Rab Rel Failed	Total number of SGSN initiated RAB release procedure failed.
Rab Queued	Total number of SGSN initiated RAB messages in queue.
Rab Setup Reattempted (Diff IP)	Total number of SGSN initiated RAB setup reattempted with different IP address.
Total Set/Mod/Rel Rab Rejected	Total number of SGSN initiated RAB setup, modification/release rejected.
RAB Release Reason	This group indicates the statistics of reasons for RAB release.
Pre-Empted RAB Release	Total number of RABs released because SGSN preempted another RAB.
Rab Rel Due to UTRAN	Total number of RAB released due to UTRAN.
UE Radio Connection Lost	Total number of RAB released due to radio connection lost from UE.
Rab Rel Due to Other Reason	Total number of RAB released due to reasons other than listed in this table.
RAB Assignment Denied	This group indicates the statistics of reasons for RAB assignment denial.
Rab Pre Empted	Total number of RAB assignment denied because SGSN preempted another RAB.
Trelocoverall Expiry	Total number of RAB assignment denied because Overall Relocation timer expired.
Trelocprep Expiry	Total number of RAB assignment denied because Relocation Preparation timer expired.
Treloccomplete Expiry	Total number of RAB assignment denied because Relocation Completed timer expired.
Tqueuing Expiry	Total number of RAB assignment denied because Queuing timer expired.
Relocation Triggered	Total number of RAB assignment denied because another relocation procedure triggered.
Unable Establish During Reloc	Total number of RAB assignment denied because RAB failed to establish during relocation as it cannot be supported in the target RNC.
Unknown Target Rnc	Total number of RAB assignment denied because the target RNC is not known to the CN.

Field	Description
Relocation Cancelled	Total number of RAB assignment denied because relocation procedure was cancelled by the UTRAN or the UE.
Successful Relocation	Total number of RAB assignment denied because relocation was completed successfully.
Req Cipher Algo Not Supported	Total number of RAB assignment denied because the UTRAN or the UE is unable to support the requested ciphering and/or integrity protection algorithms.
Conflict Cipher Info	Total number of RAB assignment denied because there was conflict in ciphering information.
Failure In The Radio I/F Proc	Total number of RAB assignment denied because radio interface procedure has failed.
Rel Due To Utran Reason	Total number of RAB assignment denied as RAB release is initiated due to UTRAN generated reason.
User Inactivity	Total number of RAB assignment denied due to user inactivity.
Time Critical Relocation	Total number of RAB assignment denied because relocation is requested for time critical reason.
Req Traffic Class Unavail	Total number of RAB assignment denied because requested traffic class was not available for subscriber or in the RAN.
Invalid Rab Parameters Val	Total number of RAB assignment denied due to invalid value in RAB parameters.
Req Max Bit Rate Unavail	Total number of RAB assignment denied because requested Maximum Bit Rate was not available for downlink or uplink in RAN.
Req Max Bit Rate Dl Unavail	Total number of RAB assignment denied because requested Maximum Bit Rate was not available for downlink in RAN.
Req Max Bit Rate For Ul Unavail	Total number of RAB assignment denied because requested Maximum Bit Rate was not available for uplink in RAN.
Req G-Bit Rate Unavail	Total number of RAB assignment denied because requested Guaranteed Bit Rate was not available for downlink or uplink in RAN.
Req DL G-Bit Rate Unavail	Total number of RAB assignment denied because requested Guaranteed Bit Rate was not available for downlink in RAN.
Req UL G-Bit Rate Unavail	Total number of RAB assignment denied because requested Guaranteed Bit Rate was not available for uplink in RAN.
Req Trans Delay Not Achievable	Total number of RAB assignment denied because requested transfer delay is not achievable.
Invalid Rab Param Combo	Total number of RAB assignment denied due to invalid RAB parameters combination.
Violation For Sdu Parameters	Total number of RAB assignment denied due to condition violation for SDU parameters.
Violation Traffic Hndl Prio	Total number of RAB assignment denied due to condition violation for traffic handling priority.
Violation For G-Bit Rate	Total number of RAB assignment denied due to condition violation for guaranteed bit rate.
User Plane Ver Unsupported	Total number of RAB assignment denied because requested user plane versions were not supported.
Iu Up Failure	Total number of RAB assignment denied due to failure in Iu user plane.
Trelocalloc Expiry	Total number of RAB assignment denied because Relocation Resource Allocation procedure failed due to expiry of the timer TRELOCALLOC.

Field	Description
Relocation Failure In T-System	Total number of RAB assignment denied because relocation failed due to a failure in target CN/RNC or target system.
Invalid Rab Id	Total number of RAB assignment denied because the RAB ID is unknown in the RNC.
No Remaining Rab	Total number of RAB assignment denied because no RAB is available.
Interaction With Other Proc	Total number of RAB assignment denied because relocation was cancelled due to interaction with other procedure.
Repeated Integrity Check Fail	Total number of RAB assignment denied due to repeated failure in integrity checking.
Req Type Not Supported	Total number of RAB assignment denied because the RNC is not supporting the requested location report type.
Req Superseded	Total number of RAB assignment denied because there was a second request on the same RAB.
Ue Gen Sig Con Rel	Total number of RAB assignment denied due to due to UE generated signalling connection release
Resource Optimisation Reloc	Total number of RAB assignment denied because relocation was requested due to resource optimisation.
Req Info Unavail	Total number of RAB assignment denied because requested information is not available.
Relocation Due to Radio Reason	Total number of RAB assignment denied because relocation was requested due to radio reason.
Reloc Unsupported In T-Rnc	Total number of RAB assignment denied due to relocation failure as relocation was not supported in target RNC or target system.
Directed Retry	Total number of RAB assignment denied because retry was directed from RNC.
Radio Con With Ue Lost	Total number of RAB assignment denied because radio connection was lost with UE.
Rnc Unable Establish All Rfcs	Total number of RAB assignment denied because RNC couldn't establish all RAB subflow combinations indicated within the RAB Parameters IE.
Deciphering Keys Unavail	Total number of RAB assignment denied because RNC is not able to provide requested deciphering keys.
Dedicated Assist Data Unavail	Total number of RAB assignment denied because RNC is not able to successfully deliver the requested dedicated assistance data to the UE.
Reloc Target Not Allowed	Total number of RAB assignment denied because relocation to the indicated target cell is not allowed for the UE in question.
Location Reporting Congestion	Total number of RAB assignment denied as congestion status reported location report.
Reduce Load In Serving Cell	Total number of RAB assignment denied because system was reducing load in service cell.
No Radio Resources In T-Cell	Total number of RAB assignment denied because radio resource was not available in target cell.
Geran Iu Mode Failure	Total number of RAB assignment denied because the GERAN cannot provide an appropriate RAB due to limited capabilities within GERAN.

Field	Description
Acc Rstrd Due To Shared N/w	Total number of RAB assignment denied because access to target system restricted due to shared networks.
Reloc Unsuported Due Puesbin	Total number of RAB assignment denied as the incoming relocation cannot be accepted by the target RNC because of the Provision of UE Specific Behavior Information to Network Entities (PUESBINE) feature.
Traffic T-Cell > S-Cell	Total number of RAB assignment denied because the target cell's traffic load is higher than that in the source cell.
Mbms No Multicast Svc For Ue	Total number of RAB assignment denied because the UE does not have any active multicast service.
Mbms Unknown Ue Id	Total number of RAB assignment denied because the CN does not know the UE or unknown UE identifier.
Mbms Sess Start No Data	Total number of RAB assignment denied because the MBMS Session Start procedure was successfully performed, but the RNC does not have any interested UE.
Mbms Superseded Due To Nnsf	Total number of RAB assignment denied as the MBMS Session Start procedure was rejected because NAS Node Selection Function (NNSF) towards another CN node.
Mbms Ue Linking Already Done	Total number of RAB assignment denied because the UE has already been linked to the given Multicast service
Mbms Ue De Linking Failure	Total number of RAB assignment denied because the UE had not been linked to the given Multicast service.
Tmgi Unknown	Total number of RAB assignment denied due to requested MBMS action failure because of the indicated Temporary Mobile Group Identity (TMGI) is unknown.
MS Unspecified Failure	Total number of RAB assignment denied due to unspecified failures from UE side.
SRNS Context Transfer Messages	Indicates the statistics of SGSN radio network subsystem context transfer messages.
SRNS Context Req Send	Total number of SGSN radio network subsystem context transfer request messages sent.
SRNS Context Rsp Rcvd	Total number of SGSN radio network subsystem context transfer response messages received.
SRNS Context Req Timer Expired	Total number of events when timer exhausted for SGSN radio network subsystem context transfer request messages.
Total PDP-Ctxt Accepted	Total number of PDP context accepted for SGSN radio network subsystem.
Total PDP-Ctxt Rejected	Total number of PDP context rejected for SGSN radio network subsystem.
SRNS Data Fwd Cmd Send	Total number of SGSN radio network subsystem data forward commands sent.
SRNS Ctxt Req Denied	This group indicates the statistics of reasons for SRNS context request denial.
Rab Pre Empted	Total number of SRNS context request denied because SGSN preempted another RAB.
Trelocoverall Expiry	Total number of SRNS context request denied because Overall Relocation timer expired.
Trelocprep Expiry	Total number of SRNS context request denied because Relocation Preparation timer expired.
Treloccomplete Expiry	Total number of SRNS context request denied because Relocation Completed timer expired.
Tqueuing Expiry	Total number of SRNS context request denied because Queuing timer expired.

Field	Description
Relocation Triggered	Total number of SRNS context request denied because another relocation procedure triggered.
Unable Establish During Reloc	Total number of SRNS context request denied because RAB failed to establish during relocation as it cannot be supported in the target RNC.
Unknown Target Rnc	Total number of SRNS context request denied because the target RNC is not known to the CN.
Relocation Cancelled	Total number of SRNS context request denied because relocation procedure was cancelled by the UTRAN or the UE.
Successful Relocation	Total number of SRNS context request denied because relocation was completed successfully.
Req Cipher Algo Not Supported	Total number of SRNS context request denied because the UTRAN or the UE is unable to support the requested ciphering and/or integrity protection algorithms.
Conflict Cipher Info	Total number of SRNS context request denied because there was conflict in ciphering information.
Failure In The Radio I/F Proc	Total number of SRNS context request denied because radio interface procedure has failed.
Rel Due To Utran Reason	Total number of SRNS context request denied as RAB release is initiated due to UTRAN generated reason.
User Inactivity	Total number of SRNS context request denied due to user inactivity.
Time Critical Relocation	Total number of SRNS context request denied because relocation is requested for time critical reason.
Req Traffic Class Unavail	Total number of SRNS context request denied because requested traffic class was not available for subscriber or in the RAN.
Invalid Rab Parameters Val	Total number of SRNS context request denied due to invalid value in RAB parameters.
Req Max Bit Rate Unavail	Total number of SRNS context request denied because requested Maximum Bit Rate was not available for downlink or uplink in RAN.
Req Max Bit Rate DL Unavail	Total number of SRNS context request denied because requested Maximum Bit Rate was not available for downlink in RAN.
Req Max Bit Rate For UL Unavail	Total number of SRNS context request denied because requested Maximum Bit Rate was not available for uplink in RAN.
Req G-Bit Rate Unavail	Total number of SRNS context request denied because requested Guaranteed Bit Rate was not available for downlink or uplink in RAN.
Req DL G-Bit Rate Unavail	Total number of SRNS context request denied because requested Guaranteed Bit Rate was not available for downlink in RAN.
Req UL G-Bit Rate Unavail	Total number of SRNS context request denied because requested Guaranteed Bit Rate was not available for uplink in RAN.
Req Trans Delay Not Achievable	Total number of SRNS context request denied because requested transfer delay is not achievable.
Invalid Rab Param Combo	Total number of SRNS context request denied due to invalid RAB parameters combination.
Violation For Sdu Parameters	Total number of SRNS context request denied due to condition violation for SDU parameters.
Violation Traffic Hndl Prio	Total number of SRNS context request denied due to condition violation for traffic handling priority.

Field	Description
Violation For G-Bit Rate	Total number of SRNS context request denied due to condition violation for guaranteed bit rate.
User Plane Ver Unsupported	Total number of SRNS context request denied because requested user plane versions were not supported.
Iu Up Failure	Total number of SRNS context request denied due to failure in Iu user plane.
Trelocalloc Expiry	Total number of SRNS context request denied because Relocation Resource Allocation procedure failed due to expiry of the timer TRELOCalloc.
Relocation Failure In T-System	Total number of SRNS context request denied because relocation failed due to a failure in target CN/RNC or target system.
Invalid Rab Id	Total number of SRNS context request denied because the RAB ID is unknown in the RNC.
No Remaining Rab	Total number of SRNS context request denied because no RAB is available.
Interaction With Other Proc	Total number of SRNS context request denied because relocation was cancelled due to interaction with other procedure.
Repeated Integrity Check Fail	Total number of SRNS context request denied due to repeated failure in integrity checking.
Req Type Not Supported	Total number of SRNS context request denied because the RNC is not supporting the requested location report type.
Req Superseded	Total number of SRNS context request denied because there was a second request on the same RAB.
Ue Gen Sig Con Rel	Total number of SRNS context request denied due to due to UE generated signalling connection release
Resource Optimisation Reloc	Total number of SRNS context request denied because relocation was requested due to resource optimisation.
Req Info Unavail	Total number of SRNS context request denied because requested information is not available.
Relocation Due to Radio Reason	Total number of SRNS context request denied because relocation was requested due to radio reason.
Reloc Unsupported In T-Rnc	Total number of SRNS context request denied due to relocation failure as relocation was not supported in target RNC or target system.
Directed Retry	Total number of SRNS context request denied because retry was directed from RNC.
Radio Con With Ue Lost	Total number of SRNS context request denied because radio connection was lost with UE.
Rnc Unable Establish All Rfcs	Total number of SRNS context request denied because RNC couldn't establish all RAB subflow combinations indicated within the RAB Parameters IE.
Deciphering Keys Unavail	Total number of SRNS context request denied because RNC is not able to provide requested deciphering keys.
Dedicated Assist Data Unavail	Total number of SRNS context request denied because RNC is not able to successfully deliver the requested dedicated assistance data to the UE.
Reloc Target Not Allowed	Total number of SRNS context request denied because relocation to the indicated target cell is not allowed for the UE in question.

Field	Description
Location Reporting Congestion	Total number of SRNS context request denied as congestion status reported location report.
Reduce Load In Serving Cell	Total number of SRNS context request denied because system was reducing load in service cell.
No Radio Resources In T-Cell	Total number of SRNS context request denied because radio resource was not available in target cell.
Geran Iu Mode Failure	Total number of SRNS context request denied because the GERAN cannot provide an appropriate RAB due to limited capabilities within GERAN.
Acc Rstrd Due To Shared N/w	Total number of SRNS context request denied because access to target system restricted due to shared networks.
Reloc Unsuported Due Puesbin	Total number of SRNS context request denied as the incoming relocation cannot be accepted by the target RNC because of the Provision of UE Specific Behavior Information to Network Entities (PUESBINE) feature.
Traffic T-Cell > S-Cell	Total number of SRNS context request denied because the target cell's traffic load is higher than that in the source cell.
Mbms No Multicast Svc For Ue	Total number of SRNS context request denied because the UE does not have any active multicast service.
Mbms Unknown Ue Id	Total number of SRNS context request denied because the CN does not know the UE or unknown UE identifier.
Mbms Sess Start No Data	Total number of SRNS context request denied because the MBMS Session Start procedure was successfully performed, but the RNC does not have any interested UE.
Mbms Superseded Due To Nnsf	Total number of SRNS context request denied as the MBMS Session Start procedure was rejected because NAS Node Selection Function (NNSF) towards another CN node.
Mbms Ue Linking Already Done	Total number of SRNS context request denied because the UE has already been linked to the given Multicast service
Mbms Ue De Linking Failure	Total number of SRNS context request denied because the UE had not been linked to the given Multicast service.
Tmgi Unknown	Total number of SRNS context request denied due to requested MBMS action failure because of the indicated Temporary Mobile Group Identity (TMGI) is unknown.
MS Unspecified Failure	Total number of SRNS context request denied due to unspecified failures from UE side.
No Response From RNC	Total number of SRNS context request denied due no response from RNC.
Miscellaneous Statistics	This group displays the miscellaneous statistics.
Rnc Overload Statistics	This subgroup displays the RNC overload statistics.
Activate Request Rejected	Indicates the total number of PDP context activation requests rejected due to RNC overload.
Activation dropped during hand-off	Indicates the total number of PDP context activation dropped during handoff due to RNC overload.
Ms-Modify-Request Rejected	Indicates the total number of PDP context modify requests from MS rejected due to RNC overload.
N/W-Modify-Request Dropped	Indicates the total number of PDP context modify requests from network side dropped due to RNC overload.

Field	Description
Paging Req (Data) Dropped	Indicates the total number of paging requests from network side dropped due to RNC overload.
2G APN Selection Failure Statistics	
SDL-1	
All Packet Services Barred	<b>Description:</b> Total number of 2G Activate Reject(s) sent to MS for the APN Selection Failure reason - “All Packet Switched Services Barred” setting is present in the Subscription information for the subscriber. <b>Triggers:</b> Increments when Activate PDP Reject is sent due to this reason. <b>Availability:</b> per Chassis
PDP Type not Present, PDP Address Present	<b>Description:</b> Total number of 2G Activate Reject(s) sent to MS for the APN Selection Failure reason - Activate PDP Context Request has PDP Address without PDP Type. <b>Triggers:</b> Increments when Activate PDP Reject is sent due to this reason. <b>Availability:</b> per Chassis
PDP Type not Present, APN Present	<b>Description:</b> Total number of 2G Activate Reject(s) sent to MS for the APN Selection Failure reason - Activate PDP Context Request has APN without PDP Type. <b>Triggers:</b> Increments when Activate PDP Reject is sent due to this reason. <b>Availability:</b> per Chassis
PDP Type, Address and APN not Present, No Single SubRec	<b>Description:</b> Total number of 2G Activate Reject(s) sent to MS for the APN Selection Failure reason - PDP Type, PDP Address, APN are not present in Activate PDP Context Request and multiple PDP Subscription Records are present for the subscriber. <b>Triggers:</b> Increments when Activate PDP Reject is sent due to this reason. <b>Availability:</b> per Chassis
SDL-2	
No SubRec matching PDP Type	<b>Description:</b> Total number of 2G Activate Reject(s) sent to MS for the APN Selection Failure reason - No PDP Subscription Records matching PDP Type from Activate PDP Context Request. <b>Triggers:</b> Increments when Activate PDP Reject is sent due to this reason. <b>Availability:</b> per Chassis
No SubRec matching PDP Type and APN, No Wildcard APN	<b>Description:</b> Total number of 2G Activate Reject(s) sent to MS for the APN Selection Failure reason - No PDP Subscription Record matching PDP Type and APN from Activate PDP Context Request. Also, the subscriber does not have any PDP Subscription record with wildcard APN. <b>Triggers:</b> Increments when Activate PDP Reject is sent due to this reason. <b>Availability:</b> per Chassis
Multiple SubRecs matching PDP Type and APN, No Dynamic Address	<b>Description:</b> Total number of 2G Activate Reject(s) sent to MS for the APN Selection Failure reason - Multiple PDP Subscription Records exist matching the PDP Type and APN from Activate PDP Context Request, but without dynamic PDP address. <b>Triggers:</b> Increments when Activate PDP Reject is sent due to this reason. <b>Availability:</b> per Chassis
Multiple SubRecs matching PDP Type and APN, with Dynamic Address	<b>Description:</b> Total number of 2G Activate Reject(s) sent to MS for the APN Selection Failure reason - Multiple PDP Subscription Records exist matching the PDP Type and APN from Activate PDP Context Request, but all with dynamic PDP address. <b>Triggers:</b> Increments when Activate PDP Reject is sent due to this reason. <b>Availability:</b> per Chassis
SDL-3	
APN not Present	

Field	Description
No Wildcard APN, Multiple SubRecs matching PDP Type	<p><b>Description:</b> Total number of 2G Activate Reject(s) sent to MS for the following APN Selection Failure reasons:</p> <ul style="list-style-type: none"> <li>• APN not present in Activate PDP Context Request</li> <li>• No PDP Subscription record with wildcard APN and Multiple PDP Subscription Records exist matching the PDP Type</li> </ul> <p><b>Triggers:</b> Increments when Activate PDP Reject is sent due to this reason. <b>Availability:</b> per Chassis</p>
Multiple SubRecs with Wildcard APN and same PDP Type	<p><b>Description:</b> Total number of 2G Activate Reject(s) sent to MS for the following APN Selection Failure reasons:</p> <ul style="list-style-type: none"> <li>• APN not present in Activate PDP Context Request</li> <li>• Multiple PDP Subscription Records with wildcard APN exist matching the PDP Type</li> </ul> <p><b>Triggers:</b> Increments when Activate PDP Reject is sent due to this reason. <b>Availability:</b> per Chassis</p>
PDP Address Present	
No SubRec matching PDP Address	<p><b>Description:</b> Total number of 2G Activate Reject(s) sent to MS for the following APN Selection Failure reasons:</p> <ul style="list-style-type: none"> <li>• PDP Address present in Activate PDP Context Request</li> <li>• No PDP Subscription record exist matching the PDP Type and PDP Address</li> </ul> <p><b>Triggers:</b> Increments when Activate PDP Reject is sent due to this reason. <b>Availability:</b> per Chassis</p>
Single SubRec matching PDP Address, No APN Match	<p><b>Description:</b> Total number of 2G Activate Reject(s) sent to MS for the following APN Selection Failure reasons:</p> <ul style="list-style-type: none"> <li>• PDP Address present in Activate PDP Context Request</li> <li>• Single PDP Subscription record exist matching the PDP Type and PDP Address, but APN does not match</li> </ul> <p><b>Triggers:</b> Increments when Activate PDP Reject is sent due to this reason. <b>Availability:</b> per Chassis</p>
Multiple SubRecs matching PDP Address, APN not requested	<p><b>Description:</b> Total number of 2G Activate Reject(s) sent to MS for the following APN Selection Failure reasons:</p> <ul style="list-style-type: none"> <li>• PDP Address present in Activate PDP Context Request</li> <li>• Multiple PDP Subscription record exist matching the PDP Type and PDP Address, but APN not present in Activate PDP Context Request</li> </ul> <p><b>Triggers:</b> Increments when Activate PDP Reject is sent due to this reason. <b>Availability:</b> per Chassis</p>
Multiple SubRecs matching PDP Address, No APN Match	<p><b>Description:</b> Total number of 2G Activate Reject(s) sent to MS for the following APN Selection Failure reasons:</p> <ul style="list-style-type: none"> <li>• PDP Address present in Activate PDP Context Request</li> <li>• Multiple PDP Subscription record exist matching the PDP Type and PDP Address, but APN does not match</li> </ul> <p><b>Triggers:</b> Increments when Activate PDP Reject is sent due to this reason. <b>Availability:</b> per Chassis</p>

Field	Description
SDL-4	
APN sent by MS	
VPLMN User, APN-OI not HPLMN, not VPLMN	<p><b>Description:</b> Total number of 2G Activate Reject(s) sent to MS for the following APN Selection Failure reasons:</p> <ul style="list-style-type: none"> <li>• APN present in Activate PDP Context Request</li> <li>• Subscriber is in VPLMN</li> <li>• Requested APN-OI is neither matching HPLMN nor VPLMN</li> </ul> <p><b>Triggers:</b> Increments when Activate PDP Reject is sent due to this reason.  <b>Availability:</b> per Chassis</p>
VPLMN User, APN-OI is VPLMN, VPLMN Addr not allowed	<p><b>Description:</b> Total number of 2G Activate Reject(s) sent to MS for the following APN Selection Failure reasons:</p> <ul style="list-style-type: none"> <li>• APN present in Activate PDP Context Request</li> <li>• Subscriber is in VPLMN</li> <li>• Requested APN-OI matches VPLMN, but VPLMN Address is not allowed</li> </ul> <p><b>Triggers:</b> Increments when Activate PDP Reject is sent due to this reason.  <b>Availability:</b> per Chassis</p>
VPLMN User, APN-OI is VPLMN, VPLMN AP Barred	<p><b>Description:</b> Total number of 2G Activate Reject(s) sent to MS for the following APN Selection Failure reasons:</p> <ul style="list-style-type: none"> <li>• APN present in Activate PDP Context Request</li> <li>• Subscriber is in VPLMN</li> <li>• Requested APN-OI matches VPLMN, but VPLMN Access Point Access is barred</li> </ul> <p><b>Triggers:</b> Increments when Activate PDP Reject is sent due to this reason.  <b>Availability:</b> per Chassis</p>
VPLMN User, APN-OI is HPLMN, HPLMN AP Barred	<p><b>Description:</b> Total number of 2G Activate Reject(s) sent to MS for the following APN Selection Failure reasons:</p> <ul style="list-style-type: none"> <li>• APN present in Activate PDP Context Request</li> <li>• Subscriber is in VPLMN</li> <li>• Requested APN-OI matches HPLMN, but HPLMN Access Point Access is barred</li> </ul> <p><b>Triggers:</b> Increments when Activate PDP Reject is sent due to this reason.  <b>Availability:</b> per Chassis</p>
VPLMN User, No APN-OI, VPLMN Addr not allowed, HPLMN AP Barred	<p><b>Description:</b> Total number of 2G Activate Reject(s) sent to MS for the following APN Selection Failure reasons:</p> <ul style="list-style-type: none"> <li>• APN present in Activate PDP Context Request</li> <li>• Subscriber is in VPLMN</li> <li>• Requested APN-OI is not present</li> <li>• VPLMN Address is not allowed</li> <li>• HPLMN Access Point Access is barred</li> </ul> <p><b>Triggers:</b> Increments when Activate PDP Reject is sent due to this reason.  <b>Availability:</b> per Chassis</p>

Field	Description
VPLMN User, No APN-OI, VPLMN AP Barred, HPLMN AP Barred	<p><b>Description:</b> Total number of 2G Activate Reject(s) sent to MS for the following APN Selection Failure reasons:</p> <ul style="list-style-type: none"> <li>• APN present in Activate PDP Context Request</li> <li>• Subscriber is in VPLMN</li> <li>• Requested APN-OI is not present</li> <li>• VPLMN Access Point Access is barred</li> <li>• HPLMN Access Point Access is barred</li> </ul> <p><b>Triggers:</b> Increments when Activate PDP Reject is sent due to this reason. <b>Availability:</b> per Chassis</p>
HPLMN user, APN-OI not HPLMN	<p><b>Description:</b> Total number of 2G Activate Reject(s) sent to MS for the following APN Selection Failure reasons:</p> <ul style="list-style-type: none"> <li>• APN present in Activate PDP Context Request</li> <li>• Subscriber is in HPLMN</li> <li>• Requested APN-OI doesn't match HPLMN</li> </ul> <p><b>Triggers:</b> Increments when Activate PDP Reject is sent due to this reason. <b>Availability:</b> per Chassis</p>
APN from Single Context	
VPLMN Addr not allowed, HPLMN AP Barred	<p><b>Description:</b> Total number of 2G Activate Reject(s) sent to MS for the following APN Selection Failure reasons:</p> <ul style="list-style-type: none"> <li>• APN selected from Single PDP Subscription Record</li> <li>• VPLMN Address not allowed</li> <li>• HPLMN Access Point Access is barred</li> </ul> <p><b>Triggers:</b> Increments when Activate PDP Reject is sent due to this reason. <b>Availability:</b> per Chassis</p>
VPLMN AP Barred, HPLMN AP Barred	<p><b>Description:</b> Total number of 2G Activate Reject(s) sent to MS for the following APN Selection Failure reasons:</p> <ul style="list-style-type: none"> <li>• APN selected from Single PDP Subscription Record</li> <li>• VPLMN Access Point Access is barred</li> <li>• HPLMN Access Point Access is barred</li> </ul> <p><b>Triggers:</b> Increments when Activate PDP Reject is sent due to this reason. <b>Availability:</b> per Chassis</p>
SDL-5:	
VPLMN User, VPLMN Addr not allowed	<p><b>Description:</b> Total number of 2G Activate Reject(s) sent to MS for the following APN Selection Failure reasons:</p> <ul style="list-style-type: none"> <li>• Default APN chosen by SGSN</li> <li>• Subscriber in VPLMN and</li> <li>• VPLMN Address not allowed</li> </ul> <p><b>Triggers:</b> Increments when Activate PDP Reject is sent due to this reason. <b>Availability:</b> per Chassis</p>

Field	Description
VPLMN User, VPLMN AP Barred	<p><b>Description:</b> Total number of 2G Activate Reject(s) sent to MS for the following APN Selection Failure reasons:</p> <ul style="list-style-type: none"> <li>• Default APN chosen by SGSN</li> <li>• Subscriber in VPLMN</li> <li>• VPLMN Access Point Access is barred</li> </ul> <p><b>Triggers:</b> Increments when Activate PDP Reject is sent due to this reason.  <b>Availability:</b> per Chassis</p>
No Default APN for PDP Type	<p><b>Description:</b> Total number of 2G Activate Reject(s) sent to MS for the APN Selection Failure reason - No Default APN configured for the PDP Type.  <b>Triggers:</b> Increments when Activate PDP Reject is sent due to this reason.  <b>Availability:</b> per Chassis</p>
Internal APN Selection Failures:	
Wildcard APN with Static Address	<p><b>Description:</b> This proprietary counter indicates the total number of 2G Activate Reject(s) sent to MS for the following APN Selection Failure reason - Subscription PDP Record with wildcard APN has static PDP address.  <b>Triggers:</b> Increments when Activate PDP Reject is sent due to this reason.  <b>Availability:</b> per Chassis</p>
Unknown PDP Type in Subscribed Record	<p><b>Description:</b> This proprietary counter indicates the total number of 2G Activate Reject(s) sent to MS for the APN Selection Failure reason - matching Subscription PDP Record has unknown PDP Type.  <b>Triggers:</b> Increments when Activate PDP Reject is sent due to this reason.  <b>Availability:</b> per Chassis</p>
GPRS SM Dropped Statistics	This group displays the statistics related to GPRS session manager packets dropped.
2G-Deactiv-Accept	Total number of Deactivate Accept messages received by GPRS session manager on SGSN for 2G service.
2G-Other-SM-Msg	Total number of messages received by GPRS session manager on SGSN for 2G services from other session manager.
GPRS PDP FSM Statistics	This group displays the statistics related to GPRS finite state machine states for Primary PDP Context procedures.
Pri Actv Req Rcvd	Total number of Primary PDP Context Activate Request messages received by GPRS session manager on SGSN for GPRS service.
Pri Actv Acc Sent	Total number of Primary PDP Context Activate Request Accept messages sent by GPRS session manager on SGSN for GPRS service.
Pri Actv Rej Sent	Total number of Primary PDP Context Activate Request Reject messages sent by GPRS session manager on SGSN for GPRS service.
Sec Actv Req Rcvd	Total number of Secondary PDP Context Activate Request messages received by GPRS session manager on SGSN for GPRS service.
Sec Actv Acc Sent	Total number of Secondary PDP Context Activate Request Accept messages sent by GPRS session manager on SGSN for GPRS service.
Sec Actv Rej Sent	Total number of Secondary PDP Context Activate Request Reject messages sent by GPRS session manager on SGSN for GPRS service.

Field	Description
Modify Req Rcvd	Total number of PDP Context Modify Request messages received by GPRS session manager on SGSN for GPRS service.
Modify Acc Sent	Total number of PDP Context Modify Request Accept messages sent by GPRS session manager on SGSN for GPRS service.
Modify Rej Sent	Total number of PDP Context Modify Request Reject messages sent by GPRS session manager on SGSN for GPRS service.
Modify Req Sent	Total number of PDP Context Modify Request messages sent by GPRS session manager on SGSN for GPRS service.
Modify Acc Rcvd	Total number of PDP Context Modify Request Accept messages received by GPRS session manager on SGSN for GPRS service.
Deactv Req Rcvd	Total number of PDP Context Deactivate Request messages received by GPRS session manager on SGSN for GPRS service.
Deactv Acc Sent	Total number of PDP Context Deactivate Request Accept messages sent by GPRS session manager on SGSN for GPRS service.
Deactv Req Sent	Total number of PDP Context Deactivate Request messages sent by GPRS session manager on SGSN for GPRS service.
Deactv Acc Rcvd	Total number of PDP Context Deactivate Request messages received by GPRS session manager on SGSN for GPRS service.
SM Status Sent	Total number of messages with GPRS session manager status on SGSN for GPRS service sent by SGSN.
SM Status Rcvd	Total number of messages with GPRS session manager status on SGSN for GPRS service received by SGSN.



# Chapter 68

## show gprs-service

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This chapter includes the `show gprs-service` command output tables.

## show gprs-service all

Table 187. show gprs-service all Command Output Descriptions

Field	Description
Service name	The GPRS service name that is running in this session.
Context	Name of the VPN context in which specified GPRS service is running.
Status	Status of the GPRS service for which statistics are displayed.
Accounting Context Name	Name of the accounting context for this GPRS service to enable accounting parameters.
Self PLMN	Name of the PLMN of this GPRS service.
MAP Service	Name of the mobile application part (MAP) service configured in this GPRS service.
SGTP Service	Name of the SGSN GTTP (SGTP) service configured in this GPRS service.
GS Serviceq	Name of the Gs service configured in this GPRS service to provide Gs interface support between an SGSN and an MSC/VLR.
SM-T3385 Timeout	The time-out duration in seconds for GPRS session management timer - T3385 on network side for PDP context activation.
SM-T3386 Timeout	The time-out duration in seconds for GPRS session management timer - T3386 on network side for PDP context modification.
SM-T3395 Timeout	The time-out duration in seconds for GPRS session management timer - T3395 on network side for PDP context deactivation.
SM-Max Activate Retries	Total number of retries for PDP context activation from GPRS session manager.
SM-Max Modify Retries	Total number of retries for PDP context modification from GPRS session manager.
SM-Max Deactivate Retries	Total number of retries for PDP context deactivation from GPRS session manager.
SM-Ignore PCO IE Decode Error	Indicates whether the decoding error ignored due to incorrect PCO IE length in SM messages is enabled/disabled.
SM-Trim Trailing Spaces in APN	Indicates whether the removal of any trailing space(s) in requested APN by SGSN is enabled/disabled.
SM-APN Partial match	Indicates whether the partial matching of requested APN during APN selection is enabled/disabled.
SM-APN(R) from First Sub Record	Indicates (enabled) that the selection of the APN from the first subscription record is to be used as the requested APN.
GMM-Mnr Timeout	The time-out duration in seconds for GPRS mobility management timer - Mobile Reachable on network side.
GMM-Purge Timeout	The time-out duration in seconds for GPRS mobility management timer - Purge to hold the detach of MM context on network side.
GMM-T3313 Timeout	The time-out duration in seconds for GPRS mobility management timer - T3313 on network side for paging procedure initiation.

Field	Description
GMM-T3312 Timeout	The periodic routing area update timer delivered by the SGSN to the UE in the Attach Accept and the Routing Area Update Accept messages.
GMM-T3370 Timeout	The time-out duration in seconds for GPRS mobility management timer - T3370 on network side for identity request procedure.
GMM-Max Identity Retries	Maximum number of retries for identity request procedure from GPRS mobility manager.
GMM-T3360 Timeout	The time-out duration in seconds for GPRS mobility management timer - T3360 on network side for Authentication and Cipher request procedure.
GMM-Max Auth Retries	Maximum number of retries for authentication request procedure from GPRS mobility manager.
GMM LLC Timeout	Configured timeout duration in seconds at the logical link control protocol message procedure from GPRS mobility manager.
GMM LLC MAX Retries	Maximum number of retries at the logical link control protocol message procedure from GPRS mobility manager.
GMM LLC PDU Life Time	Configured life time in seconds at the logical link control protocol message procedure from GPRS mobility manager.
GMM-Perform-Identity-After-Auth	Specifies whether “perform identity after authentication” procedure is enabled or not.
Ciphering Algorithm	This group provides the ciphering algorithm configuration in this GPRS service.
Priority 1 . . 3	Specifies the priority for GPRS Encryption Algorithm (GEA) configured for ciphering in this GPRS service. Possible GPRS encryption algorithms are: gea0: GPRS Encryption Algorithm 0 (GEA0)gea1: GPRS Encryption Algorithm 1 (GEA1)gea2: GPRS Encryption Algorithm 2 (GEA2)gea3: GPRS Encryption Algorithm 3(GEA3)
Accounting cdr-types	Specifies type of accounting CDRs configured in this GPRS service. Possible values are: mcd: Mobility CDR (M-CDR)scdr: SGSN CDR (S-CDR)sms mo-cdr: SMS Mobile Originated CDR (S-MO-CDR)sms mt-cdr: SMS Mobile Terminated CDR (S-MT-CDR)
Charging Characteristics(CC) Profiles	This group provides the charging characteristics (CC) profiles configured in this GPRS service
Profile <i>nn</i>	Specifies the charging characteristic (CC) profile configured in this SGSN service. <i>nn</i> is the number of CC profiles configured in this GPRS service and possible values are 1 through 15.
Buckets	Specifies the charging bucket configured for charging characteristic in this GPRS service
paging-scheme	Specifies the paging scheme configuration information in this GPRS service
max-page-retransmission	Specifies the maximum number of retries configured for paging in this GPRS service
paging-area	Specifies the paging area information in this GPRS service.
last-known-cell	Indicate the last known cell of the subscriber.
last-known-ra	Indicate the last known routing area of the subscriber.
last-known-la	Indicate the last known location area of the subscriber.
last-known-bsc	Indicate the last known base station controller (BSC) of the subscriber.



# Chapter 69

## show gs-service

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This chapter includes the `show gs-service` command output tables.

## show gs-service all

Table 188. show gs-service all Command Output Descriptions

Field	Description
Service name	The Gs service that is running in this session.
State	Status of the Gs service.
Context	The name of the context in which Gs service is running.
SGSN Number	The E.164 number for the SGSN to associate with the Gs service.
SSN	Indicates the subsystem number configured or not. If configured it indicates SSN.
Self SCCP Network Id	Indicates the SCCP network identifier configured or not. If configured it indicates SCCP network identifier.
T6-1 Timeout	Indicates the retransmission timer (T6-1) value to guard the location update. Default: 10 seconds Range: 10 to 90 seconds
T8 Timeout	Indicates the retransmission timer (T8) value to guard the explicit IMSI detach from the GPRS service procedure. Default: 4 seconds Range: 1 to 30 seconds
T9 Timeout	Indicates the retransmission timer (T9) value to guard the explicit IMSI detach from the non-GPRS service procedure. Default: 4 seconds Range: 1 to 30 seconds
T10 Timeout	Indicates the retransmission timer (T10) value to guard the implicit IMSI detach from the non-GPRS service procedure. Default: 4 seconds Range: 1 to 30 seconds
T12-1 Timeout	Indicates the retransmission timer value (T12-1) in minutes to control the resetting of SGSN-Reset variable procedure. Default: 54 minutes (plus 8 seconds for transmission delay) Range: 0 to 380 minutes
T12-2 Timeout	Indicates the retransmission timer (T10) value to guard the SGSN reset procedure. Default: 4 seconds Range: 1 to 30 seconds
Max N8 Retries	Indicates the maximum retransmission allowed for procedure for explicit IMSI detach message from GPRS service (N8). Default: 2 retries Range: 0 to 10 retries

Field	Description
Max N9 Retries	Indicates the maximum retransmission allowed for procedure for explicit IMSI detach message from non-GPRS service (N9). Default: 2 retries Range: 0 to 10 retries
Max N10 Retries	Indicates the maximum retransmission allowed for procedure for implicit IMSI detach message from non-GPRS service (N10). Default: 2 retries Range: 0 to 10 retries
Max N12 Retries	Indicates the maximum retransmission allowed for N12 procedure for sending BSSAP+ Reset Indication message (N12). Default: 2 retries Range: 0 to 10 retries
GS Service Configurations	
LAC Id	Indicates the subscriber location area code identifier configured in Gs service. Range: 1 through 65535
Pool Type	Type of pool area (non-pool area or pool area) configured in Gs service. Possible values are: <ul style="list-style-type: none"> <li>• Non Pool Area</li> <li>• Pool Area</li> </ul>
Pool Area/ Non Pool Area name	Name of the configured Non-pool area or pool area in Gs service.
Pool Area Configurations	
Pool Area Name	Name of the configured pool area in Gs service.
Default Vlr	Name of the default VLR attached to this pool area.
LAC in Pool Area	Indicates the subscriber location area code identifier configured in this pool area. Range: 1 through 65535
VLR Hash Type	Indicates the type of hash configured for this pool area. Possible values are: <ul style="list-style-type: none"> <li>• Value</li> <li>• Range</li> </ul>
Value / Range	Indicates the value of hash or range of hash.
Vlr Name	Name of the VLR attached to this pool area.
Non-Pool Area Configurations	
Non-Pool Area Name	Name of the configured non-pool area in Gs service.
Vlr Name	Name of the VLR attached to this non-pool area.
LAC in Pool Area	Indicates the subscriber location area code identifier configured in this non-pool area. Range: 1 through 65535
VLR Configurations	
VLR Name	Name of the VLR attached to this Gs service.
ISDN Numbe	Indicates the E.164 ISDN number of configured VLR.

■ show gs-service all

Field	Description
SSN	Indicates the subsystem number configured or not. If configured it indicates SSN.
Point Code	Indicates the configured point code address for VLR in SS7 address format.a
SGSN Reset	Indicates whether SGSN reset function is allowed or not. Possible values are: <ul style="list-style-type: none"><li>• TRUE</li><li>• FALSE</li></ul>

# Chapter 70

## show gtpc

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This chapter includes the **show gtpc** command output tables.

## show gtpc counters ggsn-service

Table 189. show gtpc counters ggsn-service Command Output Descriptions

Field	Description
APN Name	The name of the APN that the subscriber is currently accessing.
Callid	The call identification number that uniquely identifies the subscriber.
IMSI	The subscriber's International Mobile Subscriber Identity.
NSAPI	The subscriber's Network Service Access Point Identifier.
Updates PDP Context	
Update PDP Context RX	The total number of Update PDP Context Request messages received from the SGSN(s).
Accepted	The total number of Update PDP Context Response messages transmitted to the SGSN(s) containing a cause value of 128 (80H, Request accepted).
Denied	The total number of "reject" Update PDP Context Response messages transmitted to the SGSN(s).
Update PDP Context Denied	
System Failure	The total number of "reject" Update PDP Context Response messages transmitted to the SGSN(s) sent with a cause code of 204 (CCH, System failure).
Invalid Message Format	The total number of "reject" Update PDP Context Response messages transmitted to the SGSN(s) sent with a cause code of 193 (C1H, Invalid message format).
Semantic Error in TFT	The total number of "reject" Update PDP Context Response messages transmitted to the SGSN(s) sent with a cause code of 215 (D7H, Semantic error in the TFT operation).
Syntactic Error in TFT	The total number of "reject" Update PDP Context Response messages transmitted to the SGSN(s) sent with a cause code of 216 (D8H, Syntactic error in the TFT operation).
Semantic Error in Packet Filter	The total number of "reject" Update PDP Context Response messages transmitted to the SGSN(s) sent with a cause code of 217 (D9H, Semantic error in packet filter(s)).
Mandatory IE Incorrect:	The total number of "reject" Update PDP Context Response messages transmitted to the SGSN(s) sent with a cause code of 201 (C9H, Mandatory IE incorrect).
Mandatory IE Missing	The total number of "reject" Update PDP Context Response messages transmitted to the SGSN(s) sent with a cause code of 202 (CAH, Mandatory IE missing).
Syntactic Error in Packet Filter	The total number of "reject" Update PDP Context Response messages transmitted to the SGSN(s) sent with a cause code of 218 (DAH, Syntactic error in packet filter(s)).
Optional IE Incorrect	The total number of "reject" Update PDP Context Response messages transmitted to the SGSN(s) sent with a cause code of 203 (CBH, Optional IE incorrect).
Updates PDP Context Sent	
Update PDP Context RX	The total number of Update PDP Context Request messages transmitted to the SGSN(s).

Field	Description
Accepted	The total number of Update PDP Context Response messages received from the SGSN(s) containing a cause value of 128 (80H, Request accepted).
Denied	The total number of "reject" Update PDP Context Response messages received from the SGSN(s).
Update Sent Reasons	
IP Address Updated	The total number of Update PDP Context Request messages transmitted to the SGSN(s) because of a change in the IP address of the PDP context.
QoS Updated	The total number of Update PDP Context Request messages transmitted to the SGSN(s) because of a change in the quality of service (QoS) level for the PDP context.
Misc. Reasons	The total number of Update PDP Context Request messages transmitted to the SGSN(s) for other reasons.
Update PDP Context Deny Received	
System Failure	The total number of "reject" Update PDP Context Response messages received from the SGSN(s) sent with a cause code of 204 (CCH, System failure).
Non-existent	The total number of "reject" Update PDP Context Response messages received from the SGSN(s) sent with a cause code of 193 (C1H, Invalid message format).
Unsupported Service	The total number of "reject" Update PDP Context Response messages received from the SGSN(s) sent with a cause code of 215 (D7H, Semantic error in the TFT operation).
Invalid Message Format	The total number of "reject" Update PDP Context Response messages received from the SGSN(s) sent with a cause code of 216 (D8H, Syntactic error in the TFT operation).
Semantic Error in TFT	The total number of "reject" Update PDP Context Response messages received from the SGSN(s) sent with a cause code of 217 (D9H, Semantic error in packet filter(s)).
Syntactic Error in TFT	The total number of "reject" Update PDP Context Response messages received from the SGSN(s) sent with a cause code of 201 (C9H, Mandatory IE incorrect).
Semantic Error in Packet Filter	The total number of "reject" Update PDP Context Response messages received from the SGSN(s) sent with a cause code of 202 (CAH, Mandatory IE missing).
Mandatory IE Incorrect	The total number of "reject" Update PDP Context Response messages received from the SGSN(s) sent with a cause code of 218 (DAH, Syntactic error in packet filter(s)).
Mandatory IE Missing	The total number of "reject" Update PDP Context Response messages received from the SGSN(s) sent with a cause code of 203 (CBH, Optional IE incorrect).
Syntactic Error in Packet Filter	The total number of "reject" Update PDP Context Response messages received from the SGSN(s) sent with a cause code of 204 (CCH, System failure).
Optional IE Incorrect	The total number of "reject" Update PDP Context Response messages received from the SGSN(s) sent with a cause code of 193 (C1H, Invalid message format).
GTPU Receive	
Total Packets	The total number of GTPU packets received.
Total Bytes	The total number of GTPU bytes received.
GTPU Send	
Total Packets	The total number of GTPU packets transmitted.

```
■ show gtpc counters ggsn-service
```

Field	Description
Total Bytes	The total number of GTPU bytes transmitted.

## show gtpc full

Table 190. show gtpc full Command Output Descriptions

Field	Description
APN Name	The name of the APN that the subscriber is currently accessing.
Callid	The call identification number that uniquely identifies the subscriber.
User Name	The user name associated with this session.
User Address	Is the address of the user's PDP context in dotted decimal notation.
Session Type	Specifies the type of session for MBMS service. Possible values are: <ul style="list-style-type: none"> <li>• MBMS UE</li> <li>• MBMS Multicast Bearer</li> </ul>
Mcast Address	Displays the IP address of Broadcast Multicast service center.
Update MBMS Context RX	Total number of update messages received for MBMS context.
Accepted	Total number of update messages received and accepted for MBMS context
Denied	Total number of update messages received and denied for MBMS context
Discarded	Total number of update messages discarded for MBMS context
IMEI(SV)	Indicates the International Mobile Equipment Identity (and Software Version) (IMEI(SV)) of subscriber's mobile equipment.
IMSI	The subscriber's International Mobile Subscriber Identity.
NSAPI	The subscriber's Network Service Access Point Identifier.
GGSN Service	Specifies the name of a configured GGSN service that can be from 1 to 63 alpha and/or numeric characters and is case sensitive.
SGSN Address	Specifies the IP address for the SGSN.
MBMS Session Start	This group specifies the statistics of messages for MBMS session start.
MBMS Session Start TX	Total number of messages sent for MBMS session start.
Accepted	Total number of messages accepted for MBMS session start.
Denied	Total number of messages denied for MBMS session start.
MBMS Session Start Denied	This group specifies the statistics of reasons for denial of MBMS session.
No Resources	Total number of MBMS session start messages denied due to non-availability of resources.
No Memory	Total number of MBMS session start messages denied due to non-availability of memory.

Field	Description
System Failure	Total number of MBMS session start messages denied due to system failure.
Non-existent	Total number of MBMS session start messages denied due to non-existence of MBMS context.
Invalid Message Format	Total number of MBMS session start messages denied due to invalid message format.
Mandatory IE Incorrect	Total number of MBMS session start messages denied as mandatory information element was incorrect.
Mandatory IE Missing	Total number of MBMS session start messages denied as mandatory information element was missing.
Bearer Ctxt Superseded	Total number of MBMS session start messages denied as bearer context get superseded by information in message.
MBMS Session Stop	This group specifies the statistics of messages for MBMS session stop.
MBMS Session Stop TX	Total number of messages sent for MBMS session stop.
Accepted	Total number of messages accepted for MBMS session stop.
Denied	Total number of messages denied for MBMS session stop.
Charging ID	Contains an identifier used for correlating charging records and events.
Charging Characteristics Statistics	Hot - The number of times that PDP Context Requests were processed with a charging characteristic profile index value of "1", representing "hot" billing. Normal - The number of times that PDP Context Requests were processed with a charging characteristic profile index value of "8", representing "normal" billing. Prepaid - The number of times that PDP Context Requests were processed with a charging characteristic profile index value of "4", representing "prepaid billing." Flat - The number of times that PDP Context Requests were processed with a charging characteristic profile index value of "2", representing "flat-rate" billing.
User Location Info Type	Indicates the type of User Location Information, Cell Global Identification (CGI) or Service Area Identity (SAI) of where the user currently is registered or available.
User Location Info	Indicates the information of User location, CGI or SAI.
MS TimeZone	The Time Zone MS is sending in the CPC/UPC message.
Daylight Saving Time	The number of hours the MS TimeZone is adjusted for Daylight Savings Time
CAMEL Charging Info	Indicates whether or not CAMEL charging information was received.
Length	The length of the CAMELInformationPDP IE
Payload Compression	Indicates whether payload compression is allowed or prohibited.
Transitions to Presv. Mode	Indicates total number sessions in transitions state for preservation mode. Note: This is a customer specific counter and dependent of customer specific license only.
Transitions to LORC state	Indicates total number sessions in transitions state for overcharging protection support mode. This counter is applicable when GGSN is enabled for overcharging protection for subscriber due to loss of radio coverage and SGSN notifies Update PDP Contexts for QOS change with GTP-C extension for LORC.

Field	Description
GTP-U Tunnel Establishment	Indicates if the particular session is using direct tunnel or not. Possible values are: <ul style="list-style-type: none"> <li>• Normal</li> <li>• Pending</li> <li>• Direct-Tunnel</li> </ul> Status "Pending" means that GGSN is switching from direct-tunnel to two tunnels for the particular session. "Normal" status indicates that particular context is not using Direct Tunnel.
Updates PDP Context	
Update PDP Context RX	The total number of Update PDP Context Request messages received from the SGSN(s).
Accepted	The total number of Update PDP Context Response messages transmitted to the SGSN(s) containing a cause value of 128 (80H, Request accepted).
Denied	The total number of "reject" Update PDP Context Response messages transmitted to the SGSN(s).
Update PDP Context Denied	
System Failure	The total number of "reject" Update PDP Context Response messages transmitted to the SGSN(s) sent with a cause code of 204 (CCH, System failure).
Invalid Message Format	The total number of "reject" Update PDP Context Response messages transmitted to the SGSN(s) sent with a cause code of 193 (C1H, Invalid message format).
Semantic Error in TFT	The total number of "reject" Update PDP Context Response messages transmitted to the SGSN(s) sent with a cause code of 215 (D7H, Semantic error in the TFT operation).
Syntactic Error in TFT	The total number of "reject" Update PDP Context Response messages transmitted to the SGSN(s) sent with a cause code of 216 (D8H, Syntactic error in the TFT operation).
Semantic Error in Packet Filter	The total number of "reject" Update PDP Context Response messages transmitted to the SGSN(s) sent with a cause code of 217 (D9H, Semantic error in packet filter(s)).
Mandatory IE Incorrect:	The total number of "reject" Update PDP Context Response messages transmitted to the SGSN(s) sent with a cause code of 201 (C9H, Mandatory IE incorrect).
Mandatory IE Missing	The total number of "reject" Update PDP Context Response messages transmitted to the SGSN(s) sent with a cause code of 202 (CAH, Mandatory IE missing).
Syntactic Error in Packet Filter	The total number of "reject" Update PDP Context Response messages transmitted to the SGSN(s) sent with a cause code of 218 (DAH, Syntactic error in packet filter(s)).
Optional IE Incorrect	The total number of "reject" Update PDP Context Response messages transmitted to the SGSN(s) sent with a cause code of 203 (CBH, Optional IE incorrect).
Updates PDP Context Sent	
Update PDP Context TX	The total number of Update PDP Context Request messages transmitted to the SGSN(s).
Accepted	The total number of Update PDP Context Response messages received from the SGSN(s) containing a cause value of 128 (80H, Request accepted).
Denied	The total number of "reject" Update PDP Context Response messages received from the SGSN(s).
Update PDP Context Deny Received	

■ show gtpc full

Field	Description
System Failure	The total number of “reject” Update PDP Context Response messages received with a cause code of 204 (CCH, System failure).
Non-existent	The total number of “reject” Update PDP Context Response messages received with a cause code of 192 (C0H, Non-existent).
Invalid Message Format	The total number of “reject” Update PDP Context Response messages received with a cause code of 193 (C1H, Invalid message format).
Semantic Error in TFT	The total number of “reject” Update PDP Context Response messages received with a cause code of 215 (D7H, Semantic error in the TFT operation).
Syntactic Error in TFT	The total number of “reject” Update PDP Context Response messages received with a cause code of 216 (D8H, Syntactic error in the TFT operation).
Semantic Error in Packet Filter	The total number of “reject” Update PDP Context Response messages received with a cause code of 217 (D9H, Semantic error in packet filter(s)).
Mandatory IE Incorrect:	The total number of “reject” Update PDP Context Response messages received with a cause code of 201 (C9H, Mandatory IE incorrect).
Mandatory IE Missing	The total number of “reject” Update PDP Context Response messages received with a cause code of 202 (CAH, Mandatory IE missing).
Syntactic Error in Packet Filter	The total number of “reject” Update PDP Context Response messages received with a cause code of 218 (DAH, Syntactic error in packet filter(s)).
Optional IE Incorrect	The total number of “reject” Update PDP Context Response messages received with a cause code of 203 (CBH, Optional IE incorrect).
GTPU Receive	
Total Packets	The total number of GTP User (GTPU) packets received.
Traffic Class	
Conversational	The number of GTPU packets received tagged with a traffic class of Conversational.
Streaming	The number of GTPU packets received tagged with a traffic class of Streaming.
Interactive 1	The number of GTPU packets received tagged with a traffic class of Interactive and a priority of 1.
Interactive 2	The number of GTPU packets received tagged with a traffic class of Interactive and a priority of 2.
Interactive 3	The number of GTPU packets received tagged with a traffic class of Interactive and a priority of 3,
Background	The number of GTPU packets received tagged with a traffic class of Background.
GTPU Send	
Total Packets	The total number of GTP User (GTPU) packets transmitted.
Traffic Class	
Conversational	The number of GTPU packets transmitted tagged with a traffic class of Conversational.
Streaming	The number of GTPU packets transmitted tagged with a traffic class of Streaming.
Interactive 1	The number of GTPU packets transmitted tagged with a traffic class of Interactive and a priority of 1.
Interactive 2	The number of GTPU packets transmitted tagged with a traffic class of Interactive and a priority of 2.

Field	Description
Interactive 3	The number of GTPU packets transmitted tagged with a traffic class of Interactive and a priority of 3,
Background	The number of GTPU packets transmitted tagged with a traffic class of Background.

## show gtpc summary callid

Table 191. show gtpc summary callid Command Output Descriptions

Field	Description
GTP Summary	Displays a brief status for GTP.
Update PDP Context RX	Displays the total number of Update PDP Context Request messages received.
Accepted	Displays the number of Update PDP Context Request messages received that were accepted.
Denied	Displays the number of Update PDP Context Request messages received that were denied.
Update PDP Context TX	Displays the total number of Update PDP Context Request messages transmitted.
Accepted	Displays the number of Update PDP Context Request messages received that were transmitted.
Denied	Displays the number of Update PDP Context Request messages received that were transmitted.
IP Address Updates	Displays the number of times the IP address was updated.
QoS Updates	Displays the number of times the quality of service (QoS) level was changed.
Misc. Updates	Displays the number of updates experienced.
Qos negotiation	
CPC Qos Accepted	The number of times QoS parameters received in Create PDP Context (CPC) Request messages were accepted.
CPC Qos Downgrade	The number of times QoS parameters received in Create PDP Context (CPC) Request messages were downgraded.
UPC Qos Accepted	The number of times QoS parameters received in Update PDP Context (UPC) Request messages were accepted.
UPC Qos Downgraded	The number of times QoS parameters received in Update PDP Context (UPC) Request messages were downgraded.
GTPU Receive	
Total Packets	The total number of GTP User (GTPU) packets received.
Traffic Class	
Conversational	The number of GTPU packets received tagged with a traffic class of Conversational.
Streaming	The number of GTPU packets received tagged with a traffic class of Streaming.
Interactive 1	The number of GTPU packets received tagged with a traffic class of Interactive and a priority of 1.
Interactive 2	The number of GTPU packets received tagged with a traffic class of Interactive and a priority of 2.
Interactive 3	The number of GTPU packets received tagged with a traffic class of Interactive and a priority of 3,

Field	Description
Background	The number of GTPU packets received tagged with a traffic class of Background.
GTPU Send	
Total Packets	The total number of GTP User (GTPU) packets transmitted.
Traffic Class	
Conversational	The number of GTPU packets transmitted tagged with a traffic class of Conversational.
Streaming	The number of GTPU packets transmitted tagged with a traffic class of Streaming.
Interactive 1	The number of GTPU packets transmitted tagged with a traffic class of Interactive and a priority of 1.
Interactive 2	The number of GTPU packets transmitted tagged with a traffic class of Interactive and a priority of 2.
Interactive 3	The number of GTPU packets transmitted tagged with a traffic class of Interactive and a priority of 3.
Background	The number of GTPU packets transmitted tagged with a traffic class of Background.

## show gtpc statistics custom1



**Important:** These statistics are specific to Free-of-Charge service (FoCS) and Operator Determined Barring (ODB) support using private GTP-C extensions and enabled under customer-specific license. For more information on this support, contact your local representative.

**Table 192.** show gtpc statistics custom1 Command Output Descriptions

Field	Description
Preservation Mode stats	Displays the statistics of GTP-C messages in preservation mode.
Sessions in preservation mode	Indicates total number sessions in preservation mode.
Transitions to preservation mode	Indicates total number sessions in transitions state from non-preservation mode to preservation mode.
Transitions to non-preservation mode	Indicates total number sessions in transitions state from preservation mode to non-preservation mode.
Free Of Charge Service stats	Displays the statistics of GTP-C messages for Free-of-Charge services.
Session stats	Indicates sessions statistics for FOCS and/or ODB enabled sessions.
FOCS	Indicates the total number of sessions Free-of-Charge services (FOCS) enabled status.
ODB	Indicates the total number of sessions with Operator Determined Barring enabled status.
Sessions release stats	Indicates the statistics for sessions, in preservation mode of using FOCS and/or ODB, released due to any reason
Other-reasons	Indicates the total number of sessions, in preservation mode of using FOCS and/or ODB, released due to reasons not specified in this table.
in-acl-disconnect-on-violation	Indicates the total number of sessions, in preservation mode of using FOCS and/or ODB, released due to ACL rule violation.

## show gtpc statistics custom2



**Important:** These statistics are specific to private GTP-C extensions for overcharging protection on loss of radio coverage for a subscriber. For more information on this support, contact your local representative.

*Table 193. show gtpc statistics custom2 Command Output Descriptions*

Field	Description
LORC Stats	This group indicates the status of loss of radio coverage extensions in GTP-C messages configured for overcharging protection.
Sessions in lorc state	Indicates the number of GGSN session are in LORC state and subscriber is in out of radio coverage area. This counter is applicable when GGSN is enabled for overcharging protection for subscriber due to loss of radio coverage and SGSN notifies Update PDP Contexts for QOS change with GTP-C extension for LORC.
Transitions to lorc state	Indicates total number sessions in transitions state for overcharging protection support mode. This counter is applicable when GGSN is enabled for overcharging protection for subscriber due to loss of radio coverage and SGSN notifies Update PDP Contexts for QOS change with GTP-C extension for LORC.

## show gtpc statistics verbose

Table 194. show gtpc statistics verbose Command Output Descriptions

Field	Description
Session Stats	
Total Current	The number of PDP contexts currently being facilitated by the system.
IPv4	The number of IP PDP contexts currently being facilitated by the system.
IPv6	The number of IP PDP contexts currently being facilitated by the system.
PPP	The number of PPP PDP contexts currently being facilitated by the system.
Network Initiated	The number of PDP contexts currently being facilitated by the system that were activated using the NRPA procedure.
MBMS UE	Total number of MBMS UE context connected.
MBMS Mcast Bearer	Total number of MBMS multicast bearer context connected.
MBMS Bcast Bearer	Total number of MBMS broadcast bearer context connected.
Total Setup	The total number of PDP contexts that have been facilitated by the system since it was either powered up or since the statistics were last cleared -whichever is latest.
IPv4	The total number of IP PDP contexts that have been facilitated by the system.
IPv6	The total number of IP PDP contexts that have been facilitated by the system.
PPP	The total number of PPP PDP contexts that have been facilitated by the system.
SGSN Initiated	The total number of SGSN-initiated PDP contexts that have been facilitated by the system
Network Initiated	The total number of network-initiated PDP contexts that have been facilitated by the system
Total Released	The total number of PDP contexts that have been released by the system.
Dynamic Address Allocation	
IPv4 Attempt	The total number of IPv4 sessions attempted with dynamic PDP address allocation.
Successful	The total number of IPv4 sessions successfully established with dynamic PDP address allocation.
IPv6 Attempt	The total number of IPv6 sessions attempted with dynamic PDP address allocation.
Successful	The total number of IPv6 sessions successfully established with dynamic PDP address allocation.
IP Authentication	
CHAP Auth Attempt	The total number PDP contexts that attempted CHAP authentication.
Successful	The total number PDP contexts that were successfully authenticated using CHAP.
Failure	The total number PDP contexts that failed authentication attempting to use CHAP.

Field	Description
PAP Auth Attempt	The total number PDP contexts that attempted PAP authentication.
Successful	The total number PDP contexts that were successfully authenticated using PAP.
Failure	The total number PDP contexts that failed authentication attempting to use PAP.
No Auth Requests	The total number PDP contexts that did not have authentication enabled.
Session Release Reasons	
SGSN Initiated	The total number of PDP contexts that have been released due to the receipt of a Delete PDP Context message from the SGSN(s).
Secondary Teardown	The total number of PDP contexts that have been released due to the termination of a secondary context (for example, a teardown flag was set in Delete PDP Context message received or a teardown happened due to the context replacement case).
Session Mgr. Died	The total number of PDP contexts that have been released due to the termination of the Session Manager task that was facilitating the contexts.
Admin Releases	The total number of PDP contexts that have been released due by the system administrator (for example, issuing the <b>clear subscriber</b> command, or stopping the GGSN service).
APN Removed	The total number of PDP contexts that have been released due to the removal of the APN configuration from the system.
Call Aborted	The total number of PDP contexts that have been released due to miscellaneous reasons such as the removal of a source or destination context on the system, etc.
Idle Timeout	The total number of PDP contexts that have been released due to the expiration of the idle timeout period as configured in the APN configuration mode.
Absolute Timeout	The total number of PDP contexts that have been released due to the expiration of the absolute timeout period as configured in the APN configuration mode.
Source Addr Violation	The total number of PDP contexts that have been released due to the detection of a source violation.
Flow Addition Failure	The total number of PDP contexts that have been released due to the system's failure to add a flow.
DHCP Renewal Failure	The total number of PDP contexts that have been released due to a DHCP lease renewal failure.
Long Duration Timeout	The total number of PDP contexts that have been released due to the expiration of the long duration timeout period.
Error Indication	The total number of PDP contexts that have been released due to an error indication.
Context replacement	The total number of PDP contexts that have been released due to a context replacement.
Other Reasons	The total number of PDP contexts that have been released due to other reasons.
Purged via Audit	The total number requests that were purged during Session Manager recovery. If the GTPCMgr did not get an audit request for a particular session, then it is released by GTPCMgr.
Update Handoff Reject	The total number of PDP contexts that have been released due to the receipt of a reject message during an update handoff.
Total Path Failures	The total number of PDP contexts that have been released due to SGSN path failures detected by the system.

Field	Description
Create PDP Req	The total number of PDP contexts that have been released due to path failures detected after sending a Create PDP Context Request message.
Update PDP Req	The total number of PDP contexts that have been released due to path failures detected after sending a Update PDP Context Request message.
Echo Response	The total number of PDP contexts that have been released due to path failures detected after sending an Echo Response message.
Echo Timeout	The total number of PDP contexts that have been released due to path failures detected after sending an Echo Timeout message.
Path Management Messages	
Echo Request RX	The total number of Echo Requests received from SGSN(s).
Echo Response TX	The total number of Echo Responses sent to SGSN(s) in response to Echo Requests.
Echo Request TX	The total number of Echo Requests sent to the SGSN(s).
Echo Response RX	The total number of Echo Responses received from SGSN(s) in response to Echo Requests.
GTP-U Echo Request RX	The total number of GTPU Echo Requests received from SGSN(s).
GTP-U Echo Response TX	The total number of GTPU Echo Responses sent to SGSN(s) in response to GTPU Echo Requests.
GTP-U Echo Request TX	The total number of GTPU Echo Requests sent to the SGSN(s).
GTP-U Echo Response RX	The total number of GTPU Echo Responses received from SGSN(s) in response to GTPU Echo Requests.
Version Not Supported	
RX	The total number of Version Not Supported messages received.
TX	The total number of Version Not Supported messages transmitted.
Supported Ext. Headers Notif	
RX	The total number of supported extension headers notifications received.
TX	The total number of supported extension headers notifications transmitted.
Tunnel Management Messages	
Total CPC Req	The total number of Create PDP Context Request messages received. This is the sum of GTPC v0 and GTP v1 messages.
CPC Req(V1)	The total number of Create PDP Context Request messages received that used GTPC version 1.
CPC Req(V0)	The total number of Create PDP Context Request messages received that used GTPC version 0.
Primary CPC Req	The total number of Activate Primary PDP Context Request received.
Secondary CPC Req	The total number of Activate Secondary PDP Context Request received
Initial CPC Req	The total number of non-retransmitted Create PDP Context Requests for the primary PDP context.

Field	Description
Retransmitted	The total number of re-transmitted Create PDP Context Request messages received for either the primary or secondary PDP contexts.
Total Accepted	The total number of Create PDP Context Response messages transmitted containing a cause value of 128 (80H, Request accepted).
Total Denied	The total number of "reject" Create PDP Context Response messages transmitted.
Total Discarded	The total number of Create PDP Context Request messages received from the SGSN(s) that were discarded.
Update PDP Context RX	The total number of Update PDP Context Request messages received from the SGSN(s).
Accepted	The total number of Update PDP Context Response messages transmitted to the SGSN(s) containing a cause value of 128 (80H, Request accepted).
Denied	The total number of "reject" Update PDP Context Response messages transmitted to the SGSN(s).
Update PDP Context TX	The total number of Update PDP Context Request messages transmitted to the SGSN(s).
Accepted	The total number of Update PDP Context Response messages received from the SGSN(s) containing a cause value of 128 (80H, Request accepted).
Denied	The total number of "reject" Update PDP Context Response messages received from the SGSN(s).
Delete PDP Context RX	The total number of Delete PDP Context Request messages received from the SGSN(s).
Accepted	The total number of Delete PDP Context Response messages transmitted containing a cause value of 128 (80H, Request accepted).
Denied	The total number of "reject" Delete PDP Context Response messages transmitted.
Discarded	The total number of Delete PDP Context Request messages received from the SGSN(s) that were discarded
Delete PDP Context TX	The total number of Delete PDP Context Request messages transmitted to the SGSN(s).
Accepted	The total number of Delete PDP Context Response messages received from the SGSN(s) containing a cause value of 128 (80H, Request accepted).
Denied	The total number of "reject" Delete PDP Context Response messages received from the SGSN(s).
Error Indication RX	The total number of error indication messages received from the SGSN(s).
Error Indication TX	The total number of error indication messages transmitted to the SGSN(s).
PDU Notification	The total number of PDU notifications sent by GGSN as a part of the NRPA procedure.
Accepted	The total number of accepted PDU notifications sent by GGSN as a part of the NRPA procedure.
Denied	The total number of rejected PDU notifications sent by GGSN as a part of the NRPA procedure.
PDU Notificatn Reject	The total number of PDU Notification Rejects that were received.
Accepted	The total number of PDU Notification Rejects that were received and accepted.

Field	Description
Denied	The total number of PDU Notification Rejects that were received and rejected.
Discarded	The total number of PDU Notification Rejects that were received and discarded.
GTP-U Tunnel Establishment with RNC	
Direct Tunnels Established	Indicates the number of times direct tunnels established between GGSN and RNC as instructed by SGSN in Update PDP Context Request.
Direct Tunnels torn down by SGSNs	Indicates the total number of times direct tunnels between GGSN and RNC are removed as instructed by SGSN in Update PDP Context Request.
Direct Tunnels that received Error Indication	Indicates the total number of Direct Tunnels that have received GTP Error Indication from RNC. This statistic counts GTP Error Indication only once per Direct Tunnel.
Update PDP Tx Reasons	
QoS Change	The number of Update PDP Context Request messages were sent when the GGSN requested the QoS Profile information to the SGSN.
Providing PDP address	The providing PDP address that is sent to the SGSN.
Direct Tunnel Flags update	Indicates the number of Update PDP Context Requests going out of GGSN towards SGSN with direct tunnel flags IE.
Update PDP Context Rx Reasons	
SGSN Handoff	The total number SGSN handoffs that have been completed for which PDP context updated.
SGSN Group Handoff	The total number handoffs between SGSN groups that have been completed for which PDP context updated.
Create PDP Context Denied	
No Resources	The total number of "reject" Create PDP Context Response messages transmitted to the SGSN(s) sent with a cause code of 199 (C7H, No resources available). <b>NOTE:</b> Statistics that further detail the reasons for rejecting a Create PDP Context Request with this reason are located in the <b>Create PDP Denied - No Resource Reasons</b> of this table.
No Memory	The total number of "reject" Create PDP Context Response messages transmitted to the SGSN(s) sent with a cause code of 212 (D4H, No memory is available). <b>NOTE:</b> Statistics that further detail the reasons for rejecting a Create PDP Context Request with this reason are located in the <b>Create PDP Denied - No Memory</b> of this table.
All Dyn Addr Occupied	The total number of "reject" Create PDP Context Response messages transmitted to the SGSN(s) sent with a cause code of 211 (D3H, All dynamic PDP addresses are occupied). <b>NOTE:</b> Statistics that further detail the reasons for rejecting a Create PDP Context Request with this reason are located in the <b>Create PDP Denied - Dynamic Address Occupied</b> of this table.
User Auth Failed	The total number of "reject" Create PDP Context Response messages transmitted to the SGSN(s) sent with a cause code of 201 (D1H, User authentication failed). <b>NOTE:</b> Statistics that further detail the reasons for rejecting a Create PDP Context Request with this reason are located in the <b>Create PDP Denied - Auth Failure Reasons</b> section of this table.
Unknown/Missing APN	The total number of "reject" Create PDP Context Response messages transmitted to the SGSN(s) sent with a cause code of 219 (DBH, Missing or unknown APN).

Field	Description
System Failure	The total number of “reject” Create PDP Context Response messages transmitted to the SGSN(s) sent with a cause code of 204 (CCH, System failure). <b>NOTE:</b> Statistics that further detail the reasons for rejecting a Create PDP Context Request with this reason are located in the <b>Create PDP Denied - System Failure Reasons</b> section of this table.
Unknown PDP Addr/Type	The total number of “reject” Create PDP Context Response messages transmitted to the SGSN(s) sent with a cause code of 220 (DCH, Unknown PDP address or PDP type). <b>NOTE:</b> Statistics that further detail the reasons for rejecting a Create PDP Context Request with this reason are located in the <b>Create PDP Denied - Unknown PDP Addr or Type</b> section of this table.
Unsupported Version	The total number of “reject” Create PDP Context Response messages transmitted to the SGSN(s) sent with a cause code of 198 (C6H, version not supported).
Semantic Error in TFT	The total number of “reject” Create PDP Context Response messages transmitted to the SGSN(s) sent with a cause code of 215 (D7H, Semantic error in the TFT operation).
Syntactic Error in TFT	The total number of “reject” Create PDP Context Response messages transmitted to the SGSN(s) sent with a cause code of 216 (D8H, Syntactic error in the TFT operation).
Semantic Error in Packet Filter	The total number of “reject” Create PDP Context Response messages transmitted to the SGSN(s) sent with a cause code of 217 (D9H, Semantic error in packet filter(s)).
Mandatory IE Incorrect	The total number of “reject” Create PDP Context Response messages transmitted to the SGSN(s) sent with a cause code of 201 (C9H, Mandatory IE incorrect). <b>NOTE:</b> Statistics that further detail the reasons for rejecting a Create PDP Context Request with this reason are located in the <b>Create PDP Denied - Mandatory IE Incorrect</b> section of this table.
Mandatory IE Missing	The total number of “reject” Create PDP Context Response messages transmitted to the SGSN(s) sent with a cause code of 202 (CAH, Mandatory IE missing).
Syntactic Error in Packet Filter	The total number of “reject” Create PDP Context Response messages transmitted to the SGSN(s) sent with a cause code of 218 (DAH, Syntactic error in packet filter(s)).
Optional IE Incorrect	The total number of “reject” Create PDP Context Response messages transmitted to the SGSN(s) sent with a cause code of 203 (CBH, Optional IE incorrect). <b>NOTE:</b> Statistics that further detail the reasons for rejecting a Create PDP Context Request with this reason are located in the <b>Create PDP Denied - Optional IE Incorrect</b> section of this table.
Invalid Message Format	The total number of “reject” Create PDP Context Response messages transmitted to the SGSN(s) sent with a cause code of 193 (C1H, Invalid message format).
Context Not Found	The total number of “reject” Create PDP Context Response messages transmitted to the SGSN(s) sent with a cause code of 210 (D2H, Context not found).
Service not Supported	The total number of “reject” Create PDP Context Response messages transmitted to the SGSN(s) sent with a cause code of 200 (C8H, Service not supported).
APN restriction	
No APN Subscription	Indicates that the GGSN has denied the user access to an APN because a subscription is required, but the subscriber does not have the necessary subscription.
Create PDP Denied - No Resource Reasons	

Field	Description
PLMN Policy Reject	The PLMN policy configured for the GGSN service processing the request is configured to reject the SGSN's requests.
New Call Policy Reject	The system is configured with a newcall policy to reject new sessions.
APN/Svc Capacity	The APN being accessed is currently facilitating the maximum number of PDP contexts specified in its configuration (refer to the <b>max-contexts</b> command in the APN configuration mode).
Input-Q Exceeded	The queue size between demux-mgr and session managers has been exceeded due to pending requests.
No Session Manager	No Session Manager task is available to process the request.
Session Manager Dead	The Session Manager Task assigned to the PDP context was terminated.
Secondary For PPP	A secondary request for PPP was received.
Other Reasons	Other reasons not listed here.
Session Mgr Retried	Multiple Session Manager Tasks were unable to accept the request.
Session Mgr Not Ready	The Session Manager Task assigned to the PDP context was not ready to accept the request.
Session Setup Timeout	The total number of Create PDP Context (CPC) reject due to session setup timeout
Charging Svc Auth Fail	Authorization with the charging service failed.
ICSR State Invalid	Indicates that the Create PDP request was denied because the interchassis session recovery state is invalid.
DHCP IP Address Not Present	DHCP-assigned IP addresses were not available for assignment to the PDP Context.
Radius IP Validation Failed	RADIUS IP validation failed.
Congestion Policy Applied	The system entered a state resulting in the invocation of a GGSN service "reject" congestion policy.
GTP-v0 IP address allocation/validation failed	IP address allocation or validation failed.
Mediation Delay GTP Response Accounting Start failed:	The number of call setup failures due to Accounting Start failures with delay GTP response feature enabled.
Create PDP Denied - Auth Failure Reasons	
Authentication Failed	The total number of requests rejected due to incorrect username/password.
AAA Auth Req Failed	The total number of requests rejected due to authentication failure requests.
APN selection-mode mismatch	The total number of requests rejected due to a conflicting configuration of the Selection Mode in the Create PDP Context request and the APN.
Non-Existent Virtual APN	The request is rejected due to an invalid APN.
Create PDP Denied - No Memory	
No More AAA Sessions	The total number of requests rejected due to the system not having AAA session handles available.

Field	Description
Misc. Reasons	The total number of requests rejected due to the system not being able to allocate the memory required for processing the request.
Create PDP Denied - Unknown PDP Addr or Type	
Invalid IP Address	The total number of requests rejected due to the receipt of an invalid IP address (i.e. 0.0.0.0) from the SGSN.
Conflict IP Address	The total number of requests rejected due to a conflict between the IP addresses provided by the MS and RADIUS servers.
Static Address Not Present	The total number of requests rejected due to the MS not having a static address when the system is configured with an IP address allocation method of static.
Static Address Not Allowed	The total number of requests rejected due to the system's IP address allocation method being configured for static, but the Create PDP Context Request message requests dynamic allocation.
Static IP Validation Failed	The total number of requests rejected due to the validation failure of the static IP address offered by the MS.
Local Pool Static Address Not Allowed	The total number of requests rejected due to the MS offering a static IP address that is not configured in a pool on the system.
DHCP IP Validation Failed	The total number of requests rejected due to the validation failure of the IP address allocated by DHCP.
DHCP Relay Static Address Not Allowed	The total number of requests rejected due to the IP address being present in the call but the system not being configured to accept statically assigned addresses for DHCP relay.
DHCP Client Static Address Not Allowed	The total number of requests rejected due to the IP address being present in the call but the system not being configured to accept statically assigned addresses for DHCP client.
PDP Type Mismatch or Unknown PDP Type	The total number of requests rejected due to an unknown PDP type or a PDP type that does not match with the one configured for the APN using the <b>pdp-type</b> command.
Create PDP Denied - Dynamic Address Occupied	
DHCP No IP Address Alloc	The total number of requests rejected due to a failure in DHCP IP address allocation.
DHCP Timer Notification	The total number of requests rejected due to an expiration of the system's DHCP timer prior to the receipt of a reply from the DHCP server resulting in a failure to allocate an IP address.
Local IP Validation Failed	The total number of requests rejected due to an IP address validation failure.
Local IP Pool All Address Occupied	The total number of requests that are occupied due to an IP address is occupied.
Create PDP Denied - System Failure Reasons	
Misc. Reasons	The total number of requests rejected due to miscellaneous reasons.
Create PDP Denied - Mandatory IE Incorrect	
NSAPI	The total number of requests rejected due to an invalid NSAPI.
Create PDP Denied - Optional IE Incorrect	
Private Extension	The total number of requests rejected due to incorrect optional information elements in the request such as private extensions.

Field	Description
Create PDP Discard Reasons	
No Session	The total number of requests discarded due to no session being found for the secondary context request.
No Memory	The total number of requests discarded due to no memory being available on the system to allocate for the request.
Malformed Message	The total number of requests discarded due to the request being poorly formed.
Invalid Ctrl TEID	The total number of requests discarded due to an invalid control TEID in the request.
Internal Bounce Error	The total number of requests discarded due to a bounce in an internal system message.
Misc. Reasons	The total number of requests discarded due to miscellaneous reasons.
Version Not Supported	The total number of requests discarded due to the request using an unsupported version.
Congestion Policy Applied	The system entered a state resulting in the invocation of a GGSN service “drop” congestion policy.
ICSR State Invalid	Indicates that the Create PDP request was denied because the interchassis session recovery state is invalid.
Update PDP Context Denied	
No Resources	The total number of “reject” Update PDP Context Response messages transmitted to the SGSN(s) sent with a cause code of 199 (C7H, No resources available).
No Memory	The total number of “reject” Update PDP Context Response messages transmitted to the SGSN(s) sent with a cause code of 212 (D4H, No memory is available).
System Failure	The total number of “reject” Update PDP Context Response messages transmitted to the SGSN(s) sent with a cause code of 204 (CCH, System failure).
Non-existent	The total number of “reject” Update PDP Context Response messages transmitted to the SGSN(s) sent with a cause code of 192 (C0H, Non-existent).
Unsupported Service	The total number of “reject” Update PDP Context Response messages transmitted to the SGSN(s) sent with a cause code of 200 (C8H, Service not supported).
Invalid Message Format	The total number of “reject” Update PDP Context Response messages transmitted to the SGSN(s) sent with a cause code of 193 (C1H, Invalid message format).
Semantic Error in TFT	The total number of “reject” Update PDP Context Response messages transmitted to the SGSN(s) sent with a cause code of 215 (D7H, Semantic error in the TFT operation).
Syntactic Error in TFT	The total number of “reject” Update PDP Context Response messages transmitted to the SGSN(s) sent with a cause code of 216 (D8H, Syntactic error in the TFT operation).
Semantic Error in Packet Filter	The total number of “reject” Update PDP Context Response messages transmitted to the SGSN(s) sent with a cause code of 217 (D9H, Semantic error in packet filter(s)).
Mandatory IE Incorrect	The total number of “reject” Update PDP Context Response messages transmitted to the SGSN(s) sent with a cause code of 201 (C9H, Mandatory IE incorrect).
Mandatory IE Missing	The total number of “reject” Update PDP Context Response messages transmitted to the SGSN(s) sent with a cause code of 202 (CAH, Mandatory IE missing).

Field	Description
Syntactic Error in Packet Filter	The total number of “reject” Update PDP Context Response messages transmitted to the SGSN(s) sent with a cause code of 218 (DAH, Syntactic error in packet filter(s)).
Optional IE Incorrect	The total number of “reject” Update PDP Context Response messages transmitted to the SGSN(s) sent with a cause code of 203 (CBH, Optional IE incorrect).
Update PDP Context Deny Received	
No Resources	The total number of “reject” Update PDP Context Response messages received from the SGSN(s) sent with a cause code of 199 (C7H, No resources available).
No Memory	The total number of “reject” Update PDP Context Response messages received from the SGSN(s) sent with a cause code of 212 (D4H, No memory is available).
System Failure	The total number of “reject” Update PDP Context Response messages received from the SGSN(s) sent with a cause code of 204 (CCH, System failure).
Non-existent	The total number of “reject” Update PDP Context Response messages received from the SGSN(s) sent with a cause code of 192 (C0H, Non-existent).
Unsupported Service	The total number of “reject” Update PDP Context Response messages received from the SGSN(s) sent with a cause code of 200 (C8H, Service not supported).
Invalid Message Format	The total number of “reject” Update PDP Context Response messages received from the SGSN(s) sent with a cause code of 193 (C1H, Invalid message format).
Semantic Error in TFT	The total number of “reject” Update PDP Context Response messages received from the SGSN(s) sent with a cause code of 215 (D7H, Semantic error in the TFT operation).
Syntactic Error in TFT	The total number of “reject” Update PDP Context Response messages received from the SGSN(s) sent with a cause code of 216 (D8H, Syntactic error in the TFT operation).
Semantic Error in Packet Filter	The total number of “reject” Update PDP Context Response messages received from the SGSN(s) sent with a cause code of 217 (D9H, Semantic error in packet filter(s)).
Mandatory IE Incorrect	The total number of “reject” Update PDP Context Response messages received from the SGSN(s) sent with a cause code of 201 (C9H, Mandatory IE incorrect).
Mandatory IE Missing	The total number of “reject” Update PDP Context Response messages received from the SGSN(s) sent with a cause code of 202 (CAH, Mandatory IE missing).
Syntactic Error in Packet Filter	The total number of “reject” Update PDP Context Response messages received from the SGSN(s) sent with a cause code of 218 (DAH, Syntactic error in packet filter(s)).
Optional IE Incorrect	The total number of “reject” Update PDP Context Response messages received from the SGSN(s) sent with a cause code of 203 (CBH, Optional IE incorrect).
Delete PDP Context Denied	
Mandatory IE Incorrect	The total number of “reject” Delete PDP Context Response messages transmitted to the SGSN(s) sent with a cause code of 201 (C9H, Mandatory IE incorrect).
Mandatory IE Missing	The total number of “reject” Delete PDP Context Response messages transmitted to the SGSN(s) sent with a cause code of 202 (CAH, Mandatory IE missing).
Optional IE Incorrect	The total number of “reject” Delete PDP Context Response messages transmitted to the SGSN(s) sent with a cause code of 203 (CBH, Optional IE incorrect).
Invalid Message Format	The total number of “reject” Delete PDP Context Response messages transmitted to the SGSN(s) sent with a cause code of 193 (C1H, Invalid message format).

Field	Description
Non-existent	The total number of “reject” Delete PDP Context Response messages transmitted to the SGSN(s) sent with a cause code of 192 (C0H, Non-existent).
Delete PDP Context Discard Reasons	
No Memory	The total number of “reject” Delete PDP Context Response messages received from the SGSN and discarded due to no memory being available to process the request.
Pacing Queue Exceeded	The total number of “reject” Delete PDP Context Response messages received from the SGSN and discarded due to there being too many requests pending in the Session Manager Task’s Pacing Queue.
Recovery Session Fail	The total number of “reject” Delete PDP Context Response messages received from the SGSN and discarded due to the recovery of a demux-manager resulting in its inability to queue the request for processing.
ICSR State Invalid	Indicates that the delete PDP request was denied because the interchassis session recovery state is invalid.
Delete PDP Context Deny Received	
Mandatory IE Incorrect	The total number of “reject” Delete PDP Context Response messages received from the SGSN(s) sent with a cause code of 201 (C9H, Mandatory IE incorrect).
Mandatory IE Missing	The total number of “reject” Delete PDP Context Response messages received from the SGSN(s) sent with a cause code of 202 (CAH, Mandatory IE missing).
Optional IE Incorrect	The total number of “reject” Delete PDP Context Response messages received from the SGSN(s) sent with a cause code of 203 (CBH, Optional IE incorrect).
Invalid Message Format	The total number of “reject” Delete PDP Context Response messages received from the SGSN(s) sent with a cause code of 193 (C1H, Invalid message format).
Non-existent	The total number of “reject” Delete PDP Context Response messages received from the SGSN(s) sent with a cause code of 192 (C0H, Non-existent).
Location Management Messages	
Send Routeing Info	The total number of Send Routeing Info Request messages sent by the GGSN to the SGSN(s).
Accepted	The total number of Send Routeing Info Request messages sent by the GGSN to the SGSN(s) that were accepted.
Denied	The total number of Send Routeing Info Request messages sent by the GGSN to the SGSN(s) that were denied.
Failure Report	The total number of Failure Report messages sent by the GGSN to the SGSN(s).
Accepted	The total number of Failure Report messages sent by the GGSN to the SGSN(s) that were accepted.
Denied	The total number of Failure Report messages sent by the GGSN to the SGSN(s) that were denied.
Note MS GPRS Present	The total number of Note to MS GPRS Present Request messages sent by the GGSN to the SGSN(s).
Accepted	The total number of Note to MS GPRS Present Request messages sent by the GGSN to the SGSN(s) that were accepted.

Field	Description
Denied	The total number of Note to MS GPRS Present Request messages sent by the GGSN to the SGSN(s) that were denied.
Discarded	The total number of Note to MS GPRS Present Request messages sent by the GGSN to the SGSN(s) that were discarded.
Send Routing Information Request Failure Causes	
No Resources Available	The total number of Note to Send Routeing Info Request messages sent by the GGSN to the SGSN(s) that were denied with a cause code of 199 (C7H, No resources available).
Service Not Supported	The total number of Note to Send Routeing Info Request messages sent by the GGSN to the SGSN(s) that were denied with a cause code of 200 (C8H, Service not supported).
System Failure	The total number of Note to Send Routeing Info Request messages sent by the GGSN to the SGSN(s) that were denied with a cause code of 204 (CCH, System failure).
Mandatory IE Incorrect	The total number of Note to Send Routeing Info Request messages sent by the GGSN to the SGSN(s) that were denied with a cause code of 201 (C9H, Mandatory IE incorrect).
Mandatory IE Missing	The total number of Note to Send Routeing Info Request messages sent by the GGSN to the SGSN(s) that were denied with a cause code of 202 (CAH, Mandatory IE missing).
Optional IE Incorrect	The total number of Note to Send Routeing Info Request messages sent by the GGSN to the SGSN(s) that were denied with a cause code of 203 (CBH, Optional IE incorrect).
Invalid Message Format	The total number of Note to Send Routeing Info Request messages sent by the GGSN to the SGSN(s) that were denied with a cause code of 193 (C1H, Invalid message format).
No Proxy Found	The total number of Note to Send Routeing Info Request messages sent by the GGSN to the SGSN(s) that were denied because no proxy MAP configuration was located for the NRPA procedure.
Proxy Not Reachable	The total number of Note to Send Routeing Info Request messages sent by the GGSN to the SGSN(s) that were denied because the configured MAP proxy is unreachable (i.e. not responding to SRI requests).
Send Routeing Information Failure MAP Causes	
Subscriber Absent	The total number of Send Routeing Info Request responses received with a failure MAP cause of subscriber absent.
System Failure	The total number of Send Routeing Info Request responses received with a failure MAP cause of system failure.
Data Missing	The total number of Send Routeing Info Request responses received with a failure MAP cause of data missing.
Unexpected Data	The total number of Send Routeing Info Request responses received with a failure MAP cause of unexpected data.
Unknown Subscriber	The total number of Send Routeing Info Request responses received with a failure MAP cause of unknown subscriber.
Facility Not Supported	The total number of Send Routeing Info Request responses received with a failure MAP cause of facility not supported.
Unauthorized Network	The total number of Send Routeing Info Request responses received with a failure MAP cause of unauthorized network.

Field	Description
PDU Notification Failure Causes	
Unsupported Service	The total number of PDU Notification responses received with a failure cause code of 200 (C8H, Service not supported).
System Failure	The total number of PDU Notification responses received with a failure cause code of 204 (CCH, System failure).
MS GPRS Detached	The total number of PDU Notification responses received with a failure cause code of 195 (C3H, MS is GPRS Detached).
GPRS Cnxn Suspended	The total number of PDU Notification responses received with a failure cause code of 207 (CFH, GPRS connection suspended).
Mandatory IE Incorrect	The total number of PDU Notification responses received with a failure cause code of 201 (C9H, Mandatory IE incorrect).
Mandatory IE Missing	The total number of PDU Notification responses received with a failure cause code of 202 (CAH, Mandatory IE incorrect).
Optional IE Incorrect	The total number of PDU Notification responses received with a failure cause code of 203 (CBH, Optional IE incorrect).
Invalid Message Format	The total number of PDU Notification responses received with a failure cause code of 193 (C1H, Invalid message format).
Unknown IMSI	The total number of PDU Notification responses received with a failure cause code of 194 (C2H, IMSI not known).
No Resources	The total number of PDU Notification responses received with a failure cause code of 199 (C7H, No resources available).
PDU Notification Reject Causes	
MS Not GPRS Responding	The total number of PDU Notification responses received with a reject cause code of 196 (C4H, MS is not GPRS Responding).
MS Refuses	The total number of PDU Notification responses received with a reject cause code of 197 (C5H, MS Refuses).
Mandatory IE Incorrect	The total number of PDU Notification responses received with a reject cause code of 201 (C9H, Mandatory IE incorrect).
Mandatory IE Missing	The total number of PDU Notification responses received with a reject cause code of 202 (CAH, Mandatory IE incorrect).
Optional IE Incorrect	The total number of PDU Notification responses received with a reject cause code of 203 (CBH, Optional IE incorrect).
Invalid Message Format	The total number of PDU Notification responses received with a reject cause code of 193 (C1H, Invalid message format).
Qos Traffic Class	
Conversational	
CPC QoS Accepted	The number of times Conversational Traffic Class QoS parameters received in Create PDP Context (CPC) Request messages were accepted.

Field	Description
CPC QoS Downgraded	The number of times Conversational Traffic Class QoS parameters received in Create PDP Context (CPC) Request messages were downgraded.
UPC QoS Accepted	The number of times Conversational Traffic Class QoS parameters received in Update PDP Context (UPC) Request messages were accepted.
UPC QoS Downgraded	The number of times Conversational Traffic Class QoS parameters received in Update PDP Context (UPC) Request messages were downgraded.
Streaming	
CPC QoS Accepted	The number of times Streaming Traffic Class QoS parameters received in Create PDP Context (CPC) Request messages were accepted.
CPC QoS Downgraded	The number of times Streaming Traffic Class QoS parameters received in Create PDP Context (CPC) Request messages were downgraded.
UPC QoS Accepted	The number of times Streaming Traffic Class QoS parameters received in Update PDP Context (UPC) Request messages were accepted.
UPC QoS Downgraded	The number of times Streaming Traffic Class QoS parameters received in Update PDP Context (UPC) Request messages were downgraded.
Interactive 1 through 3	
CPC QoS Accepted	The number of times Interactive (priority 1 through 3) Traffic Class QoS parameters received in Create PDP Context (CPC) Request messages were accepted.
CPC QoS Downgraded	The number of times Interactive (priority 1 through 3) Traffic Class QoS parameters received in Create PDP Context (CPC) Request messages were downgraded.
UPC QoS Accepted	The number of times Interactive (priority 1 through 3) Traffic Class QoS parameters received in Update PDP Context (UPC) Request messages were accepted.
UPC QoS Downgraded	The number of times Interactive (priority 1 through 3) Traffic Class QoS parameters received in Update PDP Context (UPC) Request messages were downgraded.
Background	
CPC QoS Accepted	The number of times Background Traffic Class QoS parameters received in Create PDP Context (CPC) Request messages were accepted.
CPC QoS Downgraded	The number of times Background Traffic Class QoS parameters received in Create PDP Context (CPC) Request messages were downgraded.
UPC QoS Accepted	The number of times Background Traffic Class QoS parameters received in Update PDP Context (UPC) Request messages were accepted.
UPC QoS Downgraded	The number of times Background Traffic Class QoS parameters received in Update PDP Context (UPC) Request messages were downgraded.
GTPU Receive	
Total Packets	The total number of GTPU packets received.
Total Bytes	The total number of GTPU bytes received.
GTPU Send	
Total Packets	The total number of GTPU packets transmitted.

```
■ show gtpc statistics verbose
```

Field	Description
Total Bytes	The total number of GTPU bytes transmitted.

# Chapter 71

## show gtp

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This chapter includes the **show gtp** command output tables.

## show gtp accounting servers

Table 195. show gtp accounting servers Command Output Descriptions

Field	Description
Context Name	The name of the system context in which the CGF is configured.
Primary Accounting server address	The IP address of the CGF.
port	The TCP port over which GTPP messaging is performed.
priority	The configured priority of the CGF.
State	The status of the CGF as Active or Inactive.
Group	The GTPP server group name in which this server is configured.

# show gtp counters all

Table 196. show gtp counters all Command Output Descriptions

Field	Description
Outstanding GCDRs	The current total number of G-CDRs sent to the CGF(s) for which no response was received.
Possibly Duplicate Outstanding GCDRs	The total number of G-CDRs sent to the CGF(s) with a packet transfer command of "Send Possibly Duplicated Data Record Packet"
Archived GCDRs	The current total number of G-CDRs achieved by CGF.
GCDRs buffered with AAAPROXY	The current total number of G-CDRs buffered by the system's AAA Proxy tasks.
GCDRs buffered with AAAMGR	The current total number of G-CDRs buffered by the system's AAA Manager tasks.
Outstanding MCDRs	The current total number of M-CDRs sent to the CGF(s) for which no response was received.
Possibly Duplicate Outstanding MCDRs	The total number of M-CDRs sent to the CGF(s) with a packet transfer command of "Send Possibly Duplicated Data Record Packet"
Archived MCDRs	The current total number of M-CDRs achieved by CGF.
MCDRs buffered with AAAPROXY	The current total number of M-CDRs buffered by the system's AAA Proxy tasks.
MCDRs buffered with AAAMGR	The current total number of M-CDRs buffered by the system's AAA Manager tasks.
Outstanding SCDRs	The current total number of S-CDRs sent to the CGF(s) for which no response was received.
Possibly Duplicate Outstanding SCDRs	The total number of S-CDRs sent to the CGF(s) with a packet transfer command of "Send Possibly Duplicated Data Record Packet"
Archived SCDRs	The current total number of S-CDRs achieved by CGF.
SCDRs buffered with AAAPROXY	The current total number of S-CDRs buffered by the system's AAA Proxy tasks.
SCDRs buffered with AAAMGR	The current total number of S-CDRs buffered by the system's AAA Manager tasks.
Outstanding S-SMO-CDRs	The current total number of S-SMO-CDRs sent to the CGF(s) for which no response was received.
Possibly Duplicate Outstanding S-SMO-CDRs	The total number of S-SMO-CDRs sent to the CGF(s) with a packet transfer command of "Send Possibly Duplicated Data Record Packet"
Archived S-SMO-CDRs	The current total number of S-SMO-CDRs achieved by CGF.
S-SMO-CDRs buffered with AAAPROXY	The current total number of S-SMO-CDRs buffered by the system's AAA Proxy tasks.
S-SMO-CDRs buffered with AAAMGR	The current total number of S-SMO-CDRs buffered by the system's AAA Manager tasks.

Field	Description
Outstanding S-SMT-CDRs	The current total number of S-SMT-CDRs sent to the CGF(s) for which no response was received.
Possibly Duplicate Outstanding S-SMT-CDRs	The total number of S-SMT-CDRs sent to the CGF(s) with a packet transfer command of "Send Possibly Duplicated Data Record Packet"
Archived S-SMT-CDRs	The current total number of S-SMT-CDRs achieved by CGF.
S-SMT-CDRs buffered with AAAPROXY	The current total number of S-SMT-CDRs buffered by the system's AAA Proxy tasks.
S-SMT-CDRs buffered with AAAMGR	The current total number of S-SMT-CDRs buffered by the system's AAA Manager tasks.
Outstanding GMBH CDRs	The current total number of GMBH CDRs sent to the CGF(s) for which no response was received.
Possibly Duplicate Outstanding GMBH CDRs	The total number of GMBH CDRs sent to the CGF(s) with a packet transfer command of "Send Possibly Duplicated Data Record Packet"
Archived GMBH CDRs	The current total number of GMBH CDRs achieved by CGF.
GMBH CDRs buffered with AAAPROXY	The current total number of GMBH CDRs buffered by the system's AAA Proxy tasks.
GMBH CDRs buffered with AAAMGR	The current total number of GMBH CDRs buffered by the system's AAA Manager tasks.
Outstanding SGW CDRs	The current total number of S-GW CDRs sent to the CGF(s) for which no response was received.
Possibly Duplicate Outstanding SGW CDRs	The total number of S-GW CDRs sent to the CGF(s) with a packet transfer command of "Send Possibly Duplicated Data Record Packet"
Archived SGW CDRs	The current total number of S-GW CDRs achieved by CGF.
SGW CDRs buffered with AAAPROXY	The current total number of S-GW CDRs buffered by the system's AAA Proxy tasks.
SGW CDRs buffered with AAAMGR	The current total number of S-GW CDRs buffered by the system's AAA Manager tasks.
Outstanding SMBMS CDRs	The current total number of SMBMS CDRs sent to the CGF(s) for which no response was received.
Possibly Duplicate Outstanding SMBMS CDRs	The total number of SMBMS CDRs sent to the CGF(s) with a packet transfer command of "Send Possibly Duplicated Data Record Packet"
Archived SMBMS CDRs	The current total number of SMBMS CDRs achieved by CGF.
SMBMS CDRs buffered with AAAPROXY	The current total number of SMBMS CDRs buffered by the system's AAA Proxy tasks.
SMBMS CDRs buffered with AAAMGR	The current total number of SMBMS CDRs buffered by the system's AAA Manager tasks.

## show gtp group

Table 197. *show gtp group* Command Output Descriptions

Field	Description
Group name	The GTPP server group name.
Context	The context name of the configured GTPP group.
CDR timeout	Indicates the configured timeout duration in seconds for CDRs.
CDR max-retries	Indicates the configured maximum retries for CDR.
ECHO timeout	Indicates the configured timeout duration in seconds for ECHO message.
ECHO max-retries	Indicates the configured maximum retries for ECHO message.
Dead time	Indicates the dead time for specific GTPP group.
Detect-dead-server consecutive-failures	Indicates the total consecutive failure of dead server detection probe.
Duplicate-hold-time minutes	Configured time in minutes to hold duplicate CDRs.
Redirection allowed	Indicates whether redirection is allowed or not.
Source-port-validation	Indicates whether source port validation is enabled or not.
Charging-agent address	Indicates the IP address of configured charging agent.
Charging-agent port	Indicates the port number of configured charging agent.
Max CDR size	Indicates the maximum CDR size allowed in bytes.
Max CDRs in msg	Indicates the maximum CDRs allowed in a message.
Max CDRs wait-time	Indicates the maximum wait/live time allowed for CDRs.
Dictionary	Indicates the applicable GTPP dictionary for CDR encoding.
Data-req start seq-num	Indicates the starting sequence number of data request message.
Storage Server	This group indicates the storage server information if CDR storage mode is remote. This counter is applicable for the ASR 5000 only.
Mode	Indicates the mode of the CDR storage. Possible modes are: <ul style="list-style-type: none"> <li>• Local: CDRs stored on local HDD on SMC card.</li> <li>• Remote: CDRs stored on remote GSS server.</li> </ul> This counter is applicable for the ASR 5000 only.
Storage-server address	Indicates the configured GTPP storage server IP address.
Storage-server port	Indicates the port number of configured GTPP storage server.
Storage-server timeout	indicates the timeout in seconds configured for GTPP storage server.

Field	Description
Storage-server max-retries	Indicates the maximum retries configured for the GSS messages.
Local Storage	This group indicates the storage server information, if CDR storage mode is local. This counter group is applicable for the ASR 5000 only.
File rotation volume-limit	Indicates the volume of CDR file in MB after which CDR file rotation will happen. This counter group is applicable for the ASR 5000 only.
File rotation CDR-count	Indicates the number of CDRs to include in a CDR file after which CDR file rotation will happen. This counter group is applicable for the ASR 5000 only.
File rotation time-interval	Indicates the time duration in seconds after after which CDR file rotation will happen. This counter group is applicable for the ASR 5000 only.
File compression	Indicates the whether file compression is configured or not on CDR files. This counter group is applicable for the ASR 5000 only.
File format	Indicates the format name of file to store CDRs in specified format in CDR file. This counter group is applicable for the ASR 5000 only.
Purge-processed-files	Indicates the configuration of purge interval duration of processed files. This is an optional setting and can be configured with <b>purge-interval</b> <i>purge_dur</i> keyword with <b>gtp storage-server local file purge-processed-files</b> command in GTPP Group Configuration Mode.
Attributes	
Diagnostics present	Indicates whether diagnostic attribute is present or not.
MSISDN present	Indicates whether MSISDN attribute is present or not.
IMEI present	Indicates whether IMEI attribute is present or not.
RAT present	Indicates whether RAT attribute is present or not.
Duration in milliseconds	Indicates the configured duration in ms.
PLMN-id present	Indicates whether public land mobile network identifier attribute is present or not.
PLMN-id unknown-use	Indicates whether a public land mobile network identifier which is of unknown use present or not.
Local-rec-seq-num present	Indicates whether local record sequence number attribute is present or not.
Node-id suffix	Indicates server node id present in attribute or not.
Cell-plmn-id	Indicates whether cell public land mobile network identifier attribute is present or not.
Sms	Indicates the SMS attribute information.
Recording entity	Indicates the whether SMS recording entity present in attribute or not.
Service centre	Indicates the whether SMS service center information present in attribute or not.
Destination number	Indicates the whether destination number for SMS present in attribute or not.
Record extensions:	Indicates the information for record extensions

Field	Description
Rat	Indicates whether radio access type information present in record extension attributes or not.
Triggers	
Volume-limit	Indicates the status of configured volume limit trigger. Possible status are: <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
Time-limit	Indicates the status of configured time limit trigger. Possible status are: <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
Tariff-time-change	Indicates the status of configured trigger for tariff time change. Possible status are: <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
SGSN-change-limit	Indicates the status of configured trigger for SGSN change limit. Possible status are: <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
Intra-SGSN-group-change	Indicates the status of configured trigger for intra-SGSN group change. Possible status are: <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
Inter-plmn-sgsn-change	Indicates the status of configured trigger for SGSN change between PLMN. Possible status are: <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
Egcdr-max-losdv-limit	Indicates the status of configured trigger for maximum list of service data volume (LoSDV) limit for eG-CDRs. Possible status are: <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
Qos-change	Indicates the status of configured trigger for QoS change. Possible status are: <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
RAT-change	Indicates the status of configured trigger for RAT change. Possible status are: <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
MS-timezone-change	Indicates the status of configured trigger for change in time zone of MS. Possible status are: <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>

Field	Description
Routing-area-update	Indicates the status of configured trigger for update in routing area. Possible status are: <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
Direct-tunnel	Indicates the status of configured trigger for direct tunnel. Possible status are: <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
Mbms config	Specifies the MBMS configuration information.
Buckets	Indicates the total number of data buckets configured for MBMS service.
Interval	Indicates the interval duration configured for MBMS service.
Volume	Indicates the data volume configured for MBMS service.
Tarif:	Specifies the tariff configuration for MBMS service.
Time1	Indicates the tariff configuration for time slot 1 in MBMS service.
Time2	Indicates the tariff configuration for time slot 2 in MBMS service.
Time3	Indicates the tariff configuration for time slot 3 in MBMS service.
Time4	Indicates the tariff configuration for time slot 4 in MBMS service.
EGCDR	Specifies the configuration for eG-CDRs.
Lotdv-max-containers	Indicates the maximum number of containers configured for list of traffic data volume (LoTDV) for eG-CDRs.
Losdv-max-containers	Indicates the maximum number of containers configured for list of service data volume (LoSDV) for eG-CDRs.
Service-idle-timeout	Indicates the idle timeout duration configured in seconds for service for eG-CDRs.
Service-interval	Indicates whether interval duration configured in seconds to retry for eG-CDRs.
Service-uplink	Indicates the total bytes uplinked for service in eG-CDRs.
Service-downlink	Indicates the total bytes downlinked for service in eG-CDRs.
Service-total	Indicates the total bytes in traffic (uplinked+ downlinked) for service in eG-CDRs.
Closing-cause-unique	Indicates whether any unique closing cause set for eG-CDR closing.
Include-all-losdvs	Indicates whether eG-CDR configured to include all LoSDV.
Delete-service-thresholds	indicates the configured threshold in eG-CDR to delete the service.

## show gtp statistics

Table 198. *show gtp statistics* Command Output Descriptions

Field	Description
<b>Accumulated Statistics</b>	
Start Collection Req	Total number of Start Collection requests.
Normal Release Req	Total number of Normal Release requests.
Management Intervention Req	Total number of Management Intervention requests.
Abnormal Release Req	Total number of Abnormal Release requests.
Time Limit Req	Total number of Time Limit requests.
Volume Limit Req	Total number of Volume Limit requests.
SGSN Change Req	Total number of SGSN Change requests.
Maximum Change Condition Req	Total number of Maximum Change Condition requests.
RAT Change Req	Total number of RAT Change requests.
MS Time Zone Change Req	Total number of MS Time Zone Change requests.
List of Down Stream Node Change	List of down-stream node change.
Intra SGSN Intersystem Change Req	Total number of Intra SGSN Intersystem Change requests.
FOCS/ODB ACL Violation Req	Indicates the total number of FOCS enabled sessions closed due to ACL rule violation recieved for FOCS and/or ODB.
Inactivity Timeout (FOCS enabled):	Indicates the total number of FOCS enabled sessions closed due to inactivity timeout.
Total G-CDR transmission	Total number of G-CDR transmissions.
Total S-CDR transmission	Total number of S-CDR transmissions.
Total M-CDR transmission	Total number of M-CDR transmissions.
Total S-SMO-CDR transmission	Total number of S-SMO-CDR transmissions.
Total S-SMT-CDR transmission	Total number of S-SMT-CDR transmissions.
Total G-MB-CDR transmission	Total number of G-MB-CDR transmissions.
Total G-CDR retransmission	Total number of G-CDR retransmissions.
Total S-CDR retransmission	Total number of S-CDR retransmissions.
Total M-CDR retransmission	Total number of M-CDR retransmissions.
Total S-SMO-CDR retransmission	Total number of S-SMO-CDR retransmissions.

Field	Description
Total S-SMT-CDR retransmission	Total number of S-SMT-CDR retransmissions.
Total G-MB-CDR retransmission	Total number of G-MB-CDR retransmissions.
Total G-CDR accepted	Total number of G-CDR accepted.
Total S-CDR accepted	Total number of S-CDR accepted.
Total M-CDR accepted	Total number of M-CDR accepted.
Total S-SMO-CDR accepted	Total number of S-SMO-CDR accepted.
Total S-SMT-CDR accepted	Total number of S-SMT-CDR accepted.
Total G-MB-CDR accepted	Total number of G-MB-CDR accepted.
Total G-CDR transmission failures	Total number of G-CDR transmission failures.
Total S-CDR transmission failures	Total number of S-CDR transmission failures.
Total M-CDR transmission failures	Total number of M-CDR transmission failures.
Total S-SMO-CDR transmission failures	Total number of S-SMO-CDR transmission failures.
Total S-SMT-CDR transmission failures	Total number of S-SMT-CDR transmission failures.
Total G-MB-CDR transmission failures	Total number of G-MB-CDR transmission failures.
G-CDR transmission failure percent	G-CDR transmission failure percentage.
S-CDR transmission failure percent	S-CDR transmission failure percentage.
M-CDR transmission failure percent	M-CDR transmission failure percentage.
S-SMO-CDR transmission failure percent	S-SMO-CDR transmission failure percentage.
S-SMT-CDR transmission failure percent	S-SMT-CDR transmission failure percentage.
G-MB-CDR transmission failure percent	G-MB-CDR transmission failure percentage.
<b>Charging Characteristics Statistics</b>	
Hot	The charging characteristic setting.
Normal	The charging characteristic setting.
Prepaid	The charging characteristic setting.
Flat	The charging characteristic setting.
Unknown	The charging characteristic setting.

Field	Description
<b>CGF Specific Statistics</b>	
<b>Data Record Transfer Requests Sent</b>	
<p>When the primary CGF goes down, all outstanding requests with the primary CGF are marked as Possibly Duplicate and sent to the secondary CGF. This is because of the uncertainty as to whether the primary CGF processed the requests or not. So the seq-numbers (for primary CGF) for these requests are stored.</p> <p>When the primary CGF comes back again, an Empty DRT with the stored seq-numbers is sent to the primary CGF. The CGF can reply either REQ_ALREADY_FULFILLED (primary CGF processed the request. Cancel request is sent to the secondary CGF to delete the request) or REQUEST_ACCEPTED (primary CGF has not got this request before. Release request is sent to secondary to store the request).</p>	
Send	Total number of DRT requests sent.
Possibly Duplicate	Total number of possibly duplicate DRT requests sent.
Cancel	Total number of cancel DRT requests sent.
Release	Total number of release DRT requests sent.
Empty	Total number of empty DRT requests sent.
<b>Data Record Transfer Requests Retried</b>	
Send	Total number of DRT request retried.
Possibly Duplicate	Total number of DRT requests marked possibly duplicate retried.
Cancel	Total number of cancel DRT requests retried.
Release	Total number of release DRT requests retried.
Empty	Total number of empty DRT requests retried.
<b>Data Record Transfer Requests Success</b>	
Send	Total number of DRT requests sent successfully.
Possibly Duplicate	Total number of DRT requests marked possibly duplicate sent successfully.
Cancel	Total number of canceled DRT requests sent successfully.
Release	Total number of release DRT requests sent successfully.
Empty	Total number of empty DRT requests sent successfully.
<b>Data Record Transfer Response Cause</b>	
Accepted	Total number of DRT response messages with cause as "accepted".
Not Fulfilled	Total number of DRT response messages with cause as "not fulfilled".
Already Fulfilled	Total number of DRT response messages with cause as "already fulfilled".
Dup Already Fulfilled	Total number of DRT response messages with cause as "duplicate already fulfilled".
Invalid Msg Format	Total number of DRT response messages with cause as "invalid message format".
Mandatory IE Missing	Total number of DRT response messages with cause as "mandatory IE missing".
Service not supported	Total number of DRT response messages with cause as "service not supported".
Version not supported	Total number of DRT response messages with cause as "version not supported".

Field	Description
Mandatory IE incorrect	Total number of DRT response messages with cause as “mandatory IE incorrect”.
Optional IE incorrect	Total number of DRT response messages with cause as “optional IE incorrect”.
No Resources	Total number of DRT response messages with cause as “no resources”.
System Failure	Total number of DRT response messages with cause as “system failure”.
CDR Decode Error	Total number of DRT response messages with cause as “CDR decode error”.
Seq No incorrect	Total number of DRT response messages with cause as “sequence number incorrect”.
Unknown Cause	Total number of DRT response messages with unknown cause.
<b>GTP Echo Messages</b>	
Echo Req Sent	Total number of echo request messages sent.
Echo Req Rcvd	Total number of echo request messages received.
Echo Rsp Rcvd	Total number of echo response messages received.
Echo Rsp Sent	Total number of echo response messages sent.
<b>Redirection Req/Rsp Messages</b>	
Redirection Req Rcvd	Total number of redirection request messages received.
Redirection Rsp Sent	Total number of redirection response messages sent.
<b>Redirection Request Cause</b>	
Trans Buffer full	Total number of redirection requests with cause code as “transmit buffers are full”.
Recv Buffer Full	Total number of redirection requests with cause code as “receive buffers are full”.
Other Node Down	Total number of redirection requests with cause code as “other node is about to go down”.
Self Node down	Total number of redirection requests with cause code as “this node is about to go down”.
System Failure	Total number of redirection requests with cause code as “system failure”.
<b>Redirection Response Cause</b>	
Accepted	Total number of redirection responses with cause code as “accepted”.
Service Not Supported	Total number of redirection responses with cause code as “service not supported”.
System Failure	Total number of redirection responses with cause code as “system failure”.
Mandatory IE Incorrect	Total number of redirection responses with cause code as “mandatory IE incorrect”.
Mandatory IE Missing	Total number of redirection responses with cause code as “mandatory IE missing”.
Optional IE incorrect	Total number of redirection responses with cause code as “optional IE incorrect”.
Invalid Msg Format	Total number of redirection responses with cause code as “invalid message format”.
Version Not Supported	Total number of redirection responses with cause code as “version not supported”.
No Resources	Total number of redirection responses with cause code as “no resources”.
<b>Node Alive Req/Rsp Messages</b>	

Field	Description
Node Alive Req Rcvd	Total number of node alive request messages received.
Node Alive Req Sent	Total number of node alive request messages sent.
Node Alive Rsp Sent	Total number of node alive response messages sent.
Node Alive Rsp Rcvd	Total number of node alive response messages received.
<b>Invalid messages received</b>	
Invalid Sequence Number	Total number of messages with invalid sequence number received.
Unknown CGF	Total number of messages received with unknown CGF.
Unknown Msg type	Total number of messages received with unknown message type.
<b>Round Trip Time</b>	
Last DRT Round Trip Time	Time taken for the last DRT round trip.
Average DRT Round Trip Time	Average time taken for DRT round trip.

## show gtp statistics cgf-address

Table 199. show gtp statistics cgf-address Command Output Descriptions

Field	Description
Accumulated Statistics	
Start Collection Req	The total number of accounting start requests generated. <b>NOTE:</b> These requests are not sent to CGF. The requests are just a system record that accounting for a session has started and in future releases may be required to be sent to CGF.
Normal Release Req	The total number of requests generated because of normal PDP context deletion (i.e. PDP context deletion initiated by SGSN or GGSN).
Management Intervention Req	The total number of requests generated because of management intervention (request due to O&M reasons, e.g. clear subscribers all)
Abnormal Release Req	The total number of requests generated because of abnormal termination of session (e.g. Session Manager failure results in abnormal release of PDP contexts active for that Session Manager).
Time Limit Req	The number of interim requests generated because of the time limit being reached. The time limit is configured using the <b>cc profile</b> command in the GGSN service configuration mode.
Volume Limit Req	The number of interim requests generated because of volume limit being reached. The volume limit is configured using <b>cc profile</b> command in the GGSN service configuration mode.
SGSN Change Req	The number of interim requests generated because of the number of inter SGSN switch-overs reaching the configured limit or because of an SGSN switchover resulting in a new RAI (Routing Area Identity). The maximum number of SGSN changes is configured using the <b>cc profile</b> command in the GGSN service configuration mode.
Maximum Change Condition Req	The number of interim requests generated because of the "List of traffic Volume" Containers reaching the configured limit. This value is configured using the <b>cc profile</b> command in the GGSN service configuration mode.
Total G-CDR transmission	The total number of GTPP Requests sent to the CGF. <b>NOTE:</b> This counter does not include requests re-transmitted to the CGF.
Total G-CDR retransmission	The total number of GTPP Requests retransmitted to the CGF. <b>NOTE:</b> This counter does not include the requests that were originally transmitted to the CGF.
Total G-CDR accepted	The total number of G-CDRs accepted by the CGF.
Total G-CDR transmission failures	The total number of GTPP Requests that were not responded to by CGFs. <b>NOTE:</b> This statistic is not displayed if the <code>cgf_address</code> optional keyword is used.
G-CDR transmission failure percent	The failure percentage of DRT requests. This is calculated as (Total G-CDR Trans failures/(Total GCDR Trans Failures + Total G-CDR accepted) *100).
Charging Characteristics Statistics	
Hot	The number of times that PDP Context Requests were processed with a charging characteristic profile index value of "1", representing "hot" billing.

Field	Description
Normal	The number of times that PDP Context Requests were processed with a charging characteristic profile index value of "8", representing "normal" billing.
Prepaid	The number of times that PDP Context Requests were processed with a charging characteristic profile index value of "4", representing "prepaid billing".
Flat	The number of times that PDP Context Requests were processed with a charging characteristic profile index value of "2", representing "flat-rate" billing.
Unknown	The number of times that PDP Context Requests were processed with an unknown charging characteristic profile index value.
CGF Specific Statistics	
Data Record Transfer Requests Sent	
Send	The total number of "Data Record Transfer Requests" sent with the Packet transfer command "Send Data Record Packet". <b>NOTE:</b> This counter counts "Send Data Record Packet" with length more than 0.
Possibly Duplicate	The total number of "Data Record Transfer Requests" sent with the Packet transfer command "Send possibly duplicated Data Record Packet".
Cancel	The total number of "Data Record Transfer Requests" sent with the Packet transfer command "Cancel Data Record Packet".
Release	The total number of "Data Record Transfer Requests" sent with the Packet transfer command "Release Data Record Packet".
Empty	The total number of "Data Record Transfer Requests" sent with the Packet transfer command "Send Data Record Packet". <b>NOTE:</b> This counter counts "Send Data Record Packet" with length equal to 0.
Data Record Transfer Requests Retried	
Send	The total number of re-transmitted "Data Record Transfer Requests" sent with the Packet transfer command "Send Data Record Packet". <b>NOTE:</b> This counter counts "Send Data Record Packet" with length more than 0.
Possibly Duplicate	The total number of re-transmitted "Data Record Transfer Requests" sent with the Packet transfer command "Send possibly duplicated Data Record Packet".
Cancel	The total number of re-transmitted "Data Record Transfer Requests" sent with the Packet transfer command "Cancel Data Record Packet".
Release	The total number of re-transmitted "Data Record Transfer Requests" sent with the Packet transfer command "Release Data Record Packet".
Empty	The total number of re-transmitted "Data Record Transfer Requests" sent with the Packet transfer command "Send Data Record Packet". <b>NOTE:</b> This counter counts "Send Data Record Packet" with length equal to 0.
Data Record Transfer Requests Success	
Send	The total number of "Data Record Transfer Requests" sent with the Packet transfer command "Send Data Record Packet" for which a response from the CGF was received. <b>NOTE:</b> This counter counts "Send Data Record Packet" with length more than 0.

Field	Description
Possibly Duplicate	The total number of "Data Record Transfer Requests" sent with the Packet transfer command "Send possibly duplicated Data Record Packet" for which a response from the CGF was received.
Cancel	The total number of "Data Record Transfer Requests" sent with the Packet transfer command "Cancel Data Record Packet" for which a response from the CGF was received.
Release	The total number of "Data Record Transfer Requests" sent with the Packet transfer command "Release Data Record Packet" for which a response from the CGF was received.
Empty	The total number of "Data Record Transfer Requests" sent with the Packet transfer command "Send Data Record Packet" for which a response from the CGF was received. <b>NOTE:</b> This counter counts "Send Data Record Packet" with length equal to 0.
Data Record Transfer Response Cause	
Accepted	The total number of Data Record Transfer Response messages received from the CGF that indicated a cause code of 128 (80H, Request accepted).
Not Fulfilled	The total number of Data Record Transfer Response messages received from the CGF that indicated a cause code of 255 (FFH, Request not fulfilled).
Already Fulfilled	The total number of Data Record Transfer Response messages received from the CGF that indicated a cause code of 253 (FDH, Request already fulfilled).
Dup Already Fulfilled	The total number of Data Record Transfer Response messages received from the CGF that indicated a cause code of 252 (FCH, Request related to possibly duplicated packets already fulfilled).
Invalid Msg Format	The total number of Data Record Transfer Response messages received from the CGF that indicated a cause code of 193 (C1H, Invalid message format).
Mandatory IE Missing	The total number of Data Record Transfer Response messages received from the CGF that indicated a cause code of 202 (CAH, Mandatory IE missing).
Service not supported	The total number of Data Record Transfer Response messages received from the CGF that indicated a cause code of 200 (C8H, Service not supported).
Version not supported	The total number of Data Record Transfer Response messages received from the CGF that indicated a cause code of 198 (C6, Version not supported).
Mandatory IE incorrect	The total number of Data Record Transfer Response messages received from the CGF that indicated a cause code of 201 (C9H, Mandatory IE incorrect).
Optional IE incorrect	The total number of Data Record Transfer Response messages received from the CGF that indicated a cause code of 203 (CBH, Optional IE incorrect).
No Resources	The total number of Data Record Transfer Response messages received from the CGF that indicated a cause code of 199 (C7H, No resources available).
System Failure	The total number of Data Record Transfer Response messages received from the CGF that indicated a cause code of 204 (CCH, System failure).
CDR Decode Error	The total number of Data Record Transfer Response messages received from the CGF that indicated a cause code of 177. The cause value "CDR decoding error" is primarily intended to inform the CDR generating node that the receiving node can not decode the CDR.
Seq No incorrect	The total number of Data Record Transfer Response messages received from the CGF that indicated a cause code of 254.

Field	Description
Unknown Cause	The total number of Data Record Transfer Response messages received from the CGF that indicated a cause code which is other than mentioned above.
GTP Echo Messages	
Echo Req Sent	The total number of Echo Request messages transmitted to the CGF.
Echo Req Rcvd	The total number of Echo Request messages received from the CGF.
Echo Rsp Rcvd	The total number of Echo Response messages received from the CGF.
Echo Rsp Sent	The total number of Echo Response messages transmitted to the CGF.
Redirection Req/Rsp Messages	
Redirection Req Rcvd	The total number of Redirection Request messages received from the CGF.
Redirection Rsp Sent	The total number of Redirection Response messages transmitted to the CGF.
Redirection Request Cause	
Trans Buffer full	The total number of Redirection Request messages received from the CGF(s) containing a cause information element of 60 (3CH, The transmit buffers are becoming full).
Recv Buffer Full	The total number of Redirection Request messages received from the CGF(s) containing a cause information element of 61 (3DH, The receive buffers are becoming full).
Other Node Down	The total number of Redirection Request messages received from the CGF(s) containing a cause information element of 62 (3EH, Another node is about to go down).
Self Node down	The total number of Redirection Request messages received from the CGF(s) containing a cause information element of 63 (3FH, This node is about to go down).
System Failure	The total number of Redirection Request messages received from the CGF(s) containing a cause information element of 59 (3BH, System failure).
Redirection Response Cause	
Accepted	The total number of Redirection Response messages transmitted to the CGF(s) containing a cause information element of 128 (80H, Request accepted).
Service Not Supported	The total number of Redirection Response messages transmitted to the CGF(s) containing a cause information element of 200 (C8H, Service not supported).
System Failure	The total number of Redirection Response messages transmitted to the CGF(s) containing a cause information element of 204 (CCH, System failure).
Mandatory IE Incorrect	The total number of Redirection Response messages transmitted to the CGF(s) containing a cause information element of 201 (C9H, Mandatory IE incorrect).
Mandatory IE Missing	The total number of Redirection Response messages transmitted to the CGF(s) containing a cause information element of 202 (CAH, Mandatory IE missing).
Optional IE incorrect	The total number of Redirection Response messages transmitted to the CGF(s) containing a cause information element of 203 (CBH, Optional IE incorrect).
Invalid Msg Format	The total number of Redirection Response messages transmitted to the CGF(s) containing a cause information element of 193 (C1H, Invalid message format).

Field	Description
Version Not Supported	The total number of Redirection Response messages transmitted to the CGF(s) containing a cause information element of 198 (C6H, Version not supported).
No Resources	The total number of Redirection Response messages transmitted to the CGF(s) containing a cause information element of 199 (C7H, No resources available).
Node Alive Req/Rsp Messages	
Node Alive Req Rcvd	The total number of Node Alive Request messages received.
Node Alive Rsp Sent	The total number of Node Alive Response messages transmitted.
Node Alive Req Sent	The total number of Node Alive Request messages sent.
Node Alive Rsp Rcvd	The total number of Node Alive Response messages received.
Invalid messages received	
Invalid Sequence Number	The total number of requests received from a pre-configured CGF, with sequence number that is not in the system's buffers.
Round Trip Time	This section shows average latency on Ga/Gz interface per CGF.
Last DRT Round Trip Time	Total time taken in milliseconds for round trip of previous data record transfer message.
Average DRT Round Trip Time	Average time taken in milliseconds for round trip of all data record transfer messages.

## show gtp storage-server statistics

Table 200. *show gtp storage-server statistics* Command Output Descriptions

Field	Description
Store Requests (GTPP Requests)	
Sent	The total number of GTPP Requests Messages sent by AAAProxy to GSS for storage. Each GTPP Request corresponds to one Store request to GSS. Therefore, each store request may contain one or more GCDR.
Retried	The total number of GTPP Requests Messages re-sent by AAAProxy to GSS for storage.
Success	The total number of GTPP Requests Messages successfully sent by AAAProxy to GSS for storage.
Failed	The total number of GTPP Requests Messages that failed to be sent by AAAProxy to GSS for storage.
Store Requests (GCDRs)	
Sent	The total number of G-CDRs in the GTPP Requests sent for "store".
Retried	The total number of G-CDRs in the GTPP Requests re-sent for "store".
Success	The total number of G-CDRs in the GTPP Requests successfully sent for "store".
Failed	The total number of G-CDRs in the GTPP Requests that failed to be sent for "store".
Store Requests (MCDRs)	
Sent	The total number of M-CDRs in the GTPP Requests sent for "store".
Retried	The total number of M-CDRs in the GTPP Requests re-sent for "store".
Success	The total number of M-CDRs in the GTPP Requests successfully sent for "store".
Failed	The total number of M-CDRs in the GTPP Requests that failed to be sent for "store".
Store Requests (SCDRs)	
Sent	The total number of S-CDRs in the GTPP Requests sent for "store".
Retried	The total number of S-CDRs in the GTPP Requests re-sent for "store".
Success	The total number of S-CDRs in the GTPP Requests successfully sent for "store".
Failed	The total number of S-CDRs in the GTPP Requests that failed to be sent for "store".
Store Requests (S-SMO-CDRs)	
Sent	The total number of S-SMO-CDRs in the GTPP Requests sent for "store".
Retried	The total number of S-SMO-CDRs in the GTPP Requests re-sent for "store".
Success	The total number of S-SMO-CDRs in the GTPP Requests successfully sent for "store".
Failed	The total number of S-SMO-CDRs in the GTPP Requests that failed to be sent for "store".
Store Requests (S-SMT-CDRs)	

Field	Description
Sent	The total number of S-SMT-CDRs in the GTPP Requests sent for "store".
Retried	The total number of S-SMT-CDRs in the GTPP Requests re-sent for "store".
Success	The total number of S-SMT-CDRs in the GTPP Requests successfully sent for "store".
Failed	The total number of S-SMT-CDRs in the GTPP Requests that failed to be sent for "store".
Store Requests(GMBMSCDRs)	
Sent	The total number of GMBMS CDRs in the GTPP Requests sent for "store".
Retried	The total number of GMBMS CDRs in the GTPP Requests re-sent for "store".
Success	The total number of GMBMS CDRs in the GTPP Requests successfully sent for "store".
Failed	The total number of GMBMS CDRs in the GTPP Requests that failed to be sent for "store".
Store Requests(SMBMSCDRs)	
Sent	The total number of SMBMS CDRs in the GTPP Requests sent for "store".
Retried	The total number of SMBMS CDRs in the GTPP Requests re-sent for "store".
Success	The total number of SMBMS CDRs in the GTPP Requests successfully sent for "store".
Failed	The total number of SMBMS CDRs in the GTPP Requests that failed to be sent for "store".
Store Requests(SGWCDRs)	
Sent	The total number of S-GW CDRs in the GTPP Requests sent for "store".
Retried	The total number of S-GW CDRs in the GTPP Requests re-sent for "store".
Success	The total number of S-GW CDRs in the GTPP Requests successfully sent for "store".
Failed	The total number of S-GW CDRs in the GTPP Requests that failed to be sent for "store".
AAAProxy Recover Requests	
Sent	The total number of AAA Proxy Recover Requests sent by the AAA Proxy to the GSS. These requests are sent when the AAA Proxy is restarted after an outage.
Retried	The total number of AAA Proxy Recover Requests re-sent by the AAA Proxy to the GSS.
Success	The total number of AAA Proxy Recover Requests successfully sent by the AAA Proxy to the GSS.
Failed	The total number of AAA Proxy Recover Requests that failed to be sent by the AAA Proxy to the GSS.
Get Next Requests	
Sent	The total number of Get Next requests sent by the AAA Proxy to the GSS. The AAA Proxy maintains a limited buffer. When the buffer gets filled because of a delay in the CGF response, the AAA proxy starts sending the request to the GSS. To get these requests from the GSS, the AAA Proxy sends Get Next Requests to the GSS.
Retried	The total number of Get Next requests re-sent by the AAA Proxy to the GSS.
Success	The total number of Get Next requests successfully sent by the AAA Proxy to the GSS.
Failed	The total number of Get Next requests that failed to be sent by the AAA Proxy to the GSS.

Field	Description
Update CGF Requests	
Sent	The total number of requests sent by the AAA Proxy to the GSS to indicate a change in the status of the CGFs (i.e. from up to down or vice versa).
Retried	The total number of requests re-sent by the AAA Proxy to the GSS to indicate a change in the status of the CGFs
Success	The total number of requests successfully sent by the AAA Proxy to the GSS to indicate a change in the status of the CGFs
Failed	The total number of requests that failed to be sent by the AAA Proxy to the GSS to indicate a change in the status of the CGFs
AAAMgr Recover Requests	
Sent	The total number of AAAMGR Recovery Requests sent by the system to the GSS. These requests are sent when a AAA Mgr software task is restarted after an outage.
Retried	The total number of AAAMGR Recovery Requests re-sent by the system to the GSS.
Success	The total number of AAAMGR Recovery Requests successfully sent by the system to the GSS.
Failed	The total number of AAAMGR Recovery Requests that failed to be sent by the system to the GSS.
Clear DataBase Requests	
Sent	The total number of Clear Database Requests sent by the AAA Proxy to the GSS. These requests are sent after the AAA Proxy discovers that the GSS has come up again after a period of dormancy (i.e. the GSS moves from "down" to "up" state) so as to bring the GSS in sync with the state that the AAA Proxy is in.
Retried	The total number of Clear Database Requests re-sent by the AAA Proxy to the GSS.
Success	The total number of Clear Database Requests successfully sent by the AAA Proxy to the GSS.
Failed	The total number of Clear Database Requests that failed to be sent by the AAA Proxy to the GSS.
GCDR Purge Requests	
Received	The total number of G-CDR Purge Request messages received by the storage server. This request is sent by the GSS notifying the AAA Proxy of the purging of GTPP Requests due to buffer overflow.
Responded	The total number of responses sent from the AAA Proxy to the GSS in response to "purge Requests".
Generated File Requests	
Received	The total number of Generate File Request messages received by the storage server. This request is sent by the GSS notifying the AAA Proxy of the generation of unAcked files. The GTPP Requests purged by the GSS as a result of buffer overflow are moved to a file. This request indicates the completion of the moving of purged G-CDRs to the file.
Responded	The total number of responses sent by the AAA Proxy to the GSS for the "Generated File Requests" received.
Notification Received	
Outstanding GCDRs	The total number of notification for outstanding G-CDRs.
Responded	The total number notifications received and responded for outstanding G-CDRs.

Field	Description
Outstanding GCDRs cleared	The total number of notification for cleared outstanding G-CDRs.
Responded	The total number notifications received and responded for clearing outstanding G-CDRs.
CPU Usage Overlimit	The total number of notification received for CPU usage overlimit.
Responded	The total number notifications received and responded for CPU usage overlimit.
CPU Usage Normal	The total number of notification received for normal usage of CPU.
Responded	The total number of notification received and responded for normal usage of CPU.
Disk Usage Overlimit	The total number of notification received for disk usage overlimit.
Responded	The total number notifications received and responded for disk usage overlimit.
Disk Usage Normal	The total number of notification received for disk usage is in normal limit.
Responded	The total number notifications received and responded for disk usage in normal limit.
Cluster State Change	The total number of notification received for change in Cluster node status.
Responded	The total number notifications received and responded for change in Cluster node status.
Cluster Switchover	The total number of notification received for Cluster node switchover.
Responded	The total number notifications received and responded for Cluster node switchover.
Cluster Disk Path Failure	The total number of notification received for failure in Cluster disk path failure.
Responded	The total number notifications received and responded for failure in Cluster disk path failure.
Cluster Disk Path Normal	The total number of notification received for change in Cluster disk path from failure to normal.
Responded	The total number notifications received and responded for change in Cluster disk path from failure to normal.
Cluster Interconnect Failure	The total number of notification received for failure of interconnection between Cluster nodes.
Responded	The total number notifications received and responded for failure of interconnection between Cluster nodes.
Cluster Interconnect Normal	The total number of notification received for change in interconnection between Cluster nodes from failure to normal.
Responded	The total number notifications received and responded for change in interconnection between Cluster nodes from failure to normal.
Cluster Interface Failure	The total number of notification received for failure of interface of Cluster node.
Responded	The total number notifications received and responded for failure of Cluster node interface.

Field	Description
Cluster Interface Normal	The total number of notification received for change in status of Cluster node interface from failure to normal.
Responded	The total number notifications received and responded for change in status of Cluster node interface from failure to normal.
Cluster Memory Low	The total number of notification received for low memory at Cluster node.
Responded	The total number notifications received and responded for low memory at Cluster node.
Cluster Memory Normal	The total number of notification received for change in status of low memory to normal memory at Cluster node.
Responded	The total number notifications received and responded for change in status of low memory to normal memory at Cluster node.
Storage Server Counter Requests	
Sent	The total number of times the AAA Proxy sent "Storage Server Counter" requests to the GSS. This request is sent when "show gtp storage-server counter" CLI is executed.
Failed	The total number of times that the AAA Proxy failed to be send "Storage Server Counter" requests to the GSS.
Success	The total number of times the AAA Proxy successfully sent "Storage Server Counter" requests to the GSS.
Storage Server Status Requests	
Sent	The total number of times the AAA Proxy sent "Storage Server Status" requests to the GSS. This request is sent when "show gtp storage-server status" CLI is executed.
Failed	The total number of times that the AAA Proxy failed to be send "Storage Server Status" requests to the GSS.
Success	The total number of times the AAA Proxy successfully sent "Storage Server Status" requests to the GSS.
Fetch Requests	
Sent	The total number of "Fetch Requests" sent by the AAA Proxy to the GSS. This request is sent to discover the status of a particular GTPP Request (i.e. if it has been successfully stored but not sent to CGF, or if it is successfully stored and sent to CGF, or if it has not been received by GSS at all).
Retried	The total number of "Fetch Requests" re-sent by the AAA Proxy to the GSS.
Success	The total number of "Fetch Requests" successfully sent by the AAA Proxy to the GSS.
Failed	The total number of "Fetch Requests" that failed to be sent by the AAA Proxy to the GSS.
Echo Requests	
Sent	The total number of Echo requests sent by the AAA Proxy to the GSS.
Success	The total number of Echo requests successfully sent by the AAA Proxy to the GSS.
Commit Requests	
Sent	The total number of "commit requests" sent by the AAA Proxy to the GSS. This request is sent as a result of executing the "gtp force-save" Exec mode command.
Success	The total number of "commit requests" successfully sent by the AAA Proxy to the GSS.

Field	Description
Update Requests	
Sent	The total number of requests sent by the AAA Proxy to the GSS to indicate the success of a request from the CGF.
Invalid Request	
Received	The total number of invalid requests sent by the GSS to the AAA Proxy (i.e. when a GSS is reconfigured, all the requests from the old GSS are marked as invalid).
Message Statistics	
Total Req Sent	The total number of requests sent to GSS.
Total Store Req Sent	The total number of requests sent to GSS to store G-CDRs.
Total Rsp Rcvd	The total number of requests responded to GSS.
Total Store Req Sent	The total number of requests to store G-CDRs responded.
Total Notif Msg Rcvd	The total number of notification messages received.
Total Notif Rsp Sent	The total number of notification messages responded.
Total Req Sent Failure	The total number of requests failed during sent.
Invalid Socket State	The total number of requests failed during sent due to invalid socket state.
MED/Socket Tx Failure	The total number of requests failed during sent due to Tx failure of mediation or socket.
Store Response Time Statistics	Statistical information of response time for STORE messages.
Get Next Response Time Statistics	Statistical information of response time of GET NEXT messages.
GCDR distribution in DRT Messages	Distribution of G-CDRs in Data Request Transfer (DRT) messages.

## show gtp storage-server counters

*Table 201. show gtp storage-server counters Command Output Descriptions*

Field	Description
Archived GTPP Requests	The total number of GTPP Requests archived with the GSS that have been responded to by the CGF.
Archived Unack GTPP Requests	The total number of GTPP Requests archived with the GSS that have not yet been responded to by the CGF.
Archived GCDRs	The total number of G-CDRs archived in "Acknowledged GTPPRequests".
Archived Unack GCDRs	The total number of G-CDRs archived in "Unacknowledged GTPP Requests".

## show gtp storage-server local file counters

Table 202. *show gtp storage-server local file counters* Command Output Descriptions

Field	Description
GTPP Req pending write	The total number of pending GTPP requests to write files to the hard disk..
GTPP Req pending response	The total number responses sent to GTPP requests.
File related counters	
Current file CDR count	The total number of files compressed.
Files pending sync	The number of files that were not able to be compressed.
Compr files pending sync	The number of files waiting to be synced.
Compression in progress	The number of files being compressed.

## show gtp storage-server local file statistics

Table 203. *show gtp storage-server local file statistics* Command Output Descriptions

Field	Description
Total CDR written	The total number of GTPP CDR files written to the hard disk.
Total File Rotations	The total number of file rotation processes completed.
File Rotation Type	
CDR-Count-limit	The total number of CDR files that have been rotated.
Time-limit	Identifies the time limit for file rotation..
Others	Total number of file rotations happened due to triggers not listed in this table when for local CDR files.
File Compression	
Compression Success	The total number of files compressed.
Compression Failures	The number of files that were not able to be compressed.

## show gtp storage-server status

Table 204. show gtp storage server status Command Output Descriptions

Field	Description
Configuration	
Execution Mode	Execution mode of the G-CDRs.
File Format	Specifies the file format used for CDRs.
Max GCDRs per file	Maximum number of G-CDRs per file.
Notification Type	Type of notification.
Poll Interval (min)	Poll interval in Minutes.
Resource Monitor	
Outstanding GCDRs File Period (min)	Outstanding G-CDRs file period in minutes.
CPU Usage(%)	CPU usage in percentage.
Available Disk Gss Datafile Path (GB)	Threshold value for available disk size for path or partition on GSS node where CDR files are generated and stored by GSS Filegen application. Example: /sharedgss
Available Disk Gss Install Path (GB)	Threshold value for available disk size for path or partition on GSS node where basic components of GSS like bin directory, config files, postgres bin directory and local log files are present. Example: /gss
Available Disk Gss Database Path (GB)	Threshold value for available disk size for path or partition on GSS node where postgres database is installed. Example: /sharedpostgres
Available Memory (MB)	Available memory at a given time.
Resource Monitor Status	
Outstanding GCDRs File Period (min)	Number of outstanding G-CDR files during a given period of time (in minutes).
State	State of the G-CDR collection.
CPU Usage (%)	CPU usage in percentage.
State	State of the CPU.
Available Disk Gss Datafile Path (GB) State	Measured or current value for disk size for path or partition on GSS node where CDR files are generated and stored by GSS Filegen application. Example: /sharedgss If Measured or current value for disk size (GB) falls below configured limit (Threshold value), then Alarm is generated.

Field	Description
Available Disk Gss Install Path (GB) State	Measured or current value for disk size for path or partition on GSS node where basic components of gss like bin directory, config files and postgres bin directory and local log files are present. Example : /gss If Measured or current value for disk size (GB) falls below configured limit (Threshold value), then Alarm is generated.
Available Disk Gss Database Path (GB) State	Measured or current value for available disk size for path or partition on GSS node where postgres database is installed. Example: /sharedpostgres If Measured or current value for disk size (GB) falls below configured limit (Threshold value), then Alarm is generated.
Available Memory (MB)	Amount of memory available for additional G-CDR files.
State:	Condition of the available memory.
Cluster Status	
Cluster Name	Name of the gss cluster.
Online Cluster Node	Name of cluster node(s) that are online at the status collection time.
Cluster Node List	Name(s) of the node(s) included in the cluster.

## show gtp storage-server streaming file statistics

Table 205. show gtp storage-server streaming file statistics Command Output Descriptions

Field	Description
Total CDR written	Total number of streaming CDRs written into the RAM-Disk when gtp storage-server “streaming” mode was enabled.
Total CDR sent to remote	Total number of streaming CDRs sent to CGF from the HDD once the CGF/GTPP is up.
Total Files Failed	During streaming if the CDR file is corrupted, the file will not stream to CGF and renamed to *.fail. This counters indicates the total number of such failed files.
Total File Rotations	Total number of file rotations based on File Size, CDR count, time-limit when “streaming” mode was enabled. The file rotation triggers are configurable in GTPP Group Configuration mode.
File Rotation Type	
File-Size-limit	Total number of file rotations happened due to “File-Size-limit” trigger when “streaming” mode was enabled.
CDR-Count-limit	Total number of file rotations happened due to “CDR-Count-limit” trigger when “streaming” mode was enabled.
Time-limit	Total number of file rotations happened due to “Time-limit” trigger when “streaming” mode was enabled.
Others	Total number of file rotations happened due to triggers not listed in this table when “streaming” mode was enabled.

## show gtp storage-server streaming file statistics verbose

Table 206. *show gtp storage-server streaming file statistics verbose* Command Output Descriptions

Field	Description
Accumulated Statistics:	
Total CDR written	Total number of streaming CDRs written into the RAM-Disk when gtp storage-server “streaming” mode was enabled.
Total CDR sent to remote	Total number of streaming CDRs sent to CGF from the HDD once the CGF/GTPP is up.
Total CDR accepted	Total number of CDRs that are acknowledged by CGF (successfully streamed by the ASR 5000).
Total CDR req already fulfilled	Total number of CDR requests that are already acknowledged by CGF.   <b>Important:</b> When streaming is in progress from a file, the AAA proxy may crash. When AAA proxy is recovered, requests will not be sent from files that are acknowledged by CGF. Instead, the counter is incremented.
Total Files sent to remote	Total number of CDR files sent to GTPP Storage Sever and acknowledged by CGF.   <b>Important:</b> When streaming is in progress from a file, the AAA proxy may crash. When AAA proxy is recovered, requests will not be sent from files that are acknowledged by CGF. Instead, the counter is incremented.
Total Files Failed	During streaming if the CDR file is corrupted, the file will not stream to CGF and renamed to *.fail. This counters indicates the total number of such failed files.
Total File Rotations	Total number of file rotations based on File Size, CDR count, time-limit when “streaming” mode was enabled. The file rotation triggers are configurable in GTPP Group Configuration mode.
File Rotation Type	
File-Size-limit	Total number of file rotations happened due to “File-Size-limit” trigger when “streaming” mode was enabled.
CDR-Count-limit	Total number of file rotations happened due to “CDR-Count-limit” trigger when “streaming” mode was enabled.
Time-limit	Total number of file rotations happened due to “Time-limit” trigger when “streaming” mode was enabled.
Others	Total number of file rotations happened due to triggers not listed in this table when “streaming” mode was enabled.
CDR distribution in DRT Messages	

Field	Description
0:	Total number of Data Request Transfer (DRT) requests sent with no CDRs.
1:	Total number of Data Request Transfer (DRT) requests sent with one CDR.
2..5:	Total number of Data Request Transfer (DRT) requests sent where each request contains CDRs from 2 to 5.
6..10:	Total number of Data Request Transfer (DRT) requests sent where each request contains CDRs from 6 to 10.
11..15:	Total number of Data Request Transfer (DRT) requests sent where each request contains CDRs from 11 to 15.
16..20:	Total number of Data Request Transfer (DRT) requests sent where each request contains CDRs from 16 to 20.
21..40:	Total number of Data Request Transfer (DRT) requests sent where each request contains CDRs from 21 to 40.
41..60:	Total number of Data Request Transfer (DRT) requests sent where each request contains CDRs from 41 to 60.
61..80:	Total number of Data Request Transfer (DRT) requests sent where each request contains CDRs from 61 to 80.
81..100:	Total number of Data Request Transfer (DRT) requests sent where each request contains CDRs from 81 to 100.
101..150:	Total number of Data Request Transfer (DRT) requests sent where each request contains CDRs from 101 to 150.
151..200:	Total number of Data Request Transfer (DRT) requests sent where each request contains CDRs from 151 to 200.
201..254:	Total number of Data Request Transfer (DRT) requests sent where each request contains CDRs from 201 to 254.
255:	Total number of Data Request Transfer (DRT) requests sent where each request contains 255 CDRs.

## show gtp storage-server streaming file counters all

Table 207. show gtp storage-server streaming file counters all Command Output Descriptions

Field	Description
GTPP Req pending write	Total number of CDR request queued up and not yet stored in RAM-Disk when “streaming” mode was enabled.
GTPP Req pending response	Total number of GTPP request yet to send acknowledgement to the AAAMgr after storing the CDRs successfully in RAM-Disk when “streaming” mode was enabled.
File related counters	
Current file CDR count	Total number of CDRs stored in RAM-disk file which is not yet synced to the HDD when “streaming” mode was enabled.
Files pending sync	Total number of files waiting for the sync response from HDD when “streaming” mode was enabled.
Current Pending CDRs in HDD	Total number of CDRs written into the hard-disk (Indicates the CDR count of rotated files) when “streaming” mode was enabled.
Current Pending Files in HDD	Total number of files stored in hard-disk when “streaming” mode was enabled.



# Chapter 72

## show gtpu-service

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This chapter includes the `show gtpu-service` command output tables.

## show gtpu-service all

Table 208. show gtpu-service all Command Output Descriptions

Field	Description
Service name	The name of the service configured in the named context.
Context	The name of the context where the service is configured.
State	The status of the service, i.e., “Initiated”.
Echo Interval	The duration between the sending of GTP-U echo messages.
Include UDP Port Ext.Hdr	Indicates if an extension header, in the GTP-U packet header, allowing for error indication messages will be added.
Max-retransmissions	The number of user data packet request message retransmissions that can be sent before an error condition is established.
Retransmission Timeout	The number of seconds between the re-sending of GTP-U echo messages
Path Failure Detection on gtp msgs	Identifies what type of messages the path failure indication error is applied.
Address List	Identifies the IP address used to transmit/receive GTP-U packets.
Suppress Error-Indication generation	Indicate if the error indication will be suppressed upon the receipt of a user data packet for a non-existent session.
Path Failure Detection on gtp echo msgs	Identifies if the path failure detection is enabled upon reaching the maximum number of echo retransmissions.

# Chapter 73

## show hd-storage-policy

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This chapter includes the `show hd-storage-policy` command output tables.

## show hd-storage-policy counters all

*Table 209. show hd-storage-policy counters all Command Output Descriptions*

Field	Description
HD Storage Policy	The name of the HD storage policy configured on the system.
Diameter Counters	
File related counters	
Current ACR file record count	The total number of ACR file records for this policy currently stored on the HDD.
Current ACR file Size	The current ACR file size on the HDD for this policy.
Current ACR Files Synched to HDD	The total number of ACR files rotated and sent to the hard disk drive from the time the system is operational.

## show hd-storage-policy statistics all

Table 210. show hd-storage-policy statistics all Command Output Descriptions

Field	Description
HD Storage Policy	The name of the HD storage policy configured on the system.
Diameter Statistics	
Total ACR written	The total number of active charging records written to the HD storage device for this policy.
Total ACR File Rotations	The total number of times files were rotated.
File Rotation Type	
ACR-File-Size-limit	The file size limit, in megabytes. When exceeded, file rotation occurs.
ACR-Record-Count-limit	The record count limit. When exceeded, file rotation occurs.
ACR-Time-limit	The time limit, in seconds. When exceeded, file rotation occurs.
ACR-Manual-File-Rotation	The total number of times file rotation was initiated manually.
ACR-Others	The total number of ACR rotations for reasons other than above. If incremented, this counter generally indicates an error condition.



# Chapter 74

## show hd raid verbose

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Table 211. show hd raid verbose Command Output Descriptions

Field	Description
HD RAID	
State	The following conditions apply to the RAID function: Available (clean): At least one disk is ready Available (active): Disk resynchronizing Not Available
Degraded	The following conditions apply: No: Both disks are ready Yes: One disk is ready
UUID	Universal Identification number
Size	Drive size in bytes
Action	The following conditions apply: Idle: Neither resynchronizing nor rebuilding RAID Recovering (dd% done) Rebuilding Resynching (dd% done) Checking (dd% done) Repairing (dd% done)
Disk	Disk name
	The following conditions apply to the disk: State: In-sync component Spare component: Rebuilding RAID Valid image of UUID: Different image Not used: Set by Admin Faulty component Invalid partition or image Unknown partition or image Created Date image created Updated Date image updated Events Interval event count Model Disk model number Serial Number Disk serial number Location Disk location Size Disk size in bytes Partitions Total number of partitions Partition Partition size in bytes and sectors for each partition



# Chapter 75

## show hardware card

Table 212. show hardware card Command Output Descriptions

Field	Applicable Card(s)	Description
Card Type	All	The type of card installed.
Card Description	All	Displays the description assigned to the card during software configuration.
Part Number	All	The card's part number. Cards of the same type and revision will have the same part number.
Serial Number	All	The card's serial number.
Switch Fabric Modes	SPC/SMC, Processing Cards	Which Switch Fabric modes the card can do. Possible values are: <ul style="list-style-type: none"> <li>• control plane</li> <li>• switch fabric</li> </ul>
MAC Addresses	SMC, SPIO, and line cards	The media access control addresses supported by the interfaces on the cards.
Card Programmables	All	This field indicates if the software on any of the programmable components on the card is not at the current revision. <ul style="list-style-type: none"> <li>• If all software is current, Up To Date is displayed.</li> <li>• If one or more components do not have the most current software, Out of Date is displayed, along with the component(s) requiring the newer code.</li> <li>• If one or more components have experimental or unreleased software, Experimental/Unreleased is displayed.</li> </ul>
NPU Microcode	Processing Cards	The version of the software running (currently operational) on the Network Processing Unit (NPU).
Slave SCB	Processing Cards, SPIO, RCC, and line cards	The firmware version of the component that allows non-SPC/SMC cards to communicate with the SPC/SMC over the system control bus (SCB). <b>on-card:</b> Indicates the version of the firmware that is on the boot flash for the component.
SPC CPLD	SPC	The version number of one of the Complex Programmable Logic Devices (CPLD)s that allow the SPC to communicate with PACs.

Field	Applicable Card(s)	Description
Inter-SPC CPLD	SPC	The version number of another CPLD found on the SPC that allows SPCs to communicate and perform status monitoring of each other
CFS FPGA	PAC	The firmware version of the Classification, Filtering, and Statistics (CFS) Field Programmable Gate Array (FPGA). <ul style="list-style-type: none"> <li>• <b>on-card</b>: Indicates the version of the firmware that is on the boot flash for the component.</li> <li>• <b>running</b>: The firmware version that is currently operational.</li> </ul>
SFC FPGA	PAC	The firmware version of the Switch Fabric Connect (SFC) Field Programmable Gate Array (FPGA). This is the component that allows the PAC to communicate with the system's switch fabric. <ul style="list-style-type: none"> <li>• <b>on-card</b>: Indicates the version of the firmware that is on the boot flash for the component.</li> <li>• <b>running</b>: The firmware version that is currently operational.</li> </ul>
LCC FPGA	PAC	The firmware version of the Line Card Connect (LCC) FPGA. This is the component that allows the PAC to communicate with the line cards. <ul style="list-style-type: none"> <li>• <b>on-card</b>: Indicates the version of the firmware that is on the boot flash for the component.</li> <li>• <b>running</b>: The firmware version that is currently operational.</li> </ul>
SPC FPGA	SPC	The firmware version of the SPC FPGA. This is the component that allows the PAC to communicate with the SPC. <ul style="list-style-type: none"> <li>• <b>on-card</b>: Indicates the version of the firmware that is on the boot flash for the component.</li> <li>• <b>running</b>: The firmware version that is currently operational.</li> </ul>
SRM	SMC	The firmware version of the Status, Reset, and Monitoring component.
CIF FPGA	SMC	The firmware version of the Chassis Information (CIF) Field Programmable Gate Array (FPGA). <ul style="list-style-type: none"> <li>• <b>on-card</b>: Indicates the version of the firmware that is on the boot flash for the component.</li> <li>• <b>running</b>: The firmware version that is currently operational.</li> </ul>
PSR	Processing Cards	The firmware version of the Power, Status, and Reset component.
BIOS	Processing Cards, SMC	The version of the Basic Input/Output System (BIOS). on-card indicates the version of the firmware that on the boot flash for the component.
DT FPGA	Processing Cards	The firmware version of the Data Transport (DT) Field Programmable Gate Array (FPGA). <ul style="list-style-type: none"> <li>• <b>on-card</b>: Indicates the version of the firmware that is on the boot flash for the component.</li> <li>• <b>running</b>: The firmware version that is currently operational.</li> </ul>

Field	Applicable Card(s)	Description
FPGA	SPIO and line cards	The Field Programmable Gate Arrays that allow the SPIOs and other line cards to communicate with the SPC/SMC and Processing Cards respectively. <b>on-card:</b> Indicates the version of the firmware that is on the boot flash for the component.
CPU 0 through 3 Type / Memory	Processing Cards and SPC/SMC	The CPU's pass (revision), speed and memory. The SPC/SMC only indicates CPU 0 because it has only one CPU. The PAC displays CPUs 0 through 3 because it has four CPUs. The Processing Cards display CPUs 0 and 1 because each card has two CPUs.
CPU 0 through 3 CFE / Diags	Processing Cards and SPC/SMC	The CPU's Common Firmware Environment (CFE) and diagnostic software version. <ul style="list-style-type: none"> <li>• <b>on-card:</b> Indicates the version of the firmware that is on the boot flash for the component.</li> <li>• <b>running:</b> The firmware version that is currently operational.</li> </ul> The SPC/SMC only indicates CPU 0 because it has only one CPU. The PAC displays CPUs 0 through 3 because it has four CPUs. The Processing Cards display CPUs 0 and 1 because each card has two CPUs.
SFP Info	SPIO and Ethernet 1000 line cards and Quad Gig-E line card, 10 Gig Ethernet line card (QGLC and XGLC, ASR 5000 only)	Indicates information pertaining to the small form-factor pluggable (SFP) modules installed on the card. Among the information provided is the Manufacturer name, ID number, the module part and serial numbers, and the production date.



# Chapter 76

## show ims-authorization

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This chapter describes the outputs of the `show ims-authorization` command.

## show ims-authorization policy-control statistics

Table 213. show ims-authorization policy-control statistics Command Output Descriptions

Field	Description
<b>DPCA Session Stats</b>	
Total Current Sessions	The total number of DPCA session currently running on this system.
Total IMSA Adds	The total number of IP multimedia subsystem applications (IMSAs) added to service.
Total DPCA Starts	The total number of Diameter Policy Control Applications (DPCAs) started.
Total Secondary Create	The total number of secondary contexts created.
Total Secondary Terminate	The total number of secondary contexts deleted.
Total Session Updates	The total number of updates applied for session/s.
Total Terminated	The total number of Diameter Policy Control Application sessions terminated.
DPCA Sessions Failovers	The total number of Diameter Policy Control Application sessions failed.
<b>DPCA Message Stats</b>	
Total messages Received	Total policy control messages received for IMS authorization policy control.
Total Messages Sent	Total messages sent to IMS authorization policy control server.
Total CCR	Total Credit Control Request (CCR) messages received.
Total CCA	Total Credit Control Answer (CCA) messages sent in response to CCRs.
CCR-Initial	Total number of initial CCR messages received.
CCA-Initial	Total number of initial CCA messages sent in response to initial CCR messages.
CCA-Initial Accept	Total number of initial CCA messages accepted in response to initial CCR messages.
CCA-Initial Reject	Total number of initial CCA messages rejected in response to initial CCR messages.
CCA-Initial Timeouts	Total number of initial CCA messages timed out in response to initial CCR messages.
CCR-Update	Total number of Credit Control Request (CCR) messages received after initial CCR for update.
CCA-Update	Total Credit Control Answer (CCA) messages sent in response to update CCRs.
CCA-Update Timeouts	Total Credit Control Answer (CCA) messages sent in response to update CCRs but timed out.

Field	Description
CCA-Update Errors	Total number of errors in parsing the CCA-Update Message.
CCR-Final	Total number of final CCR messages received to end application.
CCA-Final	Total number of final CCA messages sent in response to final CCR messages to end session/s.
CCA-Final Timeouts	Total number of final CCA messages sent in response to final CCR messages to end session/s but timed out.
CCA-Final Errors	Total number of errors in parsing the CCA-Terminate Message.
ASR	Total number of Abort-Session-Requests (ASRs) received.
ASA	Total number of Abort-Session-Accept (ASA) messages sent in response to Abort-Session-Requests (ASRs).
RAR	Total number of Re-Auth-Requests (RARs) received for re-authorization.
RAA	Total number of Re-Auth-Requests (RARs) answered with Re-Auth-Answer (RAA) message.
<b>DPCA Message Error Stats</b>	
Diameter Protocol Errs	Total number of errors related to Diameter protocol.
Bad Answers	Total number of errors related to invalid response/answers.
Unknown Session Reqs	Total number of errors related to unknown session requests.
Unknown Command Code	Total number of errors related to unknown command codes.
Unsupported Command Code	Total number of errors related to unsupported command codes.
Unk Failure Handling	Total number of errors related to unknown handling of failures.
<b>DPCA Termination Cause Stats</b>	
Diameter Logout	Total number of DPCA session termination due to Diameter logout.
Service Not Provided	Total number of DPCA session termination due to unavailability of service.
Bad Answer	Total number of DPCA sessions terminated due to invalid/bad response reason.
Administrative	Total number of DPCA sessions terminated due to administrative reasons.
Link Broken	Total number of DPCA sessions terminated due to link broken.
Auth Expired	Total number of DPCA sessions terminated due to authorization expired.
User moved	Total number of DPCA sessions terminated as subscriber/user moved to unknown/non-service area.
Session Timeout	Total number of DPCA sessions terminated due to timed out reason.
Auth Rejected	Total number of DPCA sessions terminated due to authorization rejected.
Other Errors	Total number of DPCA sessions terminated due to unknown reasons or reasons not listed in this list.

Field	Description
<b>DPCA Experimental Result Code Stats:</b>	Statistics of the number of times the specific Experimental-Result-Code value was received in the Diameter Gx Credit-Control-Answer (CCA) from the PCRF per IMSA service.
Error Initial Parameters	The number of times DIAMETER_ERROR_INITIAL_PARAMETERS (5140) Experimental-Result-Code value was received in the Diameter Gx CCA.
Error Trigger Event	The number of times DIAMETER_ERROR_TRIGGER_EVENT (5141) Experimental-Result-Code value was received in the Diameter Gx CCA.
Bearer Not Authorized	The number of times DIAMETER_ERROR_BEARER_NOT_AUTHORIZED (5143) Experimental-Result-Code value was received in the Diameter Gx CCA.
Traffic Mapping Rejected	The number of times DIAMETER_ERROR_TRAFFIC_MAPPING_INFO_REJECTED (5144) Experimental-Result-Code value was received in the Diameter Gx CCA.
PCC Rule Event	The number of times DIAMETER_PCC_RULE_EVENT (5142) Experimental-Result-Code value was sent in the Diameter Gx Re-Auth-Request (RAR).
Confecting Request	This error is used when the PCRF cannot accept the UE-initiated resource request as a network-initiated resource allocation is already in progress with packet filters that cover the packet filters in the received UE-initiated resource request.
Bearer Event	This error is used when a PCC rule for some reason cannot be enforced or modified successfully in a network initiated procedure.
Base Result Code	The number of times an unknown Experimental-Result-Code value (apart form the ones recognized in CCA that are listed above PCC Rule Event) was received in the Diameter CCA.
<b>Session Release Cause</b>	
Unspecified Reason	The total number of sessions released due to unspecified reasons.
UE Subscription Changed	The total number of sessions released due to a change in the UE subscription.
Insuffent Srvr Resource	The total number of sessions released due to insufficient server resources.
<b>DPCA Failure Handling Stats</b>	
<b>Connection Based FH</b>	
Total Message Timeouts	Total number of response message timeouts, i.e. PCRF failed to respond within the configured timeout value.
CCA-Initial	Response to the CCR-I message was timed out.
CCA-Update	Response to the CCR-U message was timed out.
CCA-Terminate	Response to the CCR-T message was timed out.
Total Message Send Errs	Total number of requests failed to be sent due to socket based send errors.
CCR-Initial	CCR-I failed to be sent due to socket based errors.
CCR-Update	CCR-U failed to be sent due to socket based errors.
CCR-Terminate	CCR-T failed to be sent due to socket based errors.

Field	Description
<b>Result Code Based FH</b>	
Configured Result Code	Failure handling being undertaken due to configured result code range.
CCA-Initial	Failure handling being undertaken due to configured result code range for CCA-Initial messages.
CCA-Update	Failure handling being undertaken due to configured result code range for CCA-Update messages.
CCA-Terminate	Failure handling being undertaken due to configured result code range for CCA-Terminate messages.
Unh and Unk Result Code	Failure handling being undertaken due to a result code which is neither defined in the diameter or customer specs.
CCA-Initial	Failure handling being undertaken due to unknown result code for CCA-Initial messages.
CCA-Update	Failure handling being undertaken due to unknown result code for CCA-Update messages.
CCA-Terminate	Failure handling being undertaken due to unknown result code for CCA-Terminate messages.
<b>FH Behavior</b>	
Continue	Total number of times the failure handling action continue has been undertaken.
Retry-And-Terminate	Total number of times the failure handling action retry-and-terminate has been undertaken.
Terminate	Total number of times the failure handling action terminate has been undertaken.
<b>Peer Switches</b>	
Attempted Switches	Total number of peer switches attempted.
Successful Switches	Total number of peer switches successful.

## show ims-authorization policy-gate status full

Table 214. show ims-authorization policy-gate status full Command Output Descriptions

Field	Description
CallID	Specifies Call Identifier.
IMSI	Specifies International Mobile Subscriber Identity (IMSI) of subscriber.
NSAPI	Specifies Network Service Access Point Identifier (NSAPI) to a single PDP context of the subscriber.
Charging Rule	Specifies dynamic charging rule applicable for specific flow through a policy gate in IMS authorization service.
Precedence	Displays the precedence of the dynamic charging rule applicable to specific flow.
Flow Status	Specifies the status of flow with specific charging rule. Possible states are: <ul style="list-style-type: none"> <li>• Open</li> <li>• Closed</li> <li>• Dormant</li> </ul>
Flow Dir	Specifies the direction of flow with specific dynamic charging rule applicable for specific flow through a policy gate in IMS authorization service. Possible states are: <ul style="list-style-type: none"> <li>• Uplink</li> <li>• Downlink</li> </ul>
Source Addr	Specifies the source IP address of flow with specific dynamic charging rule applicable for specific flow through a policy gate in IMS authorization service.
Source Addr Mask	Specifies the masking of source IP address of flow with specific dynamic charging rule applicable for specific flow through a policy gate in IMS authorization service.
Destination Addr	Specifies the destination IP address of flow with specific dynamic charging rule applicable for specific flow through a policy gate in IMS authorization service.
Destination Addr Mask	Specifies the masking of destination IP address of flow with specific dynamic charging rule applicable for specific flow through a policy gate in IMS authorization service.
Source Port	Specifies the IP port of flow origin with specific dynamic charging rule applicable for specific flow through a policy gate in IMS authorization service.
Destination Port	Specifies the destination IP port of flow end with specific dynamic charging rule applicable for specific flow through a policy gate in IMS authorization service.

## show ims-authorization policy-gate counters all

Table 215. show ims-authorization policy-gate counters all Command Output Descriptions

Field	Description
CallID	Specifies Call Identifier.
IMSI	Specifies International Mobile Subscriber Identity (IMSI) of subscriber.
NSAPI	Specifies Network Service Access Point Identifier (NSAPI) to a single PDP context of the subscriber.
Charging Rule	Specifies dynamic charging rule applicable for specific flow through a policy gate in IMS authorization service.
Gate State changed	Displays the change state of policy gate for specific subscriber flow. Possible values are: <ul style="list-style-type: none"> <li>• 0: No change</li> <li>• 1: Changed</li> </ul>
Uplink Pkts Statistics	Displays the statistics of packets in uplink direction.
Downlink Pkts Statistics	Displays the statistics of packets in downlink direction.
Pkts processed	Displays the total number of packets received and processed.
Bytes processed	Displays the total number of bytes received and processed.
Pkts dropped	Displays the total number of packets received but dropped.
Bytes dropped	Displays the total number of bytes received but dropped.

## show ims-authorization servers

*Table 216. show ims-authorization servers ims-auth-service Command Output Descriptions*

Field	Description
Service Name	IMS authorization service name.
IMS Authorization Server	IMS authorization server name.
Server Type	IMS Authorization server type. It may be Policy, Charging, or both.
PCRF host	Identifies the Policy Control and Charging Rules Function (PCRF) host.
Operational State	Indicates operational state of the authorization server.
Server Session State	Indicates authorization server session state.
Server Statistics	Indicates authorization server session statistics.
Session Active	Total number of active authorization server sessions.
Session Opened	Total number of opened authorization server sessions.
Session Closed	Total number of closed authorization server sessions.
Sessions switched due to Tx Expiry	Total number of sessions switched due to transmission expiry.
Sessions switched due to reselection	Total number of sessions switched due to re-selection of authorization servers.
Server Up -> down indications	Total number of servers going to down state from up state.
Total servers matching specified criteria	Total number of servers matching the specified criteria.

## show ims-authorization service name

Table 217. show ims-authorization service name Command Output Descriptions

Field	Description
IMS Authorization Service Name	Name of IMS authorization service name.
Context	Name of the context in which IMS authorization service is configured.
Service State	State of the IMS authorization service.
Service mode	Mode of IMS authorization service for policy and charging.
Binding Mechanism	Describes the mechanism on the control of bearer resources based on a binding mechanism that binds one or more service to a bearer.
QoS Update Timeout	Specifies the timeout duration in seconds to discard QoS update request.
Reauth Trigger	Specifies the Re-authorization trigger's status.
P-CSCF Discovery	Specifies the configured route-table applicable for Proxy-Call Session Control Function (P-CSCF) discovery.
P-CSCF Selection Table[ <i>n</i> ]	Specifies the configured selection table information for Proxy-Call Session Control Function (P-CSCF) server selection. [ <i>n</i> ] indicates the selection table number.
<b>Diameter Policy Control</b> Specifies Diameter Policy Control related configuration and information.	
Endpoint	Specifies Diameter endpoint name for Diameter Policy Control.
Origin-Realm	Specifies Diameter origin domain name for Diameter Policy Control.
Dictionary	Specifies the configured applicable dictionary for Diameter Policy Control.
Reauth Trigger	Indicates the re-authorization trigger status.
Custom Reauth Trigger	Indicates enabled custom reauth event triggers.
Failure Handling	Specifies the configured mechanism for failure handling in Diameter Policy Control.
Peer Switch	Specifies the status of Peer switching for in Diameter Policy Control.
Host Selection	Specifies host selection mechanism with selection table.
Host Reselection Subscriber Limit	Specifies the limit of subscriber bind to specific host origin to trigger re-selection of host.
Host Reselection Interval	Specifies time interval to trigger host re-selection for subscriber.
Host Selection Table[ <i>n</i> ]	Specifies the configured selection table information for host server selection. [ <i>n</i> ] indicates the selection table number.
Precedence	Specifies the precedence applicable.

■ show ims-authorization service name

Field	Description
Primary Host	Specifies the primary name/IP address the host.
Secondary Host	Specifies the secondary name/IP address of the host.

## show ims-authorization sessions full all

Table 218. show ims-authorization sessions full all Command Output Descriptions

Field	Description
CallId	The call identifier.
Service Name	The IMS authorization service name.
IMSI	The International Mobile Subscriber Identity (IMSI) of subscriber.
NSAPI	The Network Service Access Point Identifier (NSAPI) to a single PDP context of the subscriber.
Bearer Usage	Indicates the bearer usage for this session.
Bearer Type	Indicates the bearer type.
Bearer ID	Indicates the bearer identifier.
Context Type	Indicates the PDP context type: Primary or Secondary.
SGSN IP-Addr	IP address of the SGSN node.
APN	Indicates the Access Point Name (APN) for this service.
State	Indicates the session state.
Primary PCRF Server	The primary Policy Control and Charging Rules Function (PCRF) server host name.
Secondary PCRF Server	The secondary PCRF server host name.
Primary P-CSCF	The primary Proxy-Call Session Control Function gateway address.
Secondary P-CSCF	The secondary P-CSCF gateway address.
Auth Decision	Parameters configured for authorization decision.
Event Triggers	Triggers for different events for Authorization decision.
QoS Policy	Specifies QoS policy for specific session.
QoS Class	The QoS class applicable to this session.
Max Uplink Bw(in bps)	The maximum bandwidth for uplink direction, in bps.
Max Downlink Bw(in bps)	The maximum bandwidth for downlink direction, in bps.
Guaranteed Uplink Bw(in bps)	The guaranteed bandwidth for uplink direction, in bps.
Guaranteed Downlink Bw(in bps)	The guaranteed bandwidth for downlink direction, in bps.
Apn Uplink AMBR(in bps)	The APN uplink AMBR, in bps.
Apn Downlink AMBR(in bps)	The APN downlink AMBR, in bps.
Charging Rules	Dynamic charging rule applicable for specific session in IMSA service.

■ show ims-authorization sessions full all

Field	Description
Rule Name	Name of the applicable dynamic charging rule.
Precedence	Precedence of the applicable dynamic charging rule.
Session Packet Statistics	Specifies the session data statistics.
Uplink Pkt Processed	Total number of packets processed in uplink direction.
Uplink Bytes Processed	Total number of bytes processed in uplink direction.
Uplink Pkt Dropped	Total number of packets dropped or not processed in uplink direction.
Uplink Bytes Dropped	Total number of bytes dropped or not processed in uplink direction.
Downlink Pkt Processed	Total number of packets processed in downlink direction.
Downlink Bytes Processed	Total number of bytes processed in downlink direction.
Downlink Pkt Dropped	Total number of packets dropped or not processed in downlink direction.
Downlink Bytes Dropped	Total number of bytes dropped or not processed in downlink direction.
Total sessions matching specified criteria	The total number of sessions matching the specified criteria.

# Chapter 77

## show ip

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This chapter describes the outputs of the **show ip** command.

# show ip interface

*Table 219. show ip interface Command Output Descriptions*

Field	Description
Intf Name	Indicates the name of the IP interface for which information is displayed.
Intf Type	Indicates the type of IP interface for which information is displayed. Possible types are: <ul style="list-style-type: none"> <li>• broadcast</li> <li>• loopback</li> <li>• point-to-point</li> <li>• tunnel</li> </ul>
Description	Indicates the provided description for specific interface name.
VRF	Indicates the name of the configured virtual routing and forwarding (VRF) table for this IP interface.
IP State	Indicates the state of the IP interface. Possible values are: <ul style="list-style-type: none"> <li>• UP</li> <li>• DOWN</li> </ul>
IP Address	Indicates the primary IP address bound with this IP interface in IPv4/IPv6 notation.
Number of Secondary Addresses	Indicates the total number of secondary IP addresses bound with this IP interface.
Secondary IP Addresses	Indicates the secondary IP address bound with this IP interface in IPv4/IPv6 notation. This will be display only when secondary IP addresses are configured for this interface.

## show ip interface gre-keepalive

Table 220. show ip interface gre-keepalive Command Output Descriptions

Field	Description
Intf Name	Indicates the name of the IP interface for which information is displayed.
Intf Type	Indicates the type of IP interface for which information is displayed. Possible types are: <ul style="list-style-type: none"> <li>• broadcast</li> <li>• loopback</li> <li>• point-to-point</li> <li>• tunnel</li> </ul>
Description	Indicates the provided description for specific interface name.
VRF	Indicates the name of the configured virtual routing and forwarding (VRF) table for this IP interface.
IP State	Indicates the state of the IP interface. Possible values are: <ul style="list-style-type: none"> <li>• UP</li> <li>• DOWN</li> </ul>
IP Address	Indicates the primary IP address bound with this IP interface in IPv4/IPv6 notation.
Number of Secondary Addresses	Indicates the total number of secondary IP addresses bound with this IP interface.
Secondary IP Addresses	Indicates the secondary IP address bound with this IP interface in IPv4/IPv6 notation. This will be displayed only when secondary IP address(es) are configured for this interface.
GRE Keepalives sent after receiving last response	Indicates the total number of GRE keepalive requests sent after last response was received.
Time remaining before sending next GRE Keepalive request	Indicates the time duration in seconds left after which next GRE keepalive request will be sent.
Time elapsed since last Keepalive from the remote	Indicates the time in seconds lapsed after last keepalive received from the remote node of GRE tunnel.
Total Number of GRE Keepalive requests sent	Indicates the total number of GRE keepalive requests sent by this node to remote GRE tunnel node during this session.
Total Number of GRE Keepalive responses received	Indicates the total number of GRE keepalive responses, in response to GRE keepalive requests from this node, received on this interface from remote GRE tunnel node during this session.
Total Number of GRE Keepalive requests received	Indicates the total number of GRE keepalive requests from remote GRE tunnel node, received by this node on this interface during this session.
Total Number of GRE Keepalive responses sent	Indicates the total number of GRE keepalive responses, in response to GRE keepalive requests from remote GRE tunnel node, sent by this node to remote GRE tunnel node during this session.

■ show ip interface gre-keepalive

## show ip pool address pool-name

Table 221. show ip pool address pool-name Command Output Descriptions

Field	Description
Busyout	Defines whether or not the associated IP address is unavailable due to a busyout command having been applied to the entire pool or a range of addresses within the pool.
Status	Identifies the current condition of the IP address. Valid conditions are: (F) - Free: IP address is available for use. (U) - Used: IP address is currently in use and is unavailable. (H) - Hold: IP address is unavailable and on hold for the subscriber that just disconnected in case a reconnect occurs within the range of the <b>address-hold-timer</b> value configured in the <b>ip pool</b> command. (R) - Release: IP address is in the process of being released (from general use or the hold state).
Address	Displays the IP address.
NAI/MSID Hash	A 64-bit value identifying the subscriber's MN in order to reapply a specific IP address should the subscriber return within the hold timer range.
Hold Timer	Specifies the amount of time, in seconds, that the IP address is placed on hold in the event that the subscriber, who last used the address, reconnects.
Session Start/Disconnect	Displays the session start time for IP addresses in use and the session disconnect time for IP addresses on hold.

## show ip pool summary

Table 222. show ip pool summary Command Output Descriptions

Field	Description
Type	Identifies the type of IP address pool. (P) - Public: Indicates that the pool is comprised of public IP addresses. (R) - Private: Indicates that the pool is comprised of private IP addresses. (S) - Static: Indicates that the pool is comprised of statically assigned IP addresses. (E) - Resource: Indicates that the pool is comprised of resource IP addresses. (N) - NAT: Indicates that the pool is comprised of NAT IP addresses.
State	Identifies the state of the IP address pool. (G) - Good: Indicates that the pool is ready to provide addresses. (D) - Pending Delete: Indicates that the pool is in the process of being deleted. (R) - Resizing: Indicates that the pool is in the process of being resized. (I) - Inactive: Indicates that the pool is not being used.
Priority	Specifies the priority use of a public or private pool. Pools with lower priority numbers are used first.
Busyout	Indicates whether or not the pool has been configured for busyout.
Pool Name	Identifies the name of the IP address pool.
Start Address	Identifies the starting IP address of the pool.
Mask/End Address	Identifies the subnet mask or the ending IP address of the pool.
Used	Specifies the number of IP addresses currently in use.
Avail	Specifies the number of IP addresses currently available for use.
Total Pool Count	Specifies the total number of IP address pools in the summary.

## show ip pool verbose

Table 223. show ip pool verbose Command Output Descriptions

Field	Description
<b>Group Summary</b>	
Group Used	Specifies the number of IP addresses within the group that are currently in use.
Group Free	Specifies the number of IP addresses within the group that are currently available.
Group Hold	Specifies the number of IP addresses in the group that are unavailable and on hold for the subscribers that just disconnected in case a reconnect occurs within the range of the <b>address-hold-timer</b> value configured in the <b>ip pool</b> command.
Group Released	Specifies the number of IP addresses in the group that are in the process of being released (from general use or the hold state).
Group Effective Alarm Threshold %	Identifies the alarm threshold for the group. This parameter is based on the configured threshold of the first IP pool used in the group.
Group Effective Clear Threshold %	Identifies the clear threshold for the group. This parameter is based on the configured threshold of the first IP pool used in the group.
Group Current Usage %	Identifies the percentage of IP addresses currently in use within the group.
Group Status	Identifies the status of the group. (G) - Good: Indicates that the pool is ready to provide addresses. (D) - Pending Delete: Indicates that the pool is in the process of being deleted. (R) - Resizing: Indicates that the pool is in the process of being resized. (I) - Inactive: Indicates that the pool is not being used.
Group	Identifies the group by name.
Pool	Identifies the name of the IP Pool.
Start Address/End Address or mask	Identifies the starting IP address and the ending IP address (or the subnet mask) of the pool.
Pool Status	Identifies the status if the IP address pool. Good: Indicates that the pool is ready to provide addresses. Pending Delete: Indicates that the pool is in the process of being deleted. Resizing: Indicates that the pool is in the process of being resized. Inactive: Indicates that the pool is not being used.
Type	Identifies the type of IP address pool. Public: Indicates that the pool is comprised of public IP addresses. Private: Indicates that the pool is comprised of private IP addresses. Static: Indicates that the pool is comprised of statically assigned IP addresses. Resource: Indicates that the pool is comprised of resource IP addresses. NAT: Indicates that the pool is comprised of NAT IP addresses.

Field	Description
Priority	Identifies the priority of the IP pool (0 = highest, 10 = lowest)
Group	Identifies the group to which the IP pool belongs.
VRF	Identifies the VRF name.
Used	Specifies the number of IP addresses currently in use in this pool.
Free	Specifies the number of IP addresses currently available for use in this pool.
Hold	Specifies the number of IP addresses currently unavailable and on hold for the subscribers that just disconnected in case a reconnect occurs within the range of the <b>address-hold-timer</b> value configured in the <b>ip pool</b> command.
Released	Specifies the number of IP addresses in this pool that are in the process of being released (from general use or the hold state).
Addr-Hold-Timer	Identifies the <b>address-hold-timer</b> value configured in the <b>ip pool</b> command.
Limit Exceeded	Specifies the number of times the hold timer limit was exceeded and the IP address being held was returned to an available or free state.
Total Alloc Req	Specifies the total number of IP address requests made to this pool.
Total Rel Req	Specifies the total number of IP address release requests made to this pool.
Input Label	Identifies the input label for the VRF.
Output Label	Identifies the output label for the VRF.
Network Reachability Detection Server	Identifies the name of a configured network reachability server that is bound to the IP pool.
Unicast Gratuitous-ARP Address	Identifies if the ability to perform a unicast gratuitous ARP to the specified IP address rather than broadcast gratuitous ARP when gratuitous ARP generation is required is enabled for this pool.
Nexthop Forwarding Address	Identifies the IP address of the next hop gateway where a subscriber that is assigned an IP address from this pool is forwarded.
Vlan ID	Identifies the VLAN ID that enables over-lapping IP address pool support and associates the pool with the specified virtual LAN (VLAN).
Suppress-Switchover-ARPS	Identifies if the ability to suppress corresponding gratuitous ARP generation when a line card switchover occurs is enabled or disabled for this pool.
Send-ICMP-Dest-Unreachable	Specifies whether or not an ICMP destination unreachable PDU is generated when the system receives a PDU destined for an unused address within the pool.
Explicit-Route-Advertise	If a pool is configured with this option, then none of the fragment addresses for this pool are added to the kernel. However, the fragment addresses are added to the NPU. As the calls come up and addresses from this pool (with the new option) are used, these addresses are added to the kernel.
Advertise-if-used	Indicates if the option is enabled to use advertise address or not.
Include-Network-Broadcast-Address	Indicates whether IP pool is configured to include network broadcast address or not.
Allow-Static-Allocation	Indicates whether IP pool configured to allow static allocation of IP address or not.

Field	Description
Group Available Threshold	Specifies the low threshold IP pool utilization percentage that must be met or passed within the polling interval to generate an alert or alarm. Clear: Specifies the high threshold IP pool utilization percentage that maintains a previously generated alarm condition. If the utilization percentage rises above the high threshold within the polling interval, a clear alarm will be generated.
Pool-Free Threshold	Specifies the low threshold IP pool utilization percentage that must be met or exceeded within the polling interval to generate an alert or alarm. Clear: Specifies the high threshold IP pool utilization percentage that maintains a previously generated alarm condition. If the utilization percentage rises above the high threshold within the polling interval, a clear alarm will be generated.
Pool-Used Threshold	Specifies the high threshold IP pool utilization percentage that must be met or exceeded within the polling interval to generate an alert or alarm. Clear: Specifies the low threshold IP pool utilization percentage that maintains a previously generated alarm condition. If the utilization percentage falls beneath the low threshold within the polling interval, a clear alarm will be generated.
Pool-Release Threshold	Specifies the high threshold IP pool utilization percentage that must be met or exceeded within the polling interval to generate an alert or alarm. Clear: Specifies the low threshold IP pool utilization percentage that maintains a previously generated alarm condition. If the utilization percentage falls beneath the low threshold within the polling interval, a clear alarm will be generated.
Pool-Hold Threshold	Specifies the high threshold IP pool utilization percentage that must be met or exceeded within the polling interval to generate an alert or alarm. Clear: Specifies the low threshold IP pool utilization percentage that maintains a previously generated alarm condition. If the utilization percentage falls beneath the low threshold within the polling interval, a clear alarm will be generated.



# Chapter 78

## show ipsg

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This chapter describes the outputs of the **show ipsg** command.

## show ipsg service all

*Table 224. show ipsg service all Command Output Descriptions*

Field	Description
Context	The context in which the IPSG service is configured.
Bind	The binding status of the service. Defines if the service has been bound to the appropriate interfaces (radius-server mode) or to any interface in the context (radius-snoop mode).
Max Subscribers	The total number of subscribers allowed for the service. This field displays a configured number or, if not configured, the total amount specified by the IPSG service license.
Mode	The IPSG service mode type: radius-server or radius-snoop
Address	The IP address of the interface where RADIUS accounting requests are received.
Port	The port number of the interface where RADIUS accounting requests are received.
Source-Context	The source context with the interface where RADIUS accounting requests are received.
Default Subscriber	Identifies the default subscriber for the context.
Service Status	The status of the IPSG service. Defines if the service has been started.

## show ipsg session all

*Table 225. show ipsg session all Command Output Descriptions*

Field	Description
CALLID	The call ID of the session.
NAI	The subscriber's Network Address Identifier.
Home Address	The subscriber's IP address.

## show ipsg statistics

Table 226. show ipsg statistics Command Output Descriptions

Field	Description
<b>RADIUS Accounting</b>	
Total START Req rcvd	Cumulative RADIUS accounting start requests received since the last system restart or clear command.
Total START Req (Retransmitted) rcvd	Cumulative retransmitted RADIUS accounting start requests received since the last system restart or clear command.
Total START Sent	Cumulative RADIUS accounting start responses sent by this system since the last system restart or clear command.
Total INTERIM Updt rcvd	Cumulative RADIUS accounting interim updates received since the last system restart or clear command.
Total STOP Req rcvd	Cumulative RADIUS accounting stop requests received since the last system restart or clear command.
Total ACCESS Req rcvd	Cumulative IPSPG RADIUS Access Request messages received since the last system restart or clear command.
Total ACCESS Req (Retransmitted) rcvd	Cumulative IPSPG RADIUS Access Request retransmission messages received since the last system restart or clear command.
Total ACCESS Accept sent	Cumulative IPSPG RADIUS Access Accept messages sent since the last system restart or clear command.
Total ACCESS Reject sent	Cumulative IPSPG RADIUS Access Reject messages sent since the last system restart or clear command.
Total UNKNOWN req rcvd	Cumulative unknown requests received since the last system restart or clear command.
Total Response sent	Cumulative RADIUS accounting responses sent since the last system restart or clear command.
Total Discarded Msgs (Mandatory Attr Missing)	Cumulative messages discarded because of missing mandatory attribute since the last system restart or clear command.
Total Discarded Msgs (Interim For Non-Existing Session)	Cumulative RADIUS accounting interim packets discarded, when there is no session existing, since the last system restart or clear command.
Total Discarded Msgs (Stop For Non-Existing Session)	Cumulative RADIUS accounting stop packets discarded, when there is no session existing, since the last system restart or clear command.
Total Discarded Msgs (Unknown Client)	Cumulative messages discarded when received from an unknown client since the last system restart or clear command.
Total Discarded Msgs (Interconnect shared secret)	Cumulative RADIUS request messages discarded, because the shared secret was incorrect, since the last system restart or clear command.

# Chapter 79

## show ipv6

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This chapter describes the outputs of the **show ipv6** command.

## show ipv6 interface summary

Table 227. show ipv6 interface summary Command Output Descriptions

Field	Description
Intf name	Interface name
Intf Type	Interface type
Description	
Router Advertisement	Displays whether the system is sending router advertisements. Options are either enabled or disabled.
IP State	Displays the IP state (UP/DOWN) and binding detail
MTU	The subscriber's maximum transmission unit (MTU) size in octets.
IPv6 Link-Local Address:	Displays the IPv6 link-local address
IPv6 Global Unicast Address:	Displays the ipv6 Global Unicast Address address

## show ipv6 neighbors

Table 228. show ipv6 neighbors Command Output Descriptions

Field	Description
Address	IPv6 address from table
Type	Interface type: <ul style="list-style-type: none"><li>• Broadcast (Ethernet)</li><li>• Loopback</li></ul>
Link address	MAC address
Flags	One of the following flag codes: <ul style="list-style-type: none"><li>• I = Incomplete</li><li>• R = Reachable</li><li>• M = Permanent</li><li>• S = Stale</li><li>• D = Delay</li><li>• P = Probe</li><li>• F = Failed</li></ul>
Interface	Interface name

## show ipv6 route

Table 229. show ipv6 route Command Output Descriptions

Field	Description
Destination	Designating ipv6 address prefix/length
Next hop	Address of the directly connected next hop interface
Protocol	Connected Unconnected
Prec	Number of precedence bits set
Cost	Number of router hops to destination address
Interface	Name of the next hop interface
Total Route Count	Total number of routes Number connected Number of static routes

# Chapter 80

## show l2tp

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This chapter describes the outputs of the **show l2tp** command.

## show l2tp sessions

*Table 230. show l2tp sessions Command Output Descriptions*

Field	Description
L2TP Summary	
Sessions In Progress	The total number of L2TP sessions currently being facilitated by the system.
<b>Data Stats</b>	
Rx Data Pkts	The total number of data packets received.
Tx Data Pkts	The total number of data packets transmitted.
Rx Data Octs	The total number of data octets received.
Tx Data Octs	The total number of data octets transmitted.
Rx Discard Data Pkts	The total number of data packets received and discarded.

## show l2tp session full username

Table 231. show l2tp session full username Command Output Descriptions

Field	Description
Username	The username of a currently active subscriber session.
Callid	The call identification number (callid) of a currently active subscriber session.
Msid	The Mobile Station Identification (MSID) number of a currently active subscriber session.
Peer IP Address	The IP address of the LNS to which the subscriber's L2TP session is connected.
Service Name	The name of the LAC-service configured on the system currently facilitating the subscriber's L2TP session.
Context Name	The name of the context where service processing the current session is configured.
Service Type	The type of service type processing the current session. Possible values are: <ul style="list-style-type: none"> <li>• LAC</li> <li>• LNS</li> </ul>
Session State	Indicates the current state of the session as one of the following: <ul style="list-style-type: none"> <li>• LAC_Established</li> <li>• LAC_IDLE</li> <li>• LAC_WAIT_TUNNEL</li> <li>• LAC_WAIT_REPLY</li> </ul>
Local Tunnel ID	The unique, system-assigned identification number of the L2TP tunnel facilitating the session.
Local Session ID	The unique, system-assigned identification number of the L2TP session.
Peer Tunnel ID	The unique, LNS-assigned identification number of the L2TP tunnel facilitating the session.
Peer Session ID	The unique, LNS-assigned identification number of the L2TP session.
Call Type	Indicates the type of session as the following: <ul style="list-style-type: none"> <li>• <b>LAC-INCOMING</b> : A call arrived at the LAC service from an MS to be tunneled to an LNS.</li> </ul>
Call Serial Num	The Call Serial Number attribute value pair (AVP) assigned to the session.
Rx Connect Speed	The speed of the connection from the LNS to LAC service on the system in bits per second (bps).
Tx Connect Speed	The speed of the connection from the LAC service on the system to the LNS in bits per second (bps).

Field	Description
PPP Proxy-Auth	Indicates the protocol used to authenticate the subscriber as one of the following: <ul style="list-style-type: none"> <li>• CHAP-MD5</li> <li>• PAP</li> <li>• MS-CHAP</li> </ul>
Bearer Type	The Bearer Capabilities AVP for the system indicating the type of interfaces supported.
Framing Type	Indicates the PPP framing type used for the session as one of the following: <ul style="list-style-type: none"> <li>• ASYNC</li> <li>• SYNC</li> </ul>
Data Rx Sequence Num Enabled	Indicates whether or not the use of sequence numbers is enabled for traffic received.
Data Tx Sequence Num Enabled	Indicates whether or not the use of sequence numbers is enabled for traffic transmitted.
Data Rx Sequence Num	If <b>DATA Rx Sequence Num Enabled</b> is enabled, this field displays the current sequence number being processed.
Data Tx Sequence Num	If <b>DATA Tx Sequence Num Enabled</b> is enabled, this field displays the current sequence number being processed.
Rx Data Pkts	The total number of data packets received.
Tx Data Pkts	The total number of data packets transmitted.
Rx Data Octs	The total number of data octets received.
Tx Data Octs	The total number of data octets transmitted.
Rx Discard Data Pkts	The total number of data packets received and discarded.
Total sessions matching specified criteria	The total number of sessions matching the filter criteria (in this example, the subscriber's name).

## show l2tp statistics lac-service

Table 232. show l2tp statistics lac-service Command Output Descriptions

Field	Description
LAC Service	The name of the LAC service for which statistics are being displayed.
Tunnels	
Connection Attempts	The total number of attempts made to connect tunnels.
Successful Connections	The total number of tunnels successfully connected.
Failed to Connect	The total number of tunnels that failed to connect.
Active Connections	The total number of tunnels currently connected.
Receive Ctrl Pkt Errors	
Total Discarded Packets	The Total number of packets that were discarded.
Ctrl Field Errors	The total number of errors received in packet control fields.
Pkt Len Errors	The total number of errors resulting from the receipt of packets of invalid length.
AVP Len Errors	The total number of errors resulting from the receipt of packets containing attribute value pairs (AVPs) of incorrect length.
Proto Ver Errors	The total number of errors resulting from the receipt of packets containing invalid protocol versions.
MD5 Errors	The total number of errors resulting from the receipt of packets containing incorrect Message Digest 5 (MD5) hashing.
Inval Attr Errors	The total number of errors resulting from the receipt of packets containing invalid attributes.
Unknown Attr Errors	The total number of errors resulting from the receipt of packets containing unknown attributes.
Inval SessIDErrors	The total number of errors resulting from the receipt of packets indicating an invalid session identification (ID) number.
Inval State Errors	The total number of errors resulting from the receipt of packets indicating an invalid state.
Unknown Msg Errors	The total number of errors resulting from the receipt of unknown messages.
Unmatch Pkt Len	The total number of errors resulting from the receipt of packets of invalid length.
Inval TunID Errors	The total number of errors resulting from the receipt of packets indicating an invalid tunnel identification (ID) number.
Tunnel Disconnect or Failure Reasons	
General Clear	The total number of tunnels that were disconnected normally (StopCCN result code 1).
Ctrl Conn Exists	The total number of tunnels that failed to connect because the control channel already existed (StopCCN result code 3).

Field	Description
Unauthorized Errors	The total number of tunnels that failed to connect because the requester was not authorized to establish the control channel (StopCCN result code 4).
Bad Protocol Errors	The total number of tunnels that failed to connect because the protocol version of the requester is not supported (StopCCN result code 5).
Requester Shutdown	The total number of tunnels that failed to connect because the requester is being shutdown (StopCCN result code 6).
State Machine Errors	The total number of tunnels that failed to connect because of an error with the finite state machine (StopCCN result code 7).
Wrong Length	The total number of general errors that occurred because the length of the control channel was incorrect (Error code 2).
Out of Range Errors	The total number of general errors that occurred because either one of the values of the field was out of range or the reserved field was non-zero (Error code 3).
Insuff Resources	The total number of general errors that occurred because resources were not available to process the request (Error code 4).
Vendor Specific Errors	The total number of general errors that occurred because vendor-specific errors occurred in the LAC (Error code 6).
Try Another LNS	The total number of general errors that occurred because the LNS indicated that the LAC service should attempt to establish the control channel with an alternate LNS (Error code 7).
Unknown AVP with M bit	The total number of general errors that occurred because a session or tunnel was disconnected due to the receipt of an unknown AVP with the M-bit set (Error code 8).
IPSEC Disconnects	When IPsec is used, this is the total number of tunnels that were disconnected or that failed to connect due to the IPsec tunnel being disconnected.
IPSEC Failures	When IPsec is used, this is the total number of tunnels that were disconnected or that failed to connect due to failures that occurred for the IPsec tunnel.
License Exceeded	The number of tunnel attempts that failed because the maximum number of tunnels allowed by the installed license key was reached.
New Call Policy Disc	The total number of L2TP tunnels disconnected because of a new call policy being instituted.
Max Retry Exceeded	The total number of tunnels that failed to connect because the value configured for the <b>max-retransmissions</b> parameter set for the LAC-service was exceeded.
Tunnels System Limit	The total number of tunnels that failed because the maximum number of tunnels that the system supports was reached.
Misc Errors	The total number of errors that occurred that did not fall into any of the above categories.
Last Rx Tunnel Result Code	The last tunnel result code generated for received packets.
Last Rx Tunnel Error Code	The last tunnel error code generated for received packets.
Last Rx Tunnel Err Code Msg	The error indicated by the last tunnel error code generated for received packets.
Last Tx Tunnel Result Code	The last tunnel result code generated for transmitted packets.

Field	Description
Last Tx Tunnel Error Code	The last tunnel error code generated for transmitted packets.
Last Tx Tunnel Err Code Msg	The error indicated by the last tunnel error code generated for transmitted packets.
Sessions	
Session Attempts	The total number of attempts made to connect sessions.
Successful Sessions	The total number of sessions successfully connected.
Failed to Connect	The total number of sessions that failed to connect.
Active Sessions	The total number of sessions currently connected.
Intra-PDSN Handoff Sessions	
Attempts	The total number of attempts to handoff subscriber sessions to another PDSN within this system.
Success	The total number of successful handoffs of subscriber sessions to another PDSN within this system.
Failures	The total number of failures when attempting to handoff subscriber sessions to another PDSN within this system.
Inter-PDSN Handoff Sessions	
Attempts	The total number of attempts were made by outside PDSNs to transfer a call to this PDSN.
Session Disconnect or Failure Reasons	
No General Error:	The total number of normal disconnect with no errors.
Administrative	The total number of sessions that failed to connect due to administrative reasons (CDN result code of 3).
Loss of Carrier	The total number of sessions that were disconnected due to a loss of carrier (CDN result code of 1).
Remote Administrative:	The total number of sessions that failed to connect due to remote administrative reasons.
No Facility Avl Tmp	The total number of sessions that failed to connect due to the temporary lack of required facilities (CDN result code of 4).
No Facility Avl Perm	The total number of sessions that failed to connect due to the permanent lack of required facilities (CDN result code of 5).
Invalid Destination	The total number of sessions that failed to connect due to the specification of an invalid destination (CDN result code of 6).
No Carrier Detected	The total number of sessions that failed to connect because no carrier signal was detected (CDN result code of 7).
Busy Signal	The total number of sessions that failed to connect due to the receipt of a busy signal (CDN result code of 8).
No Dial Tone	The total number of sessions that failed to connect because no dial tone was detected (CDN result code of 9).
LAC Timeout	The total number of sessions that failed to connect within the time allotted by the LAC service (CDN result code of 10).

Field	Description
No Approp Framing	The total number of sessions that failed to connect because no appropriate framing was detected (CDN result code of 11).
No Ctrl Conn	The total number of sessions that failed to connect because no control channel existed (StopCCN result code of 1).
Wrong Length	The total number of general errors that occurred because the length of the control channel was incorrect (Error code 2).
Out of Range	The total number of general errors that occurred because either one of the values of the field was out of range or the reserved field was non-zero (Error code 3).
Insufficient Resources	The total number of general errors that occurred because resources were not available to process the request (Error code 4).
Invalid SessID	The total number of general errors that occurred because of an invalid session identification (ID) number (Error code 5).
Vendor Specific Errors	The total number of general errors that occurred because vendor-specific errors occurred in the LAC (Error code 6).
Try Another LNS	The total number of general errors that occurred because the LNS indicated that the LAC service should attempt to establish the control channel with an alternate LNS (Error code 7).
Unknown AVP with M bit	The total number of general errors that occurred because a session or tunnel was disconnected due to the receipt of an unknown AVP with the M-bit set (Error code 8).
Max Tunnel Limit	The total number of sessions that failed to connect because the number of tunnels supported by the LAC service was exceeded. This parameter is configured for the LAC service using the <b>max-tunnels</b> parameter.
IPSEC Failures	When IPsec is used, this is the total number of sessions that were disconnected or that failed to connect due to failures that occurred for the IPsec tunnel.
IPSEC Disconnects	When IPsec is used, this is the total number of disconnects caused by the IPsec tunnel going down.
New Call Policy Disconnects	The total number of disconnects caused by a newcall policy being implemented.
License Exceeded	The total number of subscriber sessions that failed because the total number of subscriber sessions allowed by the installed license key was exceeded.
Service Mismatch	The total number of subscriber sessions that failed due to a mismatch in the service and the call type.
Misc Errors	The total number of errors that occurred that did not fall into any of the above categories.

## show l2tp tunnels all

Table 233. show l2tp tunnels all Command Output Descriptions

Field	Description
State	The state of the tunnel as one of the following: <ul style="list-style-type: none"> <li>• <b>C</b> : The tunnel is currently connected.</li> <li>• <b>c</b> : The tunnel is in the process of being connected.</li> <li>• <b>d</b> : The tunnel is in the process of being disconnected.</li> <li>• <b>u</b> : The state of the tunnel is unknown.</li> </ul>
LocalTun ID	The unique identification number assigned to the tunnel by the system.
<b>PeerTun ID</b>	The unique identification number assigned to the tunnel by the peer LNS.
Active Sess	The number of sessions currently being facilitated by the tunnel.
Peer IPAddress	The IP address of the peer-LNS that the tunnel is established with.
Service Name	The name of the LAC-service that established the tunnel.
Uptime	The uptime for connected tunnel.
Total tunnels matching specified criteria	The total number of tunnels facilitated by the context.

## show l2tp tunnels full lac-service

Table 234. show l2tp tunnels full lac-service Command Output Descriptions

Field	Description
Local Tunnel ID	The unique identification number assigned to the tunnel by the system.
Peer Tunnel ID	The unique identification number assigned to the tunnel by the peer LNS.
<b>Peer IP Address</b>	The IP address of the peer-LNS that the tunnel is established with.
Service Name	The name of the LAC service that established the tunnel.
Context Name	The context where the LAC service resides.
Uptime	The uptime for connected tunnel.
Service Type	The type of L2TP service. LAC or LNS.
Tunnel State	The state of the tunnel as one of the following: <ul style="list-style-type: none"> <li>• <b>ESTABLISHED</b> : The tunnel is currently connected.</li> <li>• <b>IDLE</b> : The initial state of the LAC prior to attempting tunnel establishment.</li> <li>• <b>WAIT_CTRL_REPLY</b> : The LAC has sent a tunnel establish request message to the LNS and is waiting for the reply.</li> <li>• <b>CLEARING</b> : The tunnel is being cleared.</li> </ul>
Peer Host Name	The name of the LNS with which the tunnel is established.
Peer Vendor Name	The name of the peer's vendor.
Authentication	Indicates the direction of the peer authentication as one of the following: <ul style="list-style-type: none"> <li>• <b>LOCAL TO REMOTE</b> : From the LAC service to the LNS.</li> <li>• <b>REMOTE TO LOCAL</b> : From the LNS to the LAC service.</li> </ul>
Tunnel Initiation	Indicates the direction of the tunnel initiation as one of the following: <ul style="list-style-type: none"> <li>• <b>LOCAL TO REMOTE</b> : Originated by the LAC service.</li> <li>• <b>REMOTE TO LOCAL</b> : Originated by the LNS.</li> </ul>
Callid Hint	The call identification number of a session currently being facilitated by the tunnel.
Ctrl Tx Sequence Num	Indicates the current transmit sequence number for control traffic.
Ctrl Rx Sequence Num	Indicates the current receive sequence number for control traffic.
Ctrl Tx Acked by Peer	Indicates the last transmit sequence number for control traffic acknowledged by the LNS.
Ctrl Rx Acked By Local	Indicates the last receive sequence number for control traffic acknowledged by the LAC service.

Field	Description
Init Peer Rx Win Size	The initial size of the LNS's receive window.
Current Peer Rx Win Size	The current size of the LNS's receive window.
Init Local Rx Win Size	The initial size of the LAC service's receive window.
Last Rx Session Result Code	The last session result code generated for received packets.
Last Rx Session Error Code	The last session error code generated for received packets.
Last Rx Session Err Code Msg	The error indicated by the last session error code generated for received packets.
Last Tx Session Result Code	The last session result code generated for transmitted packets.
Last Tx Session Error Code	The last session error code generated for transmitted packets.
Last Tx Session Err Code Msg	The error indicated by the last session error code generated for transmitted packets.
Session Disconnect or Failure Reasons	
No General Error:	The total number of normal disconnect with no errors.
Administrative	The total number of sessions that failed to connect due to administrative reasons (CDN result code of 3).
Loss of Carrier	The total number of sessions that were disconnected due to a loss of carrier (CDN result code of 1).
Remote Administrative:	The total number of sessions that failed to connect due to remote administrative reasons.
No Facility Avl Tmp	The total number of sessions that failed to connect due to the temporary lack of required facilities (CDN result code of 4).
No Facility Avl Perm	The total number of sessions that failed to connect due to the permanent lack of required facilities (CDN result code of 5).
Invalid Destination	The total number of sessions that failed to connect due to the specification of an invalid destination (CDN result code of 6).
No Carrier Detected	The total number of sessions that failed to connect because no carrier signal was detected (CDN result code of 7).
Busy Signal	The total number of sessions that failed to connect due to the receipt of a busy signal (CDN result code of 8).
No Dial Tone	The total number of sessions that failed to connect because no dial tone was detected (CDN result code of 9).
LAC Timeout	The total number of sessions that failed to connect within the time allotted by the LAC service (CDN result code of 10).
No Approp Framing	The total number of sessions that failed to connect because no appropriate framing was detected (CDN result code of 11).

Field	Description
No Ctrl Conn	The total number of sessions that failed to connect because no control channel existed (StopCCN result code of 1).
Wrong Length	The total number of general errors that occurred because the length of the control channel was incorrect (Error code 2).
Out of Range	The total number of general errors that occurred because either one of the values of the field was out of range or the reserved field was non-zero (Error code 3).
Insufficient Resources	The total number of general errors that occurred because resources were not available to process the request (Error code 4).
Invalid SessID	The total number of general errors that occurred because of an invalid session identification (ID) number (Error code 5).
Vendor Specific Errors	The total number of general errors that occurred because vendor-specific errors occurred in the LAC (Error code 6).
Try Another LNS	The total number of general errors that occurred because the LNS indicated that the LAC service should attempt to establish the control channel with an alternate LNS (Error code 7).
Unknown AVP with M bit	The total number of general errors that occurred because a session or tunnel was disconnected due to the receipt of an unknown AVP with the M-bit set (Error code 8).
Misc Reasons	Unspecified reasons.
Rx Data Pkts	The total number of data packets received.
Tx Data Pkts	The total number of data packets transmitted.
Rx Data Octs	The total number of data octets received.
Tx Data Octs	The total number of data octets transmitted.
Rx Discard Data Pkts	The total number of data packets received and discarded.
Rx Control Pkts	The total number of control packets received.
Tx Control Pkts	The total number of control packets transmitted.
Rx Control Octs	The total number of control octets received.
Tx Control Octs	The total number of control octets transmitted.
Rx Control ZLB Pkts	The total number of zero-length body (ZLB) control packets received.
Tx Control ZLB Pkts	The total number of zero-length body (ZLB) control packets transmitted.
Rx HELLO Pkts	The total number of "Hello" packets received.
Tx HELLO Pkts	The total number of "Hello" packets transmitted.
Rx Dup Control Pkts	The total number of duplicate control packets received.
Control ACK Timeouts	The total number local timeouts which happen when we have not responded to the peer LNSs control packet. Typically, the system starts a timer when it receives a packet from the peer LNS. The system attempts to send the ACK message with a regular control message destined for the LNS. If the timer expires prior to the sending of the ACK message, the system sends a ZLB message which serves as an ACK.

Field	Description
Control Msg Retx Timeouts	The total number of timeouts that occurred after the retransmission timeout period expired when sending control messages.
Sessions Attempted	The total number of attempts made to connect sessions.
Sessions Connected	The total number of sessions successfully connected.
Sessions Failed	The total number of sessions that failed to connect.
Sessions Active	The total number of sessions currently connected.
Intra-PDSN Handoff Sessions	
Attempts	The total number of attempts to handoff subscriber sessions to another PDSN within this system.
Success	The total number of successful handoffs of subscriber sessions to another PDSN within this system.
Failures	The total number of failures when attempting to handoff subscriber sessions to another PDSN within this system.
Inter-PDSN Handoff Sessions	
Attempts	The total number of attempts were made by outside PDSNs to transfer a call to this PDSN.
Total tunnels matching specified criteria	The total number of tunnels currently facilitated by all LAC-services configured within the current context.



# Chapter 81

## show license info

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*Table 235. show license info Command Output Descriptions*

Field	Description
Comment	Comment line for appropriate license key information
Device 1	Model and Serial number for device running license.
Device 2	Same as Device 1 or Unspecified
Issued	Date license issued
Expires	Date license expires
Issued by	License issuing authority
Key number	License key number
Enabled features	Lists applications enabled by the license
Session limits	Shows maximum number of sessions and the session type permitted by this license
Status	Shows the following: Device 1 status matchDevice 2 status matchLicense status: Valid; not valid (in grace period)Grace period end date



# Chapter 82

## show linecard

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This chapter describes the outputs of the **show linecard** command.

## show linecard table

Table 236. show linecard table Command Output Descriptions

Field	Description
Slot	Displays the chassis slot number and type. The slot type represents the type of card(s) that the slot supports. Possible slot types are: Slots 17 through 23, 26 through 39, and slots 42 through 48: Supports Ethernet 10/100, Ethernet 1000 linecard, four-port Quad Gig-E (QGLC) line card (ASR 5000 only) 10 Gigabit Ethernet Line Card (XGLC) is a full-length line card. Only upper slots 17 through 23 and 26 through 32 are used when referring to this card. Slots 24 and 25: Support the Switch Processor Input/Output (SPIO) card
Card Type	Displays the type of card installed. The possible card types supported for this release are: Ethernet 10/100 Line Card Ethernet 1000 Line Card (QGLC) 10 Gig Ethernet Line Card (XGLC) Switch Processor Input/Output Card DS3 Line Card
# Ports	Displays the maximum number of physical ports supported per card. The Ethernet 10/100 Line Card supports 8 ports. The Ethernet 1000 Line Card supports 1 port. The Quad Gig-E (QGLC) Line Card supports 4 ports. The 10 Gig Ethernet Line Card (XGLC) supports 1 port. The Switch Processor Input/Output Card supports 2 ports. The DS3 Line Card supports 3 ports.
Oper State	Displays the operational state of the card. The possible operational states are: <b>Active:</b> Indicates that the card is an active component that will be used to process subscriber data sessions. <b>Standby:</b> Indicates that the card is a redundant component. Redundant components will become active through manual configuration or automatically should a failure occur. <b>Offline:</b> Indicates that the card is installed but is not ready to process subscriber data sessions. This could be due to the fact that it is not completely installed (i.e. the card interlock switch is not locked, refer to the System Installation Guide for information on installing cards in the system) or that its processes have been halted.
SPOF	Displays whether or not the component is a single point of failure (SPOF) in the system. If the component is an SPOF, then a Yes will appear in this column. If not, a No will be displayed.
Attach	Displays the PACs/PSC/PSC2s and SPCs/SMCs that the line cards are being associated with.

# Chapter 83

## show llc statistics

Table 237. show llc statistics Command Output Descriptions

Field	Description
LLC SAP Statistics	
Data transfer	
Data requests Rx	Total number of LLC data requests received from the MS.
Data confirms Tx	Total number of LLC data requests confirmation sent to the MS.
Data indications Tx	Total number of LLC data indications sent to the MS.
Data-Sent indications Tx	Total number of LLC data sent indications sent to the MS.
Unit data requests Rx	Total number of LLC unit data requests received from the MS.
Unit data requests Rx Drop	<b>Description:</b> This proprietary counter indicates the total number of unit data requests received from SNDCP layer and dropped at the LLC layer. <b>Triggers:</b> Increments when LLC receives a downlink packet from SNDCP and the queue in LLC layer is full.
Unit data indications Tx	Total number of LLC unit data indications sent to the MS.
Errors reported	
Discarded frames Rx	Total number of LLC discarded frames received from the MS.
Discarded frames Tx	Total number of LLC discarded frames sent to the MS.
Error frames Rx	Total number of LLC error frames received from the MS.
Unrecognised frames Rx	Total number of LLC unrecognized frames received from the MS.
XID collisions	Total number of LLC exchange identifier (XID) request collisions.
Ciphering errors	Total number of LLC ciphering errors.
FCS errors	Total number of LLC frame check sequence errors.
LLC Frame statistics	
Octets Rx	Total number of bytes of LLC frames received from an MS.

Field	Description
Octets Tx	Total number of bytes sent from the LLC layer to an MS from the SGSN.
Unack frames Rx	Total number of unacknowledged UI frames received at the LLC layer from an MS.
Unack frames Tx	Total number of unacknowledged UI frames sent from the LLC to an MS.
UI Rx	Total number of LLC frames with unnumbered information received from the MS.
UI Tx	Total number of LLC frames with unnumbered information sent to the MS.
UI Ciphred frames Rx	Total number of LLC frames with ciphred unnumbered information received from the MS.
UI Ciphred frames Tx	Total number of LLC frames with ciphred unnumbered information sent to the MS.
XID Rx	Total number of XID-reset messages received from the MS.
XID Tx	Total number of XID-reset messages sent to the MS.

# Chapter 84

## show lma-service

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This chapter describes the outputs of the `show lma-service` command.

## show lma-service statistics

Table 238. show lma-service statistics Command Output Descriptions

Field	Description
<b>MIP AAA Authentication</b>	
Attempts	The total number of MIP AAA authentication attempts made by this system or the specified service.
Success	The total number of MIP AAA authentication attempts that were successful made by this system or the specified service.
Total Failures	The total number of MIP AAA authentication attempts that failed made by this system or the specified service.
Actual Auth Failures	The total number of actual MIP AAA authentication failures received by this system or the specified service.
Failures	The total number of failures received by this system or the specified service.
Misc Auth Failures	The total number of miscellaneous MIP AAA authentication failures received this system or the specified service.
<b>Binding Updates Received</b>	
Total Received	The total number of all binding updates received by this system or the specified service.
Total Accepted	The total number of all binding updates received and accepted by this system or the specified service.
Total Denied	The total number of all binding updates received and denied by this system or the specified service.
Total Discarded	The total number of all binding updates received and discarded by this
<b>Initial Binding Update Requests</b>	
Received	The total number of all initial binding updates received by this system or the specified service.
Accepted	The total number of initial binding updates received and accepted by this system or the specified service.
Denied	The total number of initial binding updates received and denied by this system or the specified service.
<b>Refresh Binding Update Requests</b>	
Received	The total number of all refresh binding updates received by this system or the specified service.
Accepted	The total number of refresh binding update requests received and accepted by this system or the specified service.
Denied	The total number of refresh binding update requests received and denied by this system or the specified service.
<b>DeReg Requests</b>	
Received	The total number of all deregistration request binding updates received by this system or the specified service.

Field	Description
Accepted	The total number of deregistration request binding updates received and accepted by this system or the specified service.
Denied	The total number of deregistration request binding updates received and denied by this system or the specified service.
<b>Handoff Requests</b>	
Received	The total number of all handoff request binding updates received by this system or the specified service.
Accepted	The total number of handoff request binding updates received and accepted by this system or the specified service.
Denied	The total number of handoff request binding updates received and denied by this system or the specified service.
<b>Binding Acknowledgements Sent</b>	
Total	The total number of all binding update acknowledgements sent by this system or the specified service.
Accepted Reg	The total number of accepted registration binding update acknowledgements sent by this system or the specified service.
Accepted DeReg	The total number of accepted deregistration binding update acknowledgements sent by this system or the specified service.
Denied	The total number of denied binding update acknowledgements sent by this system or the specified service.
Send Error	The total number of send error binding update acknowledgements sent by this system or the specified service.
<b>Binding Update Deny Reasons</b>	
Insufficient Resources	The total number of binding update deny messages, due to insufficient resources, sent by this system or the specified service.
Mismatched ID	The total number of binding update deny messages, due to mismatched IDs, sent by this system or the specified service.
MN Auth Failure	The total number of binding update deny messages, due to a mobile node authentication failure condition, sent by this system or the specified service.
Admin Prohibited	The total number of binding update deny messages, due to requiring a message ID, sent by this system or the specified service.
Msg ID Required	The total number of binding update deny messages, due to requiring a message ID, sent by this system or the specified service.
DAD Failed	The total number of binding update deny messages, due to DAD failure, sent by this system or the specified service.
Not Home Subnet	The total number of binding update deny messages, due to an incorrect home subnet, sent by this system or the specified service.
Sequence Out Of Window	The total number of binding update deny messages, due to sequence out of window, sent by this system or the specified service.

Field	Description
Reg Type Change Disallowed	The total number of binding update deny messages, due to a disallowed registration type change, sent by this system or the specified service.
Unspecified Reason	The total number of binding update deny messages, due to an unspecified reason, sent by this system or the specified service.
Service-Authorization Failed	The total number of binding update deny messages, due to a service authorization failure, sent by this system or the specified service.
Proxy Reg Not Enabled	The total number of binding update deny messages, due to a proxy registration not enabled error, sent by this system or the specified service.
Timestamp Mismatch	The total number of binding update deny messages, due to a timestamp mismatch error, sent by this system or the specified service.
Timestamp Lower Than Expected	The total number of binding update deny messages, due to a timestamp lower than expected reason, sent by this system or the specified service.
Missing MN-ID Option	The total number of binding update deny messages, due to a missing MN-ID option, sent by this system or the specified service.
Missing HNP Option	The total number of binding update deny messages, due to a missing HNP option, sent by this system or the specified service.
Missing Access Tech Option	The total number of binding update deny messages, due to a missing access technology option, sent by this system or the specified service.
Missing Handoff Ind Option	The total number of binding update deny messages, due to a missing handoff indicator option, sent by this system or the specified service.
Not Authorized For HNP	The total number of binding update deny messages, due to a not authorized for HNP reason, sent by this system or the specified service.
Not LMA For Mobile	The total number of binding update deny messages, due to a missing LMA for the MN reason, sent by this system or the specified service.
Not Authorized For Proxy Reg	The total number of binding update deny messages, due to a not authorized for proxy registration reason, sent by this system or the specified service.
BCE Prefix Do Not Match	The total number of binding update deny messages, due to a BCE prefix not matching, sent by this system or the specified service.
<b>Update Denied - Insufficient Resource Reasons</b>	
No Session Manager	The total number of binding update deny messages, due to insufficient resources - no session manager, sent by this system or the specified service.
No Memory	The total number of binding update deny messages, due to insufficient resources - no memory, sent by this system or the specified service.
Session Manager Rejected	The total number of binding update deny messages, due to insufficient resources - session manager rejected, sent by this system or the specified service.
Input-Q Exceeded	The total number of binding update deny messages, due to insufficient resources - input queue exceeded, sent by this system or the specified service.
Simul Bindings Exceeded	The total number of binding update deny messages, due to insufficient resources - simultaneous bindings exceeded, sent by this system or the specified service.

Field	Description
Address Alloc Failed	The total number of binding update deny messages, due to insufficient resources - address allocation failed, sent by this system or the specified service.
<b>Update Denied - Admin Prohibited Reasons</b>	
MN-AAA Auth Option Missing	The total number of binding update deny messages, due to an administrator prohibited - MN-AAA auth option missing condition, sent by this system or the specified service.
H-bit Not Set	The total number of binding update deny messages, due to an administrator prohibited - H-bit not set condition, sent by this system or the specified service.
Invalid MN-AAA Option SPI	The total number of binding update deny messages, due to an administrator prohibited - invalid MN-AAA option SPI condition, sent by this system or the specified service.
Invalid MN-HA Option SPI	The total number of binding update deny messages, due to an administrator prohibited - invalid MN-HA option SPI condition, sent by this system or the specified service.
Congestion Control Denied	The total number of binding update deny messages, due to an administrator prohibited - congestion control denied condition, sent by this system or the specified service.
Policy Rejected	The total number of binding update deny messages, due to an administrator prohibited - policy rejected condition, sent by this system or the specified service.
HoA Not Authorized	The total number of binding update deny messages, due to an administrator prohibited - HoA not authorized condition, sent by this system or the specified service.
No Permission	The total number of binding update deny messages, due to an administrator prohibited - no permission condition, sent by this system or the specified service.
Bad Request	The total number of binding update deny messages, due to an administrator prohibited - bad request condition, sent by this system or the specified service.
<b>Binding Updates Discard Reasons</b>	
Congestion Discarded	The total number of binding update discarded messages, due to congestion, sent by this system or the specified service.
Checksum Error	The total number of binding update discarded messages, due to checksum error(s), sent by this system or the specified service.
Initial Auth Pending	The total number of binding update discarded messages, due to an initial authentication pending condition, sent by this system or the specified service.
Session Not Found	The total number of binding update discarded messages, due to a session not found condition, sent by this system or the specified service.
HAMGR Not Ready	The total number of binding update discarded messages, due to an HA manager not found condition, sent by this system or the specified service.
Decode Failure	The total number of binding update discarded messages, due to a decode failure, sent by this system or the specified service.
Invalid Buffer Length	The total number of binding update discarded messages, due to an invalid buffer length, sent by this system or the specified service.
Revocation Pending	The total number of binding update discarded messages, due to pending revocations, sent by this system or the specified service.
<b>Binding Revocation</b>	

Field	Description
Sent	The total number of binding revocations sent by this system or the specified service.
Retries Sent	The total number of binding revocation retries sent by this system or the specified service.
Ack Rcvd	The total number of binding revocation acknowledgements received by this system or the specified service.
Not Acknowledged	The total number of binding revocations sent, but not acknowledged, by this system or the specified service.
Rcvd	The total number of binding revocations received by this system or the specified service.
Ack Sent	The total number of binding revocation acknowledgements sent by this system or the specified service.
<b>Sent Revocation Trigger Reasons</b>	
Reserved	The total number of Binding Revocation Indication (BRI) messages sent by the LMA with a "Reserved" revocation trigger reason.
Unspecified	The total number of Binding Revocation Indication (BRI) messages sent by the LMA with an "Unspecified" revocation trigger reason.
Administrative Reason	The total number of Binding Revocation Indication (BRI) messages sent by the LMA with an "Administrative Reason" revocation trigger reason.
Inter-MAG Handoff-Same ATT	The total number of Binding Revocation Indication (BRI) messages sent by the LMA with an "Inter-MAG Handoff-Same ATT" revocation trigger reason.
Inter-MAG - Unknown Handoff	The total number of Binding Revocation Indication (BRI) messages sent by the LMA with an "Inter-MAG - Unknown Handoff" revocation trigger reason.
Inter-MAG Handoff-Diff ATT	The total number of Binding Revocation Indication (BRI) messages sent by the LMA with an "Inter-MAG Handoff-Diff ATT" revocation trigger reason.
Per-Peer Policy	The total number of Binding Revocation Indication (BRI) messages sent by the LMA with a "Per-Peer Policy" revocation trigger reason.
Revoking Node Local Policy	The total number of Binding Revocation Indication (BRI) messages sent by the LMA with a "Revoking Node Local Policy" revocation trigger reason.
User Initiated Session Term	The total number of Binding Revocation Indication (BRI) messages sent by the LMA with a "User Initiated Session Term" revocation trigger reason.
Access Network Session Term	The total number of Binding Revocation Indication (BRI) messages sent by the LMA with an "Access Network Session Term" revocation trigger reason.
IPv4 HoA Binding Only	The total number of Binding Revocation Indication (BRI) messages sent by the LMA with an "IPv4 HoA Binding Only" revocation trigger reason.
Out-of Sync BCE State	The total number of Binding Revocation Indication (BRI) messages sent by the LMA with an "Out-of Sync BCE State" revocation trigger reason.
Unknown	The total number of Binding Revocation Indication (BRI) messages sent by the LMA with an "Unknown" revocation trigger reason.
<b>Received Revocation ACK Status</b>	
Success	The total number of Binding Revocation Acknowledgement (BRA) messages received by the LMA with a "Success" status.

Field	Description
Partial-Success	The total number of Binding Revocation Acknowledgement (BRA) messages received by the LMA with a "Partial-Success" status.
Binding-Does-Not-Exist	The total number of Binding Revocation Acknowledgement (BRA) messages received by the LMA with a "Binding-Does-Not-Exist" status.
No IPv4-HoA-Bind	The total number of Binding Revocation Acknowledgement (BRA) messages received by the LMA with a "No IPv4-HoA-Bind" status.
Global-Revoc-Not-Authorized	The total number of Binding Revocation Acknowledgement (BRA) messages received by the LMA with a "Global-Revoc-Not-Authorized" status.
Cannot-Identify-Binding	The total number of Binding Revocation Acknowledgement (BRA) messages received by the LMA with a "Cannot-Identify-Binding" status.
Revoc-Failed-MN-Attached	The total number of Binding Revocation Acknowledgement (BRA) messages received by the LMA with a "Revoc-Failed-MN-Attached" status.
Unknown	The total number of Binding Revocation Acknowledgement (BRA) messages received by the LMA with an "Unknown" status.
<b>Binding Revocation ACK Discarded</b>	
Total	The total number of binding revocation acknowledgements received and discarded by this system or the specified service.
Session Not Found	The total number of binding revocation acknowledgements received and discarded, due to a session not found condition, by this system or the specified service.
Badly Formed Request	The total number of binding revocation acknowledgements received and discarded, due to a badly formed request condition, by this system or the specified service.
Decode Error	The total number of binding revocation acknowledgements received and discarded, due to a decode error condition, by this system or the specified service.
Checksum Error	The total number of binding revocation acknowledgements received and discarded, due to a checksum error condition, by this system or the specified service.
Invalid Message Type	The total number of binding revocation acknowledgements received and discarded, due to a invalid memory type condition, by this system or the specified service.
HAMGR Not Ready	The total number of binding revocation acknowledgements received and discarded, due to a HAMGR not ready condition, by this system or the specified service.
Matching Request Not Found	The total number of binding revocation acknowledgements received and discarded, due to a matching request not found condition, by this system or the specified service.
Invalid Buffer Length	The total number of binding revocation acknowledgements received and discarded, due to a invalid buffer length condition, by this system or the specified service.
<b>Tunnel Data Received</b>	
Total Packets	The total number of tunnel packets received by this system or the specified service.
6in6	The total number of IPv6-in-IPv6 tunnel packets received by this system or the specified service.
4in6	The total number of IPv4-in-IPv6 tunnel packets received by this system or the specified service.
IPv6 GRE (IPv4)	The total number of IPv4-in-IPv6 GRE tunnel packets received by this system or the specified service.

Field	Description
IPv6 GRE (IPv6)	The total number of IPv6-in-IPv6 GRE tunnel packets received by this system or the specified service.
Total Bytes	The total number of tunnel bytes received by this system or the specified service.
6in6	The total number of IPv6-in-IPv6 tunnel bytes received by this system or the specified service.
4in6	The total number of IPv4-in-IPv6 tunnel bytes received by this system or the specified service.
IPv6 GRE (IPv4)	The total number of IPv4-in-IPv6 GRE tunnel bytes received by this system or the specified service.
IPv6 GRE (IPv6)	The total number of IPv6-in-IPv6 GRE tunnel bytes received by this system or the specified service.
<b>Errors</b>	
Protocol Type Error	The total number of protocol type data errors received by this system or the specified service.
Invalid Pkt Length	The total number of invalid packet length data errors received by this system or the specified service.
No Session Found	The total number of no session found data errors received by this system or the specified service.
<b>Tunnel Data Sent</b>	
Total Packets	The total number of tunnel packets sent by this system or the specified service.
6in6	The total number of IPv6-in-IPv6 tunnel packets sent by this system or the specified service.
4in6	The total number of IPv4-in-IPv6 tunnel packets sent by this system or the specified service.
IPv6 GRE (IPv4)	The total number of IPv4-in-IPv6 GRE tunnel packets sent by this system or the specified service.
IPv6 GRE (IPv6)	The total number of IPv6-in-IPv6 GRE tunnel packets sent by this system or the specified service.
Total Bytes	The total number of tunnel bytes sent by this system or the specified service.
6in6	The total number of IPv6-in-IPv6 tunnel bytes sent by this system or the specified service.
4in6	The total number of IPv4-in-IPv6 tunnel bytes sent by this system or the specified service.
IPv6 GRE (IPv4)	The total number of IPv4-in-IPv6 GRE tunnel bytes sent by this system or the specified service.
IPv6 GRE (IPv6)	The total number of IPv6-in-IPv6 GRE tunnel bytes sent by this system or the specified service.
<b>Tunnel ICMPV6 Packets</b>	
Packet Too Big Rcvd	The total number of tunnel ICMP packets - too big received by this system or the specified service.
Packet Too Big Dropped	The total number of tunnel ICMP packets - too big dropped by this system or the specified service.
Packet Too Big Relayed	The total number of tunnel ICMP packets - too big relayed by this system or the specified service.
<b>Total Disconnects</b>	
Lifetime expiry	The total number of disconnects due to lifetime expiry initiated by this system or the specified service.
Deregistrations	The total number of disconnects due to deregistrations initiated by this system or the specified service.
Admin Drops	The total number of disconnects due to admin drops initiated by this system or the specified service.
Other Reasons	The total number of disconnects due to "other reasons" initiated by this system or the specified service.

# Chapter 85

## show local-user

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This chapter describes the outputs of the `show local-user` command.

## show local-user username name verbose

Table 239. show local-user username name verbose Command Output Descriptions

Field	Description
Username	The name of the local-user.
Auth Level	The authentication level for the local-user as one of the following: <ul style="list-style-type: none"> <li>• secadmin</li> <li>• admin</li> <li>• operator</li> <li>• inspector</li> </ul>
Last Login	The time and date that the user last logged in.
Login Failures:	The number of login failures that occurred for the user.
Password Expired:	Indicates whether or not the password has expired.
Locked:	Indicates whether or not the account is locked.
Suspended	Indicates whether or not the account is suspended.
Lockout on Pw Aging	Indicates whether or not the account can be locked out due to the age of the password.
Lockout on Login Fail	Indicates whether or not the account can be locked out due to login failures.

## show local-user statistics verbose

Table 240. show local-user statistics verbose Command Output Descriptions

Field	Description
Number of login attempts	The total number of login attempts for all local-user accounts.
Number of login success	The total number of successful logins for all local-user accounts.
Number of login failures	The total number of failed logins for all local-user accounts.
Bad username	The total number of logins that failed due to invalid usernames.
Bad password	The total number of logins that failed due to incorrect passwords.
Locked user	The total number of logins that failed due to the account being locked.
Suspended user	The total number of logins that failed due to the account being suspended.
Internal error	The total number of logins that failed due to system internal errors.
Number of user lockouts	The total number of local-user accounts currently in the locked-out state.
Internal errors	The total number of internal errors that occurred.
Unable to accept request	The total number of internal errors that occurred because the system could not accept a login request.
Unable to receive request	The total number of internal errors that occurred because the system could not receive a login request.
Unable to sent response	The total number of internal errors that occurred because the system could not send a response to a login request.
Last login attempt	The time and date of the last login attempt by a local-user administrative user.
Last login success	The time and date of the last successful login by a local-user administrative user.
Last login failure	The time and date of the last failed login by a local-user administrative user.
Last statistics reset	The last time and date that local-user statistics maintained by the system were cleared.



# Chapter 86

## show mag-service

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This chapter includes the `show mag-service` command output tables.

## show mag-service statistics

Table 241. show mag-service statistics Command Output Descriptions

Field	Description
<b>Binding Update Sent</b>	
Total	The total number of all binding updates sent by this system or the specified service.
Init Request Xmit	The total number of initial request transmit binding updates sent by this system or the specified service.
Init Request Re-Xmit	The total number of initial request retransmit binding updates sent by this system or the specified service.
Renew Request Xmit	The total number of renew request transmit binding updates sent by this system or the specified service.
Renew Request Re-Xmit	The total number of renew request retransmit binding updates sent by this system or the specified service.
Dereg Request Xmit	The total number of deregistration request transmit binding updates sent by this system or the specified service.
Dereg Request Re-Xmit	The total number of deregistration request retransmit binding updates sent by this system or the specified service.
<b>Binding Acknowledgement Rcvd</b>	
Total	The total number of all binding acknowledgements received by this system or the specified service.
Errors	The total number of all binding acknowledgements, with errors, received by this system or the specified service.
Accepted	The total number of all binding acknowledgements received, and accepted by this system or the specified service.
Denied	The total number of all binding acknowledgements received, but denied by this system or the specified service.
Init Reply Rcvd	The total number of all binding acknowledgements - initial reply received by this system or the specified service.
Renew Reply Rcvd	The total number of all binding acknowledgements - renew reply received by this system or the specified service.
Dereg Reply Rcvd	The total number of all binding acknowledgements - deregistration reply received by this system or the specified service.
<b>Denied by LMA</b>	
Insufficient Resources	The total number of binding updates sent by this system or the specified service but denied by the LMA due to insufficient resources.
Mismatched ID	The total number of binding updates sent by this system or the specified service but denied by the LMA due to mismatched IDs.

Field	Description
MN Auth Failure	The total number of binding updates sent by this system or the specified service but denied by the LMA due to mobile node authorization failures.
Admin Prohibited	The total number of binding updates sent by this system or the specified service but denied by the LMA due to admin prohibited conditions.
Msg ID Required	The total number of binding updates sent by this system or the specified service but denied by the LMA due to missing message IDs.
DAD Failed	The total number of binding updates sent by this system or the specified service but denied by the LMA due to DAD failures.
Not Home Subnet	The total number of binding updates sent by this system or the specified service but denied by the LMA due to incorrect home subnet.
Sequence Out Of Window	The total number of binding updates sent by this system or the specified service but denied by the LMA due to sequence out of window conditions.
Reg Type Change Disallowed	The total number of binding updates sent by this system or the specified service but denied by the LMA due to registration type change disallowed.
Unspecified Reason	The total number of binding updates sent by this system or the specified service but denied by the LMA due to unspecified reasons.
Service-Authorization Failed	The total number of binding updates sent by this system or the specified service but denied by the LMA due to failed service authorizations.
Proxy Reg Not Enabled	The total number of binding updates sent by this system or the specified service but denied by the LMA due to proxy registration not being enabled.
Timestamp Mismatch	The total number of binding updates sent by this system or the specified service but denied by the LMA due to timestamp mismatches.
Timestamp Lower Than Expected	The total number of binding updates sent by this system or the specified service but denied by the LMA due to lower than expected timestamps.
Missing MN-ID Option	The total number of binding updates sent by this system or the specified service but denied by the LMA due to missing mobile node ID options.
Missing HNP Option	The total number of binding updates sent by this system or the specified service but denied by the LMA due to missing HNP options.
Missing Access Tech Option	The total number of binding updates sent by this system or the specified service but denied by the LMA due to missing access technology options.
Missing Handoff Ind Option	The total number of binding updates sent by this system or the specified service but denied by the LMA due to missing handoff indication options.
Not Authorized For HNP	The total number of binding updates sent by this system or the specified service but denied by the LMA due to not being authorized for HNP.
Not LMA For Mobile	The total number of binding updates sent by this system or the specified service but denied by the LMA due incorrect LMA for mobility.
Not Authorized For Proxy Reg	The total number of binding updates sent by this system or the specified service but denied by the LMA due to not being authorized for proxy registration.
BCE Prefix Do Not Match	The total number of binding updates sent by this system or the specified service but denied by the LMA due to BCE prefix mismatches.

Field	Description
<b>Binding Acknowledgement Error Reason</b>	
Missing HNP	The total number of binding acknowledgements with missing HNP errors received by this system or the specified service.
Missing NAI	The total number of binding acknowledgements with missing NAI errors received by this system or the specified service.
Home Address Conflict	The total number of binding acknowledgements with home address conflict errors received by this system or the specified service.
Matching Request Not Found	The total number of binding acknowledgements with matching requests not found errors received by this system or the specified service.
Badly Formed	The total number of binding acknowledgements with badly formed message errors received by this system or the specified service.
<b>Binding Revocation</b>	
Sent	The total number of binding revocations sent by this system or the specified service.
Retries Sent	The total number of binding revocation retries sent by this system or the specified service.
Ack Rcvd	The total number of binding revocation acknowledgements received by this system or the specified service.
Not Acknowledged	The total number of binding revocations sent, but not acknowledged, by this system or the specified service.
Rcvd	The total number of binding revocations received by this system or the specified service.
Ack Sent	The total number of binding revocation acknowledgements sent by this system or the specified service.
<b>Received Binding Revocation Trigger Reasons</b>	
Reserved	The total number of Binding Revocation Indication (BRI) messages received by the MAG with a "Reserved" revocation trigger reason.
Unspecified	The total number of Binding Revocation Indication (BRI) messages received by the MAG with an "Unspecified" revocation trigger reason.
Administrative Reason	The total number of Binding Revocation Indication (BRI) messages received by the MAG with an "Administrative Reason" revocation trigger reason.
Inter-MAG Handoff-Same ATT	The total number of Binding Revocation Indication (BRI) messages received by the MAG with an "Inter-MAG Handoff-Same ATT" revocation trigger reason.
Inter-MAG - Unknown Handoff	The total number of Binding Revocation Indication (BRI) messages received by the MAG with an "Inter-MAG - Unknown Handoff" revocation trigger reason.
Inter-MAG Handoff-Diff ATT	The total number of Binding Revocation Indication (BRI) messages received by the MAG with an "Inter-MAG Handoff-Diff ATT" revocation trigger reason.
Per-Peer Policy	The total number of Binding Revocation Indication (BRI) messages received by the MAG with a "Per-Peer Policy" revocation trigger reason.
Revoking Node Local Policy	The total number of Binding Revocation Indication (BRI) messages received by the MAG with a "Revoking Node Local Policy" revocation trigger reason.

Field	Description
User Initiated Session Term	The total number of Binding Revocation Indication (BRI) messages received by the MAG with a "User Initiated Session Term" revocation trigger reason.
Access Network Session Term	The total number of Binding Revocation Indication (BRI) messages received by the MAG with an "Access Network Session Term" revocation trigger reason.
IPv4 HoA Binding Only	The total number of Binding Revocation Indication (BRI) messages received by the MAG with an "IPv4 HoA Binding Only" revocation trigger reason.
Out-of Sync BCE State	The total number of Binding Revocation Indication (BRI) messages received by the MAG with an "Out-of Sync BCE State" revocation trigger reason.
Unknown	The total number of Binding Revocation Indication (BRI) messages received by the MAG with an "Unknown" revocation trigger reason.
<b>Sent Revocation ACK Status</b>	
Success	The total number of Binding Revocation Acknowledgement (BRA) messages sent by the MAG with a "Success" status.
Partial-Success	The total number of Binding Revocation Acknowledgement (BRA) messages sent by the MAG with a "Partial-Success" status.
Binding-Does-Not-Exist	The total number of Binding Revocation Acknowledgement (BRA) messages sent by the MAG with a "Binding-Does-Not-Exist" status.
No IPv4-HoA-Bind	The total number of Binding Revocation Acknowledgement (BRA) messages sent by the MAG with a "No IPv4-HoA-Bind" status.
Global-Revoc-Not-Authorized	The total number of Binding Revocation Acknowledgement (BRA) messages sent by the MAG with a "Global-Revoc-Not-Authorized" status.
Cannot-Identify-Binding	The total number of Binding Revocation Acknowledgement (BRA) messages sent by the MAG with a "Cannot-Identify-Binding" status.
Revoc-Failed-MN-Attached	The total number of Binding Revocation Acknowledgement (BRA) messages sent by the MAG with a "Revoc-Failed-MN-Attached" status.
Unknown	The total number of Binding Revocation Acknowledgement (BRA) messages sent by the MAG with an "Unknown" status.
<b>Binding Revocation Indication Discarded</b>	
Total	The total number of binding revocation acknowledgements received and discarded by this system or the specified service.
Session Not Found	The total number of binding revocation acknowledgements received and discarded, due to a session not found condition, by this system or the specified service.
Badly Formed Request	The total number of binding revocation acknowledgements received and discarded, due to a badly formed request condition, by this system or the specified service.
Decode Error	The total number of binding revocation acknowledgements received and discarded, due to a decode error condition, by this system or the specified service.
Checksum Error	The total number of binding revocation acknowledgements received and discarded, due to a checksum error condition, by this system or the specified service.
Invalid Message Type	The total number of binding revocation acknowledgements received and discarded, due to a invalid memory type condition, by this system or the specified service.

Field	Description
No Memory	The total number of binding revocation acknowledgements received and discarded, due to insufficient memory, by this system or the specified service.
<b>Tunnel Data Received</b>	
Total Packets	The total number of tunnel packets received by this system or the specified service.
6in6 4in6 IPv6 GRE (IPv4) IPv6 GRE (IPv6)	The total number of IPv6-in-IPv6 tunnel packets received by this system or the specified service. The total number of IPv4-in-IPv6 tunnel packets received by this system or the specified service. The total number of IPv4-in-IPv6 GRE tunnel packets received by this system or the specified service. The total number of IPv6-in-IPv6 GRE tunnel packets received by this system or the specified service.
Total Bytes	The total number of tunnel bytes received by this system or the specified service.
6in6 4in6 IPv6 GRE (IPv4) IPv6 GRE (IPv6)	The total number of IPv6-in-IPv6 tunnel bytes received by this system or the specified service. The total number of IPv4-in-IPv6 tunnel bytes received by this system or the specified service. The total number of IPv4-in-IPv6 GRE tunnel bytes received by this system or the specified service. The total number of IPv6-in-IPv6 GRE tunnel bytes received by this system or the specified service.
<b>Errors</b>	
Protocol Type Error	The total number of protocol type data errors received by this system or the specified service.
Invalid Pkt Length	The total number of invalid packet length data errors received by this system or the specified service.
No Session Found	The total number of no session found data errors received by this system or the specified service.
<b>Tunnel Data Sent</b>	
Total Packets	The total number of tunnel packets sent by this system or the specified service.
6in6 4in6 IPv6 GRE (IPv4) IPv6 GRE (IPv6)	The total number of IPv6-in-IPv6 tunnel packets sent by this system or the specified service. The total number of IPv4-in-IPv6 tunnel packets sent by this system or the specified service. The total number of IPv4-in-IPv6 GRE tunnel packets sent by this system or the specified service. The total number of IPv6-in-IPv6 GRE tunnel packets sent by this system or the specified service.
Total Bytes	The total number of tunnel bytes sent by this system or the specified service.
6in6 4in6 IPv6 GRE (IPv4) IPv6 GRE (IPv6)	The total number of IPv6-in-IPv6 tunnel bytes sent by this system or the specified service. The total number of IPv4-in-IPv6 tunnel bytes sent by this system or the specified service. The total number of IPv4-in-IPv6 GRE tunnel bytes sent by this system or the specified service. The total number of IPv6-in-IPv6 GRE tunnel bytes sent by this system or the specified service.
<b>Total Disconnects/Failures</b>	
Lifetime expiry	The total number of disconnects due to lifetime expiry initiated by this system or the specified service.
Access Initiated Term	The total number of disconnects due to deregistrations initiated by this system or the specified service.
Admin Drops	The total number of disconnects due to admin drops initiated by this system or the specified service.

Field	Description
Other Reasons	The total number of disconnects due to “other reasons” initiated by this system or the specified service.
LMA Revocations	The total number of disconnects due to LMA revocations received by this system or the specified service.



# Chapter 87

## show mbms bearer-service

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This chapter includes the `show mbms bearer-service` command output tables.

## show mbms bearer-service full all

Table 242. show mbms bearer-service full all Command Output Descriptions

Field	Description
MBMS Bearer Context ID	Specifies the identifier for bearer context used for MBMs service.
State	Specifies the state of bearer service instance.
Mcast Address	Specifies the IP address of BM-SC (Broadcast Multicast - Service Center) server bind to this instance.
APN	Specifies the name if the APN bind to this bearer instance.
Session Identity	Indicates the identifier for MBMS session active on system.
TMGI	indicates the globally unique Temporary Mobile Group Identity (TMGI) allocated by the BM-SC (Broadcast Multicast - Service Center) per MBMS bearer service.
MBMS Bearer Capabilities	Displays the value to indicate MBMS bearer capabilities in Activate MBMS Context Request message.
Service Area Length	Specifies the length of character string configured to indicate MBMS service area. Service area is the area within which data of a specific MBMS session are sent. Each individual MBMS session of an MBMS Bearer Service may be sent to a different MBMS Service Area.
MBMS 2G/3G indication	Displays the value to indicate type of service networks 2G GPRS network or 3G UMTS in Activate MBMS Context Request message.
Counting Info	Displays the value to indicate counting information for message broadcast in MBMS service area.
Session Repetition Number	Indicates the number or times the MBMS session retransmitted the broadcast message.
MBMS-Session-Identity	Specifies the MBMs session identifier.
MBMS-BMSC-SSM-IP	Indicates the IP address configured in IPv4 format with MBMS service and BM-SC server for interface.
Service Type	Specifies the type of service active for this instance of bearer service. Possible values are: UnicastMulticast
Session Started	Indicates whether MBMs service started or not.
BMSC supported user mode	Indicates the supported user mode on BM-SC for this instance of session. It can be Unicast (Broadcast) and/or Multicast.
GGSN selected user mode	Indicates the user mode selected by GGSN for this instance of session. It can be Ucast (Unicast) and/or Mcast (Multicast).
Time to Xfer	Indicates the time taken to transfer the message from system to UE.
Session Duration	Indicates the time elapsed after MBMS session started.
Num MBMS UEs	Indicates total number of UEs connected for this session.

Field	Description
Num MBMS Bearer	Indicates total number of MBMS bearer session instances active for this session.
Quality Of Service	Indicates the configured or updated QoS parameters for this bearer instance.
Traffic Classl	Specifies the class of traffic of active MBMS session. Possible values are: CoversationalStreaming
Maximum Bit Rate Uplink	Indicates the MBR supported/configured for data flow in uplink (to PDN) direction.
Maximum Bit Rate Downlink	Indicates the MBR supported/configured for data flow in downlink (from PDN) direction.
Guaranteed Bit Rate Uplink	Indicates the GBR supported/configured for data flow in uplink (to PDN) direction.
Guaranteed Bit Rate Downlink	Indicates the GBR supported/configured for data flow in downlink (from PDN) direction.
Total Number of MBMS Bearer Services	Indicates the total number of MBMS bearer instances are active.



# Chapter 88

## show mipfa

---

This chapter includes the **show mipfa** command output tables.

## show mipfa full username

Table 243. show mipfa full username Command Output Descriptions

Field	Description
Username	The subscriber's username.
Callid	The subscriber's call identification number (callid).
MSID	The subscriber's Mobile Station Identification number (MSID).
Num Agent Advt Sent	The total number of agent advertisement messages sent by the FA to the subscriber's mobile node.
Num Agent Solicit Rcvd	The total number of agent solicitation messages received by the FA from the subscriber's mobile node.
Home Address	The IP address assigned to the subscriber's mobile node for the duration of the session.
NAI	The subscriber's Network Access Identifier (NAI).
FA Address	The IP address of the FA that is facilitating the subscriber's Mobile IP session.
HA Address	The IP address of the Home Agent that is facilitating the subscriber's Mobile IP session.
Lifetime	The accepted lifetime interval for this session.
Remaining Lifetime	The amount of time that remains after which the session expires and is torn down.
Reverse Tunneling	Displays whether or not reverse tunneling is implemented for the subscriber's session.
Encapsulation Type	The encapsulation method used for the subscriber's session.
GRE Key	The key that uniquely identifies the subscriber session when the Generic Routing Encapsulation (GRE) protocol Encapsulation Type
IPSec Required	Indicates whether or not IPSec is required for the subscriber Mobile IP session.
IPSec Ctrl Tunnel Estab.	If IPSec is required for the session, this field indicates whether or not the control tunnel has been established.
IPSec Data Tunnel Estab.	If IPSec is required for the session, this field indicates whether or not the data tunnel has been established.
MN-AAA Removal	Shows if mn-aaa-removal-indication is enable or disabled. The possible values are: <ul style="list-style-type: none"> <li>• enabled</li> <li>• disabled</li> </ul>
Proxy MIP	Shows if Proxy Mobile IP is enabled or disabled for this subscriber session. Possible values are: <ul style="list-style-type: none"> <li>• enabled</li> <li>• disabled</li> </ul>
DMU Auth Failures	The total number of failed Dynamic MIP Key Update authentications for this subscriber session.

Field	Description
Send Terminal Verification	Shows if the FA is enabled to send the terminal verification NVSE in the RRQ. for this subscriber session. Possible values are: <ul style="list-style-type: none"> <li>enabled</li> <li>disabled</li> </ul>
Revocation Negotiated	Indicates whether or not MIP Registration Revocation was negotiated between the FA and the HA for this subscriber session. Possible values are : <ul style="list-style-type: none"> <li>NO</li> <li>YES</li> </ul>
Revocation I Bit Negotiated	Indicates whether or not the Revocation I bit was negotiated. Possible values are : <ul style="list-style-type: none"> <li>NO</li> <li>YES</li> </ul>
MN-HA-SPI Present	Status of dynamic MN-HA-SPI received from AAA in RRP for this subscriber session.
MN-HA-SPI	Specifies the dynamic MN-HA Security Parameter Index (SPI) number received from AAA in RRP for this subscriber session.
FA-HA-SPI Present	Status of dynamic FA-HA-SPI received from AAA in RRP for this subscriber session.
FA-HA-SPI	Specifies the dynamic FA-HA Security Parameter Index (SPI) number received from AAA in RRP for this subscriber session.
FA-HA-Key-Present	The security parameter index (SPI) key used to verify a trusted host environment and that communications are to be established between known hosts. Checks for presence of the FA - HA key. Options are: <ul style="list-style-type: none"> <li>True</li> <li>False</li> </ul>
FA-HA-SPI	FA - HA security parameter index (SPI)
HA-RK-Key-Present	The HA root key (RK) received by the HA from the AAA in the Radius Access-Accept. Checks for presence of HA-RK key. Options are: <ul style="list-style-type: none"> <li>True</li> <li>False</li> </ul> Note: True indicates a WiMAX session.
HA-RK-SPI	HA - RK security parameter index (SPI) Note: This field applies to WiMAX sessions only.
HA-RK-Lifetime	The total lifetime applied to an HA-RK. Note: This field applies to WiMAX sessions only.
HA-RK-Remaining-Lifetime	The total remaining lifetime for the HA-RK. Note: This field applies to WiMAX sessions only.

## show mipfa peers fa-service

Table 244. show mipfa peers fa-service Command Output Descriptions

Field	Description
Context	The name of the context where the FA service is located.
FA Service	The name of the FA service.
Peer Address	The IP address of the peer.
Current Sessions	The number of sessions currently running on the peer.
Total Sessions	The total number of current and past sessions for the peer.
IP Security	Specifies if IP security is enabled or disabled on the peer.
FA-HA Authentication	Specifies if FA-HA authentication is enabled or disabled on the peer.
HA Monitor Status	Specifies if HA monitor is enabled or disabled on the peer.
Total Peers	The total number of peers in the output of this show command.
Total Current Sessions	The total number of sessions across all peers in the output of this show command.

# Chapter 89

## show mipha

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This chapter includes the **show mipha** command output tables.

## show mipha statistics ha-service

Table 245. show mipha statistics ha-service Command Output Descriptions

Field	Description
HA Service	The name of the HA service for which the statistics are displayed.
MIP AAA Authentication	
Attempts	The number of authentication attempts by the HA including those that are authenticated locally.
Success	The number of authentication attempts completed successfully by the HA including those that are authenticated locally.
Total Failures	The total number of failed AAA authentication attempts that were facilitated.
Actual Auth Failures	The total number of AAA authentication attempts that were rejected by the AAA server.
Misc Auth Failures	The total number of miscellaneous authorization failures.
<b>Registration Request Received</b>	
Total Received Reg	The total number of registration requests received.
Total Accepted Reg	The total number of registration requests accepted.
<b>Total Denied Reg</b>	The total number of registration requests that were denied.
Total Discarded Reg	The total number of registration requests that were discarded.
Congestion Discarded Reg	The total number of requests discarded when congestion control is enabled and the system is in a congested state.
Initial Reg Requests	
Received	The total number of initial registration requests received.
Accepted	The total number of initial registration requests accepted.
Denied	The total number of initial registration requests denied.
Renew Reg Requests	
Received	The total number of renewal registration requests received.
Accepted	The total number of renewal registration requests accepted.
Denied	The total number of renewal registration requests denied.
DeReg Requests	
Received	The total number of requests for de-registration received.
<b>Accepted</b>	The total number of requests for de-registration accepted.
Denied	The total number of requests for de-registration denied.
Registration Reply Sent	

Field	Description
Total	The total number of registration replies sent.
Accepted Reg	The total number of successful registration replies sent.
Accepted DeReg	The total number of successful de-registration replies sent.
Denied	The total number of denied registration replies sent.
<b>Bad Request</b>	The total number of denied registration replies that were sent with a reply code of 86H (Registration Denied - poorly formed request).
Mismatched ID	The total number of denied registration replies that were sent with a reply code of 85H (Registration Denied - registration identification mismatch).
MN Auth Failure	The total number of denied registration replies that were sent with a reply code of 83H (Registration Denied - mobile node failed authentication).
<b>FA Auth Failure</b>	The total number of denied registration replies that were sent with a reply code of 84H (Registration Denied - home agent failed authentication).
Admin Prohibited	The total number of denied registration replies that were sent with a reply code of 81H (Registration Denied - administratively prohibited).
No Resources	The total number of denied registration replies that were sent with a reply code of 82H (Registration Denied - insufficient resources).
Simul Bindings Exceeded	The total number of denied registration replies that were sent with a reply code of 87H (Registration Denied - too many simultaneous mobility bindings).
Unknown HA	The total number of denied registration replies that were sent with a reply code of 88H (Registration Denied - unknown home agent address).
Rev Tunnel Unavailable	The total number of denied registration replies that were sent with a reply code of 89H (Registration Denied - reverse tunneling unavailable).
Rev Tunnel Mandatory	The total number of denied registration replies that were sent with a reply code of 8AH (Registration Denied - reverse tunneling mandatory).
Encap Unavailable	The total number of denied registration replies that were sent with a reply code of 8BH (Registration Denied - reverse tunneling encapsulation style unavailable).
Send Error	The total number of errors that occurred while sending replies.
Handoff Requests	
Received	The total number of handoff request received by HA for an existing session.
Accepted	The total number of handoff request accepted by HA.
Denied	The total number of handoff request denied by HA.
<b>Unspecified Reason</b>	The total number of denied registration replies that were sent with a reply code of 80H (Registration Denied - reason unspecified).
Unknown CVSE Rcvd	The total number of messages discarded because of an FA reply code of 100 (Critical Vendor Specific Extension Received).
UDP Encap Unavailable	Indicates registration denial caused by unavailable (minimal or GRE) UDP tunnel encapsulation modes.
RRQ Denied Overload/Congestion Control	

Field	Description
Admin Prohibited(reject)	The number of RRQs rejected when congestion control is enabled and the system is in a congested state.
Unknown HA (redirect)	The number of RRQs redirected to an alternate HA when congestion control is enabled and the system is in a congested state.
Registration Revocation	
Sent	Total registration revocation messages sent to the FA.
Retries Sent	Total registration revocation messages re-sent to the FA.
Ack Rcvd	Total registration revocation request acknowledgements received from the FA.
Not Acknowledged	Total registration revocation request messages that timed-out before an acknowledgement was received from the FA.
Rcvd	Total registration revocation request messages received from the FA.
Ack Sent	Total registration revocation request acknowledgements sent to the FA.
P-AAA Messages:	
BC Query Requests:	
Received	The total number of Binding Cache requests received from the proxy-AAA server.
Accepted	The total number of Binding Cache requests received from the proxy-AAA server that were accepted.
Denied	The total number of Binding Cache requests from the proxy-AAA server that were denied.
BC Query Responses:	
Sent	The total number of Binding Cache responses that were sent to the proxy-AAA server.
BC Found	The total number of Binding Cache responses that were sent to the proxy-AAA server that indicated that the requested binding context was found.
BC Not Found	The total number of Binding Cache responses that were sent to the proxy-AAA server that indicated that the requested binding context was not found.
IP Pool Overflow	The total number of Binding Cache responses that were sent to the proxy-AAA server that indicated that there is an IP Pool overflow condition for the requested binding context.
Miscellaneous	The total number of Binding Cache responses that were sent to the proxy-AAA server that indicated other miscellaneous errors for the requested binding context.
HA-IPSEC Tunnels	
Requests Received	The total number of HA-IPSEC tunnel session requests received.
Initiated	The total number of HA-IPSEC session requests received and initiated.
Denied	The total number of HA-IPSEC session requests received and denied.
Discarded	The total number of HA-IPSEC sessions initiated and discarded.
Connected	The total number of HA-IPSEC sessions initiated and connected.
Failed	The total number of HA-IPSEC sessions initiated, connected and failed.

Field	Description
<b>Tunnel Data Received</b>	
Total Packets	Total number of encapsulated packets received by this system.
IPIP	Total number of IP-in-IP encapsulated packets received by this system.
GRE	Total number of GRE tunneled packets received by this system.
IP-UDP	Total number of IP-in-UDP packets received by the system.
MIP-IPSEC	Total Number of MIP IP Sec packets received by the system.
Total Bytes	Total number of encapsulated bytes received by this system.
IPIP	Total number of IP-in-IP encapsulated bytes received by this system.
GRE	Total number of GRE encapsulated bytes received by this system
IP-UDP	Total number of IP-in-UDP bytes received by the system.
MIP-IPSEC	Total Number of MIP IP Sec bytes received by the system.
<b>Errors</b>	
Protocol Type Error	Total number of encapsulated packets received with protocol type errors.
GRE Key Absent	Total number of GRE tunneled key absent errors received.
GRE Checksum Error	Total number of checksum errors that occurred in GRE tunnels received by this system.
Invalid Packet Length	Total number of encapsulated packets received with invalid packet lengths.
No Session Found	Total number of errors that occurred due to no session being present in received tunnels.
<b>Tunnel Data Sent</b>	
Total Packets	The total number of encapsulated packets sent by this system.
IPIP	The total number of IP-in-IP encapsulated packets sent by this system.
GRE	The total number of GRE encapsulated packets sent by this system.
IP-UDP	Total number of IP-in-UDP packets sent by the system.
MIP-IPSEC	Total Number of MIP IP Sec packets sent by the system.
Total Bytes	The total number of encapsulated bytes sent by this system.
IPIP	The total number of IP-in-IP encapsulated bytes sent by this system.
GRE	The total number of GRE encapsulated bytes sent by this system
IP-UDP	Total number of IP-in-UDP bytes sent by the system.
MIP-IPSEC	Total Number of MIP IP Sec bytes sent by the system.
Total Disconnects	The total number of sessions that were disconnected.
Lifetime expiry	The total number of sessions that were disconnected due to the expiration of their lifetime setting.
Deregistrations	The total number of sessions that were disconnected due to de-registrations.

Field	Description
Admin Drops	The total number of sessions that were disconnected due to an administrative clearing of calls (i.e. executing the <b>clear subscribers</b> command).
FA Revocations	The total number of disconnects that were due to revocations received from the FA.
IPSEC Tunnel Down	The total number of sessions that were disconnected due to IPSEC tunnels down.
Other Reasons	The total number of disconnects that were due to reasons other than those already listed.
<b>HA Monitoring</b>	
Monitor RRQ Received	The total number of HA monitor request messages received by this HA due to inactivity.
Monitor RRP Sent	The total number of HA monitor response messages sent by this HA.

## show mipha full username

Table 246. show mipha full username Command Output Descriptions

Field	Description
Username	Subscriber's username
Callid	Subscriber's call identification number
MSID	Subscriber's mobile station identification number (MSID)
Home Address	IP address assigned to the subscriber's mobile node for the session
HA Address	IP address of the HA facilitating the subscriber's MIP session
Send NAI Extension in Revocation Message	Indicates whether or not an NAI extension is sent in a revocation message for this user. Options are: <ul style="list-style-type: none"> <li>No</li> <li>Yes</li> </ul>
Binding #	The mobility binding record (MBR) number associated with a particular subscriber session. Since it is possible for a single subscriber to have multiple bindings, information for each of the subscriber's binding records will be displayed according to the MBR number.
Care of Address	The IP address of the device terminating the tunnel to the mobile node. The address may belong to either a Foreign Agent that is facilitating the subscriber's Mobile IP session or another device that the mobile node is associated (co-located) with.
FA Address	The IP address of the Foreign Agent that is facilitating the subscriber's Mobile IP session.
Lifetime	The maximum amount of time that the subscriber's session can remain registered.
Remaining Life	The amount of time that is currently available to the subscriber to remain registered.
Reverse Tunneling	Displays whether or not reverse tunneling is enabled for the subscriber's session.
Encapsulation Type	The encapsulation method used for the subscriber's session.
GRE Key	The key that uniquely identifies the subscriber session when the Generic Routing Encapsulation (GRE) protocol Encapsulation Type
IPSec Required	Indicates whether or not IPSec is required for the subscriber Mobile IP session.
IPSec Ctrl Tunnel Estab.	If IPSec is required for the session, this field indicates whether or not the control tunnel has been established.
IPSec Data Tunnel Estab.	If IPSec is required for the session, this field indicates whether or not the data tunnel has been established.
Revocation Negotiated	Indicates whether or not MIP Registration Revocation was negotiated between the FA and the HA for this subscriber session. Options are: <ul style="list-style-type: none"> <li>No</li> <li>Yes</li> </ul>

Field	Description
Rev I bit Negotiated	Indicates whether or not the Revocation I bit was negotiated. Possible values are : <ul style="list-style-type: none"> <li>• No</li> <li>• Yes</li> </ul>
Colocated COA	Indicates whether or not the subscribers that registered a MIP colocated COA directly with the HA. Options are: <ul style="list-style-type: none"> <li>• No</li> <li>• Yes</li> </ul>
NAT Detected	Indicates whether or not network address translation (NAT) is detected. Options are: <ul style="list-style-type: none"> <li>• No</li> <li>• Yes</li> </ul>
MN-HA-Key-Present	The security parameter index (SPI) key used to verify a trusted host environment and that communications are to be established between known hosts. Checks for presence of mobile node (MN) - home agent (HA) key. Options are: <ul style="list-style-type: none"> <li>• True</li> <li>• False</li> </ul>
MN-HA-SPI	Mobile node (MN) - home agent (HA) security parameter index (SPI).
FA-HA-Key-Present	The security parameter index (SPI) key used to verify a trusted host environment and that communications are to be established between known hosts. Checks for presence of the FA - HA key. Options are: <ul style="list-style-type: none"> <li>• True</li> <li>• False</li> </ul>
FA-HA-SPI	FA - HA security parameter index (SPI)
HA-RK-Key-Present	The HA root key (RK) received by the HA from the AAA in the Radius Access-Accept. Checks for presence of HA-RK key. Options are: <ul style="list-style-type: none"> <li>• True</li> <li>• False</li> </ul> Note: True indicates a WiMAX session.
HA-RK-SPI	HA - RK security parameter index (SPI) Note: This field applies to WiMAX sessions only.
HA-RK-Lifetime	The total lifetime applied to an HA-RK. Note: This field applies to WiMAX sessions only.
HA-RK-Remaining-Lifetime	The total remaining lifetime for the HA-RK. Note: This field applies to WiMAX sessions only.

## show mipha peers ha-service

*Table 247. show mipha peers ha-service Command Output Descriptions*

Field	Description
Context	The name of the context where the HA service is located.
HA Service	The name of the HA service.
Peer Address	The IP address of the peer.
Current Sessions	The number of sessions currently running on the peer.
Total Sessions	The total number of current and past sessions for the peer.
IP Security	Specifies if IP security is enabled or disabled on the peer.
FA-HA Authentication	Specifies if FA-HA authentication is enabled or disabled on the peer.
Total Peers	The total number of peers in the output of this show command.
Total Current Sessions	The total number of sessions across all peers in the output of this show command.



# Chapter 90

## show mipv6ha

---

This chapter includes the **show mipv6ha** command output tables.

## show mipv6ha-service all

Table 248. show mipv6ha-service all Command Output Descriptions

Field	Description
Service Name	The mipv6ha service name.
Context	The context in which the service is configured.
Bind	The bind status.
Max Subscribers	The maximum number of subscribers.
Local IPv6 Address	IPv6 address of the server where this service is located.
Lifetime	The accepted lifetime interval for this session.
Simul Bindings	Specifies the maximum number of “care-of” addresses that can simultaneously be bound for the same user as identified by NAI and Home address.
Setup Timeout	The session setup timeout duration.
Sequence Number Validation	Specifies the sequence number validation of the received MIPV6 control packet by the Home Agent (HA) as per RFC 3775.
Refresh Advice Option	Displays the refresh advice option in the binding acknowledgements sent by the home agent.
Refresh Interval Percent	Displays the amount of the granted lifetime to be used in the refresh interval mobility option in Binding Acknowledgement sent by the HA.
Timestamp Replay Protection	Displays the acceptable difference in timing (between timestamps) before rejecting packet.
Timestamp Tolerance	Total variation allowed in timestamp mismatch.
Default Subscriber	Name of the default subscriber.
AAA accounting	Displays if AAA accounting is enabled or disabled.
Service Status	Status of this service.
Newcall Policy	Specify that the new call policy enabled or disabled to handle new calls. Possible values are: <ul style="list-style-type: none"> <li>• NONE</li> <li>• REJECT</li> </ul>

## show mipv6ha statistics

Table 249. show mipv6ha statistics Command Output Descriptions

Field	Description
MIP AAA Authentication:	
Attempts:	Total MIP AAA Authentication attempts.
Success:	Total MIP AAA Authentication attempts that were successful.
Total Failures:	Total MIP AAA Authentication attempts that failed.
Actual Auth Failures:	Actual number of MIP AAA Authentication that failed.
Misc Auth Failures:	Total number of MIP AAA Authentication that failed.
Binding Updates Received:	
Total Received:	Total number of Binding Updates that were received.
Total Accepted:	Total number of Binding Updates that were accepted.
Total Denied:	Total number of Binding Updates that were denied.
Total Discarded:	Total number of Binding Updates that were discarded.
Congestion Discarded Reg:	The total number of requests discarded when congestion control is enabled and the system is in a congested state.
Initial Binding Update Requests:	
Received:	Total number of Initial Binding Update Requests that were received.
Accepted:	Total number of Initial Binding Update Requests that were accepted.
Denied:	Total number of Initial Binding Update Requests that were denied.
Refresh Binding Update Requests:	
Received:	Total number of Refresh Binding Update Requests that were received.
Accepted:	Total number of Refresh Binding Update Requests that were accepted.
Denied:	Total number of Refresh Binding Update Requests that were denied.
DeReg Requests:	
Received:	Total number of requests for de-registration that were received.
Accepted:	Total number of requests for de-registration that were accepted.
Denied:	Total number of requests for de-registration that were denied.
Handoff Requests:	
Received:	Total number of requests for handoffs that were received.

Field	Description
Accepted:	Total number of requests for handoffs that were accepted.
Denied:	Total number of requests for handoffs that were denied.
Binding Acknowledgements Sent:	
Total:	Total number of requests for Binding Acknowledgements.
Accepted Reg:	The total number of registration requests accepted.
Accepted DeReg:	The total number of deregistration requests accepted.
Denied:	The total number of registration requests denied.
Send Error:	The total number of errors that occurred while sending replies.
Binding Update Deny Reasons:	
Insufficient Resources:	The total number of binding update requests that were denied because of insufficient resources.
Mismatched ID:	The total number of binding update requests that were denied because of a mismatched ID.
MN Auth Failure:	The total number of binding update requests that were denied because of a MN authentication failure.
Admin Prohibited:	The total number of registration requests that were denied due to being administratively prohibited.
Msg ID Required:	The total number of bind update denied with status code 91H (Msg-Id-Required).
DAD Failed:	The total number of bind update denied with status code 86H (Duplicate Address Detection failed).
Not Home Subnet:	The total number of bind update denied with status code 84H (Not Home Subnet)
Sequence Out Of Window:	The total number of bind update denied with status code 87H (Sequence number Out of Window).
Reg Type Change Disallowed:	The total number of bind update denied with status code 8BH (Registration Type change disallowed).
Unspecified Reason:	The total number of bind update denied with status code 80H (Reason Unspecified).
Update Denied - Insufficient Resource Reasons:	The total number of binding update requests that were denied because of Insufficient Resources.
No Session Manager:	The total number of binding update requests that were denied due to the lack of available Session Manager tasks. This may occur when the system is booting up in the event that a Session Manager task terminated unexpectedly.
Binding Updates Discard Reasons:	
Congestion Discarded:	HAMGR discards when configured to drop packets on congestion
Checksum Error:	v6HA driver discard on checksum failure for BU packet
Initial Auth Pending:	V6HA driver discard when retry BU's are received. Discarded packet is included as part of Init/Renew/Dereg/Handoff request counters as packet is discarded before processing them in detail.
Session Not Found:	When HAMGR forwards RRQ for existing session but session is not found in Sessmgr
HAMGR Not Ready:	When HAMGR is not yet ready and packet buffering limit is exceeded

Field	Description
Decode Failure:	When BU packet decoding fails in HAMGR.
Invalid Buffer Length:	When there is mismatch in BU packet buffer length and expected length.



# Chapter 91

## show multicast-sessions

---

This chapter includes the `show multicast-sessions` command output tables.

## show multicast-sessions all

Table 250. show multicast-sessions all Command Output Descriptions

Field	Description
vvvvv	<p>Displays service and session state information. This column provides a code consisting of three characters. From left-to-right, the first character represents the <b>Session Type</b> that the subscriber is using. The possible session types are:</p> <ul style="list-style-type: none"> <li>• <b>B</b>: BCMCS</li> <li>• <b>M</b>: MBMS Multicast</li> <li>• <b>R</b>: MBMS Broadcast</li> </ul> <p>From left-to-right, the second character represents the <b>Framing Type</b>. The possible framing types are:</p> <ul style="list-style-type: none"> <li>• <b>H</b>: HDLC Like</li> <li>• <b>S</b>: Segment Based</li> <li>• <b>x</b>: Not Applicable</li> </ul> <p>From left-to-right, the third character represents the <b>Flow Type</b>. The possible flow types are:</p> <ul style="list-style-type: none"> <li>• <b>F</b>: Flow</li> <li>• <b>P</b>: Program</li> <li>• <b>u</b>: Unknown</li> </ul> <p>From left-to-right, the fourth character represents the <b>Call State</b> of the session. The possible call states are:</p> <ul style="list-style-type: none"> <li>• <b>C</b>: Connected</li> <li>• <b>c</b>: Connecting</li> <li>• <b>D</b>: Disconnecting</li> <li>• <b>u</b>: Unknown</li> </ul> <p>From left-to-right, the fifth character represents the <b>Link Status</b> of the session. The possible idle states are:</p> <ul style="list-style-type: none"> <li>• <b>A</b>: Online/Active</li> <li>• <b>D</b>: Dormant/Idle</li> </ul>
CALLID	Displays the subscriber's call identification (callid) number.
FLOW ID	Displays the flow identification for multicast service session.
MCAST ADDR	Displays the IP address of Broadcast Multicast service center.
APN/PORT	Displays the APN name or port number through which the multicast services is provided.
PEER ADDR	Displays the IP address of Access Gateway to which the subscriber is attached.
TIME-IDLE	Displays the amount of time that the subscriber session has been idle either in an active or dormant state.

## show multicast-sessions full all

Table 251. show multicast-sessions full all Command Output Descriptions

Field	Description
Flow Id	Hex value indicating the Flow ID.
state	Indicates the status of session. The possible status are: <ul style="list-style-type: none"> <li>• Connected</li> <li>• Connecting</li> <li>• Disconnecting</li> <li>• Unknown</li> </ul>
Access Type	Indicates the access type of broadcast-multicast service. Possible values are: <ul style="list-style-type: none"> <li>• mbms-bearer: access through MBMS bearer context</li> <li>• mbms-ue: access through MBMS UE context</li> </ul>
Flow ID Type	Indicates the Flow ID type.
callid	Displays the call identification number (callid).
connect time	Displays the time of connection starts.
call duration	Specifies total duration of call session in hh:mm:ss format
idle time	Displays the amount of time that the multicast session has been idle either in an active or dormant state.
idle time left	Shows the amount of idle time left before timeout.
session time left	How much session time is left for the specified multicast session.
Multicast ip address	The IP address of the interface in the session.
peer address	The IP address of the peer in the session.
source context	Specifies the name of a configured source context from which the session was initiated.
destination context	Specifies the name of a configured destination context through which the subscribers are provided access to the packet data network.
output pkts	Indicates the number of packets transmitted.
output bytes	Indicates the number of bytes transmitted.
outputs pkts dropped	Indicates the number of packets that were dropped while receiving data for this multicast session.
pk rate to peer (bps)	The peak data rate, in bits per second, obtained for data sent from the subscriber to the network during the last sampling period.
pk rate to peer (pps)	The peak data rate, in packets per second, obtained for data received from the network by the subscriber during the last sampling period.

■ show multicast-sessions full all

Field	Description
ave rate to peer (bps)	The average data rate, in bits per second, obtained for data received from the network by the subscriber during the last sampling period.
ave rate to peer (pps)	The average data rate, in packets per second, obtained for data received from the network by the subscriber during the last sampling period.
sust rate to peer (bps)	The mean data rate, in bits per second, obtained for data received from the network by the subscriber during the last three sampling periods.
sust rate to peer (pps)	The mean data rate, in packets per second, obtained for data received from the network by the subscriber during the last three sampling periods.

# Chapter 92

## show ntp

---

This chapter describes the output of the `show ntp` command.

## show ntp status

Table 252. show ntp status Command Output Descriptions

Field	Description
system peer	The current synchronization source.
system peer mode	The mode of the association between the system and the synchronization source. The association can operate in one of the following modes as defined in RFC 1305: symmetric active symmetric passive client server broadcast
leap indicator	The two-bit code that will be used to indicate the insertion of a leap second in the NTP timescale.
stratum	The quality level of the system clock.
precision	A signed integer that indicates the precision of the system clock.
root distance	The round-trip packet delay to the primary reference source. The delay is measured in seconds.
root dispersion	The maximum error relative to the primary reference source. The error is measured in seconds.
reference ID	The code that identifies the current synchronization source.
reference time	The local time that the system was last updated using NTP.
system flags	Indicates various communication parameters between the system and the server. The possible flags are as follows: <b>auth:</b> Enables the server to synchronize with unconfigured peers only if the peer has been correctly authenticated using either public key or private key cryptography. <b>bclient:</b> Enables the server to listen for a message from a broadcast or multicast server, as in the multicast client command with default address. <b>calibrate:</b> Enables the calibrate feature for reference clocks. <b>kernel:</b> Enables the kernel time discipline, if available. <b>monitor:</b> Enables the monitoring facility. <b>ntp:</b> Enables time and frequency discipline. In effect, this switch opens and closes the feedback loop, which is useful for testing. <b>pps:</b> Enables the pulse-per-second (PPS) signal when frequency and time is disciplined by the precision time kernel modifications. <b>stats:</b> Enables the statistics facility.
jitter	The maximum amount of fluctuation within the synchronization source due to random noise.
stability	The stability of the clocking source in parts per million (ppm).
broadcastdelay	The round-trip delay for broadcast messages in seconds.
authdelay	The round-trip delay for authentication messages in seconds.

# Chapter 93

## show nw-reachability server all

---

*Table 253.show nw-reachability server Command Output Descriptions*

Field	Description
Server	The name that was configured for this server in the current context.
remote-addr	The IP address to which ping packets are sent in order to determine network reachability.
local-addr	The IP address that is used as the source address of ping packets sent to the reachability server.
state	The state of the network reachability server. Either Up or Down. Up: The server is responding to ping packets. Down: The server is not responding to ping packets.
Total Network Reachability Servers:	The total number of network reachability servers that are configured in the current context.
Up:	The number of network reachability servers that are responding.



# Chapter 94

## show orbem

---

This chapter describes the output of the `show orbem` command.

## show orbem client id

*Table 254. show orbem client id Command Output Descriptions*

Field	Description
Application Server ID	The name of the ORBEM client as configured by the <b>client</b> command in the ORBEM configuration mode.
State	The status of the ORBEM client as “Enabled” or “Disabled”. This indicates whether or not the system is manageable by the external Web Element Manager server: enabled indicates that it can be managed, disabled indicates that it is unmanageable. If the status is “Disabled”, it can be enabled by executing the <b>activate client id</b> command in the ORBEM Configuration Mode.
Privileges	Indicates the management capabilities of the client as “FCAPS” (Fault, Configuration, Accounting, Performance, and Security).

## show orbem status

Table 255. show orbem status Command Output Descriptions

Field	Description
Service State	Indicates whether the service state of the ORBEM client on the system is enabled (on) or disabled (off).
Management Functions	Indicates which management functions ORBEM is currently allowing. Possible values for this field are: <ul style="list-style-type: none"> <li>• Fault</li> <li>• Configuration</li> <li>• Accounting</li> <li>• Performance</li> <li>• Security</li> </ul>
IOP URL	Indicates the universal resource locator (URL) of the system interface over which the Inter-ORB Protocol (IOP) will communicate.
SSL Port	Indicates the Secure Socket Layer Inter-ORB Protocol (SIOP) TCP port that will be used by the ORB server (that runs on the system) to communicate with the client.
TCP port	Indicates the Internet Inter-ORB Protocol (IIOP) Transport Control Protocol (TCP) port that will be used by the ORB server (that runs on the system) to communicate with the client. This is only used if IIOP transport is needed in addition to SIOP.
Notification SSL Port	Indicates the TCP port number to be used by the CORBA event notification service SIOP transport.
Notification TCP Port	Indicates the TCP port number to be used by the CORBA event notification service IIOP transport.
Session Timeout	Indicates the amount of time an ORBEM client-session can be open and remain idle before ORBEM terminates the session. This value is a global value that is applied to all configured ORBEM clients.
Max Login Attempts	Indicates the maximum number of times a client can attempt to login before ORBEM de-activates the client id.
IIOP Transport	Indicates whether the Internet Inter-ORB Protocol (IIOP) transport is enabled (on) or disabled (off).
Notification	Indicates whether the CORBA event notification service on the system is enabled (on) or disabled (off).
Number of Current Sessions	Indicates the number of ORBEM sessions that currently exist.
Number of Event Channels Open	Indicates the number of ORBEM event channels that are currently open.
Number of Operations Completed	Indicates the number of ORBEM operations that have been completed.
Number of Events Processed	Indicates the number of ORBEM events that have been processed.

■ show orbem status

Field	Description
Avg Operation Processing time	Indicates the average processing time in seconds of recent ORBEM events.
(last 1000)	Indicates the average processing time in seconds of the last 1000 ORBEM events.

## show orbem session table

Table 256. show orbem session table Command Output Descriptions

Field	Description
Session ID	The identification number for the ORBEM session. This is a number used within the system to reference the session.
Application Server	Indicates server that the ORBEM session is established with by the client id that was configured for the server.
Context Name	The name of the context on the system that is facilitating the ORBEM configuration.
Last transaction	Indicates the date and time of the last transaction between the system and the application server.

## show orbem session table

*Table 257. show orbem session table Command Output Descriptions*

Field	Description
Session ID	The identification number for the ORBEM session. This is a number used within the system to reference the session.
Application Server	Indicates server that the ORBEM session is established with by the client id that was configured for the server.
Context Name	The name of the context on the system that is facilitating the ORBEM configuration.
Last transaction	Indicates the date and time of the last transaction between the system and the application server.

# Chapter 95

## show pdg-service

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This chapter describes the output of the `show pdg-service` command.

## show pdg-service all

Table 258. show pdg-service all Command Output Description

Field	Description
Service name	The name of the PDG service.
Context name	The name of the context in which the PDG service resides.
Bind	Displays the bind status for the PDG service for binding the service to a crypto template.
Max sessions	The maximum number of sessions supported by the PDG service.
IP address	The IPv4 address of the PDG service.
UDP Port	The UDP port number associated with the IP address.
Service State	The current state of the PDG service.
Crypto-template	The name of the crypto template bound to the FNG service.
SSL-template	The name of the SSL template bound to the FNG service. This is a customer-specific field.
SGTP Service	The name of the SGTP service bound to the PDG service.
SGTP Service context	The name of the context in which the SGTP service was created.
Session Setup Timeout (sec)	The maximum time allowed to set up a session in seconds.
Certificate Selection	The selection method for selecting the certificate to be included in the first IKE-AUTH message. Can be APN-based or crypto template-based.
PLMN Id	The PLMN identifiers for the PDG/TTG.
Duplicate Session Detection Type	The duplicate session detection type.
IP Source Violation - Drop Limit	The drop-limit value, which is the maximum number of allowed IP source violations within the detection period before dropping a call.
IP Source Violation - Period	The detection period in seconds for IP source violations.
IP Source Violation - Clear On Valid Packet	Displays whether the option to reset the drop-limit counters upon receipt of a properly addressed packet is enabled or disabled.
3gpp qos to dscp Downlink mapping	This group indicates the 3GPP QoS to DSCP downlink mapping information.
conversational	Indicates the DSCP configured for conversational type of traffic.
streaming	Indicates the DSCP configured for streaming type of traffic.
interactive (TP 1)	Indicates the DSCP configured for interactive type of traffic with traffic priority 1.
interactive (TP 2)	Indicates the DSCP configured for interactive type of traffic with traffic priority 2.
interactive (TP 3)	Indicates the DSCP configured for interactive type of traffic with traffic priority 3.
background	Indicates the DSCP configured for background type of traffic.

Field	Description
3GPP qos to dscp Downlink mapping based on Alloc. Prio	This group indicates the 3GPP QoS to DSCP downlink mapping information based on allocation priority.
interactive (TP 1, Alloc.P 1)	Indicates the DSCP configured for interactive type of traffic with traffic priority 1 and allocation priority 1.
interactive (TP 1, Alloc.P 2)	Indicates the DSCP configured for interactive type of traffic with traffic priority 1 and allocation priority 2.
interactive (TP 1, Alloc.P 3)	Indicates the DSCP configured for interactive type of traffic with traffic priority 1 and allocation priority 3.
interactive (TP 2, Alloc.P 1)	Indicates the DSCP configured for interactive type of traffic with traffic priority 2 and allocation priority 1.
interactive (TP 2, Alloc.P 2)	Indicates the DSCP configured for interactive type of traffic with traffic priority 2 and allocation priority 2.
interactive (TP 2, Alloc.P 3)	Indicates the DSCP configured for interactive type of traffic with traffic priority 2 and allocation priority 3.
interactive (TP 3, Alloc.P 1)	Indicates the DSCP configured for interactive type of traffic with traffic priority 3 and allocation priority 1.
interactive (TP 3, Alloc.P 2)	Indicates the DSCP configured for interactive type of traffic with traffic priority 2 and allocation priority 2.
interactive (TP 2, Alloc.P 3)	Indicates the DSCP configured for interactive type of traffic with traffic priority 3 and allocation priority 2.
3gpp qos to dscp Uplink mapping (TTG only)	This group indicates the 3GPP QoS to DSCP uplink mapping information.
conversational	Indicates the DSCP configured for conversational type of traffic.
streaming	Indicates the DSCP configured for streaming type of traffic.
interactive (TP 1)	Indicates the DSCP configured for interactive type of traffic with traffic priority 1.
interactive (TP 2)	Indicates the DSCP configured for interactive type of traffic with traffic priority 2.
interactive (TP 3)	Indicates the DSCP configured for interactive type of traffic with traffic priority 3.
background	Indicates the DSCP configured for background type of traffic.
3GPP qos to dscp Uplink mapping based on Alloc. Prio	This group indicates the 3GPP QoS to DSCP downlink mapping information based on allocation priority.
interactive (TP 1, Alloc.P 1)	Indicates the DSCP configured for interactive type of traffic with traffic priority 1 and allocation priority 1.
interactive (TP 1, Alloc.P 2)	Indicates the DSCP configured for interactive type of traffic with traffic priority 1 and allocation priority 2.
interactive (TP 1, Alloc.P 3)	Indicates the DSCP configured for interactive type of traffic with traffic priority 1 and allocation priority 3.
interactive (TP 2, Alloc.P 1)	Indicates the DSCP configured for interactive type of traffic with traffic priority 2 and allocation priority 1.

■ show pdg-service all

Field	Description
interactive (TP 2, Alloc.P 2)	Indicates the DSCP configured for interactive type of traffic with traffic priority 2 and allocation priority 2.
interactive (TP 2, Alloc.P 3)	Indicates the DSCP configured for interactive type of traffic with traffic priority 2 and allocation priority 3.
interactive (TP 3, Alloc.P 1)	Indicates the DSCP configured for interactive type of traffic with traffic priority 3 and allocation priority 1.
interactive (TP 3, Alloc.P 2)	Indicates the DSCP configured for interactive type of traffic with traffic priority 3 and allocation priority 2.
interactive (TP 3, Alloc.P 3)	Indicates the DSCP configured for interactive type of traffic with traffic priority 3 and allocation priority 3.

## show pdg-service statistics

Table 259. show pdg-service statistics Command Output Description

Field	Description
<b>Session Stats</b>	
Current sessions total	Total number of sessions in progress including transient sessions.
Direct-IP-IPv4 current	Total number of currently active Direct IP IPv4 sessions.
TTG-IPv4 current	Total number of currently active TTG IPv4 sessions.
Active current	Total number of currently active sessions.
Dormant current	Total number of currently dormant sessions.
Active IPv4 current	Total number of currently active IPv4 sessions.
Active IPv6 current	Total number of currently active IPv6 sessions.
Dormant IPv4 current	Total number of currently dormant IPv4 sessions.
Dormant IPv6 current	Total number of currently dormant IPv6 sessions.
Total Direct-IP IPv4	Total number of Direct IP IPv4 sessions.
Total TTG IPv4	Total number of TTG IPv4 sessions.
Direct-IP IPv4 attempts	Total number of Direct IP IPv4 attempts.
Direct-IP IPv4 successes	Total number of Direct IP IPv4 successes.
Direct-IP IPv4 failures	Total number of Direct IP IPv4 failures.
Total setup attempts	Total number of session setup attempts.
Total setup success	Total number of successful session attempts.
Total Attempts Failed	Total number of failed session attempts.
Total disconnected	Total number of sessions released locally and remotely.
Disconnect locally	Total number of sessions released locally.
Disconnect remotely	Total number of sessions released remotely.
Disconnect remotely before connect	Total number of sessions released remotely before connecting.
<b>Reauthentication Stats</b>	
Total reauth attempts	Total number of reauthentication attempts.
Total reauth success	Total number of reauthentication successes.
Total reauth failure	Total number of reauthentication failures.

Field	Description
<b>Session Disconnect reason</b>	
Remote disc. ipsec	Number of sessions disconnected because of IPSec.
Admin disconnect	Number of sessions disconnected by the administrator.
Idle timeout	Number of sessions disconnected because the idle timer has timed out.
Absolute timeout	Number of sessions disconnected because the Absolute timer has timed out.
Long duration timeout	Number of sessions disconnected because the long duration timer has timed out.
Session setup timeout	Number of sessions disconnected because the Session Manager's session setup timer has timed out.
No resource	Number of sessions disconnected because the system has run out of resources (flows, memory resources, etc.).
Auth failure	Number of sessions disconnected because of an authentication failure.
Flow add failure	Number of sessions disconnected because a flow could not be added on the NPU.
Invalid dest-context	Number of sessions disconnected because the destination context received from the AAA server is invalid.
Source address violation	Number of sessions disconnected because the source IP address is invalid.
GTP	Number of GTP sessions disconnected.
Duplicate Request	Number of sessions disconnected because of duplicate requests.
Addr assign failure	Number of sessions disconnected because no remote IP address has been assigned.
Miscellaneous reasons	Number sessions disconnected because of miscellaneous reasons.
<b>Data Stats</b>	
Total Bytes Sent	Total number of bytes sent.
Total Packets Sent	Total number of packets sent.
Total Bytes Rcvd	Total number of bytes received.
Total Packets Rcvd	Total number of packets received.
<b>EAP Server Statistics</b>	
Total Received	Total number of EAP messages received from the EAP server in pass-through mode.
Success Received	Total Number of EAP success messages received from the EAP server in pass-through mode.
Challenge Received	Total number of EAP challenge messages received from the EAP server in pass-through mode.
Failures Received	Total number of EAP failure messages received from the EAP server in pass-through mode.
Total Sent	Total number of EAP messages transmitted to the EAP server in pass-through mode.
Initial Requests	Total number of initial EAP messages transmitted to the EAP server in pass-through mode.
Requests Forwarded	Total number of EAP requests forwarded to the EAP server in pass-through mode.
EAP Mobile Stats	

Field	Description
Total Received	Total number of EAP messages received from the UEs in pass-through mode.
Discarded	Total number of EAP messages received from the UEs in pass-through mode.



# Chapter 96

## show pdif-service

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This chapter describes the output of the `show pdif-service` command.

## show pdif-service statistics

Table 260. show pdif-service statistics Command Output Descriptions

Field	Description
<b>Session Statistics</b>	
Current sessions total	Total number of current sessions.
Simple-IPv4 current	Number of current Simple-IPv4 sessions.
Mobile-IPv4 current	Number of current Mobile-IPv4 sessions.
Proxy-Mobile-IPv4 current	Number of current Proxy-Mobile-IPv4 sessions.
Data-Clients	Total number of subscriber sessions originating from data clients.
Active current	Total number of currently active sessions.
Dormant current	Total number of currently dormant sessions.
Active IPv4 current	Total number of currently active IPv4 sessions.
Active IPv6 current	Total number of currently active IPv6 sessions.
Dormant IPv4 current	Total number of currently dormant IPv4 sessions.
Dormant IPv6 current	Total number of currently dormant IPv6 sessions.
Total Simple-IP IPv4	Total number of Simple-IP IPv4 sessions.
Total Mobile-IP IPv4	Total number of Mobile-IP IPv4 sessions.
Total Proxy-Mobile-IP IPv4	Total number of Proxy-Mobile-IP IPv4 sessions.
Mobile-IP IPv4 attempts	Total number of Mobile-IP IPv4 session attempts.
Mobile-IP IPv4 successes	Number of successful Mobile-IP IPv4 session attempts.
Mobile-IP IPv4 failures	Number of failed Mobile-IP IPv4 session attempts.
Proxy-Mobile-IP IPv4 attempts	Total number of Proxy-Mobile-IP IPv4 session attempts.
Proxy-Mobile-IP IPv4 succ	Number of successful Proxy-Mobile-IP IPv4 session attempts.
Proxy-Mobile-IP IPv4 fails	Number of failed Proxy-Mobile-IP IPv4 session attempts.
Simple-IP-Fallback attempts	Total number of Simple-IP fallback attempts.
successes	Number of successful Simple-IP fallback sessions.
failures	Number of failed Simple-IP fallback sessions.
<b>Simple-IP-Fallback Failure Reasons</b>	
No Mobile-IP RRQ Rx	Mobile-IP RRQ request not received.

Field	Description
Not allowed	Simple-IP fallback not allowed by configuration.
Tagged Pool Address	Address is in a pool and tagged not to allow Simple-IP fallback.
Misc	
Simple-IP IPv4 attempts	Total number of Simple-IP IPv4 session attempts.
Simple-IP IPv4 successes	Number of successful Simple-IP IPv4 attempts.
Simple-IP IPv4 failures	Number of failed Simple-IP IPv4 attempts.
Total setup attempts	Total number of session setup attempts.
Total setup success	Number of successful session setup attempts.
Total Attempts Failed	Number of failed session setup attempts.
Total disconnected	Total number of disconnected sessions.
Disconnected locally	Number of sessions disconnected locally.
Disconnected remotely	Number of sessions disconnected remotely.
Disconnect remotely before connect	Number of sessions disconnected remotely before the session was fully connected.
<b>Session Disconnect Reasons</b>	
Remote disconnect ipsec	Number of sessions disconnected because of remote party (mobile) hang-up.
Admin disconnect	Number of sessions disconnected by the Admin.
Idle timeout	Number of sessions disconnected because the Idle timer has timed out.
Absolute timeout	Number of sessions disconnected because the Absolute timer has timed out.
Long duration timeout	Number of sessions disconnected because the Long Duration timer has timed out.
Session setup timeout	Number of sessions disconnected because the Session Setup timer has timed out.
No resource	Number of sessions disconnected because the system has run out of resources (flows, memory, etc.).
Auth failure	Number of sessions disconnected because of an authentication failure.
Flow add failure	Number of sessions disconnected because flow could not be added on NPU.
Invalid dest-context	Number of sessions disconnected because the destination context coming from AAA server is invalid.
Source address violation	Number of sessions disconnected because the source IP address is invalid.
MIP Remote	Number of Mobile-IP sessions disconnected because of remote mobile user hang-up.
MIP Local	Number of Mobile-IP sessions disconnected locally.
Duplicate Request	Number of sessions disconnected because of a duplicate request when there is already a session with the same NAI.
MAC validation failure	Number of sessions disconnected because the HSS cannot validate MAC address from remote user.

Field	Description
Addr assign failure	Number of sessions disconnected because no address has been assigned.
Miscellaneous reasons	Number of Mobile-IP sessions disconnected for other reasons.
<b>MAC Address Validation Statistics</b>	
Validation attempted	Total number of MAC address validation attempts.
Validation succeeded	Number of successful MAC address validation attempts.
Validation failed	Number of failed MAC address validation attempts.
<b>MAC Address Validation Successes</b>	
MAC Address matches	Number of successful HSS server MAC address matches.
HSS failure continued	HSS is configured to continue the session after a failure is registered.
<b>MAC Address Validation Failure Reasons</b>	
Diameter Error	Validation failed because of a problem with the Diameter server.
User Unknown	Validation failed because of an unknown user.
Malformed MAC Address	Validation failed because of a malformed MAC address from the mobile subscriber.
No MAC Address provided	Validation failed because the mobile subscriber does not supply a MAC address.
Unauthorized MAC Address	Validation failed because the MAC address is not authorized by the HSS.
Sh Interface unavailable	Validation failed because of a problem with the interface to the HSS.
Others	Validation failed because of other reasons.
<b>Data Stats</b>	
Total Bytes Sent	Total number of bytes sent.
Total Packets Sent	Total number of packets sent.
Total Bytes Rcvd	Total number of bytes received.
Total Packets Rcvd	Total number of packets received.
Total Pkts Violations	Total number of packets received from UEs and destined for the Internet that do not match any of the configured traffic selectors.
<b>EAP Server Statistics</b>	
Total Received	Total number of EAP Success+ EAP Challenge + EAP Failures, coming from EAP server.
Success Received	Number of EAP successes received.
Challenge Received	Number of EAP challenges received.
Failures Received	Number of EAP failures received.
Discarded	Number of EAP server messages discarded.
Total Sent	Total number of EAP server messages sent.
Initial Requests	Number of initial requests.

Field	Description
Requests Forwarded	Number of requests forwarded.
<b>EAP Mobile Statistics</b>	
Total Received	Total number of EAP Requests coming from mobile subscriber.
Discarded	Number of EAP mobile messages discarded.



# Chapter 97

## show pgw

---

This chapter describes the output of the **show pgw** command.

## show pgw-service all

Displays configuration information for all P-GW services configured on the system.

Need descriptions. Must be complete for 1-11-09 release. Condition P-GW only.

**Table 261. show pgw-service all Command Output Descriptions**

Field	Description
Service name	The name of the P-GW service.
Service-ID	The system-generated identification number associated with the P-GW service name.
Context	The context name where the P-GW service is configured.
Accounting Context	The context name where the accounting configuration and/or interface(s) are configured.
Accounting gtp group	
Status	
Restart Counter	
EGTP Service	The eGTP service name configured for use by this service.
LMA Service	The LMA service name configured for use by this service.
Session-Delete-Delay Timer	
Session-Delete-Delay Timeout	
PLMN ID List	
Newcall Policy	
dns-pcscf-context	The context where the DNS client is configured and used by this service.
QCI-QoS Mapping Table Name	The QoS Class Index to QoS mapping table configured for use with this service.

# show pgw-service statistics

Table 262. show pgw-service statistics Command Output Descriptions

Field	Description
<b>Subscriber session statistics</b>	
Total bearers active	
Default bearers	The total number of active default bearers using the P-GW service(s) on this system.
Dedicated bearers	The total number of active dedicated bearers using the P-GW service(s) on this system. This counter increments for both network and UE-initiated dedicated bearers.
Total bearers setup	
Default bearers	The total number of default bearers setup using the P-GW service(s) on this system.
Dedicated bearers	The total number of dedicated bearers setup using the P-GW service(s) on this system. This counter increments for both network and UE-initiated dedicated bearer setup.
Total bearers released	
Default bearers	The total number of default bearers released using the P-GW service(s) on this system.
Network initiated release	
Admin disconnect	The total number of default bearers released due to an administrative disconnect using the P-GW service(s) on this system.
GTP-U error ind	The total number of default bearers released due to a GTP-U error indication using the P-GW service(s) on this system.
SGW Path failure	The total number of default bearers released due to an S-GW path failure using the P-GW service(s) on this system.
MME Initiated release	The total number of default bearers released due to an MME initiated release using the P-GW service(s) on this system.
Dedicated bearers	The total number of dedicated bearers released using the P-GW service(s) on this system.
Network initiated release	
Admin disconnect	The total number of dedicated bearers released due to an administrative disconnect using the P-GW service(s) on this system.
GTP-U error ind	The total number of dedicated bearers released due to a GTP-U error indication using the P-GW service(s) on this system.
MME initiated release	The total number of dedicated bearers released due to an MME initiated release using the P-GW service(s) on this system.
Default bearer release	The total number of dedicated bearers released due to a default bearer release using the P-GW service(s) on this system.
Total bearers release failure	

Field	Description
Default bearers	The total number of default bearer release failures using the P-GW service(s) on this system.
Dedicated bearers	The total number of dedicated bearer release failures using the P-GW service(s) on this system.
Total bearers rejected:	
Default bearers	The total number of default bearers rejected using the P-GW service(s) on this system.
No Resource	The total number of default bearers rejected due to a no resource condition using the P-GW service(s) on this system.
Missing or unknown APN	The total number of default bearers rejected due to a missing or unknown APN using the P-GW service(s) on this system.
APN selection-Mode mismatch	The total number of default bearers rejected due to an APN selection mode mismatch using the P-GW service(s) on this system.
Pref PDN-Type not supported	The total number of default bearers rejected due to a preferred PDN type not supported condition using the P-GW service(s) on this system.
APN restr violation	The total number of default bearers rejected due to an APN restriction violation using the P-GW service(s) on this system.
Subs auth failed	The total number of default bearers rejected due to a subscriber authentication failure using the P-GW service(s) on this system.
Subs static addr not allowed	The total number of default bearers rejected due to a disallowed subscriber static IP address using the P-GW service(s) on this system.
Subs static addr not alloc	The total number of default bearers rejected due to an unallocated subscriber static IP address using the P-GW service(s) on this system.
Dynamic addr not alloc	The total number of default bearers rejected due to an unallocated dynamic IP address using the P-GW service(s) on this system.
Subs static addr not present	The total number of default bearers rejected due to a missing subscriber static IP address using the P-GW service(s) on this system.
Dedicated bearers	The total number of dedicated bearers rejected using the P-GW service(s) on this system.
UE-req reject	The total number of UE-requested dedicated bearers rejected using the P-GW service(s) on this system.
Network-req reject	The total number of network-requested dedicated bearers rejected using the P-GW service(s) on this system.
Total bearers modified	
UE-initiated modification	The total number of UE-initiated bearers modified using the P-GW service(s) on this system.
QOS modification	The total number of UE-initiated bearers with a QoS modification using the P-GW service(s) on this system.
TFT modification	The total number of UE-initiated bearers with a TFT modification using the P-GW service(s) on this system.
Network-initiated modification	The total number of network-initiated bearers modified using the P-GW service(s) on this system.

Field	Description
QoS modification	The total number of network-initiated bearers with a QoS modification using the P-GW service(s) on this system.
TFT modification	The total number of network-initiated bearers with a TFT modification using the P-GW service(s) on this system.
Total bearers modification failure	
UE-initiated mod failed	The total number of UE-initiated bearer modification failures using the P-GW service(s) on this system.
QoS mod fail	The total number of UE-initiated bearer modification failures due to QoS modification failures using the P-GW service(s) on this system.
Semantic err in TFT oper	The total number of UE-initiated bearer modification failures due to semantic errors in a TFT operation using the P-GW service(s) on this system.
Syntact err in TFT oper	The total number of UE-initiated bearer modification failures due to syntactic errors in a TFT operation using the P-GW service(s) on this system.
Semantic err in pkt filter	The total number of UE-initiated bearer modification failures due to semantic errors in a packet filter using the P-GW service(s) on this system.
Syntact err in pkt filter	The total number of UE-initiated bearer modification failures due to syntactic errors in a packet filter using the P-GW service(s) on this system.
Network-initiated mod failed	The total number of network-initiated bearer modification failures using the P-GW service(s) on this system.
QoS mod fail	The total number of network-initiated bearer modification failures due to QoS modification failures using the P-GW service(s) on this system.
Semantic err in TFT oper	The total number of network-initiated bearer modification failures due to semantic errors in a TFT operation using the P-GW service(s) on this system.
Syntact err in TFT oper	The total number of network-initiated bearer modification failures due to syntactic errors in a TFT operation using the P-GW service(s) on this system.
Semantic err in pkt filter	The total number of network-initiated bearer modification failures due to semantic errors in a packet filter using the P-GW service(s) on this system.
Syntact err in pkt filter	The total number of network-initiated bearer modification failures due to syntactic errors in a packet filter using the P-GW service(s) on this system.
Total PDN-Type stats	
PDN-Type IPv4 sessions	The total number of PDN-type IPv4 sessions using the P-GW service(s) on this system.
Active	The total number of active PDN-type IPv4 sessions using the P-GW service(s) on this system.
Setup	The total number of setup PDN-type IPv4 sessions using the P-GW service(s) on this system.
Released	The total number of released PDN-type IPv4 sessions using the P-GW service(s) on this system.
PDN-Type IPv6 sessions	The total number of PDN-type IPv6 sessions using the P-GW service(s) on this system.
Active	The total number of active PDN-type IPv6 sessions using the P-GW service(s) on this system.

Field	Description
Setup	The total number of setup PDN-type IPv6 sessions using the P-GW service(s) on this system.
Released	The total number of released PDN-type IPv6 sessions using the P-GW service(s) on this system.
PDN-Type IPv4v6 sessions	The total number of PDN-type IPv4v6 sessions using the P-GW service(s) on this system.
Active	The total number of active PDN-type IPv4v6 sessions using the P-GW service(s) on this system.
Setup	The total number of setup PDN-type IPv4v6 sessions using the P-GW service(s) on this system.
Released	The total number of released PDN-type IPv4v6 sessions using the P-GW service(s) on this system.
<b>IP address allocation statistics</b>	
Total IPv4 addr allocated	The total number of IPv4 addresses allocated using the P-GW service(s) on this system.
Local pool add assign	The total number of local IP pool IPv4 addresses allocated using the P-GW service(s) on this system.
Static addr assign	The total number of static IPv4 addresses allocated using the P-GW service(s) on this system.
Radius provided addr assign	The total number of RADIUS-provided IPv4 addresses allocated using the P-GW service(s) on this system.
Total IPv6 addr allocated	The total number of IPv6 addresses allocated using the P-GW service(s) on this system.
Stateless auto config	The total number of stateless address auto configuration IPv6 addresses allocated using the P-GW service(s) on this system.
<b>SGi tunneling statistics</b>	
Total IPv4 tunnel sessions	The total number of IPv4 tunnel sessions using the P-GW service(s) SGi interface(s) on this system.
IP-in-IP tun sessn active	The total number of active IP-in-IP tunnel sessions using the P-GW service(s) SGi interface(s) on this system.
IP-in-IP tun sessions setup	The total number of setup IP-in-IP tunnel sessions using the P-GW service(s) SGi interface(s) on this system.
IP-in-IP tun sessions released	The total number of released IP-in-IP tunnel sessions using the P-GW service(s) SGi interface(s) on this system.
GRE-tun sessions active	The total number of active GRE tunnel sessions using the P-GW service(s) SGi interface(s) on this system.
GRE-tun sessions setup	The total number of setup GRE tunnel sessions using the P-GW service(s) SGi interface(s) on this system.
GRE-tun session release	The total number of released GRE tunnel sessions using the P-GW service(s) SGi interface(s) on this system.
Total IPv6 tunneled sessions	The total number of IPv6 tunnel sessions using the P-GW service(s) SGi interface(s) on this system.
6to4 tun sessions active	The total number of active IPv4-in-IPv6 tunnel sessions using the P-GW service(s) SGi interface(s) on this system.

Field	Description
6to4 tun session setup	The total number of setup IPv4-in-IPv6 tunnel sessions using the P-GW service(s) SGi interface(s) on this system.
6to4 tun sessions released	The total number of released IPv4-in-IPv6 tunnel sessions using the P-GW service(s) SGi interface(s) on this system.
<b>Subscriber PLMN Statistics</b>	
Home subscribers sessions	The total number of home subscriber sessions using the P-GW service(s) on this system.
Sessions active	The total number of active home subscriber sessions using the P-GW service(s) on this system.
Sessions setup	The total number of setup home subscriber sessions using the P-GW service(s) on this system.
Sessions released	The total number of released home subscriber sessions using the P-GW service(s) on this system.
Roaming subscribers sessions	The total number of roaming subscriber sessions using the P-GW service(s) on this system.
Sessions active	The total number of active roaming subscriber sessions using the P-GW service(s) on this system.
Sessions setup	The total number of setup roaming subscriber sessions using the P-GW service(s) on this system.
Sessions released	The total number of released roaming subscriber sessions using the P-GW service(s) on this system.
Visiting subscribers sessions	The total number of visiting subscriber sessions using the P-GW service(s) on this system.
Sessions active	The total number of active visiting subscriber sessions using the P-GW service(s) on this system.
Sessions setup	The total number of setup visiting subscriber sessions using the P-GW service(s) on this system.
Sessions released	The total number of released visiting subscriber sessions using the P-GW service(s) on this system.
<b>Subscriber QoS Statistics</b>	
Total bearers active	
QCI 1 - 9	The total number of active bearers with a QoS Class Index using the P-GW service(s) on this system.
Non-Std QCI (Non-GBR)	The total number of active bearers with a non-standard QCI (non-GBR) using the P-GW service(s) on this system.
Non-Std QCI (GBR)	The total number of active bearers with a non-standard QCI (GBR) using the P-GW service(s) on this system.
Total bearers setup	
QCI 1 - 9	The total number of setup bearers with a QoS Class Index using the P-GW service(s) on this system.
Non-Std QCI (Non-GBR)	The total number of setup bearers with a non-standard QCI (non-GBR) using the P-GW service(s) on this system.
Non-Std QCI (GBR)	The total number of setup bearers with a non-standard QCI (GBR) using the P-GW service(s) on this system.
Total bearers released	
QCI 1 - 9	The total number of released bearers with a QoS Class Index using the P-GW service(s) on this system.

Field	Description
Non-Std QCI (Non-GBR)	The total number of released bearers with a non-standard QCI (non-GBR) using the P-GW service(s) on this system.
Non-Std QCI (GBR)	The total number of released bearers with a non-standard QCI (GBR) using the P-GW service(s) on this system.
<b>Subscriber Data Statistics</b>	
Total Uplink packets forwarded	
QCI 1 - 9	The total number of uplink packets forwarded with a QoS Class Index using the P-GW service(s) on this system.
Non-Std QCI (Non-GBR)	The total number of uplink packets forwarded with a non-standard QCI (non-GBR) using the P-GW service(s) on this system.
Non-Std QCI (GBR)	The total number of uplink packets forwarded with a non-standard QCI (GBR) using the P-GW service(s) on this system.
Total Uplink bytes forwarded	
QCI 1 - 9	The total number of uplink bytes forwarded with a QoS Class Index using the P-GW service(s) on this system.
Non-Std QCI (Non-GBR)	The total number of uplink bytes forwarded with a non-standard QCI (non-GBR) using the P-GW service(s) on this system.
Non-Std QCI (GBR)	The total number of uplink bytes forwarded with a non-standard QCI (GBR) using the P-GW service(s) on this system.
Total Downlink packets forwarded	
QCI 1 - 9	The total number of downlink packets forwarded with a QoS Class Index using the P-GW service(s) on this system.
Non-Std QCI (Non-GBR)	The total number of downlink packets forwarded with a non-standard QCI (non-GBR) using the P-GW service(s) on this system.
Non-Std QCI (GBR)	The total number of downlink packets forwarded with a non-standard QCI (GBR) using the P-GW service(s) on this system.
Total Downlink bytes forwarded	
QCI 1 - 9	The total number of downlink bytes forwarded with a QoS Class Index using the P-GW service(s) on this system.
Non-Std QCI (Non-GBR)	The total number of downlink bytes forwarded with a non-standard QCI (non-GBR) using the P-GW service(s) on this system.
Non-Std QCI (GBR)	The total number of downlink bytes forwarded with a non-standard QCI (GBR) using the P-GW service(s) on this system.
Total Uplink packets dropped	
QCI 1 - 9	The total number of uplink packets dropped with a QoS Class Index using the P-GW service(s) on this system.
Non-Std QCI (Non-GBR)	The total number of uplink packets dropped with a non-standard QCI (non-GBR) using the P-GW service(s) on this system.

Field	Description
Non-Std QCI (GBR)	The total number of uplink packets dropped with a non-standard QCI (GBR) using the P-GW service(s) on this system.
Total Uplink bytes dropped	
QCI 1 - 9	The total number of uplink bytes dropped with a QoS Class Index using the P-GW service(s) on this system.
Non-Std QCI (Non-GBR)	The total number of uplink bytes dropped with a non-standard QCI (non-GBR) using the P-GW service(s) on this system.
Non-Std QCI (GBR)	The total number of uplink bytes dropped with a non-standard QCI (GBR) using the P-GW service(s) on this system.
Total Downlink packets dropped	
QCI 1 - 9	The total number of downlink packets dropped with a QoS Class Index using the P-GW service(s) on this system.
Non-Std QCI (Non-GBR)	The total number of downlink packets dropped with a non-standard QCI (non-GBR) using the P-GW service(s) on this system.
Non-Std QCI (GBR)	The total number of downlink packets dropped with a non-standard QCI (GBR) using the P-GW service(s) on this system.
Total Downlink bytes dropped	
QCI 1 - 9	The total number of downlink bytes dropped with a QoS Class Index using the P-GW service(s) on this system.
Non-Std QCI (Non-GBR)	The total number of downlink bytes dropped with a non-standard QCI (non-GBR) using the P-GW service(s) on this system.
Non-Std QCI (GBR)	The total number of downlink bytes dropped with a non-standard QCI (GBR) using the P-GW service(s) on this system.



# Chapter 98

## show port

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This chapter describes the output of the `show port` command.

## show port info

Table 263. show port info Command Output Descriptions for Ethernet LC

Field	Description
Port Type	<p>The data rate(s) that is supported by the port. The possible options are:</p> <ul style="list-style-type: none"> <li>• 10/1000 Ethernet for Ethernet 10/100 Line Cards</li> <li>• 1000 Ethernet for Ethernet 1000 Line Cards or four-port Quad Gig-E Line Cards (QGLC-ASR 5000 only)</li> <li>• 1000 Ethernet Dual Media for SPIOs</li> <li>• STM1/OC3 Channelized</li> <li>• DS3 for DS3/E and DS/T Line Cards</li> </ul> <p><b>NOTE:</b> SPIO ports are capable of supporting 10/100 or 1000 Mbps data rates.</p>
Description	The description given to the port during software configuration. If no description was configured, (None Set) will be displayed.
Controlled By Card	The application card that the line card is mapped to and the application card's slot number.
Redundancy Mode	<p>The redundancy mode of the card. The possible modes are:</p> <ul style="list-style-type: none"> <li>• Normal = Normal card redundancy.</li> <li>• Port = Port redundancy.</li> <li>• Mixed - ATM Only</li> </ul>
Framing Mode	SDH or SONET
Redundant With	The redundant port for that port. If a redundant port is not available, then None will be displayed.
Preferred Port	Identifies if the port is to have control returned to it automatically in the event the port is brought back into service after a failure.
Physical ifIndex	The static identification number for a slot/port combination. This ID is used in SNMP traps sent when the link status of the port goes up or down.
Administrative State	Indicates whether or not the card has been configured for use via software. If it has been configured, Enabled will be displayed. If not, Disabled will be displayed.
Configured Duplex	<p>The port's configured duplex mode. The possible modes are:</p> <ul style="list-style-type: none"> <li>• Auto (The port auto-detects the appropriate mode (full or half) for communicating on the network.)</li> <li>• Full</li> <li>• Half</li> </ul>

Field	Description
Configured Speed	The maximum supported data rate for the port. The possible rates are: <ul style="list-style-type: none"> <li>• Auto (The port auto-detects the appropriate data rate for communicating on the network.)</li> <li>• 10 Mbps</li> <li>• 100 Mbps</li> <li>• 1000 Mbps (supported on the Ethernet 1000 Line Card, the QGLC and the SPIO)</li> </ul>
MAC Address	The media access control (MAC) address for the port. If Virtual MAC addressing is enabled the MAC address displayed is followed by <b>(Virtual)</b> .
SRP Virtual MAC Address	The SRP virtual MAC address.
Link State	The link status, either Up or Down.
Link Duplex	The actual duplex mode currently being used for the link. Either Full or Half will be displayed.
Link Speed	The actual data rate currently being supported by the port. Either 10 Mb, 100 Mb, or 1000 Mb will be displayed.
Link Aggregation Group	Displays the group number to which this port belongs and whether the port is a Master or a Member.
Link Aggregation LACP	Link Aggregation Control Protocol operational state. Options are: <ul style="list-style-type: none"> <li>• Active: sends out LACP packets periodically.</li> <li>• Passive: only responds to LACP packets received</li> <li>• Protocol packet and events flow is configured either slow (30s) or fast (1s).</li> </ul> The default is active and slow
Link Aggregation Master	Line card number and port number combination i.e. 17/1
Link Aggregation State	Displays whether Link Aggregation is either: <ul style="list-style-type: none"> <li>• Selected</li> <li>• Unselected</li> </ul> with no further data given.
Link Aggregation Actor	LACP packet sent from the ASR 5000 side of the aggregated link.
Link Aggregation Partner	LACP packet sent from the remote switch side
Logical ifIndex	The dynamically assigned identification number for the IP interface bound to a port. This ID is used in SNMP traps sent when the IP interface goes up or down or switches between top and bottom line cards.

Field	Description
Operational State	<p>The operational state and mode of the card.</p> <p>The operational state is listed first followed by a comma ( , ), then the operational mode.</p> <p>The operational state is listed as either Up or Down.</p> <p>The operational mode of the card that the port belongs to. The card can be in one of the following modes:</p> <ul style="list-style-type: none"> <li>• <b>Active:</b> Indicates that the card is an active component that will be used to process subscriber data sessions.</li> <li>• <b>Standby:</b> Indicates that the card is a redundant component. Redundant components will become active through manual configuration or automatically should a failure occur.</li> <li>• <b>Offline:</b> Indicates that the card is installed but is not ready to process subscriber data sessions. This could be due to the fact that it is not completely installed (i.e. the card interlock switch is not locked, refer to the System Installation Guide for information on installing cards in the system) or that its processes have been halted.</li> </ul>
Line-timing	Indicates whether or not this port has been configured to recover timing clock for distribution to all chassis line cards.
SFP Module	<p>Indicates whether or not an small form-factor pluggable (SFP) module is installed on the card and its type. Possible types are:</p> <ul style="list-style-type: none"> <li>• 1000BASE-T</li> <li>• 1000BASE-SX</li> <li>• 1000BASE-LX</li> <li>• M5</li> <li>• M6</li> <li>• For the XGLC, 10GBASE-SR and 10GBASE LR</li> </ul> <p><b>NOTE:</b> This field will only be displayed for line cards that facilitate an SFP module such as the Ethernet 1000, QGLC, XGLC, and SPIO. In addition, the displayed type will vary depending on the vendor of the SFP module. Refer to the <b>show card hardware</b> command.</p>
Path <i>x e1 y</i>	Indicates the e1. It gives the exact tu-2 and tu-12 number of the e1, the framing mode of the e1 <i>x</i> and the mapping mode for the e1 <i>y</i> .
Frame Relay Intf Type	<p>Indicates the frame relay interface type. Possible types are:</p> <ul style="list-style-type: none"> <li>• DCE: Data communication equipment</li> <li>• DTE: Data terminal equipment</li> <li>• NNI: Network-to-Network Interface</li> </ul> <p>Default: DTE</p>
Frame Relay LMI Type	<p>Indicates the frame relay local management interface (LMI) protocol type. Possible types are:</p> <ul style="list-style-type: none"> <li>• ANSI</li> <li>• CISCO</li> <li>• Q933a</li> <li>• None</li> </ul> <p>Default: None</p>
Frame Relay LMI n391	Indicates the number of keep exchanges before requesting a full status through n391 local management interface. Possible values are 1 through 255 and default is 6.

Field	Description
Frame Relay LMI n392	Indicates the Error threshold value. It specifies the total number of errors with in the event count specified by n392 local management interface to bring down the link. Possible values are 1 through 10 and default is 2.
Frame Relay LMI n393	Indicates Monitored Events count. This monitored event count set for n392 local management interface. Possible values are 1 through 10 and default is 2.
Frame Relay LMI t391	Indicates the keep-alive timer interval in seconds at which the DTE sends out a keepalive response request to the DCE and updates status, depending on the error threshold value for t391 local management interface. Possible values are 5 through 30 and default is 10.
Frame Relay LMI t392	Indicates the keep-alive timer period during which the DCE checks for keepalive responses from the DTE and updates status, depending on the DCE error threshold value in seconds for t391 local management interface. Possible values are 5 through 30 and default is 15.
Number of DLCIs	Indicates the total number of Data Link Connection Identifiers configured for the STM-1 port. The DLCI serves to identify the virtual connection so that the receiving end knows which information connection a frame belongs to

## show port table

Table 264. show port table Command Output Descriptions

Field	Description
Port	Specifies the available ports for every installed line card and SPIO in conjunction with the chassis slot number in which the card is installed. For example the two ports for the SPIO installed in slot 24 are displayed as 24/1 and 24/2.
Type	The data rate(s) that is supported by the port. The possible options are: <ul style="list-style-type: none"> <li>• 10/1000 Ethernet for Ethernet 10/100 Line Cards</li> <li>• 1000 Ethernet for Ethernet 1000 Line Cards</li> <li>• 1000 Ethernet for Quad Gig-E four-port Line Card (QGLC)</li> <li>• 1000 Ethernet Dual Media for SPIOs</li> </ul> <b>NOTE:</b> SPIO ports are capable of supporting 10/100 or 1000 Mbps data rates.
Admin	Indicates whether or not the card has been configured for use via software. If it has been configured, Enabled will be displayed. If not, Disabled will be displayed.
Oper	The operational state of the card, either Up or Down.
Link	The link status, either Up or Down.
State	The operational mode of the card that the port belongs to. The card can be in one of the following modes: <ul style="list-style-type: none"> <li>• <b>Active:</b> Indicates that the card is an active component that will be used to process subscriber data sessions.</li> <li>• <b>Standby:</b> Indicates that the card is a redundant component. Redundant components will become active through manual configuration or automatically should a failure occur.</li> <li>• <b>Offline:</b> Indicates that the card is installed but is not ready to process subscriber data sessions. This could be due to the fact that it is not completely installed (i.e. the card interlock switch is not locked, refer to the System Installation Guide for information on installing cards in the system) or that its processes have been halted.</li> </ul>
Redundant With	The redundant port for that port. If a redundant port is not available, then None will be displayed. Extra information is shown in the “Redundant With” column when the port is in a link aggregation group. It now shows “LAG” and the redundant card/port detail.
Link Aggregation Port Condition	An aggregated port can be selected and collecting data, and either distributing data or not distributing data. If the port is distributing data, a “+” sign appears in the port detail next to the “LAG” entry. If the port is not distributing data, then a “-” sign appears instead.

## show port datalink counters

Table 265. show port datalink counters Command Output Descriptions

Field	Applicable Line Card(s)	Description
Counters for port	Ethernet 10/100 and Ethernet 1000	The port for which the counters are displayed. The very next line displays the type of line card that the port belongs to.
RX Counter		
RX Unicast frames	Ethernet 10/100 and Ethernet 1000	The number of Unicast frames received.
<b>RX Multicast frames</b>	Ethernet 10/100 and Ethernet 1000	The number of Multicast frames received.
RX Broadcast frames	Ethernet 10/100 and Ethernet 1000	The number of Broadcast frames received.
RX Size	Ethernet 10/100 and Ethernet 1000	The number of times that data was received according to number of frames that comprised it. The number of frames are categorized into the following ranges: <ul style="list-style-type: none"> <li>• 64</li> <li>• 65 through 127</li> <li>• 128 through 255</li> <li>• 256 through 511</li> <li>• 512 through 1023</li> <li>• 1024 through 1518</li> <li>• Greater than 1518</li> </ul>
RX Bytes OK	Ethernet 10/100 and Ethernet 1000	The number of bytes that were received without error.
RX Bytes BAD	Ethernet 10/100 and Ethernet 1000	The number of bytes that were received with errors.
RX OVF	Ethernet 10/100 and Ethernet 1000	The number of overflows received.
RX SHORT OK	Ethernet 10/100 and Ethernet 1000	The number of frames, less than 64 bytes in length, received without any error.
RX SHORT CRC	Ethernet 10/100 and Ethernet 1000	The number of frames, less than 64 bytes in length, received with cyclical redundancy check (CRC) error.
RX NO SFD	Ethernet 10/100	The number of frames received without start frame delimiter (SFD) detection but with carrier assertion.

## ■ show port datalink counters

Field	Applicable Line Card(s)	Description
RX NORM CRC	Ethernet 10/100 and Ethernet 1000	The number of frames, with lengths between 64 bytes and the maximum frame size, received with an integral number of bytes and a cyclical redundancy check (CRC) error.
RX NORM ALI	Ethernet 10/100	The number of frames, with lengths between 64 bytes and the maximum frame size, received with a non-integral number of bytes and a cyclical redundancy check (CRC) error.
RX LONG OK	Ethernet 10/100 and Ethernet 1000	The number of frames, larger than the maximum frame size, received without any error.
<b>RX LONG CRC</b>	Ethernet 10/100 and Ethernet 1000	The number of frames, larger than the maximum frame size, received with CRC error.
RX PAUSE	Ethernet 10/100 and Ethernet 1000	The number of correct received flow-control frames.
RX FALS CRS	Ethernet 10/100 and Ethernet 1000	The number of false carrier events detected.
RX SYM ERR	Ethernet 10/100	The number of received frames during which physical (PHY) symbol errors were detected.
RX GPCS ERR	Ethernet 1000	The number of received frames during which physical (PHY) symbol errors were detected.
Tx Counter		
TX Unicast frames	Ethernet 10/100 and Ethernet 1000	The number of Unicast frames transmitted.
TX Multicast frames	Ethernet 10/100 and Ethernet 1000	The number of Multicast frames transmitted.
<b>TX Broadcast frames</b>	Ethernet 10/100 and Ethernet 1000	The number of Broadcast frames transmitted.
TX Size	Ethernet 10/100 and Ethernet 1000	The number of times that data was transmitted according to the number of frames that comprised it. The number of frames are categorized into the following ranges: <ul style="list-style-type: none"> <li>• 64</li> <li>• 65 through 127</li> <li>• 128 through 255</li> <li>• 256 through 511</li> <li>• 512 through 1023</li> <li>• 1024 through 1518</li> <li>• Greater than 1518</li> </ul>
TX Bytes OK	Ethernet 10/100 and Ethernet 1000	The number of bytes that were transmitted without error.
<b>TX Bytes BAD</b>	Ethernet 10/100 and Ethernet 1000	The number of bytes that were transmitted with errors.

Field	Applicable Line Card(s)	Description
TX DEFER	Ethernet 10/100	The number of frames deferred upon the first transmit attempt due to a busy line.
TX COL	Ethernet 10/100	The number of regular collision events occurring during transmission.
TX SCOL	Ethernet 10/100	The number of frames transmitted without any error following a single collision.
TX MCOL	Ethernet 10/100	The number of frames transmitted without any error following multiple collision.
TX XCOL	Ethernet 10/100	The number of frames that have experienced 16 consecutive collisions or more.
TX LCOL	Ethernet 10/100	The number of transmission abortion due to a collision occurring after transmission of packets that are 64 bytes in length.
TX PAUSE	Ethernet 10/100 and Ethernet 1000	The number of correct transmitted flow-control frames.
TX ERR	Ethernet 10/100 and Ethernet 1000	The number of frames transmitted with an error due to transmit FIFO underflow or TXERR signal assertion

## show port npu counters

Table 266. show port npu counters Command Output Descriptions

Field	Description
Counters for port	The port for which the counters are displayed. The very next line displays the type of line card that the port belongs to.
Unicast	The number of Unicast frames and bytes received and transmitted.
Multicast	The number of Multicast frames and bytes received and transmitted.
<b>Broadcast</b>	The number of Broadcast frames and bytes received and transmitted.
IPv4 unicast	The number of Unicast IP version 4 frames and bytes received and transmitted.
IPv4 non-unicast	The number of non-Unicast IP version 4 frames and bytes received and transmitted.
Fragments received	Number of packet fragments qualified for re-assembly.
Packets reassembled	The number of packets that were successfully re-assembled.
Fragments to kernel	The number of qualified packet fragments that were sent to the kernel for re-assembly.
HW error	The number of packets discarded due to first-in, first-out (FIFO) overrun or underrun.
Port non-operational	The number of packets discarded due to port not operational.
SRC MAC is multicast	The number of packets discarded due to source MAC address is multicast.
Unknown VLAN tag	Indicates the number of packets discarded due to an unrecognized virtual local area network (VLAN) tag.
Other protocols	The number of packets discarded due to incorrect protocol type (neither IP or ARP).
Not IPv4	The number of packets discarded due to non IPv4
Bad IPv4 header	The number of packets discarded due to invalid IPv4 header
IPv4 MRU exceeded	The number of packets discarded due to packet length is too long.
TCP tiny fragment	The number of packets discarded due to TCP tiny fragment
No ACL match	The number of packets discarded due to not match from ACL lookup
Filtered by ACL	The number of packets discarded due to ACL filter
TTL expired	Indicates the number of packets discarded because their time-to-live parameter was exceeded.
Flow lookup twice	The number of packets discarded due to flow lookup to be performed twice (prevent microcode from looping)
Unknown IPv4 class	The number of packets discarded due to unknown classification received from hardware
<b>Too short: IP</b>	The number of packets discarded due to IP packet too short
Too short: ICMP	The number of packets discarded due to ICMP packet too short for lookup key

Field	Description
Too short: IGMP	The number of packets discarded due to IGMP packet too short for lookup key
<b>Too short: TCP</b>	The number of packets discarded due to TCP packet too short for lookup key
Too short: UDP	The number of packets discarded due to UDP packet too short for lookup key
Too short: IPIP	The number of packets discarded due to UDP packet too short for lookup key
Too short: GRE	The number of packets discarded due to GRE header size < 8 bytes
Too short: GRE key	The number of packets discarded due to GRE header says key present but header size < 13 bytes
Don't frag discards	Packets requiring fragmentation that are discarded by the NPU because the IP header don't fragment bit is set.
Fragment packets	Packets fragmented by the NPU due to exceeding MTU of egress port.
Fragment fragment	Total number of fragments fragmented by the NPU and sent to the egress port.
IPv4VlanMap dropped	The total number of IPv4 VLAN map packets that were dropped.
Size	The number of frames and bytes that were received and transmitted according to the following size ranges: <ul style="list-style-type: none"> <li>• Less than 17</li> <li>• 17 through 64</li> <li>• 65 through 127</li> <li>• 128 through 255</li> <li>• 256 through 511</li> <li>• 512 through 1023</li> <li>• 1024 through 2047</li> <li>• 2048 through 4095</li> <li>• 4096 though 4500</li> <li>• Greater than 4500</li> </ul>



# Chapter 99

## show ppp

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This chapter describes the output of the `show ppp` command.

## show ppp

Table 267. show ppp Command Output Descriptions

Field	Description
PPP Summary	The total number of PPP sessions that are in progress (either active, dormant, being set up, and being disconnected).
Layer Info	<p>The layer status for the various control protocols used in the establishing of the PPP status. Information is displayed for the following:</p> <ul style="list-style-type: none"> <li>• <b>LCP:</b> Link Control Protocol</li> <li>• <b>IPCP:</b> Internet Protocol Control Protocol</li> <li>• <b>CCP:</b> PPP Compression Control Protocol</li> </ul> <p>The information provided represents the total number of sessions that have successfully negotiated the specified control protocol.</p>
Compression	<p>The total number of PPP sessions that meet of each of the following specified characteristics:</p> <p>Sessions using Van Jacobsen (VJ) header compression in either direction (local to remote or remote to local).</p> <p>Sessions using Robust Header Compression (ROHC) in either direction (local to remote or remote to local).</p> <p>Sessions using either the Normal or Stateless compression modes.</p> <p>Sessions using no compression or one of the following compression protocols in either direction (local to remote or remote to local):</p> <ul style="list-style-type: none"> <li>• STAC</li> <li>• MPPC</li> <li>• DEFLATE</li> </ul>
Errors	The total number of errors recorded for all of the PPP sessions that are in progress (either active, dormant, being set up, and being disconnected). Many of the error statistics are recorded for the receiving (indicated by In) and transmission (indicated by Out) of data packets.
Data Stats	Displays cumulative statistics for all of the data received (indicated by In) and transmitted (indicated by Out).

## show ppp full username

Table 268. show ppp full username Command Output Descriptions

Field	Description
Username	The subscriber's username.
Callid	The subscriber's call identification (callid) number.
Msid	The subscriber's mobile station identification (MSID) number.
LCP State	Indicates whether or not the Link Control Protocol (LCP) was successfully negotiated (Opened). If not, Not Opened will be displayed.
mtu	The subscriber's maximum transmission unit (MTU) size in octets.
mru	The subscriber's maximum reception unit (MRU) size in octets.
auth algorithm	The protocol the subscriber used for authentication. Possible protocols are: <ul style="list-style-type: none"> <li>• <b>CHAP:</b> Challenge Handshake Authentication Protocol</li> <li>• <b>PAP:</b> Password Authentication Protocol</li> </ul>
PFC (loc to rem): (rem to loc):	The PPP PFC transmit and receive settings. (loc to rem): Specifies how Protocol field Compression is applied for PPP packets transmitted to the Peer. Possible values are: <ul style="list-style-type: none"> <li>• ignore</li> <li>• apply</li> <li>• reject</li> </ul> (rem to loc): Specifies whether Protocol Field Compressed PPP packets can be received from the Peer. Possible values are: <ul style="list-style-type: none"> <li>• allow</li> <li>• deny</li> </ul>
ACFC (loc to rem): (rem to loc):	Information is displayed for both directions of the session (remote-to-local and local-to-remote).
async map	The PPP asynchronous control character mapping (a 32-bit map). Information is displayed for both directions of the session (remote-to-local and local-to-remote).
IPCP State	Indicates whether or not the Internet Protocol Control Protocol (IPCP) was successfully negotiated (Opened). If not, Not Opened will be displayed.
IP Header comp	Indicates whether or not Van Jacobsen (VJ) header compression or Robust Header Compression (ROHC) is being implemented for the subscriber's session. If neither, none is displayed. Information is displayed for both directions of the session (remote-to-local and local-to-remote).
Local Address	The PPP local address for the subscriber session.
Remote Address	The IP address assigned to the subscriber's mobile device for the duration of the session.
Primary DNS	Indicates the IP address of the primary Domain Name Server (DNS) assigned to the subscriber.

Field	Description
Secondary DNS	Indicates the IP address of the secondary Domain Name Server (DNS) assigned to the subscriber.
Primary NBNS	Indicates the IP address of the primary NetBIOS Name Server (NBNS) assigned to the subscriber.
Secondary NBNS	Indicates the IP address of the secondary NetBIOS Name Server (NBNS) assigned to the subscriber.
IPV6CP State	Indicates whether or not the Internet Protocol v6 Control Protocol (IPV6CP) was successfully negotiated (Opened). If not, Not Opened will be displayed.
In octs(unframed)	The total number of unframed octets received.
In pkts	The total number of packets received
Out octs(unframed)	The total number of unframed octets sent
Out pkts	The total number of packets sent
In ctrl octs	The total number of control octets received
In ctrl pkts	The total number of control packets received
Out ctrl octs	The total number of control octets sent
Out ctrl pkts	The total number of control packets sent
In framed octs	The total number of framed octets received
Out framed octs	The total number of framed octets sent
In data (unfr/data-cmp) octs	The total number of unframed data compressed data octets received
Out data (unfr/data-cmp) octs	The total number of unframed data compressed data octets sent
In data (iphdr-cmp) octs	The total number of data octets with IP header compression received
Out data (iphdr-cmp) octs	The total number of data octets with IP header compression sent
In data (iphdr-cmp-fail) octs	The total number of data octets with failed IP header compression received
In data (iphdr-cmp-fail) pkts	The total number of data packets with failed IP header compression received
In data (iphdr-rohc) octs	The total number of data octets with ROHC IP header compression received
Out data (iphdr-rohc) octs	The total number of data octets with ROHC IP header compression sent
In data (iphdr-rohc-fail) octs	The total number of data octets with failed ROHC IP header compression received
In data(iphdr-rohc-fail) pkts	The total number of data packets with failed ROHC header compression received
In discards	The total number of input discards
In errors	The total number of input errors

Field	Description
Out discards	The total number of output discards
Out errors	The total number of output errors
Bad address	The total number of bad addresses
Bad control	The total number of bad control messages
Pkt too long	The total number of packets that were too long
Bad FCS	The total number of bad Frame Check Sequences (FCS)
Bad pkt length	The total number of bad packet lengths
Echo req rcvd	The total number of echo requests received
Echo rsp rcvd	The total number of echo responses received
Echo req sent	The total number of echo requests sent
Echo rsp sent	The total number of echo responses sent
Invalid magic-number rcvd	The total number of invalid magic numbers received

## show ppp statistics pdsn-service

Table 269. show ppp statistics pdsn-service Command Output Descriptions

Field	Description
PPP statistics for pdsn-service	Indicates the name of the PDSN service for which PPP statistics are being displayed.
total sessions initiated	Indicates the total number of subscriber sessions that have been received by the by the system for processing.
session re-negotiated	Indicates the total number of subscriber sessions that have been re-negotiated by the by the system.
successful sessions	Indicates the total number of subscriber sessions that have been successfully connected by the by the system.
failed sessions	Indicates the total number of subscriber sessions that the system has/have failed to process.
total sessions released	Indicates the total number of subscriber sessions that have been disconnected.
failed re-negotiations	Indicates the number of PPP calls that failed while LCP or IPCP was being re-negotiated.
released by local side	Indicates the total number of subscriber sessions that have been dropped by the system.
released by remote side	Indicates the total number of subscriber sessions that have been dropped by the mobile nodes.
<b>Session Failures</b>	
LCP failure max-retry	Indicates the number of sessions that were released during setup due to the system not receiving a response prior to the expiration of the maximum number of Link Control Protocol (LCP) retries.
LCP failure option-issue	Indicates the number of sessions that were released during setup due to failed negotiations between the system and the mobile nodes over Link Control Protocol (LCP) options.
LCP failure unknown	Indicates the number of calls that failed because of miscellaneous LCP failures.
IPCP failure max-retry	Indicates the number of sessions that were released during setup due to the system not receiving a response prior to the expiration of the maximum number of Internet Protocol Control Protocol (IPCP) retries.
IPCP failure option-issue	Indicates the number of sessions that were released during setup due to failed negotiations between the system and the mobile nodes over Internet Protocol Control Protocol (IPCP) options.
IPCP failure unknown	Indicates the number of calls that failed because of miscellaneous IPCP related failures.
IPv6CP failure max-retry	Indicates the number of IPv6CP calls that failed after the maximum number of retries.
IPv6CP failure option issue	Indicates the number of sessions that were released during setup due to failed negotiations between the system and the mobile nodes over IPv6CP options.
IPv6CP failure unknown	Indicates the number of calls that failed because of miscellaneous IPv6CP related failures.

Field	Description
Authentication failures	Indicates the number of sessions that were released during setup due to subscriber authentication failures
Authentication aborted	Indicates the number of times that authentication was not successful because the peer failed to provide the required request or response packet in time.
remote terminated	Indicates the number of sessions that were released by the mobile node.
lower layer disconnected	Indicates the number of times that the peer terminated the lower protocol layer.
miscellaneous failures	Indicates the number of session failures that occurred due to reasons other than those listed here.
<b>Session Progress</b>	
sessions (re)entered LCP	Indicates the number of sessions entering or re-entering the Link Control Protocol (LCP) phase of call setup.
sessions (re)entered Auth	Indicates the number of sessions entering or re-entering the authentication phase of call setup.
sessions (re)entered IPCP	Indicates the number of sessions entering or re-entering the Internet Protocol Control Protocol (IPCP) phase of call setup.
sessions (re)entered IPv6CP	Indicates the number of sessions entering or re-entering the IPv6CP phase of call setup.
successful LCP	Indicates the number of calls that completed LCP successfully.
successful Authentication	Indicates the number of calls that completed authentication successfully.
<b>Session Re-negotiations</b>	
initiated by local	Indicates the number of session re-negotiations initiated by the system.
initiated by remote	Indicates the number of session re-negotiations initiated by the mobile nodes.
address mismatch	Indicates the number of session re-negotiations that occurred due to mis-matched IP addresses.
lower layer handoff	Indicates the number of times that the PDSN service renegotiated PPP because of a suspicious RP handoff.
parameter update	Indicates the number of times that the PDSN service renegotiated PPP to update some PPP parameters (e.g. DNS address obtained from HA for regular MIP)
other reasons	Indicates the number of session re-negotiations that occurred due to reasons other than those listed here.
connected session re-neg	Indicates the number of PPP renegotiation happened for sessions which are already in connected/established state.
<b>Session Authentication</b>	
CHAP auth attempt	Indicates the number of sessions that attempted to authenticate using the Challenge Handshake Authentication Protocol (CHAP).
CHAP auth success	Indicates the number of sessions that successfully authenticated using the Challenge Handshake Authentication Protocol (CHAP).

Field	Description
CHAP auth failure	Indicates the number of sessions that failed authentication using the Challenge Handshake Authentication Protocol (CHAP).
CHAP auth aborted	Indicates the number of times that CHAP authorization was aborted due to the fact that the peer failed to provide the required CHAP response packet in time.
PAP auth attempt	Indicates the number of sessions that attempted to authenticate using the Password Authentication Protocol (PAP).
PAP auth success	Indicates the number of sessions that successfully authenticated using the Password Authentication Protocol (PAP).
PAP auth failure	Indicates the number of sessions that failed authentication using the Password Authentication Protocol (CHAP).
PAP auth aborted	Indicates the number of times that PAP authorization was aborted due to the fact that the peer failed to provide the required PAP response packet in time.
MSCHAP auth attempt	Indicates the number of sessions that attempted to authenticate using MicroSoft CHAP (MS CHAP).
MSCHAP auth success	Indicates the number of sessions that successfully authenticated using MicroSoft CHAP (MS CHAP).
MSCHAP auth failure	Indicates the number of sessions that failed authentication using MicroSoft CHAP (MS CHAP).
MSCHAP auth aborted	Indicates the number of times that MSCHAP authorization was aborted due to the fact that the peer failed to provide the required CHAP response packet in time.
sessions skipped PPP Auth	Indicates the number of sessions that skipped PPP authorization.
<b>Session Disconnect reason</b>	
remote initiated	Indicates the number of sessions for which the mobile node initiated the disconnection.
remote disc. lower layer	Indicates the number of sessions in which the mobile node disconnected the lower layers of the protocol stack.
admin disconnect	Indicates the number of sessions for which the system initiated the disconnection.
local disc. lower layer	Indicates the number of sessions in which the system disconnected the lower layers of the protocol stack.
idle timeout	Indicates the number of sessions disconnected due to exceeding their idle timeout limit.
absolute timeout	Indicates the number of sessions disconnected due to exceeding their absolute timeout limit.
keep alive failure	Indicates the number of sessions disconnected due to keep alive failures.
no resource	Indicates the number of sessions disconnected due to lack of resources on the local side (CPU and memory).
flow add failure	Indicates the number of sessions for which the Network Processor Unit (NPU) failed to add a flow.
exceeded max LCP retries	Indicates the number of sessions disconnected due to exceeding their maximum number of Link Control Protocol (LCP) retries.

Field	Description
exceeded max IPCP retries	Indicates the number of sessions disconnected due to exceeding their maximum number of Internet Protocol Control Protocol (IPCP) retries.
exceeded max setup timer	Indicates the number of sessions disconnected due to exceeding their maximum amount of time allotted for session setup.
invalid dest-context	Indicates the number of sessions disconnected due to the specification of an invalid destination context. <b>NOTE:</b> Refer to the System Administration and Administration Reference for additional information about destination contexts and how they are determined.
LCP option-neg failed	Indicates the number of sessions that were disconnected due to failed negotiations between the system and the mobile nodes over Link Control Protocol (LCP) options.
IPCP option-neg failed	Indicates the number of sessions that were disconnected due to failed negotiations between the system and the mobile nodes over Internet Protocol Control Protocol (IPCP) options.
no remote-ip address	Indicates the number of sessions that were disconnected due to the lack of an IP address for the mobile node.
call type detect failed	Indicates the number of sessions that were disconnected due to the system not being able to determine what type of service to provide for the session. The possible services are: <ul style="list-style-type: none"> <li>• pdsn-simple-ip</li> <li>• pdsn-mobile-ip</li> <li>• ha-mobile-ip</li> </ul>
source address violation	Indicates the number of sessions that were disconnected due to source address violations.
exceeded max IPv6CP retries	Indicates the number of sessions disconnected due to exceeding their maximum amount of time allotted for IPv6CP setup.
IPv6CP option-neg failed	Indicates the number of sessions that were disconnected due to failed negotiations between the system and the mobile nodes over IPv6CP options.
remote disc. upper layer	Indicates the number of times a session was disconnected because the remote peer disconnected the upper protocol layer.
long duration timeout	The number of sessions disconnected due to expiration of the long duration timer.
PPP auth failures	The number of sessions that failed due to PPP authorization failures.
miscellaneous reasons	Indicates the number of sessions that were disconnected for reasons other than those listed here.
<b>Session Data Compression</b>	
sessions negotiated comp	Indicates the total number of sessions that negotiated the use data compression.
STAC Compression	Indicates the total number of sessions that negotiated the use data compression using the STAC protocol.
MPPC compression	Indicates the total number of sessions that negotiated the use data compression using the MPPC protocol.
Deflate Compression	Indicates the total number of sessions that negotiated the use data compression using the DEFLATE protocol.
CCP negotiation failures	Indicates the number of Compression Control Protocol negotiation failures.

Field	Description
<b>Session Header Compression</b>	
VJ compression	Indicates the total number of sessions that negotiated the use of Van Jacobsen (VJ) header compression.
ROHC Compression	Indicates the total number of sessions that negotiated the use of Robust Header Compression (ROHC).
<b>LCP Echo Statistics</b>	
total LCP Echo Req. sent	The total number of LCP Echo requests sent to the peer.
LCP Echo Req. resent	The total number of LCP echo requests retransmitted to the peer.
LCP Echo Reply received	The total number of LCP echo replies received from the peer.
LCP Echo Request timeout	The total number of LCP Echo timeouts that occurred since a Reply was not received.
<b>Receive Errors</b>	
bad FCS errors	Indicates the number of packets received with an invalid Frame Check Sequence (FCS).
unknown protocol errors	Indicates the number of packets received with an invalid protocol type.
bad Address errors	Indicates the number of packets received with a bad address field.
bad control field errors	Indicates the number of packets received with a bad control field.
bad pkt length	Indicates the number of packets received with an invalid packet length.

# Chapter 100

## show prepaid

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This chapter describes the output of the `show prepaid` command.

## show prepaid 3gpp2 statistics

Table 270. show prepaid 3gpp2 statistics Command Output Descriptions

Field	Description
total pre-paid sessions	The total number of Pre-paid sessions counted since the last system restart or since the last clear prepaid 3gpp2 statistics command was issued.
current pre-paid sessions	The total number of currently active Pre-paid sessions.
total online-auth success	The total number of successful online pre-paid authorizations (credit updates).
total online-auth failure	The total number of failed online pre-paid authorizations (credit updates).
online prepaid errors	The total number of online prepaid messaging errors.
regular auth prepaid err	The total number of standard RADIUS authentication errors
total ptt sessions	The total number of PTT sessions counted since the last system restart or since the last clear prepaid 3gpp2 statistics command was issued.
current ptt sessions	The total number of currently active PTT sessions.
total ptt filtering sess	The total number of PTT filtering sessions counted since the last system restart or since the last clear prepaid 3gpp2 statistics command was issued. NOTE: A PTT filtering session discards all user traffic that is not sent directly to, or from, the PTT switch.
current ptt filtering sess	The total number of currently active PTT filtering sessions. NOTE: A PTT filtering session discards all user traffic that is not sent directly to, or from, the PTT switch.
total non ptt sessions	The total number of non-PTT sessions counted since the last system restart or since the last clear prepaid 3gpp2 statistics command was issued.
current non ptt sessions	The total number of currently active sessions that are not PTT sessions.
total non determined sess	The total number of sessions counted since the last system restart or since the last clear prepaid 3gpp2 statistics command was issued that can not be determined whether or not they are PTT sessions.
curr non determined sess	The total number of currently active sessions that can not be determined whether or not they are PTT sessions.

## show prepaid wimax statistics asngw-service

Table 271. show prepaid wimax statistics asngw-service Command Output Descriptions

Field	Description
total prepaid sessions	The total cumulative prepaid sessions processed by this service.
current prepaid sessions	The total number of prepaid sessions currently active in this service.
total online-auth success	The total number of authentication success for online prepaid authentication requests.
total online-auth failures	The total number of authentication failures/rejects received for online authentication requests.
online prepaid errors	The total number of errors encountered due to the prepaid response message (success) being discarded due to problems like missing appropriate attributes or wrong attribute values though we had received it as access accept from radius server.
initial auth prepaid err	The total number of errors, while processing radius responses, specific to radius protocol violations such as authenticator attribute failed validation.



# Chapter 101

## show radius

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This chapter describes the output of the **show radius** command.

## show radius client status

*Table 272. show radius client status verbose Command Output Descriptions*

Field	Description
RADIUS Client Status	The RADIUS client's status as "UP" or "DOWN".
Active nas-ip-address	The NAS IP address configured for the client that is currently active. <b>NOTE:</b> If the RADIUS Client Status is "DOWN", then this field displays "NONE".
Configured Primary nas-ip-address	The NAS IP address configured as the primary and the interface's current status as "UP" or "Down".
Configured Backup nas-ip-address	The NAS IP address configured as the backup and the interface's current status as "UP" or "Down".

# show radius counters all

Table 273. show radius counters all Command Output Descriptions

Field	Description
<b>Per-Context RADIUS Authentication Counters</b>	
<b>Access-Request Response</b>	
Invalid Source Address Received	The number of Access-Request responses received from invalid source addresses.
Responses Dropped due to Closed Sockets	The number of responses dropped due to closed sockets.
Response Dropped No Matching Request found	The number of responses dropped due to no matching requests.
<b>Per-Context Change-of-Authorization Counters</b>	
Invalid Source Address Received (RPF check failed)	The number of responses received from invalid source addresses.
<b>Server-specific Change-of-Authorization Counters</b>	
Change-of-Authorization server address	The IP address and port number of the Change-of-Authorization server.
Change-of-Authorization Request received	The number of CoA requests received.
Change-of-Authorization Ack sent	The number of CoA acknowledgements sent.
Change-of-Authorization Nak sent	The number of CoA negative acknowledgements sent.
Change-of-Authorization Nak Unsupported Attribute sent	The number of CoA negative acknowledgements sent with unsupported attribute.
Change-of-Authorization Nak Missing Attribute sent	The number of CoA negative acknowledgements sent with missing attribute.
Change-of-Authorization Nak NAS Id Mismatch sent	The number of CoA negative acknowledgements with NAS ID mismatch sent.
Change-of-Authorization Nak Invalid Request sent	The number of CoA negative acknowledgements with invalid request sent.
Change-of-Authorization Nak Unsupported Service sent	The number of CoA negative acknowledgements with unsupported service sent.
Change-of-Authorization Nak Sess Context Not Found sent	The number of CoA negative acknowledgements with session context not found sent.
Change-of-Authorization Nak Resource Unavailable sent	The number of CoA negative acknowledgements with resource unavailable sent.

■ show radius counters all

Field	Description
Change-of-Authorization Malformed Packet Rcvd	The number of CoA message disconnected due to malformed message.
Change-of-Authorization Msg-Authenticator Mismatch	The number of CoA message disconnected due to message authenticator failure.
Change-of-Authorization Duplicate Request	The number of CoA requests dropped due to duplicate message.
Change-of-Authorization Event-Timestamp Check Failed	The number of CoA requests dropped due to Event-Timestamp attribute issues.
Change-of-Authorization Request Initiated sent	The number of CoA request Initiated sent.
Disconnect-Message Request received	The number of Disconnect-Message Requests received.
Disconnect-Message Ack sent	The number of Disconnect-Message Acknowledgements sent.
Disconnect-Message Ack Residual Session Removed sent	The number of Disconnect-Message Acknowledgements Residual Session Removed sent.
Disconnect-Message Nak sent	The number of Disconnect-Message Negative Acknowledgment sent.
Disconnect-Message Nak Unsupported Attribute sent	The number of Disconnect-Message Negative Acknowledgment with unsupported attributes sent.
Disconnect-Message Nak Missing Attribute sent	The number of Disconnect-Message Negative Acknowledgment with missing attributes sent.
Disconnect-Message Nak NAS Id Mismatch sent	The number of Disconnect-Message Negative Acknowledgment with NAS ID mismatch sent.
Disconnect-Message Nak Invalid Request sent	The number of Disconnect-Message Negative Acknowledgment with invalid requests sent.
Disconnect-Message Nak Unsupported Service sent	The number of Disconnect-Message Negative Acknowledgment with unsupported service sent.
Disconnect-Message Nak Session Context Not Found sent	The number of Disconnect-Message Negative Acknowledgment with session context not found sent.
Disconnect-Message Nak Context Not Removable sent	The number of Disconnect-Message Negative Acknowledgment with context not removable sent.
Disconnect-Message Nak Context Not Removable Dormant	The number of Disconnect-Message Negative Acknowledgment with context not removable dormant.
Disconnect-Message Nak Resource Unavailable sent	The number of Disconnect-Message Negative Acknowledgment with resource unavailable sent.
Disconnect-Message Malformed Packet Rcvd	The number of Disconnect-Message with malformed packet received.
Disconnect-Message Msg-Authenticator Mismatch	The number of Disconnect-Message with message authenticator mismatch.
Disconnect-Message Duplicate Request	The number of Disconnect-Message duplicate requests.

Field	Description
Disconnect-Message Event-Timestamp Check Failed	The number of Disconnect-Message with event timestamp check failed.
Disconnect-Message Request Initiated sent	The number of Disconnect-Message with request initiated sent.
Change-of-Authorization/Disconnect-Message timeout	The number of messenger timeouts while processing the CoA/Dm messages. This will be displayed only in the hidden mode.
Change-of-Authorization/Disc-Message messenger bounce	The number of messenger bounces while processing the CoA/Dm messages. This will be displayed only in the hidden mode.
<b>Server-specific Authentication Counters</b>	
Authentication server address	The IP address, port number, and server group of the RADIUS authentication server.
Access-Request Sent	The total number of Access Request messages sent by the system to the server.
Access-Request with DMU Attributes Sent	The total number of Access Request messages that have been sent to the server with DMU attributes present.
Access-Request Pending	The total number of Access Request messages that have been sent to the server that are pending a response.
Access-Request Retried	The total number of Access Request messages that have been re-transmitted due to the expiration of the RADIUS timeout parameter.
Access-Request with DMU Attributes Retried	The total number of Access Request messages with DMU attributes present that have been re-transmitted due to the expiration of the RADIUS timeout parameter.
Access-Challenge Received	The total number of Access Challenges received from the server as part of the authentication process.
Access-Accept Received	The total number of Access Accept messages received by the system from the server.
Access-Reject Received	The total number of Access Reject messages received by the system from the server.
Access-Reject Received with DMU Attributes	The total number of Access Reject messages with DMU attributes present received by the system from the server.
Access-Request Timeouts	The total number of times that the configured RADIUS timeout parameter was exceeded causing the system to have to re-send an Access Request message.
Access-Request Current Consecutive Failures in a mgr	The current maximum number of consecutive failures that occurred for a single AAA manager while initiating Access-Request messages.
Access-Request Response Bad Authenticator Received	The total number of Accept Request responses received by the system from the server that contains an incorrect Authenticator field, thereby failing message authentication. The system drops these messages.
Access-Request Response Malformed Received	The total number of Accept Request responses received by the system from the server that were malformed. The system drops these messages.
Access-Request Response Malformed Attribute Received	The total number of malformed or invalid attributes received in Access-Request response messages.
Access-Request Response Unknown Type Received	The total number of Accept Request responses received by the system from the server that contained an unknown message type. The system drops these messages.
Access-Request Response Dropped	The total number of Accept Request responses from the server that were dropped.

■ show radius counters all

Field	Description
Access-Request Response Last Round Trip Time	The time it took for the system to receive a valid response from the server for the last authentication request.
Access-Request Response Average Round Trip Time	The average time it took for the system to receive a valid response from the server for Access Request Response.
<b>Prepaid Related Statistic Counters</b>	
Online Access-Request Sent	The total number of Online Access Request messages sent.
Online Access-Request Pending	The total number of Online Access Request messages pending.
Online Access-Request Retried	The total number of Online Access Request messages retried.
Online Access-Accept Received	The total number of Online Access Accept messages received.
Online Access-Reject Received	The total number of Online Access Reject messages received.
Online Access-Request Timeouts	The total number of Online Access Request message timeouts.
Online Access-Request Response Bad Authenticator Received	The total number of Online Access Request messages that failed with a bad authenticator.
Online Access-Request Response Malformed Received	The total number of Online Access Request Response messages that were malformed.
Online Access-Request Response Malformed Attr Received	The total number of Online Access Request Response messages that contained a malformed attribute.
Online Access-Request Response Unknown Type Received	The total number of Online Access Request Response messages that are of an unknown type.
Online Access-Request Response Bad Message Authenticator	The total number of Online Access Request Response messages that contained a bad message authenticator.
Online Access-Request Response NO Message Authenticator	The total number of Online Access Request Response messages that contained no message authenticator.
<b>Server-specific Probing Counters</b>	
State	The state of the RADIUS server. Enabled or Disabled.
Number of transactions issued	The total number of transactions issued to the RADIUS server.
Number of successful transactions	The total number of complete successful transactions to the RADIUS server.
Number of failed transactions	The total number of failed transactions to the RADIUS server.
Last successful transaction time	The time of day that the last successful transaction was completed with the RADIUS server.
Last failed transaction time	The time of day that the last failed transaction with the RADIUS Server occurred.
Last roundtrip time	The amount of time, in milliseconds, that it took from when a request was sent to and acknowledgement was received from the RADIUS server.
<b>Server-specific Keepalive Auth Counters</b>	
Keepalive Access-Request Sent	The number of keepalive access requests that were sent.
Keepalive Access-Request Retried	The number of keepalive access-requests that were retried.

Field	Description
Keepalive Access-Request Timeouts	The number of keepalive access-requests that timed out.
Keepalive Access-Accept Received	The number of keepalive access-accept messages that were received.
Keepalive Access-Reject Received	The number of keepalive access-reject messages that were received
Keepalive Access-Response Bad Authenticator Received	The number of bad authenticator keepalive access-response that were received.
Keepalive Access-Response Malformed Received	The number of malformed keepalive-access responses that were received.
Keepalive Access-Response Malformed Attribute Received	The number of malformed attributes for keepalive-access responses that were received.
Keepalive Access-Response Unknown Type Received	The number of unknown keepalive-access responses that were received.
Keepalive Access-Response Dropped	The number of keepalive-access responses that were dropped.
<b>Per-Context RADIUS Accounting Counters</b>	
<b>Accounting Response</b>	
Invalid Source Address Received	The number of Accounting responses received from invalid source addresses.
Responses Dropped due to Closed Sockets	The number of responses dropped due to closed sockets.
Response Dropped No Matching Request found	The number of responses dropped due to no matching requests.
<b>Server-specific Accounting Counters</b>	
Accounting server address	The IP address, port number, and server group of the RADIUS accounting server, and the UDP port over which the system exchanges accounting data with the server.
Accounting-Request Sent	The total number of Accounting Request messages sent by the system to the server.
Accounting-Start Sent	The total number of Accounting sessions that have been established.
Accounting-Stop Sent	The total number of Accounting sessions that have been stopped.
Accounting-Interim Sent	The total number of Accounting Interim messages that have been sent to the server. This mainly contains the accumulated packets/bytes counts.
Accounting-On Sent	The total number of Accounting-on sessions that have been sent.
Accounting-Off Sent	The total number of Accounting-off sessions that have been stopped.
Accounting-Request Pending	The total number of Accounting Request messages that have been sent to the server that are pending a response.
Accounting-Request Retried	The total number of Accounting-requests that have been retried.
Accounting-Start Retried	The total number of Accounting-start messages that have been retried
Accounting-Stop Retried	The total number of Accounting-stop messages that have been retried.
Accounting-Interim Retried	The total number of Accounting-interim messages that have been retried.

■ show radius counters all

Field	Description
Accounting-On Retried	The total number of Accounting-on messages that have been retried.
Accounting-Off Retried	The total number of Accounting-off messages that have been retried.
Accounting-Response Received	The total number of Accounting-response messages that have been received.
Accounting-Request Timeouts	The total number of Accounting-request messages that have timed out.
Accounting-Request Current Consecutive Failures in a mgr	The current maximum number of consecutive failures that occurred for a single AAA manager while initiating Accounting-Request messages.
Accounting-Response Bad Response Received	The total number of Accounting-Response messages that failed with a bad authenticator.
Accounting-Response Malformed Received	The total number of Accounting-Response responses received by the system from the server that were malformed.
Accounting-Response Unknown Type Received	The total number of Accounting-Response responses received by the system from the server that contained an unknown message type.
Accounting-Response Dropped	The total number of keepalive Accounting Response messages that were dropped.
Accounting-Response Last Round Trip Time	The time it took for the system to receive a valid response from the server for the last Accounting Response.
Accounting-Response Average Round Trip Time	The average time it took for the system to receive a valid response from the server for Accounting Responses.
Accounting Total G1 (Acct-Output-Octets)	The total number of accounted bytes outputted to user.
Accounting Total G2 (Acct-Input-Octets)	The total number of accounted bytes as user input.
<b>Server-specific Keepalive Acct Counters</b>	
Keepalive Accounting-Request Sent	The total number of keepalive accounting request messages sent.
Keepalive Accounting-Request Retried	The total number of keepalive accounting messages retried.
Keepalive Accounting-Request Successful	The total number of successful keepalive accounting messages.
Keepalive Accounting-Request Timeouts	The total number of keepalive accounting timeout messages.
Keepalive Accounting-Response Bad Response Received	The total number of keepalive accounting request response messages that failed with a bad authenticator.
Keepalive Accounting-Response Malformed Received	The total number of keepalive accounting request response messages that were malformed.
Keepalive Accounting-Response Unknown Type Received	The total number of keepalive accounting request response messages that failed with an unknown type.
Keepalive Accounting-Response Dropped	The total number of keepalive accounting request response messages that were dropped.
<b>Per-Context RADIUS Mediation Accounting Counters</b>	
<b>Accounting Response</b>	

Field	Description
Invalid Source Address Received	The number of Mediation Accounting responses received from invalid source addresses.
Responses Dropped due to Closed Sockets	The number of responses dropped due to closed sockets.
Response Dropped No Matching Request found	The number os responses dropped due to no matching requests being found.
<b>Server-specific Mediation Accounting Counters</b>	
Mediation Accounting server address	The IP address of the RADIUS Mediation accounting server, and the UDP port over which the system exchanges accounting data with the mediation server.
Accounting-Request Sent	Indicates the total number of Accounting-Request messages sent by the system to the Mediation server.
Accounting-Start Sent	Indicates the total number of Accounting sessions that have been established with Mediation server.
Accounting-Stop Sent	The total number of Accounting sessions that have been stopped by Mediation server.
Accounting-Interim Sent	The total number of Accounting-Interim messages that have been sent to the Mediation server. This mainly contains the accumulated packets/bytes counts.
Accounting-On Sent	The total number of Accounting-On sessions that have been sent.
Accounting-Off Sent	The total number of Accounting-Off sessions that have been stopped.
Accounting-Request Pending	The total number of Accounting-Request messages that have been sent to the mediation server that are pending a response.
Accounting-Request Retried	The total number of Accounting-Requests that have been retried.
Accounting-Start Retried	The total number of Accounting-Start messages that have been retried
Accounting-Stop Retried	The total number of Accounting-Stop messages that have been retried.
Accounting-Interim Retried	The total number of Accounting-Interim messages that have been retried.
Accounting-On Retried	The total number of Accounting-On messages that have been retried.
Accounting-Off Retried	The total number of Accounting-Off messages that have been retried.
Accounting-Response Received	The total number of Accounting-Response that were received.
Accounting-Request Timeouts	The total number of Accounting-Request timeouts.
Accounting-Request Current Consecutive Failures in a mgr	The current maximum number of consecutive failures that occurred for a single AAA manager while initiating Accounting-Request messages.
Accounting-Response Bad Response Received	The total number of Accounting-Response messages that failed with a bad authenticator.
Accounting-Response Malformed Received	The total number of Accounting-Response responses received by the system from the server that were malformed.
Accounting-Response Unknown Type Received	The total number of Accounting-Response messages received by the system from the Mediation server that contained an unknown message type. The system drops these messages.
Accounting-Response Dropped	The total number of Accounting-Response messages from the server that were dropped.

■ show radius counters all

Field	Description
Access-Response Last Round Trip Time	The amount of time it took for the system to receive a valid response from the mediation server for the last Access-Response messages.
Accounting-Response Average Round Trip Time	The average time it took for the system to receive a valid response from the server for Accounting-Response messages.

## show radius servers

Table 274. show radius { servers detail Command Output Descriptions

Field	Description
vvvvv	<p>Displays information about the type and state of the RADIUS server.</p> <p>From left-to-right, the first character represents the RADIUS server <b>Type</b> as one of the following:</p> <ul style="list-style-type: none"> <li>• (A) - Authentication</li> <li>• (a) - Accounting</li> <li>• (C) - Charging</li> <li>• (c) - Charging Accounting</li> <li>• (M) - Mediation</li> <li>• (m) - Mediation Accounting</li> </ul> <p>From left-to-right, the second character represents the RADIUS server <b>Preference</b> as one of the following:</p> <ul style="list-style-type: none"> <li>• (P) - Primary</li> <li>• (S) - Secondary</li> </ul> <p>From left-to-right, the third character represents the RADIUS server <b>State</b> as one of the following:</p> <ul style="list-style-type: none"> <li>• (A) - Active</li> <li>• (N) - Not Responding</li> <li>• (D) - Down</li> <li>• (W) - Waiting Accounting-On</li> <li>• (I) - Initializing</li> <li>• (w) - Waiting Accounting-Off</li> <li>• (a) Active Pending</li> <li>• (U) - Unknown</li> </ul> <p>From left-to-right, the fourth character indicates the RADIUS server <b>Administrative Status</b> (which is saved in the configuration file for re-establishment at reboot) as one of the following:</p> <p>(E) - Enabled (D) - Disabled</p> <p>From left-to-right, the fifth character indicates whether the RADIUS server's saved <b>Administrative Status</b> may be overridden at the next reboot:</p> <p>(O) - Overridden: (Note: to preserve the desired Administrative State, use the appropriate configuration mode radius [accounting charging charging accounting] server command to reset the admin-status.) (.) - Not Overridden</p>
IP	Displays the IP address of the RADIUS server.
Port	Displays the UDP port used to communicate with the RADIUS server.
Group	Display the RADIUS server group to which the server belongs.
Event History	Displays a historical record of state information for the server including a time/date stamp.

## ■ show radius servers

Field	Description
Total servers matching specified criteria	Displays the total number of RADIUS servers returned by the execution of the command.

# Chapter 102

## show resources

---

This chapter describes the output of the `show resources` command.

## show resources cpu

Table 275. show resources cpu Command Output Descriptions

Field	Description
Active CPUs	Displays information for CPUs on PACs/PSCs/PSC2s and SPCs/SMCs that are in the active mode.
Total CPUs	The total number of CPUs on active cards.
Highest Load	The highest loading of a processor among all of the active processors. In addition, the processor that experienced the loading is also displayed in the following form: (CPU <slot_number>/<processor_number>)
Total Memory	The total amount of memory available for all active processors. Each processor has 1024 MB of memory.
Total Used	The total amount of memory used for all active processors.
Least Free	The lowest amount of memory available to an active processor. In addition, the processor that has the lowest amount of available memory is also displayed in the following format: (CPU <slot_number>/<processor_number>)
Total Temporary Files	The total amount of temporary files being maintained in memory.
Most Temporary Files	The maximum amount of memory used for temporary files on a specific active processor. In addition, the processor on which the memory is being used is also displayed in the following format: (CPU <slot_number>/<processor_number>)
Standby CPUs	Displays information for CPUs on PACs/PSCs/PSC2s and SPCs/SMCs that are in the standby mode.
Total CPUs	The total number of CPUs on standby cards.
Highest Load	The highest loading of a processor among all of the standby processors. In addition, the processor that experienced the loading is also displayed in the following form: (CPU <slot_number>/<processor_number>)
Total Memory	The total amount of memory available for all standby processors. Each processor has 1024 MB of memory.
Total Used	The total amount of memory used for all standby processors.
Least Free	The lowest amount of memory available to an standby processor. In addition, the processor that has the lowest amount of available memory is also displayed in the following format: (CPU <slot_number>/<processor_number>)
Total Temporary Files	The total amount of temporary files being maintained in memory.
Most Temporary Files	The maximum amount of memory used for temporary files on a specific standby processor. In addition, the processor on which the memory is being used is also displayed in the following format: (CPU <slot_number>/<processor_number>)

# show resources session

Table 276. show resources session Command Output Descriptions

Field	Description
<b>In-Use Session Managers</b>	
Number of Managers	The total number of Session Managers currently in use processing calls.
Capacity	The allowed call capacity for all of the Session Managers currently in use.
Usage	The total number of sessions currently active.
<b>Busy-Out Session Managers</b>	
Number of Managers	The number of Session Manager tasks in a busied-out state. Session Managers that are busied-out are not available to service new sessions.
Capacity	Indicates the total session capacity of the system.
Usage	The number of Session Manager tasks in use.
<b>Standby Session Managers:</b>	
Number of Managers	The total number of Session Managers currently in standby mode waiting to process calls.
<b>XXX Service:</b>	
In Use	The total number of configured service sessions that are currently in use processing subscriber sessions.
Max Used	The maximum number of service sessions used in processing subscriber sessions. This field displays a timestamp on each peak value and identifies the last time (if any) the peaks were cleared.
Limit	The total number of sessions that can be processed by all configured services of this type. This value is based on session capacity licenses and the configuration of the <b>max-subscribers</b> parameter for the services. Note: Not applicable for ASN PC Service.
License Status	Indicates whether or not the number of sessions being processed by all configured services of this type within the system falls within the range granted by the session capacity license installed. If it is within the range, Within Acceptable Limits is displayed. If not, Exceeded Acceptable Limits is displayed. Note: Not applicable for ASN PC Service.
<b>ECS Information:</b>	 <b>Important:</b> This information is displayed only if Active Charging Service is configured in the non-unified mode.
<b>In-Use ACS Managers:</b>	
Number of Managers	The total number of ACS Managers currently active processing calls.

Field	Description
Capacity	Indicates call capacity of the system as <> min (minimum available ECS sessions), <> typical, and <> max (maximum possible ECS sessions).
Usage	The total number of ACS Manager tasks in use.
<b>Standby ACS Managers:</b>	
Number of Managers	The total number of ACS Managers currently in standby mode.
<b>Enhanced Charging Service Service:</b>	
In Use	The total number of service sessions that are currently in use.
Max Used	The maximum number of service sessions used.
Limit	The total number of sessions that can be processed by all configured services of this type. This value is based on session capacity license.
License Status	Indicates whether or not the number of sessions being processed by all configured services of this type within the system falls within the range granted by the session capacity license installed. If it is within the range, Within Acceptable Limits is displayed. If not, Exceeded Acceptable Limits is displayed.
<b>ECS Information:</b>	 <b>Important:</b> This information is displayed only if Active Charging Service is configured in the Unified mode available in StarOS 8.1 and later.
Capacity	Indicates capacity of the system as <> est (estimated available ECS sessions) and <> max (maximum possible ECS sessions).
<b>Enhanced Charging Service Service:</b>	
In Use	The total number of ECS service sessions that are currently in use.
Max Used	The maximum number of ECS service sessions used.
Limit	The total number of sessions that can be processed by all configured services of this type. This value is based on session capacity license.
License Status	Indicates whether or not the number of sessions being processed by all configured services of this type within the system falls within the range granted by the session capacity license installed. If it is within the range, Within Acceptable Limits is displayed. If not, Exceeded Acceptable Limits is displayed.

# Chapter 103

## show rohc statistics

Table 277. show rohc statistics Command Output

Field	Description
Compressor Statistics:	
Active contexts:	Number of active ROHC contexts currently available in the system
Total setup:	Total number of Contexts created till now since the time the stats were being collected.
Total deleted:	Total number of Contexts destroyed till now since the time the stats were being collected.
Messages(TX):	Messages that were send from the Compressor
IR:	Number of ROHC IR packets
IR-DYN:	Number of ROHC IR Dynamic packets
Type0:	Number of ROHC Type -0 packets
Type1:	Number of ROHC Type-1 packets
Type2:	Number of ROHC Type-2 packets
Normal:	Number of ROHC Uncompressed packets
Feedback(RX):	All Feedback messages received by compressors
ACK:	Number of ROHC Feedback Ack received
NACK:	Number of ROHC Feedback NACK received
Static-NACK:	Number of ROHC Feedback STATIC NACK received
Error:	Number of Feedback packets that had errors.
Misc:	
Mode change:	Number of ROHC Mode changes
Profile change:	Number of ROHC Profile changes
State change:	Number of ROHC state changes
Pkts(TX):	Packets Transmitted
Pkts Sent:	Number of Packets sent
Bytes Sent:	Number of bytes sent
Pkts Processed:	Number of input packets discarded

Field	Description
Pkts Discarded:	Number of input packets processed.
Segmentation:	Number of input packets that were segmented.
Segment Pkts:	Number of ROHC segment packets
Only Feedback:	Number of ROHC feedbacks that were NOT piggybacked to other ROHC packets
Piggyback FB:	Number of ROHC feedbacks that were piggybacked to other ROHC packets
Only FB packets:	Number of ROHC packets that carry ONLY multiple ROHC feedbacks.
Efficiency(TX):	Transmission Efficiency
Uncomp Hdr:	Number of uncompressed headers
Compressed Hdr:	Number of compressed headers
Percentage comp:	Percentage comparison
Histogram(TX):	Transmission Histogram
Size: < 2:	Number less than 2
Size: < 4:	Number less than 4
Size: < 8:	Number less than 8
Size: < 16:	Number less than 16
Size: > 16:	Number greater than 16
Decompressor Statistics:	
Active contexts:	Number of active ROHC contexts currently available in the system
Total setup:	Total number of Contexts created till now since the time the stats were being collected.
Total deleted:	Total number of Contexts destroyed till now since the time the stats were being collected.
Messages(RX):	Received ROHC messages
IR:	Number of ROHC IR packets
IR-DYN:	Number of ROHC IR Dynamic packets
Type0:	Number of ROHC Type -0 packets
Type1:	Number of ROHC Type-1 packets
Type2:	Number of ROHC Type-2 packets
Normal:	Number of ROHC Uncompressed packets
Feedback(TX):	
ACK:	Number of ROHC Feedback Ack received
NACK:	Number of ROHC Feedback NACK received
Static-NACK:	Number of ROHC Feedback STATIC NACK received
Error:	Number of Feedback packets that had errors.

Field	Description
Errors(RX):	Errors in received ROHC pkts
Checksum:	Number of packets discarded due to checksum errors
State mismatch:	Number of packets discarded due to state mismatch
Parse error:	Number of packets discarded due to parsing errors
Memory:	Number of packets discarded due to memory constraints
Other error:	Number of packets discarded due to unclassified errors
Reassembly errors:	Number of packets discarded due to reassembly errors
Misc:	
Mode change:	Number of ROHC Mode changes
Profile change:	Number of ROHC Profile changes
State change:	Number of ROHC state changes
Pkts(RX):	Received ROHC packets
Pkts Rcvd:	Number of Packets received
Bytes Rcvd:	Number of bytes received
Decomp Pkts:	Number of decompressed packets sent out
Pkts Discarded:	Number of received packets discarded
Segmentation:	Number of output packets that got segmented.
Segment Pkts:	Number of ROHC segment packets received
Only Feedback:	Number of ROHC feedbacks that were NOT piggybacked to other ROHC packets
Piggyback FB:	Number of ROHC feedbacks that were piggybacked to other ROHC packets
Only FB packets:	Number of ROHC packets that carry ONLY multiple ROHC feedbacks.
Pkts(TX):	Transmitted ROHC packets
Pkts Sent:	Number of ROHC packets sent out
Bytes Sent:	Number of bytes sent out
Piggyback FB:	Number of Feedback packets sent as piggy back
Direct FB:	Number of Feedback packets sent without piggy back
Efficiency(RX):	Transmission Efficiency
Uncomp Hdr:	Number of uncompressed headers
Compressed Hdr:	Number of compressed headers
Percentage comp:	Percentage comparison
Histogram(RX):	Transmission Histogram
Size: < 2:	Number less than 2

Field	Description
Size: < 4:	Number less than 4
Size: < 8:	Number less than 8
Size: < 16:	Number less than 16
Size: > 16:	Number greater than 16

# Chapter 104

## show rp

---

This chapter describes the output of the **show rp** command.

# show rp

Table 278. show rp Command Output Descriptions

Field	Description
<b>RP Summary</b>	
RP Sessions In Progress	Indicates the total number of sessions being facilitated.
<b>Registration Request/Reply</b>	
Renew RRQ Accepted	Indicates the total number of registration request renewals accepted.
Discarded	Indicates the total number of registration requests that have been discarded.
Intra PDSN Active H/O RRQ Accept	The number of intra PDSN handoffs accepted for the session when it was active.
Intra PDSN Dormant H/O RRQ Accept	The number of intra PDSN handoffs accepted for the session when it was dormant.
Inter PDSN Handoff RRQ Accepted	Indicates the total number of registration requests for inter-PDSN handoffs that have been accepted.
Reply Send Error	Indicates the total number of registration replies for which errors were experienced during transmission.
<b>Registration Update/Ack</b>	
Initial Update Transmitted	Indicates the total number of registration updates that have been transmitted.
Update Retransmitted	Indicates the total number of registration updates that have been re-transmitted.
Denied	Indicates the total number of registration updates that have been denied by the PCF.
Not Acknowledged	Indicates the total number of registration updates and/or acknowledgements that have not been acknowledged by the PCF.
Reg Ack Received	Indicates the total number of registration acknowledgements that have been discarded.
Reg Ack Discarded	Indicates the total number of registration acknowledgements that have been received.
Update Send Error	Indicates the total number of registration updates for which errors were experienced during transmission.
<b>Registration Update Send Reason</b>	
Lifetime Expiry	Indicates the total number of registration updates that were sent due to the expiration of a lifetime timer during a subscriber session.
Upper Layer Initiated	Indicates the total number of registration updates that were initiated by upper processing layers.
Other Reasons	Indicates the total number of registration updates that were sent due to reasons other than those listed here.
Handoff Release	Indicates the total number of registration updates that were sent due to handoff releases.

Field	Description
Session Manager Died	Indicates the total number of registration updates that were sent due to the termination of Session Manager tasks. <b>NOTE:</b> If any data is reported for this field, there may be an issue with either the software or hardware. If you continue to experience problems, refer to the System Administration and Administration Reference for information on troubleshooting the problem.
<b>Registration Update Denied</b>	
Reason Unspecified	Indicates the total number of denied registration updates that were sent with a reply code of 80H (Registration Denied - reason unspecified).
Admin Prohibited	Indicates the total number of denied registration updates that were sent with a reply code of 81H (Registration Denied - administratively prohibited).
PDSN Failed Authentication	Indicates the total number of denied registration updates that were sent with a reply code of 83H (Registration Denied - mobile node failed authentication).
Identification Mismatch	Indicates the total number of denied registration updates that were sent with a reply code of 85H (Registration Denied - identification mismatch).
Poorly Formed Update	Indicates the total number of denied registration updates that were sent with a reply code of 86H (Registration Denied - poorly formed request).
<b>Session Update/Ack</b>	
Initial Update Transmitted	Indicates the total number of session updates that have been transmitted.
Update Retransmitted	Indicates the total number of session updates that have been re-transmitted.
Denied	Indicates the total number of session updates that have been denied by the PCF.
Not Acknowledged	Indicates the total number of session updates that have not been acknowledged by the PCF.
Sess Update Ack Received	Indicates the total number of session acknowledgements that have been received.
Sess Update Ack Discarded	Indicates the total number of session acknowledgements that have been discarded.
Sess Update Send Error	Indicates the total number of session updates for which errors were experienced during transmission.
<b>Session Update Send Reason</b>	
Always On	Session Update message was sent to the PCF to notify the PCF that the subscriber has the Always On feature.
QoS Info	This is a session update statistic that is not supported at this time.
<b>QoS Update Reason</b>	
TFT Violation	Indicates that a TFT violation is the reason for QoS update.
Traffic Violation	Indicates that a traffic violation is the reason for the QoS update.
Traffic Policing	Indicates that a traffic policing action is the reason for the QoS update.
Operator Triggered	Indicates that an operator triggered the QoS update.
<b>Session Update Denied</b>	
Reason Unspecified	Indicates the total number of session updates denied with a code of 80H (Session Denied - reason unspecified).

■ show rp

Field	Description
Insufficient Resources	Indicates the total number of session updates denied with a status code of 82H (Session Denied - insufficient resources).
Admin Prohibited	Indicates the total number of denied session updates denied with a status code of 81H (Session Denied - administratively prohibited).
Parameter not updated	Indicates the total number of session updates denied with a status code of 82H (Session Denied - insufficient resources).
PDSN Failed Authentication	Indicates the total number of denied session updates denied with a status code of 83H (Session Denied - mobile node failed authentication).
Identification Mismatch	Indicates the total number of denied session updates denied with a status code of 85H (Session Denied - identification mismatch).
Poorly Formed Update	Indicates the total number of denied session updates denied with a status code of 86H (Session Denied - poorly formed request).
<b>Data</b>	
GRE Packets Received	Indicates the total number of Generic Routing Encapsulation (GRE) packets received.
GRE Bytes Received	Indicates the total number of Generic Routing Encapsulation (GRE) bytes received.
GRE Packets Sent	Indicates the total number of Generic Routing Encapsulation (GRE) packets transmitted.
GRE Bytes Sent	Indicates the total number of Generic Routing Encapsulation (GRE) bytes transmitted.
GRE Packets Sent in SDB Form	This indicates the total Packets sent with the Short Data Burst indication in the A10 data stream from the PDSN to the PCF.
GRE Bytes Sent in SDB Form	This indicates the total Bytes sent with the Short Data Burst indication in the A10 data stream from the PDSN to the PCF.
<b>GRE Segmentation</b>	
Total Packets Received with segmentation indication	Indicates the total number of Generic Routing Encapsulation (GRE) packets received with segmentation indication.
Total Packets Sent with segmentation indication	Indicates the total number of Generic Routing Encapsulation (GRE) packets sent with segmentation indication.
Total successful reassembly	Indicates the total number of Generic Routing Encapsulation (GRE) packets that were successfully reassembled.
Total packets processed without proper reassembly	Indicates the total number of Generic Routing Encapsulation (GRE) packets that were processed without proper reassembly.

## show rp full username

Table 279. show rp full username Command Output Descriptions

Field	Description
Username	The subscriber's username.
Callid	The subscriber's call identification (callid) number.
Msid	The subscriber's mobile station identification (MSID) number.
MN Sess Ref ID	The reference identification (Ref ID) number received from the mobile node.
GRE Key	The Generic Routing Encapsulation (GRE) key used with the subscribers session.
PCF Address	The IP address of the Packet Control Function (PCF) facilitating the subscriber's session.
PDSN Address	The IP address of the R-P interface on the Packet Data Service Node's that is facilitating the subscriber's session.
Lifetime	The maximum time that the session A10 connection can exist before it becomes expired. This value is assigned by the PDSN.
Remaining Lifetime	Remaining RP lifetime for the session.
SPI	The particular Security Parameter Index (SPI) that associates the PDSN and the PCF facilitating the session.
Service Option	RP service option for the session.
Flow Control State	Displays the Flow Control State for the session.
Prev System Id	System ID of the previous PCF for the session.
Current System Id	System ID of the current PCF for the session.
Prev Network Id	Network ID of the previous PCF for the session.
Current Network Id	Network ID of the current PCF for the session.
Prev Packet Zone Id	Packet zone ID of the previous PCF for the session.
Current Packet Zone Id	Packet zone ID of the current PCF for the session.
BSID	Base transceiver Station ID (Base Station ID) of the current PCF
A 10 Connection	
GRE Receive	
Total Packets Rcvd	The total number of packets received for the A10 connection.
Total Bytes Rcvd:	The total number of bytes received for the A10 connection.
GRE Send	
Total Packets Sent	The total number of packets sent for the A10 connection.

■ show rp full username

Field	Description
Total Bytes Sent:	The total number of bytes sent for the A10 connection.
Data Over Signaling Packets:	The total number of Data Over Signaling packets sent for the A10 connection.
Data Over Signaling Bytes:	The total number of Data Over Signaling bytes sent for the A10 connection.
<b>Registration Request/Reply</b>	
Renew RRQ Accepted	The total number of registration request renewals accepted.
Discarded	The total number of registration requests replies that have been discarded.
Intra PDSN Active H/O RRQ Accept	The number of intra PDSN handoffs accepted for the session when it was active.
Intra PDSN Dormant H/O RRQ Accept	The number of intra PDSN handoffs accepted for the session when it was dormant.
Inter PDSN Handoff RRQ Accepted	The total number of registration requests for inter-PDSN handoffs that have been accepted.
Reply Send Error	The total number of registration replies for which errors were experienced during transmission.
<b>Registration Update/Ack</b>	
Initial Update Transmitted	The total number of registration updates that have been transmitted.
Update Retransmitted	The total number of registration updates that have been re-transmitted.
Denied	The total number of registration updates that have been denied by the PCF.
Not Acknowledged	The total number of registration updates and/or acknowledgements that have not been acknowledged by the PCF.
Reg Ack Received	The total number of registration acknowledgements that have been received.
Reg Ack Discarded	The total number of registration acknowledgements that have been received.
Update Send Error	The total number of registration updates for which errors were experienced during transmission.
<b>Registration Update Send Reason</b>	
Lifetime Expiry	The total number of registration updates that were sent due to the expiration of a lifetime timer during a subscriber session.
Upper Layer Initiated	The total number of registration updates that were initiated by upper processing layers.
Other Reasons	The total number of registration updates that were sent due to reasons other than those listed here.
Handoff Release	The total number of registration updates that were sent due to handoff releases.
Session Manager Exited	The total number of registration updates that were sent due to the termination of Session Manager tasks. <b>NOTE:</b> If any data is reported for this field, there may be an issue with either the software or hardware. If you continue to experience problems, refer to the System Administration and Administration Reference for information on troubleshooting the problem.
<b>Registration Update Denied</b>	

Field	Description
Reason Unspecified	The total number of denied registration updates that were sent with a reply code of 80H (Registration Denied - reason unspecified).
Admin Prohibited	The total number of denied registration updates that were sent with a reply code of 81H (Registration Denied - administratively prohibited).
PDSN Failed Authentication	The total number of denied registration updates that were sent with a reply code of 83H (Registration Denied - mobile node failed authentication).
Identification Mismatch	The total number of denied registration updates that were sent with a reply code of 85H (Registration Denied - identification mismatch).
Poorly Formed Update	The total number of denied registration updates that were sent with a reply code of 86H (Registration Denied - poorly formed request).
Session Update/Ack	
Initial Update Transmitted	Indicates the total number of session updates that have been transmitted.
Update Retransmitted	Indicates the total number of session updates that have been re-transmitted.
Denied	Indicates the total number of session updates that have been denied by the PCF.
Not Acknowledged	Indicates the total number of session updates that have not been acknowledged by the PCF.
Sess Update Ack Received	Indicates the total number of session acknowledgements that have been received.
Sess Update Ack Discarded	Indicates the total number of session acknowledgements that have been discarded.
Sess Update Send Error	Indicates the total number of session updates for which errors were experienced during transmission.
Session Update Send Reason	
Always On	Session Update message was sent to the PCF to notify the PCF that the subscriber has the Always On feature.
QoS Info	This is a session update statistic that is not supported at this time.
QoS Update Reason	
TFT Violation	Indicates that a TFT violation is the reason for QoS update.
Traffic Violation	Indicates that a traffic violation is the reason for the QoS update.
Traffic Policing	Indicates that a traffic policing action is the reason for the QoS update.
Operator Triggered	Indicates that an operator triggered the QoS update.
Session Update Denied	
Reason Unspecified	Indicates the total number of session updates denied with a code of 80H (Session Denied - reason unspecified).
Insufficient Resources	Indicates the total number of session updates denied with a status code of 82H (Session Denied - insufficient resources).
Admin Prohibited	Indicates the total number of denied session updates denied with a status code of 81H (Session Denied - administratively prohibited).

■ show rp full username

Field	Description
Parameter not updated	Indicates the total number of session updates denied with a status code of 82H (Session Denied - insufficient resources).
PDSN Failed Authentication	Indicates the total number of denied session updates denied with a status code of 83H (Session Denied - mobile node failed authentication).
Identification Mismatch	Indicates the total number of denied session updates denied with a status code of 85H (Session Denied - identification mismatch).
Poorly Formed Update	Indicates the total number of denied session updates denied with a status code of 86H (Session Denied - poorly formed request).
Profile ID Not Supported	Indicates that the profile ID is not supported.
Handoff in Progress	Indicates that a handoff is in progress.
<b>GRE Receive</b>	
Total Packets Received	The total number of Generic Routing Encapsulation (GRE) packets received.
Protocol Type Error	The total GRE packets received with an unsupported protocol field in the header.
Total Bytes Received	The total number of Generic Routing Encapsulation (GRE) bytes received.
GRE Key Absent	The number of GRE packets received without a GRE key in the header.
GRE Checksum Error	GRE packets received that had a checksum error.
Invalid Packet Length	GRE packets received with invalid packet length.
<b>GRE Send</b>	
Total Packets Sent	The total number of Generic Routing Encapsulation (GRE) packets transmitted.
Total Bytes Sent	The total number of Generic Routing Encapsulation (GRE) bytes transmitted.
Total Packets Sent in SDB	The total Packets sent with the Short Data Burst indication in the A10 data stream from the PDSN to the PCF.
Total Bytes Sent in SDB	The total Bytes sent with the Short Data Burst indication in the A10 data stream from the PDSN to the PCF.
<b>GRE Flow Control</b>	
Total Packets Received with XOFF	The total number of packets received for this username while the flow control was set to XOFF.
Total Packets Received with XON	The total number of packets received for this username while the flow control was set to XON.
Total XON->XOFF Transactions	The total number of times the flow control indicator was changed from XON to XOFF for sessions involving this username.
Total Output Packets Dropped on XOFF	The total number of packets dropped after receiving an XOFF flow control command from the RAN.
Total Output Bytes Dropped on XOFF	The total number of bytes dropped after receiving an XOFF flow control command from the RAN.

Field	Description
Total RP sessions matching specified criteria	The total number of sessions that had the username specified on the command line.

## show rp statistics pdsn-service

Table 280. show rp statistics pdsn-service Command Output Descriptions

Field	Description
PDSN Service	Displays the name of the PDSN services for which the statistics were gathered.
<b>Session Stats</b>	
Total Sessions Current	Indicates the total number of sessions that are in progress. These could be either active, dormant, being set up, or being disconnected.
Total Setup	Indicates the total number of sessions that have been successfully set up since system started.
Total Released	Indicates the total number of sessions that have successfully been disconnected.
Total Rev-A Sessions Current	Indicates the total number of Rev-A sessions that are in progress.
Total Rev-A Setup	Indicates the total number of Rev-A sessions that have been successfully set up since system started.
Total Rev-A Released	Indicates the total number of Rev-A sessions that have successfully been disconnected.
Total Downgraded from Rev-A to Rev-0	Indicates the total number of Rev-A sessions that have successfully been downgraded from Rev-A to Rev-0.
<b>Session Releases</b>	
De-registered	Indicates the total number of sessions that were disconnected through a normal de-registration process.
Lifetime Expiry	Indicates the total number of sessions that were disconnected due to the expiration of their lifetime timer.
PPP Layer Command	Indicates the number of sessions disconnected due to PPP initiating a tear-down.
PCF-Monitor Fail	The total number of sessions disconnected because the PCF monitor function detected that the PCF was down.
GRE Key Mismatch	The total number of sessions disconnected because the GRE key changed for a session.
Purged via Audit	The total number of sessions disconnected due to audit failures on session recovery .
Other Reasons	Indicates the number of sessions disconnected due to reasons other than those listed here.
<b>Registration Request/Reply</b>	
Total RRQ/Renew/Dereg RX	The total number of registration requests, renewals, and de-registrations received.
Total Accept	The total number of registration requests that have been accepted.
Total Denied	The total number of registration requests that have been rejected.
Total Discard	The total number of registration requests that have been discarded.
Init RRQ RX	The total number of initial registration requests that have been received.

Field	Description
Init RRQ Accept	The total number of initial registration requests received and accepted.
Init RRQ Denied	The total number of initial registration requests received and rejected.
Init RRQ Discard	The total number of initial registration requests that have been received and discarded.
Init Setup/Start RRQ RX	The total number of initial setup or start registration requests that have been received.
Init Setup/Start RRQ Denied	The total number of initial start or setup registration requests that have been received and rejected.
Init Setup/Start RRQ Acc	The total number of initial start or setup registration requests that have been received and accepted.
Init Setup/Start RRQ Dis	The total number of initial start or setup registration requests that have been received and discarded.
Renew RRQ RX	The total number of registration request renewals received.
Renew RRQ Accept	The total number of registration request renewals received and accepted.
Renew RRQ Denied	The total number of registration request renewals received and rejected.
Renew RRQ Discard	The total number of registration request renewals received and discarded.
Renew No Airlink RX	The total number of registration request renewals received due to "No airlink".
Renew No Airlink Accept	The total number of registration request renewals received due to "No airlink" and accepted.
Renew No Airlink Denied	The total number of registration request renewals received due to "No airlink" and denied.
Renew No Airlink Discard	The total number of registration request renewals received due to "No airlink" and discarded.
Renew Actv Start RX	The total number of RRQ renewals with an Active Start record received.
Renew Actv Start Accept	The total number of RRQ renewals with an Active Start record received and accepted.
Renew Actv Start Denied	The total number of RRQ renewals with an Active Start record received and denied.
Renew Actv Start Discard	The total number of RRQ renewals with an Active Start record received and discarded.
Renew Actv Stop RX	The total number of RRQ renewals with an Active Stop record received.
Renew Actv Stop Accept	The total number of RRQ renewals with an Active Stop record received and accepted.
Renew Actv Stop Denied	The total number of RRQ renewals with an Active Stop record received and denied.
Renew Actv Stop Discard	The total number of RRQ renewals with an Active Stop record received and discarded.
Dereg Active Stop Accept	The total number of de-registration requests with an active stop that were accepted.
Dereg RRQ RX	The total number of de-registration requests that have been received.
Dereg RRQ Accept	The total number of de-registration requests received and accepted.
Dereg RRQ Denied	The total number of de-registration requests received and rejected.
Dereg RRQ Discard	The total number of de-registration requests received and discarded.
Dereg No Active Stop RX	The total number of de-registration requests with a No Active Stop record received.

Field	Description
Dereg No Active Stop Accp	The total number of de-registration requests with a No Active Stop record received and accepted.
Dereg No Active Stop Denied	The total number of de-registration requests with a No Active Stop record received and denied.
Dereg No Active Stop Disc	The total number of de-registration requests with a No Active Stop record received and discarded.
Dereg Active Stop RX	The total number of de-registration request with an Active Stop record received.
Dereg Active Stop Accp	The total number of de-registration request with an Active Stop record received and accepted.
Reply Send Error	The total number of registration replies for which errors were experienced during transmission.
Airlink Seq Num Invalid	The total number of replies sent when an invalid airlink sequence number is received in RRQ.
Intra PDSN Active ANID Handoff RRQ RX	The total number of intra PDSN handoff RRQs with active Access Network IDentifier (ANID) received.
Intra PDSN Active ANID Handoff RRQ Accepted	The total number of intra PDSN handoff RRQs with active ANID received and accepted.
Intra PDSN Active ANID Handoff RRQ Denied	The total number of intra PDSN handoff RRQs with active ANID received and denied.
Intra PDSN Active ANID Handoff RRQ Discarded	The total number of intra PDSN handoff RRQs with active ANID received and discarded.
Intra PDSN Dormant ANID Handoff RRQ RX	The total number of intra PDSN handoff RRQs with dormant ANID received.
Intra PDSN Dormant ANID Handoff RRQ Accepted	The total number of intra PDSN handoff RRQs with dormant ANID received and accepted.
Intra PDSN Dormant ANID Handoff RRQ Denied	The total number of intra PDSN handoff RRQs with dormant ANID received and denied.
Intra PDSN Dormant ANID Handoff RRQ Discarded	The total number of intra PDSN handoff RRQs with dormant ANID received and discarded.
Inter PDSN Active MEI ANID Handoff RRQ RX	The total number of inter PDSN handoff RRQs with active Mobility Event Indicator (MEI) and ANID received.
Inter PDSN Active MEI ANID Handoff RRQ Accepted	The total number of inter PDSN handoff RRQs with active MEI and ANID received and accepted.
Inter PDSN Active MEI ANID Handoff RRQ Denied	The total number of inter PDSN handoff RRQs with active MEI and ANID received and denied.
Inter PDSN Active MEI ANID Handoff RRQ Discarded	The total number of inter PDSN handoff RRQs with active MEI and ANID received and discarded.
Intra PDSN Active Handoff RRQ Accepted	Indicates the total number of registration requests received for active sessions going through an intra-PDSN handoff.
Intra PDSN Dormant Handoff RRQ Accepted	Indicates the total number of registration requests received for dormant sessions going through an intra-PDSN handoff.
Inter PDSN Handoff RRQ Accepted	Indicates the total number of registration requests received for sessions going through an inter-PDSN handoff.

Field	Description
Reply Send Error	Indicates the total number of registration replies for which errors were experienced during transmission.
<b>Registration Request Denied</b>	
Unspecified Reason	Indicates the total number of registration requests that were denied using reply code of 80H (Registration Denied - reason unspecified)
Admin Prohibited	Indicates the total number of registration requests that were denied using reply code of 81H (Registration Denied - administratively prohibited).
Insufficient Resources	Indicates the total number of registration requests that were denied using reply code of 82H (Registration Denied - insufficient resources).
PCF Failed Auth	Indicates the total number of registration requests that were denied using reply code of 83H (Registration Denied - mobile node failed authentication).
Identification Mismatch	Indicates the total number of registration requests that were denied using reply code of 85H (Registration Denied - identification mismatch).
Poorly Formed Request	Indicates the total number of registration requests that were denied using reply code of 86H (Registration Denied - poorly formed request).
Unknown PDSN Address	Indicates the total number of registration requests that were denied using reply code of 88H (Registration Denied - unknown PDSN address)
Reverse Tunnel Unavail	Indicates the total number of registration requests that were denied using reply code of 89H (Registration Denied - requested reverse tunnel unavailable).
Reverse Tunnel Required	Indicates the total number of registration requests that were denied using reply code of 8AH (Registration Denied - reverse tunnel is mandatory and "T"-bit not set).
Unrecognized Vendor Id	Indicates the total number of registration requests that were denied using reply code of 8DH (Registration Denied - unsupported vendor ID or unable to interpret data in the CVSE).
Session Already Closed	Renew and RRQ denied due to the session not present in the PDSN Dereq. Error code 0x8e.
<b>RRQ Denied - Insufficient Resource Reasons</b>	
No Session Manager	Indicates the total number of registration requests that were denied due to the lack of available Session Manager tasks. This may occur when the system is booting up in the event that a Session Manager task terminated unexpectedly.
No Memory	Indicates the total number of registration requests that were denied due to insufficient memory.
Session Managers Retried	Indicates that the system unsuccessfully attempted to try multiple Session Manager tasks to establish a session.
Input-Q Exceeded	Indicates that the queue in which incoming calls are kept prior to being processed exceeded its capacity.
Policy Rejected	The Registration Request was denied because the policy was rejected.
Session Manager Rejected	The Registration Request was rejected by the Session Manager.
A11 Manager Rejected	The Registration Request was rejected by the A11 Manager.
<b>RRQ Denied - Poorly Formed Request Reasons</b>	
Session Already Dormant	The number of RRQs that had Active Stop for a session that was already dormant.

Field	Description
Already Active	The number of RRQs that had Active Start for a session that was already active.
Airlink Setup Absent	The number of RRQs denied due to an absent connection-setup record in the initial RRQ.
Mismatched CoA/Src addr	The number of RPs denied due to a mismatch in the care-of-address field and the request source address.
Other Reasons	The number of RRQs denied due to other reasons for a badly formed RRQ.
<b>RRQ Denied - Overload/Congestion Control</b>	
Admin Prohibited (reject)	RRQs denied with error code 0x81h due to congestion control mechanism.
Unknown PDSN (redirect)	RRQs denied with error code 0x88 due to congestion control mechanism.
<b>Registration Request Discard Reasons</b>	
No Session Manager	Indicates the total number of registration requests that were discarded due to the lack of available Session Manager tasks. This may occur when the system is booting up in the event that a Session Manager task terminated unexpectedly.
No Memory	Indicates the total number of registration requests that were discarded due to insufficient memory.
Malformed	Indicates the total number of registration requests that were discarded due to being poorly formed.
Auth Failure	Indicates the total number of registration requests that were discarded due to the mobile node failing authentication.
Session Manager Dead	Indicates the total number of registration requests that were discarded due to the termination of Session Manager tasks. <b>NOTE:</b> If any data is reported for this field, there may be an issue with either the software or hardware. If you continue to experience problems, refer to the System Administration and Administration Reference for information on troubleshooting the problem.
Admin Prohibited	Indicates the total number of registration requests that were discarded due to being administratively prohibited.
Session Manager NotReady	Indicates the total number of registration requests that were discarded due to a Session Manager task not being ready. This may occur when the system is booting up in the event that a Session Manager task terminated unexpectedly.
Unknown PDSN	Indicates the total number of registration requests that were discarded due to the request specifying an unknown PDSN address.
Internal Bounce Error	Indicates that an internal communication message between an A11 Manager task and a Session Manager task bounced was not successfully sent.
Input-Q Exceeded	Indicates that the queue in which incoming calls are kept prior to being processed exceeded its capacity.
Max Sessions Reached	Indicates the total number of registration requests that were discarded due to the PDSN service reaching its configured maximum number of subscribers or the exceeding of the system's session capacity license.
Invalid Pkt Len	Indicates the total number of registration requests that were discarded due to having an invalid packet length.
GRE Key Changed	RRQs discarded due to GRE key change in RRQ message.

Field	Description
Overload/Congestion	RRQs discarded due to congestion control mechanism.
Dropped During Handoff	RRQs dropped during handoff.
Misc Reasons	Indicates the number of registration requests that were discarded due to reasons other than those listed here.
<b>Registration Update/Ack</b>	
Reg Update Transmitted	Indicates the total number of registration updates that were transmitted.
Accepted	Indicates the total number of registration updates that were accepted by the PCF.
Denied	Indicates the total number of registration updates that were denied.
Not Acknowledged	Indicates the total number of registration updates that were not acknowledged.
Initial Update TX	Indicates the total number of initial registration updates that were transmitted.
Update Re-TX	Indicates the total number of registration updates that were re-transmitted.
Reg Ack Received	Indicates the total number of registration acknowledgements that were received.
Reg Ack Discard	Indicates the total number of registration acknowledgements that were discarded.
Update Send Error	Indicates the total number of registration updates for which errors were experienced during transmission.
<b>Registration Update Send Reason</b>	
Lifetime Expiry	Indicates the total number of registration updates that were sent due to the expiration of a lifetime timer during a subscriber session.
Other Reasons	Indicates the total number of registration updates that were sent due to reasons other than those listed here.
Upper Layer Initiated	Indicates the total number of registration updates that were initiated by upper processing layers.
Handoff Release	Indicates the number of registration updates that were sent due to handoff releases.
Session Manager Exited	Indicates the number of registration updates that were sent due to the termination of a Session Manager task.
<b>Registration Update Denied</b>	
Reason Unspecified	Indicates the total number of denied registration updates that were sent with a reply code of 80H (Registration Denied - reason unspecified).
Admin Prohibited	Indicates the total number of denied registration updates that were sent with a reply code of 81H (Registration Denied - administratively prohibited).
PDSN Failed Auth	Indicates the total number of denied registration updates that were sent with a reply code of 83H (Registration Denied - mobile node failed authentication).
Identification Mismatch	Indicates the total number of denied registration updates that were sent with a reply code of 85H (Registration Denied - identification mismatch).
Poorly Formed Update	Indicates the total number of denied registration updates that were sent with a reply code of 86H (Registration Denied - poorly formed request).
Registration Ack Discard Reasons	

Field	Description
Session Absent	Indicates the total number of registration acknowledgements that were discarded due to the session having been already ended because the acknowledgement was late.
No Memory	Indicates the total number of registration acknowledgements that were discarded due to insufficient memory.
Malformed	Indicates the total number of registration acknowledgements that were discarded due to being poorly formed.
Auth Failure	Indicates the total number of registration acknowledgements that were discarded due to the mobile node failing authentication.
Internal Bounce Error	Indicates that an internal communication message between an A11 Manager task and a Session Manager task bounced (was not successfully sent).
Input-Q Exceeded	Indicates the number of times that the queue in which incoming calls are kept prior to being processed exceeded its capacity.
Mismatched Id	Indicates the total number of discarded registration acknowledgements due to reply code 85H (Registration Denied - identification mismatch).
Invalid Pkt Len	Indicates the total number of registration acknowledgements that were discarded due to having an invalid packet length.
Misc Reasons	Indicates the number of registration acknowledgements that were discarded due to reasons other than those listed here.
Session Update/Ack	
Sess Update Transmitted	This is a session update statistic that is not supported at this time.
Accepted	This is a session update statistic that is not supported at this time.
Denied	This is a session update statistic that is not supported at this time.
Not Acknowledged	This is a session update statistic that is not supported at this time.
Initial Update TX	This is a session update statistic that is not supported at this time.
Update Retransmitted	This is a session update statistic that is not supported at this time.
Sess Ack Received	This is a session update statistic that is not supported at this time.
Sess Ack Discarded	This is a session update statistic that is not supported at this time.
Sess Update Send Error	This is a session update statistic that is not supported at this time.
Session Update Send Reason	
Always On	Session Update message was sent to the PCF to notify the PCF that the subscriber has the Always On feature.
QoS Info	This is a session update statistic that is not supported at this time.
Session Update Denied	
Reason Unspecified	This is a session update statistic that is not supported at this time.
Insufficient Resources	This is a session update statistic that is not supported at this time.
Admin Prohibited	This is a session update statistic that is not supported at this time.

Field	Description
Parameter not updated	This is a session update statistic that is not supported at this time.
PDSN Failed Auth	This is a session update statistic that is not supported at this time.
Identification Mismatch	This is a session update statistic that is not supported at this time.
Poorly Formed Update	This is a session update statistic that is not supported at this time.
<b>Session Update Ack Discard Reasons</b>	
Session Absent	Indicates the total number of session acknowledgements that were discarded due to the session having been already ended because the acknowledgement was late.
No Memory	Indicates the total number of session acknowledgements that were discarded due to insufficient memory.
Malformed	Indicates the total number of session acknowledgements that were discarded due to being poorly formed.
Auth Failure	Indicates the total number of session acknowledgements that were discarded due to the mobile node failing authentication.
Internal Bounce Error	Indicates that an internal communication message between an A11 Manager task and a Session Manager task bounced (was not successfully sent).
Input-Q Exceeded	Indicates the number of times that the queue in which incoming calls are kept prior to being processed exceeded its capacity.
Mismatched Id	Indicates the total number of discarded session acknowledgements due to reply code 85H (Registration Denied - identification mismatch).
Invalid Packet Length	Indicates the total number of session acknowledgements that were discarded due to having an invalid packet length.
Misc Reasons	Indicates the number of session acknowledgements that were discarded due to reasons other than those listed here.
<b>Security Violations</b>	
Total Violations	Indicates the total number of security violations that occurred.
Bad SPI #	Indicates the total number of security violations that occurred due to the receipt of a Security Parameter Index (SPI) that was in the reserved range (0 through 255).
Bad Authenticator	Indicates the total number of security violations that occurred due to a mis-computed authentication field.
Unknown SPI #	Indicates the total number of security violations that occurred due to the receipt of a Security Parameter Index (SPI) that is not configured on the PDSN.
Missing MN-HA Auth Extension	Indicates the total number of security violations that occurred due to missing mobile node-home agent authentication extensions.
Missing Reg Update Auth Extension	Indicates the total number of security violations that occurred due to missing registration update authentication extensions.
<b>GRE Receive</b>	
Total Packets Received	Indicates the total number of Generic Routing Encapsulation (GRE) packets received.

Field	Description
Protocol Type Error	Indicates the total number of GRE packets received with an unsupported protocol type field in the header.
Total Bytes Received	Indicates the total number of Generic Routing Encapsulation (GRE) bytes received.
GRE Key Absent	Indicates the total number of GRE packets received with no GRE key in the header.
GRE Checksum Error	Indicates the number of errors that occurred in GRE packets.
Invalid Packet Length	Indicates the total number of GRE packets received with invalid packet lengths.
No Session Found	Indicates the total number of GRE packets received for which no sessions can be found.
<b>GRE Send</b>	
Total Packets Sent	Indicates the total number of Generic Routing Encapsulation (GRE) packets transmitted.
Total Bytes Sent	Indicates the total number of Generic Routing Encapsulation (GRE) bytes transmitted.
GRE Packets Sent in SDB Form	This indicates the total Packets sent with the Short Data Burst indication in the A10 data stream from the PDSN to the PCF.
GRE Bytes Sent in SDB Form	This indicates the total Bytes sent with the Short Data Burst indication in the A10 data stream from the PDSN to the PCF.
<b>GRE Flow Control</b>	
Total Packets Received with XOFF	The total number of packets received for this username while the flow control was set to XOFF.
Total Packets Received with XON	The total number of packets received for this username while the flow control was set to XON.
Total XON->XOFF Transactions	The total number of times the flow control indicator was changed from XON to XOFF for sessions involving this username.
Total Output Packets Dropped on XOFF	The total number of packets dropped after receiving an XOFF flow control command from the RAN.
Total Output Bytes Dropped on XOFF	The total number of bytes dropped after receiving an XOFF flow control command from the RAN.
Total RP sessions matching specified criteria	The total number of sessions that had the username specified on the command line.
<b>GRE Segmentation</b>	
Total Packets Received with segmentation indication	Indicates the total number of Generic Routing Encapsulation (GRE) packets received with segmentation indication.
Total Packets Sent with segmentation indication	Indicates the total number of Generic Routing Encapsulation (GRE) packets sent with segmentation indication.
Total successful reassembly	Indicates the total number of Generic Routing Encapsulation (GRE) packets that were successfully reassembled.
Total packets processed without proper reassembly	Indicates the total number of Generic Routing Encapsulation (GRE) packets that were processed without proper reassembly.

# Chapter 105

## show session

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This chapter describes the output of the **show session** command variants.

## show session counters historical all

Table 281. show session counters historical all Command Output Descriptions

Header	Description
Intv	The identification number of the sample interval.
Timestamp	The approximate time the data was gathered. It is in the format YYYY:MM:DD:HH:MM:SS.
<b>Number of Calls</b>	
Arrived	Displays data for “total calls arrived” counters.
Rejected	Displays data for “total calls rejected” counters.
Connected	Displays data for “total calls connected” counters.
Disconn	Displays data for “total calls disconnected” counters.
Failed	Displays data for “total calls failed” counters.
Handoffs	Displays data for “total handoffs” counters.
Renewals	Displays data for “total renewal” counters.
(A+R+D+F+H+R) CallOps	Displays data for all call operations. This is a calculated value based on the following formula: (arrived + rejected + disconnected + failed + handoffs + renewals)

## show session disconnect-reasons

Table 282. show session disconnect-reasons Header Descriptions

Field	Description
<b>Session Disconnect Statistics</b>	
Total Disconnects	The total number of sessions disconnected since the system was started or since the last time that session disconnect reasons was cleared.
Disconnect Reason	The reason sessions were disconnected. Only reasons that have disconnects associated with them are listed.
Num Disc	The number of sessions disconnected for the reason.
Percentage	The percentage of total disconnects.

## show session disconnect-reasons verbose

**Table 283.** *show session disconnect-reasons verbose Header Descriptions*

Header	Description
Total Disconnects	The total number of sessions disconnected since the system was started or since the last time that session disconnect reasons was cleared.
Disconnect Reason	The reason sessions were disconnected. Only reasons that have disconnects associated with them are listed unless the verbose keyword is specified.
Num Disc	The number of sessions disconnected for the reason.
Percentage	The percentage of total disconnects.

In the following table, the indicator number at the end of the disconnect field name will vary depending upon the software build in which the **show session disconnect-reason** command is issued.

**Table 284.** *show session disconnect-reasons Fields Descriptions*

Field	Description
Unknown (0)	The total number of sessions disconnected due to unknown reason.
Admin-disconnect (1)	The total number of sessions disconnected Administratively.
Remote-disconnect (2)	The total number of sessions disconnected by remote system
Local-disconnect (3)	The total number of sessions disconnected by local system.
No-resource (4)	The total number of sessions disconnected due to non-availability of resources.
Service-limit-exceeded (5)	The total number of sessions disconnected due to exceed in service limit.
PPP-LCP-negotiation-failed (6)	The total number of sessions disconnected due to LCP negotiation failed.
PPP-LCP-no-response (7)	The total number of sessions disconnected due to no response in PPP-LCP session.
PPP-LCP-loopback-detected (8)	The total number of sessions disconnected due to loop back detected in PPP-LCP.
PPP-LCP-max-retry-reached (9)	The total number of sessions disconnected due to maximum retries in PPP-LCP session.
PPP-LCP-echo-failed (10)	The total number of sessions disconnected due to PPP-LCP echo not received.
PPP-Auth-failed (11)	The total number of sessions disconnected due to authorization failed in PPP.
PPP-Auth-failed-no-AAA-response (12)	The total number of sessions disconnected due to authorization failed by no response on AAA server.
PPP-Auth-failed-no-peer-response (13)	The total number of sessions disconnected due to PPP authorization failed on no peer response.
PPP-Auth-failed-max-retry-reached (14)	The total number of sessions disconnected due to PPP authorization failed and reaching maximum retries limit.

Field	Description
Invalid-AAA-attr-in-auth-response (15)	The total number of sessions disconnected due to invalid AAA attributes in authorization response.
Could-not-apply-subscriber-ACL (16)	The total number of sessions disconnected due to inability in applying subscriber's Access Control List (ACL).
Could-not-provide-service (17)	The total number of sessions disconnected due to service is not available.
AAA-return-IP-address-not-valid (18)	The total number of sessions disconnected due to return IP address from AAA server is invalid.
Pool-IP-address-not-valid (19)	The total number of sessions disconnected due to IP address in pool is invalid.
PPP-IPCP-negotiation-failed (20)	The total number of sessions disconnected due to PPP-IPCP negotiation failed.
PPP-IPCP-no-response (21)	The total number of sessions disconnected due to no response in PPP-IPCP.
PPP-IPCP-max-retry-reached (22)	The total number of sessions disconnected due to maximum retries in PPP-IPCP session.
No-IPv4-address-for-subscriber (23)	The total number of sessions disconnected due to no IPv4 address are available for subscriber.
Inactivity-timeout (24)	The total number of sessions disconnected due to system time out limit for silence (ideal) reached.
Absolute-timeout (25)	The total number of sessions disconnected due to timeout in complete session.
Max-data-limit-exceeded (26)	The total number of sessions disconnected due to maximum data limit exceeded.
Invalid-source-IPv4-address (27)	The total number of sessions disconnected due to invalid IPv4 address of subscriber.
MSID-auth-failed (28)	The total number of sessions disconnected due to MSID authentication failed.
MSID-auth-failed-no-aaa-response (29)	The total number of sessions disconnected due to MSID authentication failed and/or no response from AAA server.
A11-max-retry-reached (30)	The total number of sessions disconnected due to maximum limit for retries reached for A11 interface.
A11-lifetime-expired (31)	The total number of sessions disconnected due to A11 interface lifetime expired.
A11-msg-integrity-failure (32)	The total number of sessions disconnected due to failure in message integrity in A11 interface.
PPP-LCP-remote-disconnect (33)	The total number of sessions disconnected due to PPP-LCP remote disconnect.
Session-setup-timeout (34)	The total number of sessions disconnected due to timeout in setting up of session.
PPP-keepalive-failure (35)	The total number of sessions disconnected due to PPP keepalive attribute failure.
Flow-add-failed (36)	The total number of sessions disconnected due to fail in adding flow to session.
Call-type-detection-failed (37)	The total number of sessions disconnected due to failure in call type detection.
Wrong-ipcp-params (38)	The total number of sessions disconnected due to IPCP parameters are wrong.
MIP-remote-dereg (39)	The total number of sessions disconnected due to de-registration of Mobile IP on remote system.
MIP-lifetime-expiry (40)	The total number of sessions disconnected due to expiry of Mobile IP life time.
MIP-proto-error (41)	The total number of sessions disconnected due to protocol error in Mobile IP.

## ■ show session disconnect-reasons verbose

Field	Description
MIP-auth-failure (42)	The total number of sessions disconnected due to Mobile IP authentication failure.
MIP-reg-timeout (43)	The total number of sessions disconnected due to registration request timeout.
Invalid-dest-context (44)	The total number of sessions disconnected due to invalid destination context.
Source-context-removed (45)	The total number of sessions disconnected due to source context is removed from system.
Destination-context-removed (46)	The total number of sessions disconnected due to destination context is removed from system.
Required-service-address-unavailable (47)	The total number of sessions disconnected due to unavailability of required service address.
demux-mgr-failed-could-not-restart (48)	The total number of sessions disconnected due to failure in demux-mgr.
internal-error (49)	The total number of sessions disconnected due to some internal system error.
AAA-context-removed (50)	The total number of sessions disconnected due to AAA context is removed from system.
invalid-service-type (51)	The total number of sessions disconnected due to invalid service type.
mip-relay-req-failed (52)	The total number of sessions disconnected due to failure in Mobile IP relay request.
mip-rcvd-relay-failure (53)	The total number of sessions disconnected due to failure in Mobile IP received.
ppp_restart_inter_pdsn_handoff (54)	The total number of sessions disconnected due to restart in inter PDSN handoff.
gre-key-mismatch (55)	The total number of sessions disconnected due to mismatch in Generic Routing Encapsulation (GRE) key.
invalid-tunnel-context (56)	The total number of sessions disconnected due to invalid Tunnel context.
no-peer-lns-address (57)	The total number of sessions disconnected due to no peer LNS address
failed-tunnel-connect (58)	The total number of sessions disconnected due to failure in Tunnel connect.
l2tp-tunnel-disconnect-remote (59)	The total number of sessions disconnected due to tunnel disconnected by remote system.
l2tp-tunnel-timeout (60)	The total number of sessions disconnected due to tunnel timeout.
l2tp-protocol-error-remote (61)	The total number of sessions disconnected due to protocol error on remote system.
l2tp-protocol-error-local (62)	The total number of sessions disconnected due to protocol error on local system.
l2tp-auth-failed-remote (63)	The total number of sessions disconnected due to authorization failed on remote system.
l2tp-auth-failed-local (64)	The total number of sessions disconnected due to authorization failed on local system
l2tp-try-another-lns-from-remote (65)	The total number of sessions disconnected due to remote system tried for another LNS.
l2tp-no-resource-local (66)	The total number of sessions disconnected due to non-availability of resource on local system.
l2tp-no-resource-remote (67)	The total number of sessions disconnected due to non-availability of resource on remote system.
l2tp-tunnel-disconnect-local (68)	The total number of sessions disconnected due to tunnel disconnected on local system.

Field	Description
l2tp-admin-disconnect-remote (69)	The total number of sessions disconnected by administrator on remote system.
l2tpmgr-reached-max-capacity (70)	The total number of sessions disconnected due to L2TP Manager logging facility reached to maximum logging capacity.
MIP-Reg-Revocation (71)	The total number of sessions disconnected due to a failure in Mobile IP registration revocation.
path-failure (72)	The total number of sessions disconnected due to path failure in connecting session.
Dhcp-Relay-IP-Validation-Failed (73)	The total number of sessions disconnected due to a failure with the validation of the IP addresses with DHCP relay method.
Gtp-unknown-pdp-addr-or-pdp-type (74)	The total number of sessions disconnected due to unknown PDP address or PDP type.
Gtp-all-dynamic-pdp-addr-occupied (75)	The total number of sessions disconnected due to all dynamic PDP addresses are occupied and no PDP address is available to allocate.
Gtp-no-memory-is-available (76)	The total number of sessions disconnected due to out of memory problem.
dhcp-relay-static-ip-addr-not-allowed (77)	The total number of sessions disconnected due to the mobile requesting the use of a static IP address when static IP address requests are not allowed.
dhcp-no-ip-addr-allocated (78)	The total number of sessions disconnected as no IP address is allocated on DHCP Server.
dhcp-ip-addr-allocation-tmr-exp (79)	The total number of sessions disconnected due to time expired for IP address allocation on DHCP Server.
dhcp-ip-validation-failed (80)	The total number of sessions disconnected due to a failure with the validation of the IP address. This occurs because the IP address returned by DHCP Server is not present in the static pool in the destination context.
dhcp-static-addr-not-allowed (81)	The total number of sessions disconnected due to a failure with IP address in the static pool on destination context is not allowed by DHCP Server.
dhcp-ip-addr-not-available-at-present (82)	The total number of sessions disconnected due to non availability of IP address on DHCP Server.
dhcp-lease-expired (83)	The total number of sessions disconnected due to expiration of IP address lease time.
lpool-ip-validation-failed (84)	The total number of sessions disconnected due to validation failure of IP address in IP pool.
lpool-static-ip-addr-not-allowed (85)	The total number of sessions disconnected due to specified static IP address is not allowed in IP pool.
static-ip-validation-failed (86)	The total number of sessions disconnected due to a failure in validation of static IP address on remote system.
static-ip-addr-not-present (87)	The total number of sessions disconnected due to allocated static address is removed or not available.
static-ip-addr-not-allowed (88)	The total number of sessions disconnected due to prohibition of defined static IP address.
radius-ip-validation-failed (89)	The total number of sessions disconnected due to a failure in IP address validation on RADIUS.
radius-ip-addr-not-provided (90)	The total number of sessions disconnected due to IP address is not provided by RADIUS.
invalid-ip-addr-from-sgsn (91)	The total number of sessions disconnected due to invalid IP address received from SGSN.

## ■ show session disconnect-reasons verbose

Field	Description
no-more-sessions-in-aaa (92)	The total number of sessions disconnected due to sessions cleared in AAA.
ggsn-aaa-auth-req-failed (93)	The total number of sessions disconnected due to authentication request failure between GGSN and AAA server.
conflict-in-ip-addr-assignment (94)	The total number of sessions disconnected due to conflict in IP address assignment.
apn-removed (95)	The total number of sessions disconnected due to APN removed during session.
credits-used-bytes-in (96)	The total number of sessions disconnected due to exceeding the incoming data/bytes credit.
credits-used-bytes-out (97)	The total number of sessions disconnected due to exceeding the outgoing data/bytes credit.
credits-used-bytes-total (98)	The total number of sessions disconnected due to exceeding the total data/bytes credit.
prepaid-failed (99)	The total number of sessions disconnected due to a failure in processing prepaid account information.
l2tp-ipsec-tunnel-failure (100)	The total number of sessions disconnected due to the IPSec tunnel being failed to connect.
l2tp-ipsec-tunnel-disconnected (101)	The total number of sessions disconnected due to the IPSec tunnel being disconnected.
mip-ipsec-sa-inactive (102)	The total number of sessions disconnected due to in active security association (sa) of IPSec for specific Mobile IP address.
Long-duration-timeout (103)	The total number of sessions disconnected due to the expiration of the configured long-duration timer.
proxy-mip-registration-failure (104)	The total number of Proxy Mobile IP sessions disconnected due to Registration failures.
proxy-mip-binding-update (105)	The total number of Proxy Mobile IP sessions disconnected due to errors occurring during binding updates.
proxy-mip-inter-pdsn-handoff-require-ip-address (106)	The total number of Proxy Mobile IP sessions disconnected due to the mobile not providing the IP address it was assigned during IPCP negotiations resulting from inter-PDSN handoffs.
proxy-mip-inter-pdsn-handoff-mismatched-address (107)	The total number of Proxy Mobile IP sessions disconnected due to the mobile providing an IP address other than what it was assigned during IPCP negotiations resulting from inter-PDSN handoffs.
Local-purge (108)	The total number of sessions disconnected due to a locally-initiated purge.
failed-update-handoff (109)	The total number of sessions disconnected due to failure in update handoff.
closed_rp-handoff-complete (110)	The total number of sessions disconnected due to handoff completed.
closed_rp-duplicate-session (111)	The total number of sessions disconnected due to duplicate session.
closed_rp-handoff-session-not-found (112)	The total number of sessions disconnected due to hand off session not found.
closed_rp-handoff-failed (113)	The total number of sessions disconnected due to handoff failed for session.
pcf-monitor-keep-alive-failed (114)	The total number of sessions disconnected due to the expiration of the configured max-inactivity timer indicating that the PCF was unavailable.
call-internal-reject (115)	The total number of sessions disconnected due to call rejected internally.
call-restarted (116)	The total number of sessions disconnected due to call restarted on unknown reason.

Field	Description
a11-mn-ha-auth-failure (117)	The total number of sessions disconnected due to failure in authentication between Mobile node and Home Agent (HA).
a11-badly-formed (118)	The total number of sessions disconnected as A11 interface is formed badly.
a11-t-bit-not-set (119)	The total number of sessions disconnected due to t-bit is not set in interface.
a11-unsupported-vendor-id (120)	The total number of sessions disconnected due to unsupported vendor Id in interface.
a11-mismatched-id (121)	The total number of sessions disconnected due to mismatched Id in A11 interface.
mipha-dup-home-addr-req (122)	The total number of sessions disconnected due to duplicate home address request on HA.
mipha-dup-imsi-session (123)	The total number of sessions disconnected due to duplicate IMSI in session on HA.
ha-unreachable (124)	The total number of sessions disconnected due to unreachable HA.
IPSP-addr-in-use (125)	The total number of sessions disconnected due to IP Pool Sharing Protocol address is in use/not free on HA.
mipfa-dup-home-addr-req (126)	The total number of sessions disconnected due to duplicate home address request on FA.
mipha-ip-pool-busyout (127)	The total number of sessions disconnected due to IP pool busyout.
inter-pdsn-handoff (128)	The total number of sessions disconnected due to inter-PDSN handoff failure.
active-to-dormant (129)	The total number of sessions disconnected due to system enters to dormant state from active state.
ppp-renegotiation (130)	The total number of sessions disconnected due to failure/conflict in PPP renegotiation.
active-start-parameter-change (131)	The total number of sessions disconnected due to change in start parameters.
accounting-tariff-boundary (132)	The total number of sessions disconnected due to the closure of an accounting record based configured tariff time.
a11-disconnect-no-active-stop (133)	The total number of sessions disconnected due to A11 interface is not active or stopped.
nw-reachability-failed-reject (134)	The total number of sessions disconnected due to failure in network reachability and request rejected.
nw-reachability-failed-redirect (135)	The total number of sessions disconnected due to failure in network reachability and request redirected.
container-max-exceeded (136)	The total number of sessions disconnected due to the closure of an accounting record based on the configured maximum number of container changes being exceeded.
static-addr-not-allowed-in-apn (137)	The total number of sessions disconnected due to static IP address is not allowed in APN.
static-addr-required-by-radius (138)	The total number of sessions disconnected due to static IP address required by RADIUS.
static-addr-not-allowed-by-radius (139)	The total number of sessions disconnected due to static IP address is not allowed by RADIUS.
mip-registration-dropped (140)	The total number of sessions disconnected due to registration dropped for Mobile IP address.
counter-rollover (141)	The total number of sessions disconnected due to counter rollover.
constructed-nai-auth-failed (142)	The total number of sessions disconnected due to authentication failure in subscriber's Network Access Identifier (NAI).

## ■ show session disconnect-reasons verbose

Field	Description
inter-pdsn-service-optimize-handoff-disabled (143)	The total number of sessions disconnected due to disabled inter-PDSN service optimization handoff.
gre-key-collision (144)	The total number of sessions disconnected due to collision in Generic Routing Encapsulation (GRE) key.
inter-pdsn-service-optimize-handoff-triggered (145)	The total number of sessions disconnected when inter PDSN service optimization handoff triggered.
intra-pdsn-handoff-triggered (146)	The total number of sessions disconnected when intra-PDSN service optimization handoff triggered.
delayed-abort-timer-expired (147)	The total number of sessions disconnected due to abort timer duration expired.
Admin-AAA-disconnect (148)	The total number of sessions disconnected as AAA server disconnected Administratively.
Admin-AAA-disconnect-handoff (149)	The total number of sessions disconnected due to AAA handoff disconnected Administratively.
PPP-IPV6CP-negotiation-failed (150)	The total number of sessions disconnected due to IPv6CP negotiation failed.
PPP-IPV6CP-no-response (151)	The total number of sessions disconnected due to no response during IPv6CP negotiation.
PPP-IPV6CP-max-retry-reached (152)	The total number of sessions disconnected due to maximum retries failed on IPv6CP negotiation.
PPP-Restart-Invalid-source-IPV4-address (153)	The total number of sessions disconnected due to PPP restarted by invalid Pv4 address of source.
a11-disconnect-handoff-no-active-stop (154)	The total number of sessions disconnected due to handoff in A11 interface is not active or stopped.
call-restarted-inter-pdsn-handoff (155)	The total number of sessions disconnected due to call restarted during inter PDSN handoff.
call-restarted-ppp-termination (156)	The total number of sessions disconnected due to call restarted on PPP termination.
mipfa-resource-conflict (157)	The total number of sessions disconnected due to resource conflict on FA.
failed-auth-with-charging-svc (158)	The total number of sessions disconnected due to authentication failure in charging services.
mipha-dup-imsi-session-purge (159)	The total number of sessions disconnected due to clearing of duplicate IMSI in session on HA.
mipha-rev-pending-newcall (160)	The total number of sessions disconnected due to revival of pending new calls.
volume-quota-reached (161)	The total number of sessions disconnected due to allocated data quota volume reached.
duration-quota-reached (162)	The total number of sessions disconnected due to time-out reached.
gtp-user-auth-failed (163)	The total number of sessions disconnected due to a failure in user/subscriber authentication.
MIP-Reg-Revocation-no-lcp-term (164)	The total number of sessions disconnected due to termination of an MIP Session for a Revocation being received from the HA and the PDSN is not configured to send a LCP Terminate Request.
MIP-private-ip-no-rev-tunnel (165)	The total number of sessions disconnected due to no reverse tunnel for MIP.

Field	Description
Invalid-Prepaid-AAA-attr-in-auth-response (166)	The total number of sessions disconnected due to invalid Prepaid attribute in authentication response.
mipha-prepaid-reset-dynamic-newcall (167)	The total number of MIP HA sessions disconnected due to receiving MIP registration with a home address of 0.0.0.0.
gre-flow-control-timeout (168)	The total number of RP sessions disconnected due to the PCF not removing flow control for a specified amount of time if GRE flow control for RP sessions is enabled.
mip-paaa-bc-query-not-found (169)	The total number of sessions that were disconnected because the binding cache was not found.
mipha-dynamic-ip-addr-not-available (170)	The total number of MIP HA sessions that were disconnected because a dynamic IP address was not available.
a11-mismatched-id-on-handoff (171)	The total number of sessions disconnected due to a mismatched ID in the A11 interface during a handoff.
a11-badly-formed-on-handoff (172)	The total number of sessions disconnected because the A11 interface is formed badly during a handoff.
a11-unsupported-vendor-id-on-handoff (173)	The total number of sessions disconnected due to unsupported vendor Id in the A11 interface during a handoff.
a11-t-bit-not-set-on-handoff (174)	The total number of sessions disconnected due to t-bit is not set in the A11 interface during a handoff.
MIP-Reg-Revocation-i-bit-on (175)	The total number of Mobile IP sessions disconnected at the PDSN/FA due to Revocation received from HA (with I bit set).
a11-RRQ-Deny-Max-Count (176)	The total number of sessions disconnected due to failures in processing A11-Registration-Request despite retries of the message by the PCF.
Dormant-Transition-During-Session-Setup (177)	The total number of sessions disconnected because they entered the dormant state during session setup.
PPP-Rem-Reneg-Disc-Always-Cfg (178)	The total number of PPP sessions disconnected because they were renegotiated by the remote side by sending LCP Conf-req/nak/ack and the "always" option was used for the <b>remote-renegotiation disconnect</b> command/attribute.
PPP-Rem-Reneg-Disc-NAI-MSID-Mismatch (179)	The total number of PPP sessions disconnected because they were renegotiated by the remote side by sending LCP Conf-req/nak/ack and the "nai-prefix-msid-mismatch" option was used for the <b>remote-renegotiation disconnect</b> command/attribute.
mipha-subscriber-ipsec-tunnel-down (180)	The total number of subscribers disconnected because the IPsec tunnel facilitating their sessions went down.
mipha-subscriber-ipsec-tunnel-failed (181)	The total number of subscribers disconnected because an IPsec tunnel failed to be established.
mipha-subscriber-ipsecmgr-death (182)	The total number of subscribers disconnected because the IPsec Manager software task facilitating their sessions crashed.
flow-is-deactivated (183)	The total number of sessions disconnected because their respective flow was deactivated.
ecs-license-exceeded (184)	The total number of sessions disconnected because the licensed session capacity for the Enhanced Charging Service feature has been exceeded.
IPSG-Auth-failed (185)	The total number of sessions disconnected because IPSG authentication failed.

## ■ show session disconnect-reasons verbose

Field	Description
driver-initiated (186)	The total number of sessions disconnected due to driver initiation.
ims-authorization-failed (187)	The total number of sessions disconnected because of IMS authorization failures.
service-instance-released (188)	The total number of sessions disconnected because they were released by the service instances facilitating them.
flow-released (189)	The total number of sessions disconnected because their respective flows were released.
ppp-renego-no-ha-addr (190)	The total number of sessions disconnect because no HA address was supplied during PPP renegotiation.
intra-pdsn-handoff (191)	The total number of sessions disconnected during an intra-PDSN service handoff.
overload-disconnect (192)	The total number of sessions disconnected because the configured overload-disconnect threshold has been exceeded.
css-service-not-found (193)	The total number of sessions because the CSS service specified for handling the session was not found.
Auth-failed (194)	This is not supported at this time.
dhcp-client-sent-release (195)	The total number of sessions disconnected because the DHCP client sent a release.
dhcp-client-sent-nak (196)	The total number of sessions disconnected because the DHCP client sent a negative acknowledge message.
msid-dhcp-chaddr-mismatch (197)	The total number of sessions disconnected because the DHCP Client Hardware (MAC) Address (CHADDR) does not match with MSID of the ASN-GW session.
link-broken(198)	The total number of sessions disconnected because the link between the SGSN and the GGSN is broken resulting in the termination of ongoing Diameter Credit-Control sessions with the DIAMETER_LINK_BROKEN termination-cause.
prog-end-timeout(199)	The total number of sessions disconnected because the allowed BCMCS program limit time expires.
qos-update-wait-timeout(200)	The total number of sessions disconnected because the PDSN failed to update QoS for them.
css-synch-cause(201)	The total number of sessions disconnected because the session-audit between the ACS Manager task and Session Manager disconnects any dangling sessions in the Session Manager.
Gtp-context-replacement(202)	The total number of sessions disconnected due to GTP context replacement.
PDIF-Auth-failed(203)	The total number of sessions disconnected due to PDIF authentication process unable to set up a secure IPSec tunnel to subscriber.
l2tp-unknown-apn(204)	The total number of sessions disconnected due to unknown APN in L2TP message.
ms-unexpected-network-reentry(205)	The total number of sessions disconnected due unexpected network reentry by MS in Wimax network.
r6-invalid-nai(206)	The total number of sessions disconnected due invalid NAI in R6 message in WiMAX network.
eap-max-retry-reached(207)	The total number of sessions disconnected due maximum retry limit for EAP authentication exhausted in Wimax network.

Field	Description
vbm-hoa-session-disconnected(208)	vbm-hoa-session-disconnected
vbm-voa-session-disconnected(209)	vbm-voa-session-disconnected
in-acl-disconnect-on-violation(210)	in-acl-disconnect-on-violation
eap-msk-lifetime-expiry(211)	The total number of sessions disconnected due to EAP Master Session Key lifetime expiry in Wimax network.
eap-msk-lifetime-too-low(212)	The total number of sessions disconnected due to EAP Master Session Key lifetime is too less to allow session.
inter-service-handoff(213)	The total number of sessions disconnected due to inter-service handoff in Wimax network.
r6-max-retry-reached(214)	The total number of sessions disconnected due to maximum retry limit for R6 message exhausted in Wimax network.
r6-nwexit-recd(215)	The total number of sessions disconnected due to network exit message received on R6 interface in Wimax network.
r6-dereg-req-recd(216)	The total number of sessions disconnected due to de-registration message received on R6 interface in Wimax network.
r6-remote-failure(217)	The total number of sessions disconnected due to remote peer failure on R6 interface in Wimax network.
r6r4-protocol-errors(218)	The total number of sessions disconnected due to protocol error on R6 and/or R4 interface in Wimax network.
wimax-qos-invalid-aaa-attr(219)	The total number of sessions disconnected due to invalid AAA attributes for QoS to a subscriber in Wimax network.
npu-gre-flows-not-available(220)	The total number of sessions disconnected due to requested NPU GRE flow is not available for a subscriber in Wimax network.
r4-max-retry-reached(221)	The total number of sessions disconnected due to maximum retry limit for R4 message exhausted in Wimax network.
r4-nwexit-recd(222)	The total number of sessions disconnected due to network exit message received on R4 interface in Wimax network.
r4-dereg-req-recd(223)	The total number of sessions disconnected due to de-registration message received on R4 interface in Wimax network.
r4-remote-failure(224)	The total number of sessions disconnected due to remote peer failure on R4 interface in Wimax network.
ims-authorization-revoked(225)	The total number of sessions disconnected due to IMS authorization revoked.
ims-authorization-released(226)	The total number of sessions disconnected due to IMS authorization released.
ims-auth-decision-invalid(227)	The total number of sessions disconnected due to invalid IMS authorization decision.
mac-addr-validation-failed(228)	The total number of sessions disconnected due to MAC address validation failure in WiMAX network.
excessive-wimax-pd-flows-configured(229)	The total number of sessions disconnected due to excessive packet data flows are configured in WiMAX network.

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Field	Description
sgsn-cancel-location-sub-withdrawn(230)	The total number of sessions disconnected due to request for location substitution withdrawn was cancelled.
sgsn-cancel-location-update(231)	The total number of sessions disconnected because the location update was cancelled.
sgsn-mnr-expiry(232)	The total number of sessions disconnected due to manager expiry.
sgsn-identity-failure(233)	The total number of sessions disconnected due to identity check failure.
sgsn-security-failure(234)	The total number of sessions disconnected due to security verification failure.
sgsn-auth-failure(235)	The total number of sessions disconnected due to authentication failure.
sgsn-glu-failure(236)	The total number of sessions disconnected due to GLU failure.
sgsn-implicit-detach(237)	The total number of sessions disconnected due to an implicit detach.
sgsn-subscriber-moved-to-different-smgr-instanc(238)	The total number of sessions disconnected due to subscriber moving to a different SMGR instance.
sgsn-subscriber-moved-to-peer-sgsn(239)	The total number of sessions disconnected due to subscriber moving to a peer SGSN.
sgsn-dns-failure-inter-rau(240)	The total number of sessions disconnected due to DNS failure during Inter-RAU.
sgsn-context-response-failure(241)	The total number of sessions disconnected due to context response failure.
sgsn-hlr-not-found-for-imsi(242)	The total number of sessions disconnected due to HLR not found for particular IMSI.
sgsn-ms-init-detach(243)	The total number of sessions disconnected due to MS initiated detach.
sgsn-roaming-not-allowed(244)	The total number of sessions disconnected because MS was not allowed to roam.
sgsn-duplicate-context(245)	The total number of sessions disconnected due to duplicate context.
hss-profile-update-failed(246)	The total number of sessions disconnected due to failure of profile update.
inactive-without-activating-any-pdp(247)	The total number of sessions disconnected where session is inactive and no PDP context is activated from this session.
asnpc-idle-mode-timeout(248)	The total number of sessions disconnected due to configured idle mode timeout duration is exhausted for ASN paging controller in WiMAX network.
asnpc-idle-mode-exit(249)	The total number of sessions disconnected due to idle mode exit message for ASN paging controller in WiMAX network.
asnpc-idle-mode-entry-auth-failed(250)	The total number of sessions disconnected due to authentication failure during idle mode entry for ASN paging controller in WiMAX network.
asngw-invalid-qos-configuration(251)	The total number of sessions disconnected due to invalid QoS configuration for subscriber in WiMAX network.
r6-pmk-key-change-failure(252)	The total number of sessions disconnected due to primary master key change failure on R6 interface in WiMAX network.
pdif-subscriber-ipsecmgr-death(253)	The total number of sessions disconnected due to ipsecmgr failure
All-dynamic-pool-addr-occupied(254)	The total number of sessions disconnected due to non-availability of IP address from dynamic address pool.

Field	Description
bs-monitor-keep-alive-failed(290)	The total number of sessions disconnected due to failure monitored through BS monitor keep-alive probe.
sgsn-attach-in-reg-state(291)	The total number of SGSN sessions disconnected due to an error in the SGSN attachment during the registration state. The field indicator number will vary depending upon the build of the software.
sgsn-inbound-srns-in-reg-state(292)	The total number of SGSN sessions disconnected due to an error in the SGSN inbound SRNS in a registration state. The field indicator number will vary depending upon the build of the software.
dt-ggsn-tun-reestablish-failed(293)	The total number of SGSN sessions disconnected due to error in Update PDP Context Response message for direct tunnel functionality. Direct tunnel functionality at GGSN was expecting some fields which were not received in the Update PDP Context Response message. Hence, the GGSN was not able to establish a tunnel appropriately with the SGSN or the RNC. The field indicator number will vary depending upon the build of the software.
sgsn-pdp-unknown(294)	The total number of SGSN sessions disconnected due to an unknown PDP context. The field indicator number will vary depending upon the build of the software.
sgsn-pdp-auth-failure(295)	The total number of SGSN sessions disconnected because the PDP authentication failed. The field indicator number will vary depending upon the build of the software.
sgsn-duplicate-pdp-context(296)	The total number of SGSN sessions disconnected due to duplicate PDP contexts. The field indicator number will vary depending upon the build of the software.
sgsn-no-rsp-from-ggsn(297)	The total number of SGSN sessions disconnected because the SGSN does not receive a response from the GGSN. The field indicator number will vary depending upon the build of the software.
sgsn-failure-rsp-from-ggsn(298)	The total number of SGSN sessions disconnected due to failed response from the GGSN. The field indicator number will vary depending upon the build of the software.
sgsn-apn-unknown(299)	The total number of SGSN sessions disconnected due to an unknown APN. The field indicator number will vary depending upon the build of the software.
sgsn-pdp-status-mismatch(300)	The total number of SGSN sessions disconnected due to deactivation initiated by a service request. The field indicator number will vary depending upon the build of the software.
sgsn-attach-on-attach-init-abort(301)	The total number of SGSN sessions disconnected due to an attachment procedure-initiated abort. The field indicator number will vary depending upon the build of the software.
sgsn-iu-rel-in-israu-init-abort(302)	The total number of SGSN sessions disconnected due to an ISRAU-initiated abort procedure. The field indicator number will vary depending upon the build of the software.
sgsn-smgr-init-abort(303)	The total number of SGSN sessions disconnected because the SessMgr initiates an abort. The field indicator number will vary depending upon the build of the software.
sgsn-mm-ctx-cleanup-init-abort(304)	The total number of SGSN sessions disconnected due to the MM context cleanup-initiated abort procedure. The field indicator number will vary depending upon the build of the software.
sgsn-unknown-abort(305)	The total number of SGSN sessions disconnected due to an unknown abort procedure. The field indicator number will vary depending upon the build of the software.

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Field	Description
sgsn-guard-timeout-abort(306)	The total number of SGSN sessions disconnected because the abort procedure was started by the guard timer timeout. The field indicator number will vary depending upon the build of the software.
vpn-bounce-dhccip-validate-req(307)	The total number of SGSN sessions disconnected because the abort procedure was initiated upon receiving a DHCP IP validate request. The field indicator number will vary depending upon the build of the software.
mipv6-id-mismatch(308)	The total number of sessions disconnected due to id mismatch in MIPv6 session.
aaa-session-id-not-found(309)	The total number of sessions disconnected as AAA session id not-found
SA-Rekeying-Failure(310)	The total number of sessions disconnected due to security associate rekeying failure.
asnpc-pc-relocation-failed(311)	The total number of sessions disconnected due to failure in relocation in ASN-PC service.
asnpc-pc-relocation(312)	The total number of sessions disconnected due to failure in paging controller relocation in ASN PC service.
auth_policy_mismatch(313)	The total number of sessions disconnected due to mismatch in authentication policy.
asnpc-del-ms-entry-recd(314)	The total number of sessions disconnected as DELETE MS ENTRY message received by the ASN Paging Controller.
sgsn-inbound-attach-abort-radio-status-bad-lost(339)	The total number of SGSN sessions disconnected because the inbound attach requests aborted due to poor radio status or lost radio connections. The field indicator number will vary depending upon the build of the software.
sgsn-inbound-irau-abort-radio-status-bad-lost(340)	The total number of SGSN sessions disconnected due to inbound IRAU requests aborting as the radio status was poor or the radio connection lost. The field indicator number will vary depending upon the build of the software.
ike-keep-alive-failed(341)	ike-keep-alive-failed(341)
sgsn-attach-abort-ms-suspend(342)	The total number of SGSN sessions disconnected due to attach requests aborting because MS was in suspend mode. The field indicator number will vary depending upon the build of the software.
sgsn-inbound-irau-abort-ms-suspend(343)	The total number of SGSN sessions disconnected due to IRAU requests aborted when MS was in suspend mode. The field indicator number will vary depending upon the build of the software.
duplicate-session-detected(344)	The total number of sessions disconnected due to detection of duplicate sessions for the same session id. The field indicator number will vary depending upon the build of the software.
sgsn-xid-response-failure(345)	The total number of SGSN sessions disconnected due to XID response failure. The field indicator number will vary depending upon the build of the software.
sgsn-nse-cleanup(346)	The total number of SGSN sessions disconnected due to record cleanup or reset on the network service entity (NSE). The field indicator number will vary depending upon the build of the software.
sgsn-gtp-req-failure(347)	The total number of SGSN sessions disconnected due to failure of the GTPP request. The field indicator number will vary depending upon the build of the software.
sgsn-imsi-mismatch(348)	The total number of SGSN sessions disconnected due to mismatches of the IMSIs. The field indicator number will vary depending upon the build of the software.

Field	Description
sgsn-bvc-blocked(349)	The total number of SGSN sessions disconnected because the BSSGP Virtual Connection (BVC) was blocked. The field indicator number will vary depending upon the build of the software.
sgsn-attach-on-inbound-irau(350)	The total number of SGSN sessions disconnected as the session was attached on inbound IRAU requests. The field indicator number will vary depending upon the build of the software.
sgsn-attach-on-outbound-irau(351)	The total number of SGSN sessions disconnected while the session was attached on outbound IRAU requests. The field indicator number will vary depending upon the build of the software.
sgsn-incorrect-state(352)	The total number of SGSN sessions disconnected due to incorrect state of network elements. The field indicator number will vary depending upon the build of the software.
sgsn-t3350-expiry(353)	The total number of SGSN sessions disconnected due to expiry of the T-3350 timer. The field indicator number will vary depending upon the build of the software.
sgsn-page-timer-expiry(354)	The total number of SGSN sessions disconnected due to expiry of the paging timer. The field indicator number will vary depending upon the build of the software.
sgsn-pdp-local-purge(355)	The total number of SGSN sessions disconnected due to local purging of PDP contexts. The field indicator number will vary depending upon the build of the software.
sgsn-pdp-local-purge(357)	The total number of SGSN sessions disconnected due to local purging of PDP contexts. The field indicator number will vary depending upon the build of the software.
sgsn-offload-phase2(360)	The total number of SGSN sessions disconnected as offloading reaches in phase 2 of session disconnect procedure. The field indicator number will vary depending upon the build of the software.
Remote-error-notification(362)	Remote-error-notification The total number of sessions disconnected due to remote error notification.
no-response(363)	The total number of sessions disconnected due to no response from any of the network entity.
Re-Auth-failed(364)	The total number of sessions disconnected due to re-authorization failure at any stage.
mme-s1AP-send-failed(365)	The total number of sessions disconnected due to message sent on S1AP interface failed.
mme-egtpc-connection-failed(366)	The total number of sessions disconnected as connection between MME and eGTP service/node failed due to any reason.
mme-egtpc-create-session-failed(367)	The total number of sessions disconnected as session creation failed between MME and eGTP service/node.
mme-authentication-failure(368)	The total number of sessions disconnected as authentication procedure failed between MME and HSS.
mme-ue-detach(369)	The total number of sessions disconnected as UE detached explicitly.
mme-mme-detach(370)	The total number of sessions disconnected on serving MME due to detach procedure occurred between anchored MME and service MME.
mme-hss-detach(371)	The total number of sessions disconnected due to DETACH procedure started from HSS.
mme-pgw-detach(372)	The total number of sessions disconnected due to DETACH procedure started from P-GW.

■ show session disconnect-reasons verbose

Field	Description
mme-sub-validation-failure(373)	The total number of sessions disconnected as subscriber validation failed at MME or HSS during authentication procedure.
mme-hss-connection-failure(374)	The total number of sessions disconnected due to connection failure between MME and associated HSS during authentication procedure.
mme-hss-user-unknown(375)	The total number of sessions disconnected by MME service due to UNKNOWN USER response from HSS during authentication procedure.
dhcp-lease-mismatch-detected(376)	The total number of sessions disconnected due to mismatch in DHCP lease time mismatch.
nemo-link-layer-down(377)	nemo-link-layer-down
sgsn-offload-phase3(379)	The total number of SGSN sessions disconnected as offloading reaches phase 3 of the session disconnect procedure. The field indicator number will vary depending upon the build of the software.
mbms-bearer-service-disconnect(380)	The total number of sessions disconnected due to disconnect in MBMS bearer service.
disconnect-on-violation-odb(381)	The total number of sessions disconnected due to violation on Operator Determined Barring (ODB) of services.
disconn-on-violation-focs-odb(382)	The total number of sessions disconnected due to violation on Operator Determined Barring (ODB) of Free-of-Charge service (FOCS).
CSCF-REG-Admin-disconnect(383)	The total number of CSCF sessions disconnected through CLI registration clearing by administrator.
CSCF-REG-User-disconnect(384)	The total number of CSCF sessions disconnected by UE with an explicit deregister message.
CSCF-REG-Inactivity-timeout(385)	The total number of CSCF sessions disconnected due to registration expiry.
CSCF-REG-Network-disconnect(386)	The total number of CSCF sessions disconnected due to network-initiated deregistration.
CSCF-Call-Admin-disconnect(387)	The total number of CSCF sessions disconnected through CLI call clearing by administrator.
CSCF-Call-User-disconnect(388)	The total number of CSCF sessions disconnected by UE using BYE message.
CSCF-CALL-Local-disconnect(389)	The total number of CSCF sessions disconnected locally due to some processing failure, task death, recovery failure, etc.
CSCF-CALL-No-Resource(390)	The total number of CSCF sessions disconnected because locally due to congestion caused by max calline/flow usage from high cpu/memory utilization in sessmgr.
CSCF-CALL-No-Response(391)	The total number of CSCF sessions disconnected due to response timeout (SIP response code 408).
CSCF-CALL-Inactivity-timeout(392)	The total number of CSCF sessions disconnected due to session timer timeout
CSCF-CALL-Media-Auth-Failure(393)	The total number of CSCF sessions disconnected due to media authorization failure.
CSCF-REG-No-Resource(394)	The total number of CSCF sessions disconnected because register message is rejected due to congestion caused by max calline/flow usage from high cpu/memory utilization in sessmgr.

Field	Description
ms-unexpected-idle-mode-entry(395)	The total number of sessions disconnected while MS unexpectedly started the IDLE mode procedure and enters the Idle mode.
Re-Auth-failed(396)	The total number of sessions disconnected during re-authentication when MS started activation after coming out of idle mode.
sgsn-pdp-nse-cleanup(397)	The total number of SGSN sessions disconnected because the NSE configured in the GPRS service is removed and there are PDP contexts associated with the subscribers attached in this NSE. The field indicator number will vary depending upon the build of the software.
sgsn-mm-ctxt-gtp-no-resource(398)	The total number of SGSN sessions disconnected because an SGTP service could not be assigned to an MM context. The field indicator number will vary depending upon the build of the software.
unknown-apn(399)	The total number of sessions disconnected due to invalid and/or unknown APN name received from AAA or subscriber template.
gtpc-path-failure(400)	The total number of sessions disconnected due to failure of GTP-C interface path between two nodes.
gtpu-path-failure(401)	The total number of sessions disconnected due to failure of GTP-U interface path between two nodes.
actv-rejected-by-ggsn(402)	The total number of sessions disconnected due as session activation procedure, started by an MS which was in idle mode, was rejected by GGSN.
sgsn-pdp-gprs-camel-release(403)	The total number of PDP activation failures due to release from CAMEL. <i>This counter is visible but not yet fully supported.</i> The field indicator number will vary depending upon the build of the software.
sgsn-check-imei-failure(404)	The total number of of Attaches / RAUs rejected due to failure in the IMEI checking (i.e. due either to black listing or to grey listing and an SGSN operator policy is configured with deny-grey-list). The field indicator number will vary depending upon the build of the software.
	 <b>Important:</b> This counter is available in releases 9.0 and higher.
sgsn-sndcp-init-deact(405)	The total number of PDP contexts deactivated upon receiving a cleanup indication from the SNDCP layer. The field indicator number may vary depending upon the build of the software.
sgsn-pdp-inactivity-timeout(406)	The total number of subscribers detached or PDP context(s) deactivated due to subscriber inactivity during a configured (in the SGSN operator policy) time. The field indicator number may vary depending upon the build of the software.

## show session progress

Table 285. show session progress Command Output Descriptions

Field	Description
In-progress calls	The number of calls that are currently in progress (active, dormant, being set up, or being disconnected) and being processed by either the system (if no keywords were used), a specific PDSN service (if the <b>pdsn-service</b> keyword was used), or a specific PCF (if the <b>pcf</b> keyword was used).
In-progress active calls	The total number of active sessions.
In-progress dormant calls	The total number of dormant sessions.
In-progress always-on calls	The number of calls that have always on enabled.
In-progress calls @ ARRIVED state	The total number of sessions that are at the onset of the registration process.
In-progress calls @ LCP-NEG state	The total number of sessions that are in the Link Control Protocol (LCP) negotiation phase of the registration process.
In-progress calls @ LCP-UP state	The total number of sessions that have just completed the Link Control Protocol (LCP) negotiation phase of the registration process.
In-progress calls @ AUTHENTICATING state	The total number of sessions that are in the process of being authenticated.
In-progress calls @ BCMCS SERVICE AUTHENTICATING state	The total number of BCMCS sessions that are in the process of being authenticated.
In-progress calls @ MBMS UE AUTHORIZING state	The total number of MBMS sessions currently in UE authorization state.
In-progress calls @ MBMS BEARER AUTHORIZING state	The total number of MBMS sessions currently in bearer authorization state.
In-progress calls @ AUTHENTICATED state	The total number of sessions that have just completed the authentication phase of the registration process.
In-progress calls @ L2TP-LAC CONNECTING state	The number of calls that have an L2TP tunnel in the process of being brought up.
In-progress calls @ DHCP PENDING state	The total number of DHCP calls that are currently in pending state.
In-progress calls @ IPCP-UP state	The total number of sessions that have just completed the Internet Protocol Control Protocol (IPCP) phase of the registration process.
In-progress calls @ NON-ANCHOR CONNECTED state	Indicates the total number of WiMAX sessions being processed by this Session Manager instance that are currently being in connected state in non-anchor mode.
In-progress calls @ SIMPLE IPv4 CONNECTED state	The total number of IPv4 data sessions that are currently connected.

Field	Description
In-progress calls @ SIMPLE IPv6 CONNECTED state	The total number of IPv6 data sessions that are currently connected.
In-progress calls @ SIMPLE-IP CONNECTED state	The total number of Simple IP data sessions that are currently connected.
In-progress calls @ MOBILE-IP CONNECTED state	The total number of Mobile IP data sessions that are currently connected.
In-progress calls @ PROXY-MOBILE-IP CONNECTED state	The total number of Proxy Mobile IP data sessions that are currently connected.
In-progress calls @ L2TP-LAC CONNECTED state	The number of calls that are passing data through an L2TP tunnel.
In-progress calls @ HA-IPSEC CONNECTED state	The number of calls that have negotiated IP Security.
In-progress calls @ PDP-TYPE-IPv4 CONNECTED state	The total number of PDP-type IPv4 data sessions that are currently connected.
In-progress calls @ PDP-TYPE-IPv6 CONNECTED state	The total number of PDP-type IPv6 data sessions that are currently connected.
In-progress calls @ PDP-TYPE-IP CONNECTED state	The total number of PDP contexts of type IP that are currently connected. This field applies to GGSN only.
In-progress calls @ PDP-TYPE-PPP CONNECTED state	The total number of PDP contexts of type PPP that are currently connected. This field applies to GGSN only.
In-progress calls @ BCMCS CONNECTED state	The total number of BCMCS sessions currently connected.
In-progress calls @ MBMS UE CONNECTED state	The total number of MBMS sessions currently in UE connected state.
In-progress calls @ MBMS BEARER CONNECTED state	The total number of MBMS sessions currently in bearer connected state.
In-progress calls @ IPSPG CONNECTED state	The total number of IPSPG sessions currently connected.
In-progress calls @ ASNPC CONNECTED state	Indicates the number of ASN Paging Controller calls that are currently connected.
In-progress calls @ CSCF-REGISTERING state	Total number of CSCF sessions which are in registration processing state.
In-progress calls @ CSCF-REGISTERED state	Total number of cscf sessions which are in registered state.
In-progress calls @ CSCF-CALL-ARRIVED state	Total number of CSCF sessions which are processing the newly arrived CSCF calls (i.e., processing initial Invite, waiting for provisional response, waiting for final response, etc.).
In-progress calls @ CSCF-CALL-CONNECTING state	Total number of CSCF sessions which are in call connecting state (waiting for ACK).
In-progress calls @ CSCF-CALL-CONNECTED state	Total number of CSCF sessions which are in call connected state.

■ show session progress

Field	Description
In-progress calls @ CSCF-CALL-DISCONNECTING state	Total number of CSCF sessions which are in call disconnecting state (i.e., processing BYE , waiting for BYE response, etc.).
In-progress calls @ MME ATTACHED state	Indicates the number of MME subscriber session currently attached.
In-progress calls @ DISCONNECTING state	The total number of sessions that are in the process of disconnecting.

## show session recovery status verbose

Table 286. show session recovery status verbose Output Descriptions

Field	Description
Last Status Update	The duration from the last time the Resource Manager did a health check on the session managers. This is informational info only, and does not reflect the last time a subscriber was checkpointed.
cpu	This indicates the card and slot number of the CPU listed.
state	Indicates the state of the specified CPU. This is either Active or Standby.
sessmgr	This lists the number of Session Managers in the active and standby state on the specified CPU.
aaamgr	Indicates the number of AAA managers in the active and standby state on the specified CPU.
demux active	Indicates the number of demux managers on the CPU.
status	This indicates the session recovery state for the specified CPU. This can be one of the following values: <ul style="list-style-type: none"> <li>• Good (Demux)</li> <li>• Demux With Non-Demux</li> <li>• Non-Demux With Demux</li> <li>• Pair on Processing Cards</li> <li>• SESSMGR Not Ready</li> <li>• Missing AAAMGR</li> <li>• No Standby</li> <li>• Good</li> <li>• SESSMGR Not Ready</li> <li>• Too Few Standby</li> <li>• Good</li> <li>• Unknown</li> </ul>

## show session subsystem facility a11mgr all



**Important:** These statistics are from the perspective of the Session Manager (SessMgr) and A11 Manager (A11Mgr) task itself (not from the perspective of subscribers).

*Table 287. show session subsystem facility a11mgr Command Output Descriptions*

Field	Description
A11Mgr	The A11 Manager task instance number. Since multiple A11 Manager tasks can be operating simultaneously in the system, each one is assigned an instance number.
Total calls arrived	Indicates the total number of sessions received by this A11 Manager instance for processing.
Total calls rejected	Indicates the total number of sessions that were rejected by this A11 Manager instance.
Total calls demultiplexed	Indicates the total number of sessions that were successfully setup by this by this A11 Manager instance.
Total dereg reply sent	Indicates the total number of sessions that were successfully de-registered, or disconnected, by this by this A11 Manager instance.
Current active calls	Indicates the total number of active sessions currently being facilitated by this A11 Manager instance.
Total active services	The total number of PDSN services that are currently facilitating subscriber sessions.

## show session subsystem facility aaamgr all

 **Important:** These statistics are from the perspective of the Session Manager (SessMgr) and AAA Manager (AAAMgr) task itself (not from the subscriber perspective).

*Table 288. show session subsystem facility aaamgr all Command Output Descriptions*

Field	Description
AAA Manager	The AAA Manager task instance number. Since multiple AAA Manager tasks can be operating simultaneously in the system, each one is assigned an instance number.
Total aaa requests	The total number of AAA requests received by this AAAMgr instance for processing.
Current aaa requests	The number of AAA requests that this AAAMgr instance is currently processing.
Total aaa auth requests	The total number of AAA authentication requests that were received by this AAAMgr instance.
Current aaa auth requests	The number of AAA authentication requests that this AAAMgr instance is currently processing.
Total aaa auth probes	The total number of Authorization Probes that this AAAMgr instance has initiated.
Current aaa auth probes	The number of Authorization Probe requests that this AAAMgr instance is currently processing.
Total aaa auth keepalive	The total number of AAA authentication keepalive requests that were sent by this AAAMgr instance.
Current aaa auth keepalive	The number of AAA authentication keepalive requests that this AAAMgr instance is currently processing.
Total aaa acct requests	The total number of AAA accounting requests that were received by this AAAMgr instance.
Current aaa acct requests	The number of AAA accounting requests that this AAAMgr instance is currently processing.
Total aaa acct keepalive	The total number of AAA accounting keepalive requests that were sent by this AAAMgr instance.
Current aaa acct keepalive	The number of AAA accounting keepalive requests that this AAAMgr instance is currently processing.
Total aaa auth success	The total number of successful AAA authentications facilitated by this AAAMgr instance.
Total aaa no-auth null-username	The total number of AAA authentication requests dropped because of a null user name, or because there is no RADIUS null-username configured.
Total aaa auth failure	The total number of failed AAA authentications facilitated by this AAAMgr instance.
Total aaa auth purged	The total number of AAA authentication requests received by this AAAMgr instance that failed to get a response from the AAA server.

Field	Description
Total aaa auth cancelled	The total number of canceled AAA authentication requests facilitated by this AAAMgr instance.
Total auth keepalive success	The total number of successful authentication keepalives facilitated by this AAAMgr instance.
Total auth keepalive failure	The total number of failed authentication keepalives facilitated by this AAAMgr instance.
Total auth keepalive purged	The total number of authentication keepalive requests received by this AAAMgr instance that failed to get a response from the AAA server.
Total aaa auth DMU challenged	The total number of AAA authentication requests that were challenged for Dynamic Mobile Keying update.
aaa request (used/max)	The total number of AAA requests used and the maximum allowed for this AAAMgr instance.
Total Diameter auth requests	The total number of AAA authentication requests of the type Diameter authentication protocol facilitated by this AAAMgr instance.
Current Diameter auth requests	The number of AAA authentication requests of the type Diameter authentication protocol currently being processed by this AAAMgr instance.
Total Diameter auth requests retried	The total number of AAA authentication requests of the type Diameter authentication protocol that this AAAMgr instance retried. Retries occur when the AAAMgr instance does not receive a response from the AAA server to an initial request. The AAAMgr instance retries a request triggered by a timeout value configured under the AAA group.
Total Diameter auth requests dropped	The total number of AAA authentication requests of the type Diameter authentication protocol dropped by this AAAMgr instance due to the AAA server being unavailable or the system being out of memory.
Total radius auth requests	The total number of RADIUS authentication requests received by this AAAMgr instance.
Current radius auth requests	The number of RADIUS authentication requests currently being processed by this AAAMgr instance.
Total radius auth requests retried	The total number of RADIUS authentication requests processed by this AAAMgr instance that were retried.
Total radius auth responses dropped	The total number of RADIUS authentication responses dropped by the AAAMgr instance.
Total local auth requests	The total number of authentication requests received by this AAAMgr instance for locally configured subscribes.
Current local auth requests	The number of authentication requests currently being processed by this AAAMgr instance for locally configured subscribes.
Total pseudo auth requests	The total number of AAA requests for user profiles received by this AAAMgr instance.
Current pseudo auth requests	The number of current pending AAA requests for user profiles in this AAAMgr instance.
Total null-username auth requests (rejected)	The total number of AAA requests for un-attempted user profiles received by this AAAMgr instance.

Field	Description
Total aaa acct completed	The total number of AAA accounting requests received by this AAAMgr instance that were delivered successfully to the AAA server.
Total aaa acct purged	The total number of AAA accounting requests received by this AAAMgr instance that had to be purged because the storage limit of pending accounting requests had been exceeded.
Total acct keepalive success	The total number of successful accounting keepalives facilitated by this AAAMgr instance.
Total acct keepalive timeout	The total number of failed accounting keepalives facilitated by this AAAMgr instance.
Total acct keepalive purged	The total number of accounting keepalive requests received by this AAAMgr instance that failed to get a response from the AAA server.
Total aaa acct cancelled	The total number of AAA accounting requests received by this AAAMgr instance that were canceled.
Total Diameter acct requests	The total number of AAA accounting requests of the type Diameter accounting protocol facilitated by this AAAMgr instance. This includes active and deleted requests.
Current Diameter acct requests	The number of AAA accounting requests of the type Diameter accounting protocol currently being processed by this AAAMgr instance.
Total Diameter acct requests retried	The total number of AAA accounting requests of the type Diameter accounting protocol that this AAAMgr instance retried. Retries occur when the AAAMgr instance does not receive a response from the AAA server to an initial request. The AAAMgr instance retries a request triggered by a timeout value configured under the AAA group.
Total diameter acct requests dropped	The total number of dropped AAA accounting requests of the type Diameter accounting protocol.
Total diameter acct responses dropped	The total number of dropped AAA accounting responses of the type Diameter accounting protocol.
Total diameter acct cancelled	The total number of cancelled AAA accounting requests of the type Diameter accounting protocol.
Total diameter acct purged	The total number of purged AAA accounting requests of the type Diameter accounting protocol.
Total radius acct requests	The total number of AAA accounting requests received by this AAAMgr instance for which the RADIUS protocol was used to deliver the accounting message to the AAA server.
Current radius acct requests	The number of AAA accounting requests currently being processed by this AAAMgr instance for which the RADIUS protocol is being used to deliver the accounting message to the AAA server.
Total radius acct cancelled	The total number of cancelled RADIUS accounting requests received by this AAAMgr instance.
Total radius acct purged	The total number of RADIUS accounting requests received by this AAAMgr instance that had to be purged because the storage limit of pending accounting requests had been exceeded.
Total radius acct requests retried	The total number of AAA accounting requests received by this AAAMgr instance for which the RADIUS protocol was used to deliver the accounting message to the AAA server that were retried.
Total radius acct responses dropped	The total number of RADIUS accounting responses dropped by the AAAMgr instance.

■ show session subsystem facility aaamgr all

Field	Description
Total gtp acct requests	The total number of AAA accounting requests received by this AAAMgr instance for which the GTPP protocol was used to deliver the accounting message to the Charging Gateway Function (CGF).
Current gtp acct requests	The current number of AAA accounting requests being processed by this AAAMgr instance for which the GTPP protocol is being used to deliver the accounting message to the Charging Gateway Function (CGF).
Total gtp acct cancelled	The total number of accounting requests that were cancelled.
Total gtp acct purged	The total number of accounting requests that were purged.
Total gtp sec acct requests	The total number of secondary G-CDR requests being processed by this AAAMgr instance for which the GTPP protocol is being used to deliver the accounting message to the Charging Gateway Function (CGF). It counts total secondary G-CDRs generated by this AAAMgr instance.
Total gtp sec acct purged	The total number of secondary G-CDR requests being processed and purged by this AAAMgr instance for which the GTPP protocol is being used to deliver the accounting message to the Charging Gateway Function (CGF). It counts total secondary G-CDRs purged by this AAAMgr instance.
Total null acct requests	The total number of AAA accounting requests received by this AAAMgr instance that were not required to be delivered to a AAA server.
Current null acct requests	The current number of AAA accounting requests being processed by this AAAMgr instance that are not required to be delivered to a AAA server.
Total aaa acct sessions	The total number of AAA accounting sessions facilitated by this AAAMgr instance.
Current aaa acct sessions	The number of AAA accounting sessions currently being facilitated by this AAAMgr instance.
Total aaa acct archived	The total number of AAA accounting requests received by this AAAMgr instance that initially failed to be delivered to a AAA server, and was subsequently archived for later transmission.
Current aaa acct archived	The current number of AAA accounting requests being processed by this AAAMgr instance that initially failed to be delivered to a AAA server and is currently archived for later transmission.
Current recovery archives	The number of AAA state records being maintained within the AAAMgr. They are used to generate accounting stops when a session manager fails or to recover the call in the Session Manager.
Current valid recovery records	The number of valid call recovery records that exist for current sessions.
Total aaa sockets opened	The total number of communication sockets opened by the AAAMgr instance for the purposes of communication with AAA servers.
Current aaa sockets open	The current number of communication sockets open by the AAAMgr instance for communication with AAA servers.
Total aaa requests pend socket open	The total number of AAA requests received by this AAAMgr instance that had to wait in queue while a socket to the AAA server was being opened.
Current aaa requests pend socket open	The number of AAA requests received by this AAAMgr instance that are currently waiting in queue while a socket to the AAA server is being opened.
Total radius requests pend server max-outstanding	The total number of RADIUS requests received by this AAAMgr instance that had to wait in queue because the limit of the number of outstanding RADIUS messages had been reached.

Field	Description
Current radius requests pend server max-outstanding	The number of RADIUS requests received by this AAAMgr instance that are currently waiting in queue because the limit of the number of outstanding RADIUS messages has been reached.
Total aaa radius coa requests	The total number of RADIUS Change Authorization Requests received from the RADIUS server.
Total aaa radius dm requests	The total number of RADIUS Disconnect Requests Received from the RADIUS server.
Total aaa radius coa acks	The total number of RADIUS Change Authorization Acknowledgement sent to the RADIUS server.
Total aaa radius dm acks	The total number of RADIUS Disconnect Acknowledgments sent to the RADIUS Server.
Total aaa radius coa naks	The total number of RADIUS Change Authorization Negative Acknowledgement sent to the RADIUS server.
Total aaa radius dm naks	The total number of RADIUS Disconnect Negative Acknowledgments sent to the RADIUS Server.
Total radius charg auth	The total number of authentication requests sent to the RADIUS charging server.
Total radius charg auth purg	The total number of RADIUS charging authentication requests purged.
Current radius charg auth	The total number of current authentication requests sent to the RADIUS charging server.
Total radius charg auth succ	The total number of successful authentication requests sent to the RADIUS charging server.
Total radius charg auth fail	The total number of access reject received from the RADIUS charging server.
Total radius charg auth cancel	The total number of accounting authorization request that were cancelled.
Total radius charg acct	The total number of accounting requests sent to the RADIUS charging server.
Current radius charg acct	The total number of current accounting requests sent to the RADIUS charging server
Total radius charg acct succ	The total number of accounting responses from the RADIUS charging server.
Total radius charg acct cancel	The total number of accounting requests that were cancelled.
Total gtpm charg	The total number of GTPM accounting requests sent to the server.
Current gtpm charg	The total number of current GTPM requests sent to the charging server.
Total gtpm charg success	The total number of successful GTPM accounting responses from the charging server.

■ show session subsystem facility aaamgr all

Field	Description
Total gtpg charg failure	The total number of failed GTPP accounting requests from the charging server.
Total gtpg charg cancelled	The total number of cancelled GTPP accounting requests from the charging server.
Total gtpg charg purged	The total number of purged GTPP accounting requests.
Total radius charg acct purg	The total number of accounting requests purged.
Total gtpg sec charg	The total number of secondary eG-CDR charging requests being processed by this AAAMgr instance for which the GTPP protocol is being used to deliver the charging message to the Charging Gateway Function (CGF). It counts total secondary eG-CDRs generated by this AAAMgr instance.
Total gtpg sec charg purged	The total number of secondary eG-CDRs charging requests being processed and purged by this AAAMgr instance for which the GTPP protocol is being used to deliver the charging message to the Charging Gateway Function (CGF) . It counts total secondary eG-CDRs purged by this AAAMgr instance
Total prepaid online requests	The total number of prepaid online requests.
Current prepaid online requests	The number of prepaid online requests that this AAAMgr instance is currently processing.
Total prepaid online success	The total number of prepaid online requests succeed.
Current prepaid online failure	The number of failed prepaid online requests that this AAAMgr instance is currently processing.
Total prepaid online retried	The total number of prepaid online requests retried.
Total prepaid online cancelled	The total number of prepaid online requests cancelled.
Current prepaid online purged	The total prepaid online cancelled.
Total aaamgr purged requests	The total number of purged AAAMgr requests.
SGSN: Total mm records	Total number of Mobility Management (MM) records in database of this AAAMgr instance for SGSN service.
SGSN: Total pdp records	Total number of PDP context records in database of this AAAMgr instance for SGSN service.
SGSN: Total auth records	Total number of authentication records in database of this AAAMgr instance for SGSN service.
MME: Total extension records	Total number of extension records in database of this AAAMgr instance for MME service.
MME: Total apn records	Total number of APN records in database of this AAAMgr instance for MME service.

Field	Description
MME: Total apn extension records	Total number of extended APN records in database of this AAAMgr instance for MME service.
MME: Total auth records	Total number of authentication records in database of this AAAMgr instance for MME service.
MME: Total auth extension records	Total number of extended authentication records in database of this AAAMgr instance for MME service.
Current active subscriber traces	Total number of subscribers currently enabled with Subscriber Tracing function in database of this AAAMgr instance for MME service.

## show session subsystem facility aaaproxy all



**Important:** These statistics are from the perspective of the Session manager (SessMgr) and AAA Proxy Manager (AAAProxyMgr) task itself (not from the perspective of subscribers).

*Table 289. show session subsystem facility aaaproxy all Command Output Descriptions*

Field	Description
Total gtp requests	The total number of GTPP requests sent.
Current gtp requests	The total number of outstanding GTPP requests waiting for response from CGF/storage server.
Total GCDRs	The total number of G-CDRs sent.
Current GCDRs	The total number of outstanding G-CDRs waiting for response from CGF/storage server.
Total SCDRs	The total number of S-CDRs sent.
Current SCDRs	The total number of outstanding S-CDRs waiting for response from CGF/storage server.
Total MCDRs	The total number of M-CDRs sent.
Current MCDRs	The total number of outstanding M-CDRs waiting for response from CGF/storage server.
Total S-SMO-CDRs	The total number of S-SMO-CDRs sent.
Current S-SMO-CDRs	The total number of outstanding S-SMO-CDRs waiting for response from CGF/storage server.
Total S-SMT-CDRs	The total number of S-SMT-CDRs sent.
Current S-SMT-CDRs	The total number of outstanding S-SMT-CDRs waiting for response from CGF/storage server.
Total SMBMSCDRs	The total number of outstanding SMBMS CDRs waiting for response from CGF/storage server.
Total SGW-CDRs	The total number of outstanding S-GW CDRs waiting for response from CGF/storage server.
Total sockets opened	The total number of sockets opened.
Current sockets opened	The total number of sockets waiting to open.
Total files closed	The total number of files that have been already closed.
Current Open files	The number of files that are currently open and still in use.

## show session subsystem facility asngwmgr all

 **Important:** These statistics are from the perspective of the Session manager (SessMgr) and ASNGW Manager (ASNGWMgr) task itself (not from the perspective of subscribers).

*Table 290. show session subsystem facility asngwmgr all Command Output Descriptions*

Field	Description
ASNGW Managers	Total number of active ASN GW Managers.
Total active services	Total number of active ASN GW services.
Anchor Session	Specifies the subsystem statistics for ASN GW service sessions in anchored mode.
Non-Anchor Session	Specifies the subsystem statistics for ASN GW service sessions in non-anchored mode.
Total calls arrived	Indicates the total number of sessions received by this ASN Gateway Manager instance for processing.
Total calls rejected	Indicates the total number of sessions that were rejected by this ASN Gateway Manager instance.
Total calls demultiplexed	Indicates the total number of sessions that were successfully setup by this by this ASN Gateway Manager instance.
Total dereg reply sent	Indicates the total number of sessions that were successfully de-registered, or disconnected, by this ASN Gateway Manager instance.
Total control pkts relayed	Indicates the total number of R6 control packets relayed via demux manager.
Current active calls	Indicates the total number of active sessions currently being facilitated by this ASN Gateway Manager instance.
Total active services	The total number of ASN Gateway services that are currently facilitating subscriber sessions.

## show session subsystem facility asnpcmgr all



**Important:** These statistics are from the perspective of the Session Manager (SessMgr) and ASN-PC Manager (ASNPCMgr) task itself (not from the subscriber perspective).

*Table 291. show session subsystem facility asngwmgr all Command Output Descriptions*

Field	Description
ASNPC Managers	Total number of active ASN PC Manager instances.
Total active services	Total number of active ASN PC services.
Total calls arrived	Indicates the total number of sessions received by this ASN PC Manager instance for processing.
Total calls rejected	Indicates the total number of sessions that were rejected by this ASN PC Manager instance.
Total calls demultiplexed	Indicates the total number of sessions that were successfully setup by this by this ASN PC Manager instance.
Total calls released	Indicates the total number of sessions that were successfully de-registered, or disconnected, by this ASN PC Manager instance.
Total control pkts relayed	Indicates the total number of R6 control packets relayed via demux manager.
Current active calls	Indicates the total number of active sessions currently being facilitated by this ASN Gateway Manager instance.
context name	Indicates the name of the context where ASN PC service is configured.

## show session subsystem facility famgr all

 **Important:** These statistics are from the perspective of the Session Manager (SessMgr) and FA Manager (FAMgr) task itself (not from the subscriber perspective).

*Table 292. show session subsystem facility famgr Command Output Descriptions*

Field	Description
FAMgr	The FA Manager task instance number. Since multiple FA Manager tasks can be operating simultaneously in the system, each one is assigned an instance number.
Total calls arrived	Indicates the total number of sessions received by this FA Manager instance for processing.
Total calls rejected	Indicates the total number of sessions that were rejected by this FA Manager instance.
Total calls demultiplexed	Indicates the total number of sessions that were successfully setup by this by this FA Manager instance.
Total dereg reply sent	Indicates the total number of sessions that were successfully de-registered, or disconnected, by this by this FA Manager instance.
Current active calls	Indicates the total number of active sessions currently being facilitated by this FA Manager instance.
Total active services	The total number of FA services that are currently facilitating subscriber sessions.

## show session subsystem facility gtpcmgr all



**Important:** These statistics are from the perspective of the Session Manager (SessMgr) and GTPC Manager (GTPCMgr) task itself (not from the subscriber perspective).

*Table 293. show session subsystem facility gtpcmgr Command Output Descriptions*

Field	Description
GTPCMgr	The GTPC Manager task instance number. Since multiple GTPC Manager tasks can be operating simultaneously in the system, each one is assigned an instance number.
Total calls arrived	Indicates the total number of sessions received by this GTPC Manager instance for processing.
Total calls rejected	Indicates the total number of sessions that were rejected by this GTPC Manager instance.
Total calls demultiplexed	Indicates the total number of sessions that were successfully setup by this by this GTPC Manager instance.
Total SGSNs	Indicates the total number of SGSNs available for facilitating subscriber sessions.
Total Active SGSNs	The total number of SGSNs that are currently facilitating subscriber sessions.
Current active calls	Indicates the total number of active sessions currently being facilitated by this GTPC Manager instance.
Total active services	The total number of GTPC services that are currently facilitating subscriber sessions.

## show session subsystem facility hamgr all

 **Important:** These statistics are from the perspective of the Session Manager (SessMgr) and HA Manager (HAMgr) task itself (not from the subscriber perspective).

*Table 294. show session subsystem facility hamgr all Command Output Descriptions*

Field	Description
HAMgr	The HA Manager task instance number. Since multiple HA Manager tasks can be operating simultaneously in the system, each one is assigned an instance number.
Total calls arrived	Indicates the total number of sessions received by this HA Manager instance for processing.
Total calls rejected	Indicates the total number of sessions that were rejected by this HA Manager instance.
Total calls demultiplexed	Indicates the total number of sessions that were successfully setup by this by this HA Manager instance.
Total dereg reply sent	Indicates the total number of sessions that were successfully de-registered, or disconnected, by this by this HA Manager instance.
Current active calls	Indicates the total number of active sessions currently being facilitated by this HA Manager instance.
Total active services	The total number of HA services that are currently facilitating subscriber sessions.

## show session subsystem facility mmemgr all

 **Important:** These statistics are from the perspective of the MME Manager (MMEMgr) task itself (not from the subscriber perspective).

*Table 295. show session subsystem facility mmemgr all Output Descriptions*

Field	Description
MME Managers	Indicates the total number of MME managers running on a chassis.
SCTP Statistics	This group displays the statistics captured over the SCTP interface and processed by this MME manager.
Transmitted SCTP Data	This sub-group displays the statistics of the total data processed and transmitted over SCTP interface by this MME manager.
Init Chunks	Indicates the total SCTP packets with INIT transmitted over SCTP interface by this MME manager.
Init Ack Chunks	Indicates the total SCTP packets with INIT-ACK transmitted over SCTP interface by this MME manager.
Shutdown Chunks	Indicates the total SCTP packets with SHUTDOWN transmitted over SCTP interface by this MME manager.
Shutdown Ack Chunks	Indicates the total SCTP packets with SHUTDOWN-ACK transmitted over SCTP interface by this MME manager.
Cookie Chunks	Indicates the total SCTP packets with COOKIE transmitted over SCTP interface by this MME manager.
Cookie Ack Chunks	Indicates the total SCTP packets with COOKIE-ACK transmitted over SCTP interface by this MME manager.
Data Chunks	Indicates the total SCTP packets with DATA transmitted over SCTP interface by this MME manager.
Data Ack Chunks	Indicates the total SCTP packets with DATA-ACK transmitted over SCTP interface by this MME manager.
Shutdown Complete Chunks	Indicates the total SCTP packets with SHUTDOWN-COMPLETE transmitted over SCTP interface by this MME manager.
Heartbeat Chunks	Indicates the total SCTP packets with HEARTBEAT transmitted over SCTP interface by this MME manager.
HeartBeat Ack Chunks	Indicates the total SCTP packets with HEARTBEAT-ACK transmitted over SCTP interface by this MME manager.
Abort Chunks	Indicates the total SCTP packets with ABORT transmitted over SCTP interface by this MME manager.
Error Chunks	Indicates the total SCTP packets with ERROR transmitted over SCTP interface by this MME manager.

Field	Description
Received Sctp Data	This sub-group displays the statistics of the total data received over Sctp interface and processed by this MME manager.
Init Chunks	Indicates the total Sctp packets with INIT received over Sctp interface by this MME manager.
Init Ack Chunks	Indicates the total Sctp packets with INIT-ACK received over Sctp interface by this MME manager.
Shutdown Chunks	Indicates the total Sctp packets with SHUTDOWN received over Sctp interface by this MME manager.
Shutdown Ack Chunks	Indicates the total Sctp packets with SHUTDOWN-ACK received over Sctp interface by this MME manager.
Cookie Chunks	Indicates the total Sctp packets with COOKIE received over Sctp interface by this MME manager.
Cookie Ack Chunks	Indicates the total Sctp packets with COOKIE-ACK received over Sctp interface by this MME manager.
Data Chunks	Indicates the total Sctp packets with DATA received over Sctp interface by this MME manager.
Data Ack Chunks	Indicates the total Sctp packets with DATA-ACK received over Sctp interface by this MME manager.
Shutdown Complete Chunks	Indicates the total Sctp packets with SHUTDOWN-COMPLETE received over Sctp interface by this MME manager.
Heartbeat Chunks	Indicates the total Sctp packets with HEARTBEAT received over Sctp interface by this MME manager.
HeartBeat Ack Chunks	Indicates the total Sctp packets with HEARTBEAT-ACK received over Sctp interface by this MME manager.
Abort Chunks	Indicates the total Sctp packets with ABORT received over Sctp interface by this MME manager.
Error Chunks	Indicates the total Sctp packets with ERROR received over Sctp interface by this MME manager.
Retransmitted Sctp Data	This sub-group displays the statistics of the total data processed and retransmitted over Sctp interface by this MME manager.
Init Chunks	Indicates the total Sctp packets with INIT retransmitted over Sctp interface by this MME manager.
Shutdown Chunks	Indicates the total Sctp packets with SHUTDOWN retransmitted over Sctp interface by this MME manager.
Shutdown Ack Chunks	Indicates the total Sctp packets with SHUTDOWN-ACK retransmitted over Sctp interface by this MME manager.
Cookie Chunks	Indicates the total Sctp packets with COOKIE retransmitted over Sctp interface by this MME manager.
Data Chunks	Indicates the total Sctp packets with DATA transmitted over Sctp interface by this MME manager.
Total Bytes Sent To Lower Layer	Indicates the total bytes processed and sent to lower layer over Sctp interface by this MME manager.
Total Bytes Received From Lower Layer	Indicates the total bytes received from lower layer over Sctp interface by this MME manager for processing.

■ show session subsystem facility mmemgr all

Field	Description
Total Packets Sent To Lower Layer	Indicates the total packets processed and sent to lower layer over SCTP interface by this MME manager.
Total Packets Received From Lower Layer	Indicates the total packets received from lower layer over SCTP interface by this MME manager for processing.
S1AP Statistics	This group displays the statistics captured over S1-AP interface and processed by this MME manager received or transmitted from/to eNodeB.
Transmitted S1AP Data	This sub-group displays the statistics of the total data processed and transmitted over S1-AP interface by this MME manager to eNodeB.
S1 Setup Response	Indicates the total number of S1 SETUP RESPONSE messages for S1 setup procedure processed and transmitted over S1-AP interface by this MME manager to eNodeB.
S1 Setup Failure	Indicates the total number of S1 SETUP FAILURE messages for S1 setup procedure processed and transmitted over S1-AP interface by this MME manager to eNodeB.
Reset	Indicates the total number of S1 RESET messages for S1 reset procedure processed and transmitted over S1-AP interface by this MME manager to eNodeB.
Reset Acknowledge	Indicates the total number of S1 RESET-ACK messages for S1 reset procedure processed and transmitted over S1-AP interface by this MME manager to eNodeB.
Overload Start	Indicates the total number of OVERLOAD-START messages for S1 overload start procedure processed and transmitted over S1-AP interface by this MME manager to eNodeB.
Overload Stop	Indicates the total number of OVERLOAD-START messages for S1 overload start procedure processed and transmitted over S1-AP interface by this MME manager to eNodeB.
MME Dir Information Transfer	Indicates the total number of MME DIRECT INFORMATION TRANSFER messages for MME Direct Information Transfer procedure processed and transmitted over S1-AP interface by this MME manager to eNodeB.
Paging	Indicates the total number of PAGING messages for paging procedure processed and transmitted over S1-AP interface by this MME manager to eNodeB.
EnodeB Configuration Update Acknowledge	Indicates the total number of ENB CONFIGURATION UPDATE ACK messages for eNB Configuration Update procedure processed and transmitted over S1-AP interface by this MME manager to eNodeB.
EnodeB Configuration Update Failure	Indicates the total number of ENB CONFIGURATION UPDATE FAILURE messages for eNB Configuration Update procedure processed and transmitted over S1-AP interface by this MME manager to eNodeB.
S1AP Encode Failure	Indicates the total number of failure occurred during S1AP encode procedure and S1AP ENCODE FAILURE messages processed and transmitted over S1-AP interface by this MME manager to eNodeB.
Received S1AP Data	This sub-group displays the statistics of the total data received over S1-AP interface by this MME manager from eNodeB.
S1 Setup Request	Indicates the total number of S1 SETUP REQUEST messages for S1 setup procedure received over S1-AP interface by this MME manager from eNodeB.
Reset	Indicates the total number of S1 RESET messages for S1 reset procedure received over S1-AP interface by this MME manager from eNodeB.

Field	Description
Reset Acknowledge	Indicates the total number of S1 RESET-ACK messages for S1 reset procedure received over S1-AP interface by this MME manager from eNodeB.
EnodeB Dir Information Transfer	Indicates the total number of ENB DIRECT INFORMATION TRANSFER messages for eNB Direct Information Transfer procedure processed and transmitted over S1-AP interface by this MME manager to eNodeB.
EnodeB Configuration Update	Indicates the total number of ENB CONFIGURATION UPDATE messages for eNB Configuration Update procedure processed and transmitted over S1-AP interface by this MME manager to eNodeB.
S1AP Decode Failure	Indicates the total number of failure occurred during S1AP decoding procedure by eNodeB and S1AP DECODE FAILURE messages received over S1-AP interface by this MME manager from eNodeB.
S1AP Unexpected Event	Indicates the total number of failure occurred due to unexpected events during S1AP procedure at eNodeB and S1AP UNEXPECTED EVENT messages received over S1-AP interface by this MME manager from eNodeB.
Total Services	Indicates the total number of MME services managed by this MME Manager.
Enodeb Associations	Indicates the total number of eNodeBs connected/associated with MME services managed by this MME Manager.

## show session subsystem facility mmedemux



**Important:** These statistics are from the perspective of the MME Demux Manager (MMEDemuxr) task itself (not from the subscriber perspective).

*Table 296. show session subsystem facility mmedemux all Output Descriptions*

Field	Description
MME Managers	Indicates the total number of MME managers running on a chassis.
Total number of packets received	Indicates the total number of packets received and processed for EPS session by this MME Demux manager.
Total number of octets received	Indicates the total number of packets received and processed for EPS session by this MME Demux manager.
Total Services	Indicates the total number of MME services managed by this MME Demux Manager.
Enodeb Associations	Indicates the total number of eNodeBs connected/associated with MME services managed by this MME Demux Manager.

## show session subsystem facility sessmgr all

 **Important:** These statistics are from the perspective of the Session Manager (SessMgr) task itself (not from the subscriber perspective).

*Table 297. show session subsystem facility sessmgr all Output Descriptions*

Field	Description
SessMgr	Displays the Session Manager task instance number. Since multiple Session Manager tasks can be operating simultaneously in the system, each one is assigned an instance number.
Total calls arrived	The total number of calls for which registration requests were received by this Session Manager instance.
Total calls rejected	The total number of calls that were rejected by this Session Manager instance.
Total calls connected	The total number of calls that are connected (including active, dormant, being set up, and being disconnected) by this Session Manager instance.
Total calls failed	The total number of calls processed by this Session Manager instance which have failed.
Total calls disconnected	The total number of calls that were disconnected by this Session Manager instance.
Total handoffs	The total number of calls that are handed off by this Session Manager instance.
Total renewals	The total number of call that were reprocessed by this Session Manager instance.
Total active-to-idle transitions	The total number of call sessions passed through active mode to idle mode.
Total idle-to-active transitions	The total number of call sessions passed through idle mode to active mode.
Total auth successes	The total number of successful authentications for calls being processed by this Session Manager instance.
Total auth failure	The total number of failed authentications for calls being processed by this Session Manager instance.
Current aaa active sessions	The total number of calls being processed by this Session Manager instance for which there are active AAA authentication and/or accounting sessions.
Current aaa deleting sessions	The total number of calls being processed by this Session Manager instance for which the AAA accounting is being terminated.
Current aaa acct pending	The total number of calls being processed by this Session Manager instance for which there are pending AAA authentication and/or accounting sessions.
aaa acct items (used/max)	The total number of AAA accounting items used and the maximum allowed by this Session Manager instance.
aaa buffer (used in MB/max in MB)	The AAA buffer space used and the maximum allowed in megabytes for this Session Manager instance.
Total aaa cancel auth	The total number of canceled AAA authentication requests for this Session Manager instance.

■ show session subsystem facility sessmgr all

Field	Description
Total aaa acct purged	The total number of AAA accounting requests received by this Session Manager instance that had to be purged because the storage limit of pending accounting requests had been exceeded.
Total radius acct purged	The total number of RADIUS accounting requests received by this Session Manager instance that had to be purged because the storage limit of pending accounting requests had been exceeded.
Total LCP up	The total number of calls being processed by this Session Manager instance that have completed the Link Control Protocol (LCP) phase of the registration process.
Total IPCP up	The total number of calls being processed by this Session Manager instance that have completed the Internet Protocol Control Protocol (IPCP) phase of the registration process.
Total IPv6CP up	The total number of calls being processed by this Session Manager instance that have completed the Internet Protocol version 6 (IPv6) phase of the registration process.
Total source violation	The total number of source violations experienced for all calls being processed by this Session Manager instance.
Total keepalive failure	The total number of keep-alive failures experienced for all calls being processed by this Session Manager instance.
Empty fwd pkt sessions	The total number of calls that were processed by this session manager instance for which there were no data packets being sent to the subscriber.
Empty rev pkt sessions	The total number of calls that were processed by this session manager instance for which there were no data packets being received from the subscriber.
Total 3gpp2 prepaid sess	The total number of 3gpp2 prepaid sessions on the system.
Current 3gpp2 prepaid sess	The current number of active 3gpp2 prepaid sessions on the system.
Total 3gpp2 online auth requests	The total number of 3gpp2 sessions requesting authentication on the system.
Total 3gpp2 online auth success	The total number of authenticated 3gpp2 active sessions on the system.
Total 3gpp2 online auth failures	The total number of 3gpp2 sessions that had authentication failures.
Total 3gpp2 online prepaid errors	The total number of prepaid 3gpp2 sessions that incurred errors.
Total 3gpp2 prepaid initial auth errors	The total number of prepaid initial 3gpp2 sessions that had authentication errors.
Total Rfc3261 subscribers	Total number of subscribers registered in CSCF Rfc3261 service.
Total Proxy Cscf subscribers	Total number of subscribers registered in Proxy-CSCF service.
Total Serving Cscf subscribers	Total number of subscribers registered in Serving-CSCF service.
Total Proxy-Serving cscf subscribers	Total number of subscribers registered in Collapsed Proxy-Serving-CSCF service.
Total voice-push sessions	The total number of voice-push sessions.
Current voice-push sessions	The current number of active voice-push sessions.
Total voice-push-filt sessions	The total number of voice-push-filt sessions.
Current voice-push-filt sessions	The current number of voice-push-filt sessions.
Total non-voice-push sessions	The total number of non-voice-push session.

Field	Description
Current non-voice-push sessions	The current number of non-voice-push sessions
Total undetermined sessions	The total number of undetermined sessions.
Current undetermined sessions	The current number of undetermined sessions.
Intra-ASNGW HO attempted	The total number of inter-BS (Intra-ASN GW) handovers attempted by system.
Intra-ASNGW HO succeeded	The total number of inter-BS (Intra-ASN GW) handover attempts succeeded.
Inter-ASNGW HO attempted	The total number of inter-ASN GW handovers attempted by system.
Inter-ASNGW HO succeeded	The total number of inter-ASN GW handover attempts succeeded.
ASNPC IM Entry attempted	The total number of idle mode entry attempted by Paging Controller.
ASNPC IM Entry Succeeded	The total number of idle mode entry by Paging Controller succeeded.
ASNPC IM Exit attempted	The total number of idle mode exit attempted by Paging Controller.
ASNPC IM Exit Succeeded	The total number of idle mode exit by Paging Controller succeeded.
ASNPC LU attempted	The total number of location updates attempted by Paging Controller.
ASNPC LU Succeeded	The total number of location updates by Paging Controller succeeded.
ASNPC Paging Triggered	The total number of pagings triggered by Paging Controller.
ASN Ctrl packets received	The total number of control packets received for ASN GW service session.
ASN Ctrl packets runt received	The total number of control packets with run-time error discarded for ASN GW service session.
ASN Ctrl packets csum received	The total number of control packets with checksum error discarded for ASN GW service session.
ASN Ctrl packets no-flow discarded	The total number of control packets (without any flow) discarded for ASN GW service session.
ASNGW data pkts stored (during paging)	The total number of data packets stored during paging.
ASNGW data pkts flushed (during paging)	The total number of data packets flushed during paging.
CRP-RP handoff attempted	The total number of Closed RP to RP handoffs that were attempted.
CRP-RP handoff succeeded	The total number of Closed RP to RP handoffs that succeeded.
RP-CRP handoff attempted	The total number of RP to Closed RP handoffs that were attempted.
RP-CRP handoff succeeded	The total number of RP to Closed RP handoffs that succeeded.
Current active subscriber traces	Total number of subscribers currently enabled with Subscriber Tracing function in database of this SessMgr instance for MME service.
Data statistics	This table categorizes the number of Receive and Transmit packets into packet size ranges. These statistics are totals for all calls being processed by this Session Manager instance.
In-Progress Call Duration Statistics	This table categorizes the total number of calls being processed by this Session Manager according to various time durations ranging from less than ( < ) 1 minute to greater than ( > ) 24 hours.

■ show session subsystem facility sessmgr all

Field	Description
Setup Time Statistics	This table categorizes the amount of time it took to set up calls according to various time durations ranging from less than ( < ) 100 ms to greater than ( > ) 15 seconds.
Total SGSN Fast Path statistics update	Total number of updates for statistical information from NPU in fast path support.
Total SGSN Fast Path out-of-order statistics updates	Total number of updates for out of order packet statistics from NPU in fast path support.
Total SGSN Fast Path statistics updates lost	Total number of packets lost for statistical updates from NP in fast path support.
Total SGSN Fast Path packets lost	Total number of lost packets of all types from NPU in fast path support.
Total SGSN Fast Path bytes lost	Total number of lost bytes from NPU in fast path support.
Total SGSN Fast Path packets received	Total number of all type of packets received from NPU in fast path support.
Total SGSN Fast Path bytes received	Total number of all type of bytes received from NPU in fast path support.
In-progress calls	The number of calls that are currently in progress (active, dormant, being set up, or being disconnected) and being processed by either the system (if no keywords were used), a specific PDSN service (if the <b>pdsn-service</b> keyword was used), or a specific PCF (if the <b>pcf</b> keyword was used).
In-progress active calls	The total number of active sessions being processed by this Session Manager instance.
In-progress dormant calls	The total number of dormant sessions being processed by this Session Manager instance.
In-progress always-on calls	The total number of always-on sessions being processed by this Session Manager instance.
In-progress calls @ MBMS UE AUTHORIZING state	The total number of MBMS sessions currently in UE authorization state.
In-progress calls @ MBMS BEARER AUTHORIZING state	The total number of MBMS sessions currently in bearer authorization state.
In-progress calls @ ARRIVED state	The total number of sessions being processed by this Session Manager instance that are at the onset of the registration process.
In-progress calls @ LCP-NEG state	The total number of sessions being processed by this Session Manager instance that are in the Link Control Protocol (LCP) negotiation phase of the registration process.
In-progress calls @ LCP-UP state	The total number of sessions being processed by this Session Manager instance that have just completed the Link Control Protocol (LCP) negotiation phase of the registration process.
In-progress calls @ AUTHENTICATING state	The total number of sessions being processed by this Session Manager instance that are in the process of being authenticated.
In-progress calls @ AUTHENTICATED state	The total number of sessions being processed by this Session Manager instance that have just completed the authentication phase of the registration process.
In-progress calls @ L2TP-LAC CONNECTING state	The number of calls that have an L2TP tunnel in the process of being brought up.
In-progress calls @ IPCP-UP state	The total number of sessions being processed by this Session Manager instance that have just completed the Internet Protocol Control Protocol (IPCP) phase of the registration process.

Field	Description
In-progress calls @ NON-ANCHOR CONNECTED state	The total number of WiMAX sessions being processed by this Session Manager instance that are currently being in connected state in non-anchor mode.
In-progress calls @ SIMPLE-IP CONNECTED state	The total number of Simple IP data sessions being processed by this Session Manager instance that are currently being supported.
In-progress calls @ MOBILE-IP CONNECTED state	The total number of Mobile IP data sessions being processed by this Session Manager instance that are currently being supported.
In-progress calls @ PROXY-MOBILE-IP CONNECTED state	The total number of Proxy Mobile IP data sessions being processed by this Session Manager instance that are currently being supported.
In-progress calls @ L2TP-LAC CONNECTED state	The number of calls that are passing data through an L2TP tunnel.
In-progress calls @ PDP-TYPE-IP CONNECTED state	The total number of PDP contexts of type IP that are currently connected. This field applies to GGSN only.
In-progress calls @ PDP-TYPE-PPP CONNECTED state	The total number of PDP contexts of type PPP that are currently connected. This field applies to GGSN only.
In-progress calls @ BCMCS CONNECTED state	The total number of BCMCS sessions currently in connected state.
In-progress calls @ MBMS UE CONNECTED state	The total number of MBMS sessions currently in UE connected state.
In-progress calls @ MBMS BEARER CONNECTED state	The total number of MBMS sessions currently in bearer connected state.
In-progress calls @ ASNPC CONNECTED state	The number of ASN Paging Controller calls that are currently connected.
In-progress calls @ DISCONNECTING state	The total number of sessions being processed by this Session Manager instance that are in the process of disconnecting.
In-progress calls @ CSCF-REGISTERING state	Total number of CSCF sessions which are in registration processing state.
In-progress calls @ CSCF-REGISTERED state	Total number of cscf sessions which are in registered state.
In-progress calls @ CSCF-CALL-ARRIVED state	Total number of CSCF sessions which are processing the newly arrived CSCF calls (i.e., processing initial Invite, waiting for provisional response, waiting for final response, etc.).
In-progress calls @ CSCF-CALL-CONNECTING state	Total number of CSCF sessions which are in call connecting state (waiting for ACK).
In-progress calls @ CSCF-CALL-CONNECTED state	Total number of CSCF sessions which are in call connected state.
In-progress calls @ CSCF-CALL-DISCONNECTING state	Total number of CSCF sessions which are in call disconnecting state (i.e., processing BYE , waiting for BYE response, etc.).
In-progress calls @ MME ATTACHED state	Indicates the number of MME subscriber session currently attached.
User Data statistics	This section indicates the Data octets and Data packets received and send by a user.
Data octets from User	The number of Data octets send from the user.

```
■ show session subsystem facility sessmgr all
```

Field	Description
Data octets to User	The number of Data octets received by the user.
Data packets from User	The number of Data packets send from the user.
Data packets to User	The number of Data packets received by the user.

## show session trace statistics

Table 298. show session trace statistics Command Output Descriptions

Field	Description
Network Element Status	Specifies if session traces are enabled for the listed network elements.
Number of current trace sessions	The total number of session traces currently active.
Total trace sessions activated	The total number of session traces activated.
Total number of trace session activation failures	The total number of session activation failures.
Total number of trace recording sessions triggered	The total number of trace recording sessions triggered
Total number of messages traced	The total number of messages traced for the activated session traces.
Number of messages dropped	
No memory	The total number of messages dropped due to a no memory condition.
No trace recording session	The total number of messages dropped due to a failure to receive the start trigger.
Interface not traced	The total number of messages dropped due to the messages being received on interfaces not part of the trace interface list.
Total number of file generated	The total number of session trace files generated.
Number of files deleted	
No space	The total number of files deleted due to a lack of space on the storage device.
Number of current TCE connections	The total number of trace collection entity connections currently configured.
Total number of TCE connections	The total number of trace collection entity connections configured.
Total number of files uploaded to all TCEs	The total number of files uploaded to all trace collection entities.

## show session trace subscriber

The full command is as follows:

```
show session trace subscriber network-element <type> trace-ref <id>
```

**Table 299.** show session trace subscriber Command Output Descriptions

Field	Description
Trace reference	The trace reference ID for the trace displayed. The ID is the MCC (3 digits), followed by the MNC (3 digits), then the trace ID number (3 byte octet string).
Activation time	The date and time when the trace was initiated.
IMEI or IMSI	The subscriber identification. <ul style="list-style-type: none"> <li>• <b>IMEI</b>: The International Mobile Equipment Identification number of the subscriber's UE.</li> <li>• <b>IMSI</b>: The International Mobile Subscriber Identification (IMSI) which is the 3-digit MCC (Mobile Country Code), 2 or 3-digit MNC (Mobile Network Code), and the MSIN (Mobile Subscriber Identification Number).</li> </ul>
Actively Tracing	Specifies if the trace is currently active.
Trace Recording Session Reference	The current active trace recording session reference number.
Recording start time	The date and time when the session trace recording started.
Total number of trace recording sessions triggered	The total number of trace recording sessions initiated.
Total number of messages traced	The total number of messages traced for this trace reference.
Number of messages dropped	
No memory	The total number of messages dropped due to a no memory condition.
No trace recording session	The total number of messages dropped due to a failure to receive the start trigger.
Interface not traced	The total number of messages dropped due to the messages being received on interfaces not part of the trace interface list.
Total number of files created	The total number of trace recording files created.
Number of files deleted	
No space	The total number of files deleted due to a lack of space on the storage device.
Traced Interfaces	List of interfaces configured for the session trace.
Trace Triggers	Identifies the triggers used by this subscriber.





# Chapter 106

## show sgsn-service

---

This chapter describes the output of the `show sgsn-service` command.

## show sgsn-service all

Table 300. show sgsn-service all Command Output Descriptions

Field	Description
Service name	The SGSN service that is running in this session.
Context	The name of the context in which SGSN service is running.
Status	Status of the SGSN service.
Accounting Context Name	The name of the context in which accounting interface is configured for this SGSN service.
SGSN Number	The number of SGSN system in current network.
Network-sharing	Specifies whether network sharing is enabled or disabled.
Nri bits	Specifies whether network resource identifier (NRI) bit is configured or not in this SGSN service.
Override LAC for LI	Specifies whether SGSN service is configured to override location area code (LAC) for lawful intercept or not.
Override RAC for LI	Specifies whether SGSN service is configured to override routing area code (RAC) for lawful intercept or not.
SGTP Context	The name of the context in which SGTP service is running.
SGTP Service	The SGTP service that is running the SGTP session in this SGSN service.
MAP Context	The name of the context in which mobile application part (MAP) service, configured in this SGSN service, is running.
MAP Service	The service that is running the MAP session in this SGSN service.
IuPS Context	The name of the context in which UMTS Packet Switch Iu interface (IuPS) service is running.
IuPS Service	The service that is running the IuPS session.
SM-T3385 Timeout	The time-out duration in seconds for GPRS session management timer - T3385 on network side for PDP context activation.
SM-T3386 Timeout	The time-out duration in seconds for GPRS session management timer - T3386 on network side for PDP context modification.
SM-T3395 Timeout	The time-out duration in seconds for GPRS session management timer - T3395 on network side for PDP context deactivation.
SM-Max Activate Retries	Total number of retries for PDP context activation from GPRS session manager.
SM-Max Modify Retries	Total number of retries for PDP context modification from GPRS session manager.
SM-Max Deactivate Retries	Total number of retries for PDP context deactivation from GPRS session manager.
GMM-T3302 Timeout	The time-out duration in seconds for GPRS mobility management timer - T3302 on MS side for GPRS attach procedure or RAU procedure.

Field	Description
GMM-T3322 Timeout	The time-out duration in seconds for GPRS mobility management timer - T3322 on network side for GPRS detach request procedure.
GMM-T3350 Timeout	The time-out duration in seconds for GPRS mobility management timer - T3350 on network side GPRS attach accept/RAU accept/REALLOC request procedure sent with P-TMSI and/or TMSI.
GMM-Mobil-Reachable Timeout	The time-out duration in seconds for GPRS mobility management timer - Mobile Reachable on network side.
GMM-Implicit-Detach Timeout	The time-out duration in seconds for GPRS mobility management timer - Implicit-Detach on network side.
GMM-Purge Timeout	The time-out duration in seconds for GPRS mobility management timer - Purge to hold the detach of MM context on network side.
GMM-T3313 Timeout	The time-out duration in seconds for GPRS mobility management timer - T3313 on network side for paging procedure initiation.
GMM-Max Page Retries	Maximum number of retries for paging procedure from GPRS mobility manager.
GMM-T3312 Timeout	The time-out duration in seconds for GPRS mobility management timer - T3313 on network side for RAU procedure initiation.
GMM-T3370 Timeout	The time-out duration in seconds for GPRS mobility management timer - T3370 on network side for identity request procedure.
GMM-Max Identity Retries	Maximum number of retries for identity request procedure from GPRS mobility manager.
GMM-T3360 Timeout	The time-out duration in seconds for GPRS mobility management timer - T3360 on network side for Authentication and Cipher request procedure.
GMM-Max Auth Retries	Maximum number of retries for authentication request procedure from GPRS mobility manager.
GMM-Max PTMSI RELOC Retries	Maximum number of retries for Packet-Temporary Mobile Subscriber Identity (P-TMSI) relocation procedure from GPRS mobility manager.
GMM-Perform-Identity-After-Auth	Specifies whether “perform identity after authentication” procedure is enabled or not.
Max simultaneous pdp contexts per MS	Maximum number of simultaneous PDP context allowed on one MS.
SUPER CHARGER	Specifies whether “super charger” feature is enabled or not.
Accounting cdr-types	Specifies type of accounting CDRs configured in this SGSN service.
Charging Characteristics (CC) Profiles	This group provides the charging characteristics profiles configured in this SGSN service.
Profile	Specifies the charging characteristic profile configured in this SGSN service
Bucket	Specifies the charging bucket configured for charging characteristic in this SGSN service



# Chapter 107

## show sgsn-operator-policy

---

This chapter describes the output of the `show sgsn-operator-policy` command.

## show sgsn-operator-policy full { all | name }

This command displays the configuration for a specifically named SGSN operator policy or for all of them.

**Table 301.** show sgsn-operator-policy full all Command Output Descriptions

Field	Description
GPRS Attach All	Indicates whether GRPS attaches are to be allowed.
GPRS Attach All Failure Code	Indicates configured failure code to be sent in reject message.
UMTS Attach All	Indicates whether UMTS attaches are to be allowed.
UMTS Attach All Failure Code	Indicates configured failure code to be sent in reject message.
GPRS RAU Intra All	Indicates whether RAU Intra are to be allowed.
GPRS RAU Intra All Failure Code	Indicates configured failure code to be sent in reject message.
UMTS RAU Intra All	Indicates whether RAU Intra are to be allowed.
UMTS RAU Intra All Failure Code	Indicates configured failure code to be sent in reject message.
GPRS RAU Inter All	Indicates whether RAU Inter are to be allowed.
GPRS RAU Inter All Failure Code	Indicates configured failure code to be sent in reject message.
UMTS RAU Inter All	Indicates whether RAU Inter are to be allowed.
UMTS RAU Inter All Failure Code	Indicates configured failure code to be sent in reject message.
Failure Code For Peer Sgsn Address Resolution Failure	Indicates configured failure code to be sent in reject message.
GPRS SMS MO All	Indicates whether
GPRS SMS MO All Failure Code	Indicates configured failure code to be sent in reject message.
UMTS SMS MO All Failure Code	Indicates configured failure code to be sent in reject message.
GPRS SMS MT All Failure Code	Indicates configured failure code to be sent in reject message.
UMTS SMS MT All Failure Code	Indicates configured failure code to be sent in reject message.
GPRS PDP Context Activation All Failure Code	Indicates configured failure code to be sent in reject message.
UMTS PDP Context Activation All Failure Code	Indicates configured failure code to be sent in reject message.
GPRS Nw Init Primary PDP Ctxt Activation All Failure Code	Indicates configured failure code to be sent in reject message.
UMTS Nw Init Primary PDP Ctxt Activation All Failure Code	Indicates configured failure code to be sent in reject message.
UMTS Nw Init Secondary PDP Ctxt Activation All Failure Code	Indicates configured failure code to be sent in reject message.
SRNS Intra All Failure Code	Indicates configured failure code to be sent in reject message.
SRNS Inter All Failure Code	Indicates configured failure code to be sent in reject message.
Authentication All-Events	Indicates if feature has been enabled or disabled.

Field	Description
Authentication Attach	Indicates if feature has been enabled or disabled.
Authentication Attach (Gprs only)	Indicates if feature has been enabled or disabled.
Authentication Attach (Combined)	Indicates if feature has been enabled or disabled.
Authentication Activate	Indicates if feature has been enabled or disabled.
Authentication Service Request	Indicates if feature has been enabled or disabled.
Authentication Service Request (Signaling)	Indicates if feature has been enabled or disabled.
Authentication Service Request (Data)	Indicates if feature has been enabled or disabled.
Authentication Service Request (Page Response)	Indicates if feature has been enabled or disabled.
Authentication RAU	Indicates if feature has been enabled or disabled.
Authentication RAU (Periodic)	Indicates if feature has been enabled or disabled.
Authentication RAU (Ra update)	Indicates if feature has been enabled or disabled.
Authentication RAU (Ra update with Local Ptmsi)	Indicates if feature has been enabled or disabled.
Authentication RAU (Ra update with Foreign Ptmsi)	Indicates if feature has been enabled or disabled.
Authentication RAU (Combined Update)	Indicates if feature has been enabled or disabled.
Authentication RAU (Imsi Combined Update)	Indicates if feature has been enabled or disabled.
Authentication Detach	Indicates if feature has been enabled or disabled.
Usage of Auth Vectors From Old Sgsn	Indicates if feature has been enabled or disabled.
PTMSI-Realloc Service Request (Page Response)	Indicates if feature has been enabled or disabled.
PTMSI-Realloc Service Request (Page Response) Freq	Indicates frequency, if configured.
Inactivity detection for establishing pdp contexts	Indicates if feature has been enabled or disabled.
Inactivity detection for establishing pdp contexts - Timer	Indicates timeout value in milliseconds.
Inactivity detection for establishing pdp contexts - Action	Indicates action to be taken.
Monitor Re-attaches after Inactivity Detach	Indicates if feature has been enabled or disabled.
Charging Characteristics Prefer Local	Indicates if feature has been enabled or disabled.
Charging Characteristics Profile-Index	Indicates CC profile index.
Charging Characteristics Behavior No Records	Indicates configured CC behavior.
UMTS Gmm-Information	Indicates if feature has been enabled or disabled.
GPRS Gmm-Information	Indicates if feature has been enabled or disabled.
User Equipment Identity Retrieval	Indicates if feature has been enabled or disabled.
Reuse of authentication triplets	Indicates if feature has been enabled or disabled.
Re-Authentication	Indicates if feature has been enabled or disabled.
GTPU Fast Path	Indicates if feature has been enabled or disabled.

```
show sgsn-operator-policy full { all | name }
```

Field	Description
Sending Radio Access Technology (RAT) IE	Indicates if feature has been enabled or disabled.
Sending User Location Information (ULI) IE	Indicates if feature has been enabled or disabled.
Sending IMEISV IE	Indicates if feature has been enabled or disabled.
Sending MS Time Zone IE	Indicates if feature has been enabled or disabled.

# Chapter 108

## show sgtp

---

This chapter describes the outputs of the show **sgtp** command.

## show sgtp-service ggsn-table

Table 302. show sgtp-service ggsn-table Command Output Descriptions

Field	Description
GTP	Indicates the GTP version. Possible values are: <ul style="list-style-type: none"> <li>• 0: GTP-v0</li> <li>• 1: GTP-v1</li> </ul>
Status	Indicates the status of the GTP session. Possible values are: <ul style="list-style-type: none"> <li>• I: Inactive</li> <li>• A: Active</li> </ul>
GTPC Echo	Indicates the status of the GTPC echo. Possible values are: <ul style="list-style-type: none"> <li>• D: Disabled</li> <li>• E: Enabled</li> </ul>
PLMN Type	Indicates the type of Public Land Mobile Network area. Possible values are: <ul style="list-style-type: none"> <li>• H: Home networks</li> <li>• F: Foreign networks</li> <li>• U: Unknown networks</li> </ul>
SGTPC Stats	Indicates the availability of the SGTPC statistics. Possible values are: <ul style="list-style-type: none"> <li>• A: Available</li> <li>• U: Unavailable</li> </ul>
Service ID	Indicates the SGTP service identifier.
GGSN Address	Indicates the IP address of GGSN service.
Restart Counter	Indicates the restart counter of SGTP service.
No. of restart	Indicates the total number of restarts happened for SGTP session.
Curr sessions	Total number of SGTP session currently running.
Max sessions	Indicates the maximum number of SGTP session allowed.

## show sgtp-service sgsn-table

Table 303. show sgtp-service sgsn-table Command Output Descriptions

Field	Description
GTP	Indicates the GTP version. Possible values are: <ul style="list-style-type: none"> <li>• 0: GTP-v0</li> <li>• 1: GTP-v1</li> </ul>
GTPC Echo	Indicates the status of the GTPC echo. Possible values are: <ul style="list-style-type: none"> <li>• D: Disabled</li> <li>• E: Enabled</li> </ul>
PLMN Type	Indicates the type of Public Land Mobile Network area. Possible values are: <ul style="list-style-type: none"> <li>• H: Home networks</li> <li>• F: Foreign networks</li> <li>• U: Unknown networks</li> </ul>
SGTPC Stats	Indicates the availability of the SGTPC statistics. Possible values are: <ul style="list-style-type: none"> <li>• A: Available</li> <li>• U: Unavailable</li> </ul>
Service ID	Indicates the SGTP service identifier.
SGSN Address	Indicates the IP address of SGGSN service.



# Chapter 109

## show sgtpu

---

This chapter describes the outputs of the **show sgtpu** command.

## show sgtpu statistics

Table 304. show sgtpu statistics Command Output Descriptions

Field	Description
GTPU Statistics:	
Total Packets Sent	
Packets sent to GGSN	Total number of packets for GTP-U messages sent to GGSN.
Packets sent to RNC	Total number of packets for GTP-U messages sent to RNC.
Packets sent to SGSN	Total number of packets for GTP-U messages sent to SGSN.
Total Bytes Sent	
Bytes sent to GGSN	Total number of bytes for GTP-U messages sent to GGSN at a given instance of time.
Bytes sent to RNC	Total number of bytes for GTP-U messages sent to the RNC at a given instance in time.
Bytes sent to SGSN	Total number of bytes for GTP-U messages sent to the SGSN at a given instance in time.
Total Packets Rcvd	
Total Packets from GGSN	Total number of packets for GTP-U messages received from GGSN.
Pkts queued	Total number of packets queued for GTP-U messages from GGSN.
Pkts forward from queue	<b>Description:</b> This proprietary statistic indicates the total number of packets that are forwarded from the GGSN queue. <b>Triggers:</b> Increments when a packet is forwarded from the GGSN queue. <b>Availability:</b> per SGTP service
Pkts dropped	Total number of packets dropped for GTP-U messages from GGSN.
Queue Full	Total number of packets dropped due to queued buffer limit full for GTP-U messages from GGSN.
Ctxt Preserved	Total number of GTP packets from GGSN dropped in preserved context.
Unknown session	Total number of GTP packets from GGSN dropped in unknown session.
Pkts when dp suspended	<b>Description:</b> This proprietary statistic indicates the total number of packets dropped because of DP session in suspended state. <b>Triggers:</b> Increments when a DP session has deactivation initiated or path failure is detected for the PDP context. <b>Availability:</b> per SGTP service
Sess Dealloc started	Total number of GTP packets from peer GGSN received during session deallocation procedure.

Field	Description
Paging Failure	Total number of GTP packets dropped due to paging failure when there was downlink data from GGSN.
Seq Num Not Pres(V0)	Total number of packets from GGSN dropped as GTP-Uv0 messages received with sequence number flag set to false.
Unknown version	Total number of GTP-U packets received from GGSN with unknown GTP version.
Invalid msg length	Total number of GTP packets from GGSN dropped as GTP-U messages received with invalid message length.
Traffic Policing	Total number of GTP-U packets received from GGSN under subscriber traffic policing support.
Iu Release	<b>Description:</b> Total number of downlink packets that were queued but dropped due to IU/RAB release. <b>Triggers:</b> Counter at the new SGSN increments when Iu/RAB gets released while inter-SGSN-RAU is in progress and downlink data is queued during RAU. <b>Availability:</b> per SGTP service
T3-tunnel Timer expiry	<b>Description:</b> Total number of downlink packets that were queued but dropped due to T3-tunnel timer expiry during inter-SGSN RAU procedure. <b>Triggers:</b> During inter-SGSN RAU at the old SGSN, neither Cancel Location or SGSN Context Ack are received when t3-tunnel timer is fired causing the RAU procedure to abort. If old RABs are not available, the data queued during the RAU will be dropped. <b>Availability:</b> per SGTP service
BVC Reset/Block Rcvd	<b>Description:</b> This proprietary statistic indicates the total number of packets that are dropped from the GGSN queue, because of BVC Block or BVC Reset messages received for the MM context. <b>Triggers:</b> Increments when a packet is dropped from the GGSN queue because of BVC Reset/BVC Block received for the MM context. <b>Availability:</b> per SGTP service
Total Bytes Rcvd	
Total Bytes from SGSN	Total number of bytes for GTP-U messages received from GGSN.
Bytes queued	Total number of bytes queued for GTP-U messages from GGSN.
Bytes forward from queue	<b>Description:</b> This proprietary statistic indicates the total number of bytes that are forwarded from the GGSN queue. <b>Triggers:</b> Increments when a byte is forwarded from the GGSN queue. <b>Availability:</b> per SGTP service
Bytes dropped	Total number of bytes dropped for GTP-U messages from GGSN.
Queue Full	Total number of bytes dropped due to queued buffer limit full for GTP-U messages from GGSN.
Ctxt Preserved	Total number of GTP bytes from GGSN dropped in preserved context.
Unknown session	Total number of GTP bytes from GGSN dropped in unknown session.
Pkts when dp suspended	<b>Description:</b> This proprietary statistic indicates the total number of bytes dropped because of DP session in suspended state. <b>Triggers:</b> Increments when a DP session has deactivation initiated or path failure is detected for the PDP context. <b>Availability:</b> per SGTP service
Sess Dealloc started	Total number of GTP bytes from peer GGSN received during session deallocation procedure.

Field	Description
Paging Failure	Total number of GTP bytes dropped due to paging failure when there was downlink data from GGSN.
Seq Num Not Pres(V0)	Total number of bytes from GGSN dropped as GTP-Uv0 messages received with sequence number flag set to false.
Unknown version	Total number of GTP-U bytes received from GGSN with unknown GTP version.
Invalid msg length	Total number of GTP bytes from GGSN dropped as GTP-U messages received with invalid message length.
Traffic Policing	Total number of GTP-U bytes received from GGSN under subscriber traffic policing support.
Iu Release	<b>Description:</b> Total number of downlink bytes that were queued but dropped due to IU/RAB release. <b>Triggers:</b> Counter at the new SGSN increments when Iu/RAB gets released while inter-SGSN-RAU is in progress and downlink data is queued during RAU. <b>Availability:</b> per SGTP service
T3-tunnel Timer expiry	<b>Description:</b> Total number of downlink bytes that were queued but dropped due to T3-tunnel timer expiry during inter-SGSN RAU procedure. <b>Triggers:</b> During inter-SGSN RAU at the old SGSN, neither Cancel Location or SGSN Context Ack are received when t3-tunnel timer is fired causing the RAU procedure to abort. If old RABs are not available, the data queued during the RAU will be dropped. <b>Availability:</b> per SGTP service
BVC Reset/Block Rcvd	<b>Description:</b> This proprietary statistic indicates the total number of bytes that are dropped from the GGSN queue, because of BVC Block or BVC Reset messages received for the MM context. <b>Triggers:</b> Increments when a byte is dropped from the GGSN queue because of BVC Reset/BVC Block received for the MM context. <b>Availability:</b> per SGTP service
Total Error Ind Sent	Indicates the total number of error indication messages sent to GGSN.
Sent to GGSN	<b>Description:</b> This proprietary counter indicates the total number of GTP-U (v1 and v0) messages sent to GGSN with error indication. <b>Triggers:</b> Increments when SGSN receives data packet from GGSN and no PDP context exists for this data packet on SGSN. In this case, SGSN sends error indications to GGSN. <b>Availability:</b> per GGSN
Sent to RNC	<b>Description:</b> This proprietary counter indicates the total number of GTP-U (v1 and v0) messages sent to RNC with error indication. <b>Triggers:</b> Increments when SGSN receives data packet from RNC and no PDP context exists for this data packet on SGSN. In this case, SGSN sends error indications to RNC. <b>Availability:</b> per RNC
Total Error Ind Rcvd	Indicates the total number of error indication messages received by SGSN.
Rcvd from GGSN	<b>Description:</b> This proprietary counter indicates the total number of GTP-U (v1 and v0) messages received by SGSN from GGSN with error indication. <b>Triggers:</b> Increments when SGSN receives error indication messages from GGSN. <b>Availability:</b> per GGSN
Rcvd from RNC	<b>Description:</b> This proprietary counter indicates the total number of GTP-U (v1 and v0) messages received by SGSN from RNC with error indication. <b>Triggers:</b> Increments when SGSN receives error indication messages from RNC. <b>Availability:</b> per RNC

Field	Description
Rcvd from GGSN through RNC	<p><b>Description:</b> This proprietary counter indicates the total number of error indication messages from GGSN. If direct tunnel is enabled, data flows between RNC and GGSN. When the RNC receives GTPU-PDU from the GGSN for which no RAB context exists, RNC discards GTPU-PDU and returns error indication to GGSN. In order to notify SGSN, GGSN sends UPC request with EI Flag to SGSN.</p> <p><b>Triggers:</b> Increments when SGSN receives error indication messages from GGSN through RNC.</p> <p><b>Availability:</b> per GGSN</p>
Rcvd from RNC through GGSN	<p><b>Description:</b> This proprietary counter indicates the total number of error indication messages from RNC. If direct tunnel is enabled, data flows between RNC and GGSN. GGSN sends Error indication to RNC, and in order to notify SGSN, RNC sends RAB Release Request with the error cause 'GTP Resources Unavailable'.</p> <p><b>Triggers:</b> Increments when SGSN receives error indication messages from GGSN through RNC. This is when SGSN receives (Error indication message) Update PDP Context request with EI (Error Indication) flag from GGSN.</p> <p><b>Availability:</b> per RNC</p>



# Chapter 110

## show sndcp statistics verbose

Table 305. show sndcp statistics verbose Command Output Descriptions

Field	Description
SND CP Data Statistics:	
Un-Acknowledged mode:	
SN-PDUs received	<b>Description:</b> This proprietary counter indicates the total number of SN-PDUs received by SND CP. <b>Triggers:</b> Increments when an SN-PDU is received by SND CP. <b>Availability:</b> per SGSN service
SN-PDU Bytes received	<b>Description:</b> This proprietary counter indicates the total number of SN-PDU bytes received by SND CP. <b>Triggers:</b> Increments when an SN-PDU is received by SND CP. <b>Availability:</b> per SGSN service
SN-PDUs dropped	<b>Description:</b> This proprietary counter indicates the total number of SN-PDUs dropped at SND CP due to various reasons. <b>Triggers:</b> Increments when SN-PDUs are dropped at SND CP for various error cases as explained by the specific Drop reason counters below. <b>Availability:</b> per SGSN service
SN-PDU Bytes dropped	<b>Description:</b> This proprietary counter indicates the total number of SN-PDU bytes dropped at SND CP due to various reasons. <b>Triggers:</b> Increments when SN-PDUs are dropped at SND CP for various error cases as explained by the specific Drop reason counters below. <b>Availability:</b> per SGSN service
SN-PDU Drop Reason:	
Invalid SAPI State	<b>Description:</b> This proprietary counter indicates the total number of SN-PDUs dropped at SND CP due to invalid SAPI state. <b>Triggers:</b> Increments when SN-PDUs are received in invalid SAPI state. <b>Availability:</b> per SGSN service
Invalid PDP Ctx	<b>Description:</b> This proprietary counter indicates the total number of SN-PDUs dropped at SND CP due to invalid PDP context. <b>Triggers:</b> Increments when SN-PDUs are received by a non-existent PDP Context or non-existent subscriber. <b>Availability:</b> per SGSN service
Decode Failure	<b>Description:</b> This proprietary counter indicates the total number of SN-PDUs dropped at SND CP due to decode failure. <b>Triggers:</b> Increments when Decode failures occur for SN-PDUs. <b>Availability:</b> per SGSN service
Reassembly Drops:	

Field	Description
Discard State	<p><b>Description:</b> This proprietary counter indicates the total number of SN-PDUs dropped at SNDTCP in discard state.</p> <p><b>Triggers:</b> Increments when SN-PDUs are dropped and an unexpected segment is received to enter discard state. SNDTCP entity expects either a first segment or subsequent segment. Reception of last segment clears this state.</p> <p><b>Availability:</b> per SGSN service</p>
Rx First Seg State	<p><b>Description:</b> This proprietary counter indicates the total number of SN-PDUs dropped at SNDTCP in Receive First Segment state.</p> <p><b>Triggers:</b> In receive first segment state, only first segment of N-PDU is expected. If subsequent segmented is received, it is dropped with this reason and enters discard state.</p> <p><b>Availability:</b> per SGSN service</p>
Rx Subsequent Seg State	<p><b>Description:</b> This proprietary counter indicates the total number of SN-PDUs dropped at SNDTCP due to reassembly failure.</p> <p><b>Triggers:</b> In receive subsequent segment state, only subsequent segments of N-PDU are expected. If first segment is received, it is dropped with this reason and enters discard state.</p> <p><b>Availability:</b> per SGSN service</p>
New First Segment	<p><b>Description:</b> This proprietary counter indicates the total number of buffered SN-PDUs dropped at SNDTCP due to reception of new N-PDU.</p> <p><b>Triggers:</b> Increments when reception of new N-PDU drops buffered SN-PDUs, if any with this reason.</p> <p><b>Availability:</b> per SGSN service</p>
Reassembly Failure	<p><b>Description:</b> This proprietary counter indicates the total number of SN-PDUs dropped at SNDTCP due to reassembly failure.</p> <p><b>Triggers:</b> Increments when SN-PDUs are dropped at SNDTCP due to reassembly failure.</p> <p><b>Availability:</b> per SGSN service</p>
Reassembly Timeout	<p><b>Description:</b> This proprietary counter indicates the total number of SN-PDUs dropped at SNDTCP due to reassembly timeout.</p> <p><b>Triggers:</b> Increments when the buffered segments are dropped and the last segment is not received before reassembly timer expiry.</p> <p><b>Availability:</b> per SGSN service</p>
DCOMP Error	<p><b>Description:</b> This proprietary counter indicates the total number of SN-PDUs dropped at SNDTCP due to DCOMP (Data Compression algorithm ID) error.</p> <p><b>Triggers:</b> Increments when SN-PDUs are received with invalid DCOMP value or DCOMP value different from that negotiated between MS and SGSN.</p> <p><b>Availability:</b> per SGSN service</p>
PCOMP Error	<p><b>Description:</b> This proprietary counter indicates the total number of SN-PDUs dropped at SNDTCP due to PCOMP (Protocol Header Compression algorithm ID).</p> <p><b>Triggers:</b> Increments when SN-PDUs are received with invalid PCOMP value or PCOMP value different from that negotiated between MS and SGSN.</p> <p><b>Availability:</b> per SGSN service</p>
PDP Ctx Modified	<p><b>Description:</b> This proprietary counter indicates the total number of SN-PDUs dropped at SNDTCP due to PDP modification.</p> <p><b>Triggers:</b> Increments when buffered data segments (SN-PDUs) are dropped during PDP context modification.</p> <p><b>Availability:</b> per SGSN service</p>

Field	Description
PDP Ctx Deleted	<p><b>Description:</b> This proprietary counter indicates the total number of SN-PDUs dropped at SNDTCP due to PDP deletion.</p> <p><b>Triggers:</b> Increments when buffered data segments (SN-PDUs) are dropped at SNDTCP due to PDP context deletion.</p> <p><b>Availability:</b> per SGSN service</p>
Other Reasons	<p><b>Description:</b> This proprietary counter indicates the total number of SN-PDUs dropped at SNDTCP due to any other reason than those mentioned above.</p> <p><b>Triggers:</b> Increments when buffered data segments (SN-PDUs) are dropped at SNDTCP due to other reasons than those mentioned above.</p> <p><b>Availability:</b> per SGSN service</p>



# Chapter 111

## show snmp

---

This chapter describes the output of the `show snmp` command.

## show snmp accesses

Table 306. show snmp accesses Command Output Descriptions

Field	Description
<b>SNMP Usage Statistics:</b>	
Get PDUs Received	The number of SNMP Get request packet data units (PDUs) received by the system from the SNMP alarm server.
GetNext PDUs Received	The number of SNMP GetNext request packet data units (PDUs) received by the system from the SNMP alarm server.
Set PDUs Received	The number of SNMP Set request packet data units (PDUs) received by the system from the SNMP alarm server.
PduTooBig Errors	The number of errors that occurred due to the packet data unit being received is too large.
NoSuchName Errors	The number of errors that occurred due to the packet data unit being requested not existing in the system. For example, this error would be generated if an SNMP "GET" request was received for an OID that doesn't exist in the system.
BadValue Errors	The number of errors that occurred due to the receipt of a bad value. For example, this error would be generated if an SNMP "SET" operation provides an illegal value.
GenError Errors	The number errors that occurred that could not be properly classified. For example, this error would be generated if the system receives a valid SNMP "GET" PDU requesting a piece of data about a card, however, the system experiences an internal error attempting to reach the card.
Agent started	The date and time when the SNMP agent was started.

## show snmp notifies

Table 307. show snmp notifies Command Output Descriptions

Field	Description
<b>SNMP Notification Statistics:</b>	
Total number of notifications	The total number of notifications that have been sent to the SNMP alarm server since notification was enabled.
Last notification sent	The last date and time that a notification was sent to the SNMP alarm server.
Notification sending is	Indicates whether the sending of notifications is enabled or disabled on the system.
Notifications have never been disabled	Indicates whether or not the sending of SNMP notifications has ever been disabled.
Notifications in current period	The number of notifications that have been sent to the SNMP alarm server during the current monitor period.
Notifications in previous period	The number of notifications that have been sent to the SNMP alarm server during the previous monitor period.
Notification monitor period	The duration of the monitor period in seconds.
Total number of notifications Disabled	The total number of notifications disabled.

## show snmp trap history

*Table 308. show snmp trap history Command Output Descriptions*

Field	Description
	There are <> historical trap records (5000 maximum)
Timestamp	Identifies the date and time the event trap was generated.
Trap Information	Shows the trap notification number and the associated device.

## show snmp trap statistics

Table 309. show snmp trap statistics Command Output Descriptions

Field	Description
<b>SNMP Notification Statistics:</b>	
Total number of notifications	The total number of notifications sent to the SNMP alarm server since notification was enabled.
Last notification sent	The last date and time that a notification was sent to the SNMP alarm server.
Notification sending is	Indicates whether notification sending is enabled/disabled.
Notifications have never been disabled	Indicates whether notification sending was ever disabled.
Notifications in current period	The number of notifications that have been sent to the SNMP alarm server during the current monitor period.
Notifications in previous period	The number of notifications that have been sent to the SNMP alarm server during the previous monitor period.
Notification monitor period	The duration of the monitor period in seconds.
Trap Name	The trap name.
#Gen	The number of times notifications were generated for the trap.
#Disc	The disc number.
Last Generated	The last date and time that a notification generated.
Total number of notifications Disabled	The total number of notifications disabled.



# Chapter 112

## show srp

---

This chapter describes the outputs of the **show srp** command.

## show srp info

Table 310. show srp info Command Output Descriptions

Field	Description
Context	Displays the srp context configured for service redundancy protocol. Only one context may be configured with this service.
Local Address	Displays the local address of the chassis.
Chassis State	Displays the chassis state (standby or active).
Chassis Mode	Displays the chassis mode (primary or backup).
Chassis Priority	Displays the chassis priority. The chassis priority is an integer that determines which chassis is in the active state. The lower number has a higher priority. The priority must be an integer from 1 through 255. Default is 125.
Local Tiebreaker	Displays the MAC address which is used to determine priority when both chassis have the same priority and route modifier. The lower MAC address has the higher priority.
Route-Modifier	Displays the modifier which is used to determine which chassis has priority. The lower the number the higher the priority.
Peer Remote Address	Displays the IP address of the remote peer.
Peer State	Displays whether the peer is in the active or standby state.
Peer Mode	Displays the peer mode (standby or active).
Peer Priority	Displays the peer priority (primary or backup).
Peer Tiebreaker	Displays the peer MAC address.
Peer Route-Modifier	Displays the peer's BGP route modifier.
Last Hello Message received	Displays a time stamp for the most recent hello message that was received.
Peer Configuration Validation	Displays the peer configuration validation.
Last Peer Configuration Error	Displays the most recent error that was received when the chassis was no able to validate its peer configuration.
Connection State	Displays the status of the redundancy link between the two chassis.

## show srp checkpoint statistics

Table 311. show srp checkpoint statistics Command Output Descriptions

Field	Description
Number of Sessmgrs	Displays the total number of session managers
Sessmgrs in Active-Connected state	Displays the number of session managers in the active-connected state.
Sessmgrs in Standby-Connected state	Displays the number of session managers in the standby-connected state.
Sessmgrs in Pending-Active state	Displays the number of sessions managers in the pending-active state.
Current Call Recovery Records (CRRs)	Displays the number of current call recovery records.
Current pre-allocated calls	Displays the number of pre-allocated calls.
Total id-mapping checkpoint rcvd	Displays the number of id-mapping checkpoints received by the chassis.
Total APN id-mapping chkpnt rcvd	Displays the number of APN id-mapping checkpoints received by the chassis.
Total full session checkpoint sent	Displays the number of full session checkpoints sent by the chassis.
Total micro session checkpoint sent	Displays the number of micro session checkpoints sent by the chassis.
total inv-crr micro-chkpnt sent	Displays the total number of invalid CRR micro checkpoints sent.
total call-stats micro-chkpnt sent	Displays the total call statistics micro checkpoints sent.
Standby call pre-alloc failures	Displays the number of standby call pre allocation failures.
table-id mapping failures	Displays the number of table id mapping failures.
aaa session failures	Displays the number of aaa session failures.
recovery record alloc failures	Displays the number of recovery record allocation failures.
Standby micro-checkpoint failures	Displays the number of standby micro checkpoint failures.
recovery record not found	Displays the number of recovery records not found.

## show srp statistics

*Table 312. show srp statistics Command Output Descriptions*

Field	Description
Peer Remote Address	The IP address for the redundant peer chassis.
Hello Messages Sent	The number of hello messages that were sent to the peer chassis.
Hello Message Received	The number of hello messages received from the peer chassis.
Configuration Validation Messages Sent	The number of configuration validation messages sent to the peer.
Configuration Validation Message Received	The number of configuration validation messages received from the peer chassis.
Resource Messages Sent	The number of resource messages sent to the peer chassis.
Resource Messages Received	The number of resource messages received from the peer chassis.
Resource Messages Discarded	The number of discarded resource messages.
Switchover Events	The number of switchover events, where one chassis went from active to inactive and the other chassis went from inactive to active.

# show srp monitor

Table 313. show srp monitor Command Output Descriptions

Field	Description
probe monitor state	Displays the authentication probe monitor state (e.g., success).
probe monitors up	Displays the number of authentication probe monitors in the active state.
probe monitors down	Displays the number of authentication probe monitors in the inactive state.
probe monitors init	Displays the number of authentication probe monitors in the initialized state.
BGP monitor state	Displays the BGP monitor state (e.g., success).
BGP monitors up	Displays the number of BGP monitors in the active state.
BGP monitors down	Displays the number of BGP monitors in the inactive state.
BGP monitors init	Displays the number of BGP monitors in the initialized state.



# Chapter 113

## show ss7-routing-domain

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This chapter describes the outputs of the `show ss7-routing-domain` command.

## show ss7-routing-domain

Table 314. show ss7-routing-domain Command Output Descriptions

Field	Description
Peer Server Id	Indicates the peer server identifier.
Peer Server Process Id	Indicates the peer server process identifier.
Association State	Indicates the status of associated link.
Source Address	Indicates the IP address of source node/s.
Destination Address	Indicates the IP address of destination node/s.
Path Status	Indicates the status of established paths between source and destination node.

# Chapter 114

## show subscribers

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This chapter includes the **show subscribers** command output tables.

## show subscribers all

Table 315. show subscribers all Command Output Descriptions

Field	Description
vvvvv	Displays service and session state information. This column provides a code consisting of six characters.
Access Type	<p>From left-to-right, the first character represents the <b>Access Type</b> that the subscriber is using. The possible access types are:</p> <ul style="list-style-type: none"> <li>• <b>S</b>: pdsn-simple-ip</li> <li>• <b>M</b>: pdsn-mobile-ip</li> <li>• <b>H</b>: ha-mobile-ip</li> <li>• <b>P</b>: ggsn-pdp-type-ppp</li> <li>• <b>h</b>: ha-ipsec</li> <li>• <b>N</b>: lns-l2tp</li> <li>• <b>I</b>: ggsn-pdp-type-ipv4</li> <li>• <b>A</b>: asngw-simple-ip</li> <li>• <b>G</b>: IPSP</li> <li>• <b>V</b>: ggsn-pdp-type-ipv6</li> <li>• <b>B</b>: asngw-mobile-ip</li> <li>• <b>C</b>: cscf-sip</li> <li>• <b>s</b>: <b>sgsn</b></li> <li>• <b>p</b>: sgsn-pdp-type-ppp</li> <li>• <b>4</b>: sgsn-pdp-type-ip</li> <li>• <b>6</b>: sgsn-pdp-type-ipv6</li> <li>• <b>L</b>: pdif-simple-ip</li> <li>• <b>K</b>: pdif-mobile-ip</li> <li>• <b>x</b>: S1-MME</li> <li>• <b>F</b>: standalone-fa</li> <li>• <b>J</b>: asngw-non-anchor</li> <li>• <b>e</b>: ggsn-mbms-ue</li> <li>• <b>i</b>: asnpc</li> <li>• <b>E</b>: <b>ha-mobile-ipv6</b></li> <li>• <b>X</b>: HSGW</li> <li>• <b>u</b>: Unknown</li> </ul>

Field	Description
Access Tech	<p>From left-to-right, the second character represents the <b>Access Technology</b>. The possible call states are:</p> <ul style="list-style-type: none"> <li>• <b>X</b>: CDMA 1xRTT</li> <li>• <b>E</b>: GPRS GERAN</li> <li>• <b>I</b>: IP</li> <li>• <b>D</b>: CDMA EV-DO</li> <li>• <b>U</b>: WCDMA UTRAN</li> <li>• <b>W</b>: Wireless LAN</li> <li>• <b>A</b>: CDMA EV-DO RevA</li> <li>• <b>G</b>: GPRS Other</li> <li>• <b>M</b>: WiMAX</li> <li>• <b>L</b>: eHRPD</li> <li>• <b>T</b>: eUTRAN</li> <li>• <b>C</b>: CDMA Other</li> <li>• <b>N</b>: GAN (Generic Access Network)</li> <li>• <b>H</b>: HSPA (High Speed Packet Access)</li> <li>• <b>P</b>: PDIF</li> <li>• <b>.</b>: Other/Unknown</li> </ul>
Call State	<p>From left-to-right, the third character represents the <b>Call State</b>. The possible call states are:</p> <ul style="list-style-type: none"> <li>• <b>C</b>: Connected</li> <li>• <b>r</b>: CSCF-Registering</li> <li>• <b>c</b>: Connecting</li> <li>• <b>d</b>: Disconnecting</li> <li>• <b>R</b>: CSCF-Registered</li> <li>• <b>U</b>: CSCF-Unregistered</li> <li>• <b>u</b>: Unknown</li> </ul>
Access CSCF	<p>From left-to-right, the fourth character represents the <b>Access CSCF Status</b> of the session. The possible network types are:</p> <ul style="list-style-type: none"> <li>• <b>A</b>: Attached</li> <li>• <b>C</b>: Call (Unknown Type)</li> <li>• <b>N</b>: Not Attached</li> <li>• <b>v</b>: Voice Call</li> <li>• <b>.</b>: Not Applicable</li> <li>• <b>V</b>: Video Call</li> </ul>

Field	Description
Link Status	From left-to-right, the fifth character represents the <b>Link Status</b> of the session. The possible idle states are: <ul style="list-style-type: none"> <li>• <b>A</b>: Online/Active</li> <li>• <b>D</b>: Dormant/Idle</li> </ul>
Network Type	From left-to-right, the sixth character represents the session <b>Network Type</b> . The possible network types are: <ul style="list-style-type: none"> <li>• <b>I</b>: IP</li> <li>• <b>M</b>: Mobile-IP</li> <li>• <b>L</b>: L2TP</li> <li>• <b>P</b>: Proxy-Mobile-IP</li> <li>• <b>i</b>: IP-in-IP</li> <li>• <b>G</b>: GRE</li> <li>• <b>V</b>: IPv6-in-IPv4</li> <li>• <b>S</b>: IPSEC</li> <li>• <b>A</b>: R4 (IP-GRE)</li> <li>• <b>u</b>: Unknown</li> <li>• <b>T</b>: IPv6</li> </ul>
CALLID	Displays the subscriber's call identification (callid) number.
MSID	Displays the subscriber's mobile station identification (MSID) number.
USERNAME	Displays the subscriber's username.
IP(*)	Displays the IP address assigned to the subscriber. (*) indicates the multiple hosts supported behind a primary node with primary IP address. Note that this is applicable to ASN GW session only.
TIME-IDLE	Displays the amount of time that the subscriber session has been idle either in an active or dormant state.

# show subscribers asngw-only all

Table 316. *show subscribers asngw-only all* Command Output Descriptions

Field	Description
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Field	Description
vvvvvv	<p>Displays service and session state information. This column displays a code consisting of six characters.</p> <p>From left-to-right, the first character represents the <b>Access Type</b> that the subscriber is using. The possible access types are:</p> <ul style="list-style-type: none"> <li>• <b>S</b>: pdsn-simple-ip</li> <li>• <b>M</b>: pdsn-mobile-ip</li> <li>• <b>H</b>: ha-mobile-ip</li> <li>• <b>P</b>: ggsn-pdp-type-ppp</li> <li>• <b>h</b>: ha-ipsec</li> <li>• <b>N</b>: lns-l2tp</li> <li>• <b>I</b>: ggsn-pdp-type-ipv4</li> <li>• <b>A</b>: asngw-simple-ip</li> <li>• <b>G</b>: IPSEG</li> <li>• <b>V</b>: ggsn-pdp-type-ipv6</li> <li>• <b>B</b>: asngw-mobile-ip</li> <li>• <b>C</b>: cscf-sip</li> <li>• <b>L</b>: pdif-simple-ip</li> <li>• <b>K</b>: pdif-mobile-ip</li> <li>• <b>F</b>: standalone-fa</li> <li>• <b>J</b>: asngw-non-anchor</li> <li>• <b>u</b>: Unknown</li> </ul> <p>From left-to-right, the second character represents the <b>Access Technology</b>. The possible call states are:</p> <ul style="list-style-type: none"> <li>• <b>X</b>: CDMA 1xRTT</li> <li>• <b>E</b>: GPRS GERAN</li> <li>• <b>I</b>: IP</li> <li>• <b>D</b>: CDMA EV-DO</li> <li>• <b>U</b>: WCDMA UTRAN</li> <li>• <b>W</b>: Wireless LAN</li> <li>• <b>A</b>: CDMA EV-DO RevA</li> <li>• <b>G</b>: GPRS Other</li> <li>• <b>M</b>: WiMAX</li> <li>• <b>C</b>: CDMA Other</li> <li>• <b>N</b>: GAN (Generic Access Network)</li> <li>• <b>H</b>: HSPA (High Speed Packet Access)</li> <li>• <b>P</b>: PDIF</li> <li>• <b>.</b>: Other/Unknown</li> </ul>

Field	Description
vvvvvv (continued)	<p>From left-to-right, the third character represents the <b>Call State</b>. The possible call states are:</p> <ul style="list-style-type: none"> <li>• <b>C</b>: Connected</li> <li>• <b>c</b>: Connecting</li> <li>• <b>d</b>: Disconnecting</li> <li>• <b>u</b>: Unknown</li> <li>• <b>r</b>: CSCF-Registering</li> <li>• <b>R</b>: CSCF-Registered</li> <li>• <b>U</b>: CSCF-Unregistered</li> </ul> <p>From left-to-right, the fourth character represents the <b>Access CSCF Status</b> of the session. The possible states are:</p> <ul style="list-style-type: none"> <li>• <b>A</b>: Attached</li> <li>• <b>N</b>: Not Attached</li> <li>• <b>.</b>: Not Applicable</li> </ul> <p>From left-to-right, the fifth character represents the <b>Link Status</b> of the session. The possible states are:</p> <ul style="list-style-type: none"> <li>• <b>A</b>: Online/Active (airlink connected)</li> <li>• <b>D</b>: Dormant (airlink not connected)</li> </ul> <p>From left-to-right, the sixth character represents the session <b>Network Type</b>. The possible network types are:</p> <ul style="list-style-type: none"> <li>• <b>I</b>: IP</li> <li>• <b>M</b>: Mobile-IP</li> <li>• <b>L</b>: L2TP</li> <li>• <b>P</b>: Proxy-Mobile-IP</li> <li>• <b>i</b>: IP-in-IP</li> <li>• <b>G</b>: GRE</li> <li>• <b>V</b>: IPv6-in-IPv4</li> <li>• <b>S</b>: IPSEC</li> <li>• <b>A</b>: R4 (IP-GRE)</li> <li>• <b>u</b>: Unknown</li> </ul>
CALLID	The subscriber's call identification (callid) number.
MSID	The subscriber's mobile station identification (MSID) number.
USERNAME	The subscriber's user name.
IP	The IP address assigned to the subscriber.
TIME-IDLE	The amount of time that the subscriber session has been idle either in an active or dormant state.
Total subscribers matching specified criteria	The total number of subscribers using firewall.

■ show subscribers asngw-only all

# show subscribers asngw-service

Table 317. *show subscribers asngw-service* Command Output Descriptions

Field	Description
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Field	Description
vvvvvv	<p>Displays service and session state information. This column displays a code consisting of six characters.</p> <p>From left-to-right, the first character represents the <b>Access Type</b> that the subscriber is using. The possible access types are:</p> <ul style="list-style-type: none"> <li>• <b>S</b>: pdsn-simple-ip</li> <li>• <b>M</b>: pdsn-mobile-ip</li> <li>• <b>H</b>: ha-mobile-ip</li> <li>• <b>P</b>: ggsn-pdp-type-ppp</li> <li>• <b>h</b>: ha-ipsec</li> <li>• <b>N</b>: lns-l2tp</li> <li>• <b>I</b>: ggsn-pdp-type-ipv4</li> <li>• <b>A</b>: asngw-simple-ip</li> <li>• <b>G</b>: IPSEG</li> <li>• <b>V</b>: ggsn-pdp-type-ipv6</li> <li>• <b>B</b>: asngw-mobile-ip</li> <li>• <b>C</b>: cscf-sip</li> <li>• <b>L</b>: pdif-simple-ip</li> <li>• <b>K</b>: pdif-mobile-ip</li> <li>• <b>F</b>: standalone-fa</li> <li>• <b>J</b>: asngw-non-anchor</li> <li>• <b>u</b>: Unknown</li> </ul> <p>From left-to-right, the second character represents the <b>Access Technology</b>. The possible call states are:</p> <ul style="list-style-type: none"> <li>• <b>X</b>: CDMA 1xRTT</li> <li>• <b>E</b>: GPRS GERAN</li> <li>• <b>I</b>: IP</li> <li>• <b>D</b>: CDMA EV-DO</li> <li>• <b>U</b>: WCDMA UTRAN</li> <li>• <b>W</b>: Wireless LAN</li> <li>• <b>A</b>: CDMA EV-DO RevA</li> <li>• <b>G</b>: GPRS Other</li> <li>• <b>M</b>: WiMAX</li> <li>• <b>C</b>: CDMA Other</li> <li>• <b>N</b>: GAN (Generic Access Network)</li> <li>• <b>H</b>: HSPA (High Speed Packet Access)</li> <li>• <b>P</b>: PDIF</li> <li>• <b>.</b>: Other/Unknown</li> </ul>

Field	Description
vvvvvv (continued)	<p>From left-to-right, the third character represents the <b>Call State</b>. The possible call states are:</p> <ul style="list-style-type: none"> <li>• <b>C</b>: Connected</li> <li>• <b>c</b>: Connecting</li> <li>• <b>d</b>: Disconnecting</li> <li>• <b>u</b>: Unknown</li> <li>• <b>r</b>: CSCF-Registering</li> <li>• <b>R</b>: CSCF-Registered</li> <li>• <b>U</b>: CSCF-Unregistered</li> </ul> <p>From left-to-right, the fourth character represents the <b>Access CSCF Status</b> of the session. The possible states are:</p> <ul style="list-style-type: none"> <li>• <b>A</b>: Attached</li> <li>• <b>N</b>: Not Attached</li> <li>• <b>.</b>: Not Applicable</li> </ul> <p>From left-to-right, the fifth character represents the <b>Link Status</b> of the session. The possible states are:</p> <ul style="list-style-type: none"> <li>• <b>A</b>: Online/Active (airlink connected)</li> <li>• <b>D</b>: Dormant (airlink not connected)</li> </ul> <p>From left-to-right, the sixth character represents the session <b>Network Type</b>. The possible network types are:</p> <ul style="list-style-type: none"> <li>• <b>I</b>: IP</li> <li>• <b>M</b>: Mobile-IP</li> <li>• <b>L</b>: L2TP</li> <li>• <b>P</b>: Proxy-Mobile-IP</li> <li>• <b>i</b>: IP-in-IP</li> <li>• <b>G</b>: GRE</li> <li>• <b>V</b>: IPv6-in-IPv4</li> <li>• <b>S</b>: IPSEC</li> <li>• <b>A</b>: R4 (IP-GRE)</li> <li>• <b>u</b>: Unknown</li> </ul>
CALLID	The subscriber's call identification (callid) number.
MSID	The subscriber's mobile station identification (MSID) number.
USERNAME	The subscriber's user name.
IP	The IP address assigned to the subscriber.
TIME-IDLE	The amount of time that the subscriber session has been idle either in an active or dormant state.
Total subscribers matching specified criteria	The total number of subscribers using firewall.

■ show subscribers asngw-service

# show subscribers firewall required

Table 318. *show subscribers firewall required* Command Output Descriptions

Field	Description
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Field	Description
vvvvvv	<p>Displays service and session state information. This column provides a code consisting of six characters.</p> <p>From left-to-right, the first character represents the <b>Access Type</b> that the subscriber is using. The possible access types are:</p> <ul style="list-style-type: none"> <li>• <b>S</b>: pdsn-simple-ip</li> <li>• <b>M</b>: pdsn-mobile-ip</li> <li>• <b>H</b>: ha-mobile-ip</li> <li>• <b>I</b>: ggsn-pdp-type-ip</li> <li>• <b>A</b>: asngw-simple-ip</li> <li>• <b>G</b>: IPSEG</li> <li>• <b>p</b>: sgsn-pdp-type-ppp</li> <li>• <b>4</b>: sgsn-pdp-type-ip</li> <li>• <b>s</b>: sgsn</li> <li>• <b>P</b>: ggsn-pdp-type-ppp</li> <li>• <b>L</b>: pdif-simple-ip</li> <li>• <b>K</b>: pdif-mobile-ip</li> <li>• <b>B</b>: asngw-mobile-ip</li> <li>• <b>F</b>: standalone-fa</li> <li>• <b>C</b>: cscf-sip</li> <li>• <b>J</b>: asngw-non-anchor</li> <li>• <b>I</b>: asnpc</li> <li>• <b>u</b>: Unknown</li> </ul> <p>From left-to-right, the second character represents the <b>Access Technology</b>. The possible call states are:</p> <ul style="list-style-type: none"> <li>• <b>X</b>: CDMA 1xRTT</li> <li>• <b>E</b>: GPRS GERAN</li> <li>• <b>I</b>: IP</li> <li>• <b>D</b>: CDMA EV-DO</li> <li>• <b>U</b>: WCDMA UTRAN</li> <li>• <b>W</b>: Wireless LAN</li> <li>• <b>A</b>: CDMA EV-DO RevA</li> <li>• <b>G</b>: GPRS Other</li> <li>• <b>M</b>: WiMAX</li> <li>• <b>C</b>: CDMA Other</li> <li>• <b>N</b>: GAN (Generic Access Network)</li> <li>• <b>H</b>: HSPA (High Speed Packet Access)</li> <li>• <b>P</b>: PDIF</li> <li>• <b>.</b>: Other/Unknown</li> </ul>

Field	Description
vvvvvv (continued)	<p>From left-to-right, the third character represents the <b>Call State</b>. The possible call states are:</p> <ul style="list-style-type: none"> <li>• <b>r</b>: CSCF-Registering</li> <li>• <b>C</b>: Connected</li> <li>• <b>c</b>: Connecting</li> <li>• <b>R</b>: CSCF-Registered</li> <li>• <b>d</b>: Disconnecting</li> <li>• <b>u</b>: Unknown</li> <li>• <b>U</b>: CSCF-Unregistered</li> </ul> <p>From left-to-right, the fourth character represents the <b>Access CSCF Status</b> of the session. The possible network types are:</p> <ul style="list-style-type: none"> <li>• <b>A</b>: Attached</li> <li>• <b>N</b>: Not Attached</li> <li>• <b>.</b>: Not Applicable</li> </ul> <p>From left-to-right, the fifth character represents the <b>Link Status</b> of the session. The possible idle states are:</p> <ul style="list-style-type: none"> <li>• <b>A</b>: Online/Active</li> <li>• <b>D</b>: Dormant/Idle</li> </ul> <p>From left-to-right, the sixth character represents the session <b>Network Type</b>. The possible network types are:</p> <ul style="list-style-type: none"> <li>• <b>I</b>: IP</li> <li>• <b>M</b>: Mobile-IP</li> <li>• <b>L</b>: L2TP</li> <li>• <b>P</b>: Proxy-Mobile-IP</li> <li>• <b>i</b>: IP-in-IP</li> <li>• <b>G</b>: GRE</li> <li>• <b>S</b>: IPSEC</li> <li>• <b>u</b>: Unknown</li> <li>• <b>A</b>: R4 (IP-GRE)</li> </ul>
CALLID	Displays the subscriber's call identification (callid) number.
MSID	Displays the subscriber's mobile station identification (MSID) number.
USERNAME	Displays the subscriber's username.
IP	Displays the IP address assigned to the subscriber.
TIME-IDLE	Displays the amount of time that the subscriber session has been idle either in an active or dormant state.
Total subscribers matching specified criteria	Total number of subscribers with firewall enabled.

# show subscribers full

*Table 319. show subscribers full Command Output Descriptions*

Field	Description
Username	The subscriber name.
Status	Indicates the session status.

Field	Description
Access Type	<p>Indicates the session type for this subscriber. The possible access types are:</p> <ul style="list-style-type: none"> <li>• pdsn-simple-ip</li> <li>• pdsn-mobile-ip</li> <li>• ha-mobile-ip</li> <li>• ggsn-pdp-type-ppp</li> <li>• ha-ipsec</li> <li>• lns-l2tp</li> <li>• ggsn-pdp-type-ipv4</li> <li>• asngw-simple-ip</li> <li>• IPST</li> <li>• ggsn-pdp-type-ipv6</li> <li>• asngw-mobile-ip</li> <li>• cscf-sip</li> <li>• sgw-gtp-ipv4</li> <li>• sgw-gtp-ipv6</li> <li>• sgw-gtp-ipv4-ipv6</li> <li>• pgw-gtp-ipv4</li> <li>• pgw-gtp-ipv6</li> <li>• pgw-gtp-ipv4-ipv6</li> <li>• sgsn</li> <li>• sgsn-pdp-type-ppp</li> <li>• sgsn-pdp-type-ip</li> <li>• sgsn-pdp-type-ipv6</li> <li>• pdif-simple-ip</li> <li>• pdif-mobile-ip</li> <li>• S1-MME</li> <li>• standalone-fa</li> <li>• asngw-non-anchor</li> <li>• ggsn-mbms-ue</li> <li>• asnpc</li> <li>• ha-mobile-ipv6</li> <li>• HSGW</li> <li>• Unknown</li> </ul>
Network Type	Indicates the network service used for the subscriber session.
Access Tech	Indicates the accessing technology.

Field	Description
callid	The subscriber's call identification number (callid).
msid	The subscriber's mobile station identification (MSID).
EAP-TYPE	The Extensible Authentication Protocol type.
Card/Cpu	The card and CPU ID.
Sessmgr Instance	The session manager instances.
state	The session state. The possible values are: <ul style="list-style-type: none"> <li>• Connected</li> <li>• Connecting</li> <li>• Disconnecting</li> <li>• Unknown</li> </ul>
PCF address	IP address of the PCF.
Peer address	IP address of peer system in network.
BS/PA address	Indicates the IP address of base station or paging agent.
idle time	The time period that the subscriber session has been idle, either in an active or dormant state.
idle time left	The idle time period left before timeout.
session time left	The session time left for the subscriber.
long duration time left	Indicates how much time is left for the maximum duration of a specified subscriber session.
long duration action	The setting for the action to take when the long duration timer expires. The possible values are: <ul style="list-style-type: none"> <li>• Detection - Detect and send SNMP trap and CORBA notification only.</li> <li>• Disconnection - Disconnect the session and send SNMP trap and CORBA notification.</li> </ul>
context-retention timer running	Indicates whether context-retention timer is running.
context-retention time left	Indicates time remaining.
always on	Session Update message was sent to the PCF to notify the PCF that the subscriber has the Always On feature enabled.
ip address	Indicates the primary IP address of the subscriber interface in the session. In WiMAX session this is the primary IP address of WiMAX CPE, if multiple host support enabled.
Multiple Hosts	Specifies the multiple IP host support enabled or disabled for a WiMAX session. It also indicates the connected hosts behind a WiMAX CPE and their allocated IP address with secondary IP pool name.
home-agent	The name of the HA for this subscriber.
fa-service-name	The name of the FA service for this subscriber.
ip pool name	The IP address pool or group to use for subscriber IP address allocation.
local ip addr	The local IP address of the interface in the session.

Field	Description
source context	The name of a configured source context from which the subscriber initiates a session.
destination context	The name of a configured destination context through which the subscriber is provided access to the packet data network.
ip header compression	The header compression method being used.
ROHC cid-mode (local/remote)	Robust Header Compression mode for the bi-directional channel -- [ small   large   na ].
ROHC max-cid (local/remote)	For Robust Header Compression, indicates the maximum value of a context identifier.
ROHC mrru (local/remote)	For Robust Header Compression, indicates the maximum reconstructed reception unit.
ROHC max-hdr (local/remote)	For Robust Header Compression, the largest header size in octets that may be compressed.
ROHC profile	Robust Header Compression profile ID as per RFC3095 for the bi-directional channel.
AAA context	The context in which the AAA service is configured.
AAA domain	The domain in which the AAA service is configured.
AAA start count	The number of accounting start messages sent to the accounting server for the subscriber session.
AAA stop count	The number of accounting stop messages sent to the accounting server for the subscriber session.
AAA interim count	The number of accounting interim messages sent to the accounting server for the subscriber session.
Acct-session-id	Identifies a subscriber session or PDP context.
AAA RADIUS group	The AAA RADIUS server group assigned to specific subscriber for AAA functionality.
RADIUS Auth Server IP	The RADIUS authentication server's IP address.
RADIUS Acct Server IP	The RADIUS accounting server's IP address. When the RADIUS Accounting Mediation Device is configured, this field will NOT display the RADIUS accounting mediation server's IP address.
NAS IP Address	The Network Access Server's (NAS) IP address.
Nexthop IP Address	The IP address of configured next-hop-forwarding-address in RADIUS attribute, subscriber configuration, or IP pool configuration.
Authentication Mode	The authentication mode. Possible modes are: <ul style="list-style-type: none"> <li>• None</li> <li>• User (Single EAP)</li> <li>• Device (Single EAP)</li> <li>• Device-User (Double EAP)</li> <li>• Device-User (Single EAP)</li> </ul>
Authentication Type	The authentication type.

Field	Description
EAP-Type	The type of EAP authentication. Possible types are: <ul style="list-style-type: none"> <li>• EAP-Pre-shared Key (EAP-PSK)</li> <li>• ●EAP-Transport Layer Security (EAP-TLS)</li> <li>• ●EAP-Tunneled Transport Layer Security (EAP-TTLS)</li> <li>• ●EAP-Authentication and Key Agreement (EAP-AKA)</li> </ul>
Client Type	The type of client, which can be: <ul style="list-style-type: none"> <li>• Regular</li> <li>• Data</li> </ul> Identifies whether the client is a regular client, which includes voice, or a data client, which is data only.
active input acl	The active Access Control List (ACL) for input.
active output acl	The active Access Control List (ACL) for output.
ECS Rulebase	The rulebase applicable for this subscriber when ECS is enabled.
Firewall Policy	Indicates whether firewall processing is enabled for the subscriber.
NAT Policy	Indicates whether NAT is enabled for the subscriber.
NAT Realm	The NAT realms associated with the subscriber.
NAT IP address	The NAT IP address allocated from the NAT realm.
(on-demand/not-on-demand)	If the NAT realm type is “on-demand” (where NAT IP allocation happens when the very first packet is received from the subscriber for that realm) it is indicated.
Nat port chunks allocated[start - end]	The NAT port range allocated to the subscriber.
CF Policy ID	The Content Filtering policy ID.
active input pply grp	The active input policy group for traffic flow.
active output pply grp	The active output policy group for traffic flow.
MIPFA Sessions	The status of Mobile IP FA sessions.
Layer 3 tunneling	Indicates if Layer 3 tunneling is enabled.
dhcp-service name	The DHCP service name.
dhcp-server address	The DHCP server address.
prepaid status	Indicates if prepaid status is on or off.
external inline srvr processing	Indicates if external inline server processing is on or off.
Proxy DNS Intercept List	The proxy DNS intercept list used for the subscriber.
access-link ip-frag	Configures IP fragmentation processing over the Access-link.

Field	Description
ignore DF-bit data-tunnel	Indicates if whether during Mobile IP tunneling, the DF bit is not ignored and packets are not fragmented.
MIP grat-ARP mode	Indicates if gratuitous ARPs are sent out for an HA session upon handoff and renewal requests.
Downlink traffic-policing	Indicates if traffic policing is enabled for the downlink direction.
Uplink traffic-policing	Indicates if traffic policing is enabled for the uplink direction.
Downlink traffic-shaping	Indicates if traffic shaping is enabled for downlink direction.
Uplink traffic-shaping	Indicates if traffic shaping is enabled for uplink direction.
Radius Accounting Mode	Indicates if the RADIUS accounting mode is either session-based or access-flow-based.
cscf-service name	The CSCF service name.
cscf registration AoR	The CSCF registered AoR.
input pkts	Indicates the number of packets received.
output pkts	Indicates the number of packets transmitted.
input bytes	Indicates the number of bytes received.
output bytes	Indicates the number of bytes transmitted.
input bytes dropped	Indicates the number of bytes that were dropped while receiving data for this subscriber session.
output bytes dropped	Indicates the number of bytes that were dropped while transmitting data for this subscriber session.
input pkts dropped	Indicates the number of packets that were dropped while receiving data for this subscriber session.
output pkts dropped	Indicates the number of packets that were dropped while transmitting data for this subscriber session. This field includes packets blocked by Access Control Lists (ACLs). Do not use this figure when computing the total number of output packets.
input pkts dropped due to zero mbr	Indicates the number of packets that were dropped while receiving data due to configured maximum bit rate (MBR) was set to zero for a subscriber. This counter is applicable when system drops uplink/downlink packets when SGSN notifies Update PDP Contexts for QOS change with bandwidth rate as zero for conversation/streaming class of services.
output pkts dropped due to zero mbr	Indicates the number of packets that were dropped while transmitting data due to configured maximum bit rate (MBR) was set to zero for a subscriber. This counter is applicable when system drops uplink/downlink packets when SGSN notifies Update PDP Contexts for QOS change with bandwidth rate as zero for conversation/streaming class of services.
pk rate from user(bps)	The peak data rate, in bits per second, obtained for data sent from the subscriber to the network during the last sampling period.
pk rate to user(bps)	The peak data rate, in bits per second, obtained for data received from the network by the subscriber during the last sampling period.
ave rate from user(bps)	The average data rate, in bits per second, obtained for data sent from the subscriber to the network during the last sampling period.

Field	Description
ave rate to user(bps)	The average data rate, in bits per second, obtained for data received from the network by the subscriber during the last sampling period.
sust rate from user(bps)	The mean data rate, in bits per second, obtained for data sent from the subscriber to the network during the last three sampling periods.
sust rate to user(bps)	The mean data rate, in bits per second, obtained for data received from the network by the subscriber during the last three sampling periods.
pk rate from user(pps)	The peak data rate, in packets per second, obtained for data sent from the subscriber to the network during the last sampling period.
pk rate to user(pps)	The peak data rate, in packets per second, obtained for data received from the network by the subscriber during the last sampling period.
ave rate from user(pps)	The average data rate, in packets per second, obtained for data sent from the subscriber to the network during the last sampling period.
ave rate to user(pps)	The average data rate, in packets per second, obtained for data received from the network by the subscriber during the last sampling period.
sust rate from user(pps)	The mean data rate, in packets per second, obtained for data sent from the subscriber to the network during the last three sampling periods.
sust rate to user(pps)	The mean data rate, in packets per second, obtained for data received from the network by the subscriber during the last three sampling periods.
link online/active percent	The percentage of time that the data link was online and active during the last sampling period.
ipv4 bad hdr	Indicates the number of IPv4 packets received with bad headers.
ipv4 ttl exceeded	Indicates the number of IPv4 packets dropped because their time-to-live was exceeded for this subscriber session.
ipv4 fragments sent	Indicates the number of IPv4 packet fragments that were transmitted.
ipv4 could not fragment	Indicates the number of IPv4 packets that could not be fragmented.
ipv4 input acl drop	Indicates the number of IPv4 packets dropped due to an inbound access control list (ACL) violation. This counter may increment even if no ACL is configured.
ipv4 output acl drop	Indicates the number of IPv4 packets dropped due to an outbound access control list (ACL) violation.
ipv4 input css down drop	Indicates the number of input packets dropped because the CSS service is yet not up or the service went down.
ipv4 output css down drop	Indicates the number of output packets dropped because the CSS service is yet not up or the service went down.
ipv4 output xoff pkts drop	Indicates the number of packets dropped because of flow control.
ipv4 output xoff bytes drop	Indicates the number of bytes dropped because of flow control.
input pkts dropped (0 mbr)	The total number of input packets dropped when a 0 MBR is received in a UPC (Update PDP Context Request) indicating that the UE is out of radio coverage.
output pkts dropped (0 mbr)	The total number of output packets dropped when a 0 MBR is received in a UPC (Update PDP Context Request) indicating that the UE is out of radio coverage.

Field	Description
output pkts dropped lorc	The total number of packets dropped due to a UE loss of radio coverage condition. This counter is applicable when GGSN is enabled for overcharging protection for subscriber due to loss of radio coverage and SGSN notifies Update PDP Contexts for QoS change with GTP-C extension for LORC.
ipv4 source violations	Indicates the number of IPv4 source validation violations.
ipv4 proxy-dns redirect	The number of foreign DNS request packets intercepted and redirected to the home DNS for the subscriber.
ipv4 proxy-dns pass-thru	The number of foreign DNS request packets allowed through the intercept filter for the subscriber.
ipv4 proxy-dns drop	The number of foreign DNS request packets not matching either redirect or pass-thru rules for the subscriber.
ip source violations no acct	The IP source validation violations that were detected but not included in the statistics.
ip source violations ignored	The IP source validation violations that were detected but then ignored.
ipv4 output no-flow drop	The number of IP packets not matching traffic classifier and dropped for the subscriber.
dormancy total	Indicates the total amount of time in seconds that the subscriber session was dormant over the duration of the session.
handoff total	The total number of subscriber sessions handed off.
ipv4 icmp packets dropped	When hide service address is enabled and a service in the system is sent ping packets or a traceroute is executed, the packets pertaining to the service address are dropped. This counter shows the number of those packets that have been dropped.
Access-flows	The total number of matching access-flows. For flow based service subscribers it provides information on access flow id, packet data flow id, service data flow id, type of access flow, QoS policy name, and direction of flow.
Total subscribers matching specified criteria	The total number of subscribers matching the specified criteria.

## show subscribers cscf-only full

Displays per-subscriber information for active sessions.

**Table 320.** *show subscribers cscf-only full Command Output Descriptions*

Field	Description
AoR	The address of record of the CSCF subscriber.
callid	The call ID of the active subscriber session.
Contact	The subscriber's contact information provided during registration.
Card/CPU	The slot and CPU number of the Processing Card through which the session is being processed.
Sessmgr Instance	The session manager instance the active subscriber session is using.
Active TCP Connections	(P-CSCF only) The total number of open TCP connections with subscribers.
Transport of Last Received Msg	The transport method used for the last received message. Possible transport methods used are: <ul style="list-style-type: none"> <li>• TCP</li> <li>• UDP</li> </ul>
Registration expires after	The remaining duration of the subscriber registration.
State	The current state of the session.
Subscriber type	The subscriber type (home or visitor).
CSCF Service	The CSCF service the session is using.
CSCF Role	The role of the CSCF service.
Collapsed with access service	The access service with which the CSCF service is collapsed.
Access service callid	The call ID number of the access gateway integrated with the SCM.
AAA context	The AAA service to which the subscriber belongs.
AAA domain	The AAA domain to which the subscriber belongs.
AAA RADIUS group	The AAA RADIUS group to which the subscriber belongs.
RADIUS Auth Server IP	The RADIUS authentication server's IP address.
RADIUS Acct Server IP	The RADIUS accounting server's IP address. When the RADIUS Accounting Mediation Device is configured, this field will NOT display the RADIUS accounting mediation server's IP address.
DIAMETER Policy Server	The IP address of the Diameter policy server.

Field	Description
DIAMETER Acct Server	The IP address of the Diameter accounting server.
Charging Function Address	The IP address of the charging function server.
PCSCF Path	The node path to the registrar. A "Path" field is only used for REGISTER messages and 200OK responses to REGISTER messages. This field contains either IP-address:port or fully-qualified-domain-name:port.
SCSCF Service Route	The path to the service proxy as returned by the registrar upon successful registration. This field contains either IP-address:port or fully-qualified-domain-name:port.
Current CSCF sessions	The number of CSCF sessions the subscriber currently has running.
<b>Registration Set</b>	
All public URIs registered by the subscriber. It includes a public URI that the user explicitly registers as well as associated URIs that get implicitly registered for the user by the S-CSCF node. In addition, call features that a public URI is subscribed to are also shown below each URI.	
AoR	The address of record of the CSCF subscriber.
Display Name	The display name for the CSCF subscriber.
Alias GroupId	Populated if alias indication feature is enabled on S-CSCF. HSS reports alias group ID.
Total PubUids	The total number of implicit registered users for the CSCF subscriber.
Shared IFC	Populated if Shared Initial Filter Criteria (SiFC) functionality is enabled on the CSCF.
<b>Call Features</b> Subscriber profile shows whether a subscriber has enabled local call features. Possible values are: <ul style="list-style-type: none"> <li>Disabled - Subscriber has disabled local call features; no associated local call features are displayed.</li> <li>Enabled - Subscriber has enabled local call features; associated local call features are displayed.</li> </ul>	
CID VSC OverRide	Indicates whether Caller ID Display Vertical Service Code Over Ride has been enabled (1) or disabled (0) by this subscriber.
CID	Indicates whether Caller ID Display has been enabled (1) or disabled (0) by this subscriber.
CIDB VSC OverRide	Indicates whether Caller ID Display Blocked Vertical Service Code Over Ride has been enabled (1) or disabled (0) by this subscriber.
CIDB	Indicates whether Caller ID Display Blocked has been enabled (1) or disabled (0) by this subscriber.
CW VSC OverRide	Indicates whether Call Waiting Vertical Service Code Over Ride has been enabled (1) or disabled (0) by this subscriber.
CW	Indicates whether Call Waiting has been enabled (1) or disabled (0) by this subscriber.
CT VSC OverRide	Indicates whether Call Transfer Vertical Service Code Over Ride has been enabled (1) or disabled (0) by this subscriber.
CT	Indicates whether Call Transfer has been enabled (1) or disabled (0) by this subscriber.
CFU VSC OverRide	Indicates whether Call Forward Unconditional Vertical Service Code Over Ride has been enabled (1) or disabled (0) by this subscriber.

Field	Description
CFU	Indicates whether or not Call Forward Unconditional is enabled for the subscriber's session. If not, None will be displayed.
CFNA VSC OverRide	Indicates whether Call Forward No Answer Vertical Service Code Over Ride has been enabled (1) or disabled (0) by this subscriber.
CFNA	Indicates whether or not Call Forward No Answer is enabled for the subscriber's session. If not, None will be displayed.
CFBL VSC OverRide	Indicates whether Call Forward Busy Line Vertical Service Code Over Ride has been enabled (1) or disabled (0) by this subscriber.
CFBL	Indicates whether or not Call Forward Busy Line is enabled for the subscriber's session. If not, None will be displayed.
CFNR VSC OverRide	Indicates whether Call Forward Not Registered Vertical Service Code Over Ride has been enabled (1) or disabled (0) by this subscriber.
CFNR	Indicates whether or not Call Forward Not Registered is enabled for the subscriber's session. If not, None will be displayed.
FollowMe VSC OverRide	Indicates whether Follow Me/Find Me Vertical Service Code Over Ride has been enabled (1) or disabled (0) by this subscriber.
FollowMe	Indicates whether or not Follow Me/Find Me is enabled for the subscriber's session. If not, None will be displayed.
<b>Current CSCF Subscriptions</b>	
Subscription id	The subscription ID.
Call-ID	The call identification number that uniquely identifies the subscriber.
Subscription Type	The subscription type.
Resource	The resource information.
Event Package	The associated event package. Possible event package types are: message-summary, presence, reg, and winfo.
<b>Subscriber counters</b>	
Call Attempts Tx	The total number of call attempts made by the subscriber for this session.
Call Attempts Rx	The total number of call attempts received by the subscriber for this session.
Call Successes Tx	The total number of calls successfully made by the subscriber for this session.
Call Successes Rx	The total number of successful calls received by the subscriber for this session.
Call Failures Tx	The total number of failed calls made by the subscriber for this session.
Call Failures Rx	The total number of call failures received by the subscriber for this session.
Call Release Attempts Tx	The total number of call release attempts made by the subscriber for this session.
Call Release Attempts Rx	The total number of call release attempts received by the subscriber for this session.

Field	Description
Call Release Successes Tx	The total number of call releases successfully made by the subscriber for this session.
Call Release Successes Rx	The total number of successful call releases received by the subscriber for this session.
Call Release Failures Tx	The total number of failed call releases made by the subscriber for this session.
Call Release Failures Rx	The total number of call release failures received by the subscriber for this session.
Subscription Attempts Tx	The total number of subscription attempts made by the subscriber for this session.
Subscription Attempts Rx	The total number of subscription attempts received by the subscriber for this session.
Subscription Successes Tx	The total number of subscriptions successfully made by the subscriber for this session.
Subscription Successes Rx	The total number of successful subscriptions received by the subscriber for this session.
Subscription Failures Tx	The total number of failed subscriptions made by the subscriber for this session.
Subscription Failures Rx	The total number of subscription failures received by the subscriber for this session.
Publish Attempts Tx	The total number of publish attempts made by the subscriber for this session.
Publish Attempts Rx	The total number of publish attempts received by the subscriber for this session.
Publish Successes Tx	The total number of publishes successfully made by the subscriber for this session.
Publish Successes Rx	The total number of successful publishes received by the subscriber for this session.
Publish Failures Tx	The total number of failed publishes made by the subscriber for this session.
Publish Failures Rx	The total number of publish failures received by the subscriber for this session.
Notification Attempts Tx	The total number of notification attempts made by the subscriber for this session.
Notification Attempts Rx	The total number of notification attempts received by the subscriber for this session.
Notification Successes Tx	The total number of notifications successfully made by the subscriber for this session.
Notification Successes Rx	The total number of successful notifications received by the subscriber for this session.
Notification Failures Tx	The total number of failed notifications made by the subscriber for this session.
Notification Failures Rx	The total number of notification failures received by the subscriber for this session.

Field	Description
Message Attempts Tx	The total number of message attempts made by the subscriber for this session.
Message Attempts Rx	The total number of message attempts received by the subscriber for this session.
Message Successes Tx	The total number of messages successfully made by the subscriber for this session.
Message Successes Rx	The total number of successful messages received by the subscriber for this session.
Message Failures Tx	The total number of failed messages made by the subscriber for this session.
Message Failures Rx	The total number of message failures received by the subscriber for this session.
Response 403 Tx	The total number of Response 403 transmitted.
Response 403 Rx	The total number of Response 403 received.
Response 408 Tx	The total number of Response 408 transmitted.
Response 408 Rx	The total number of Response 408 received.
Response 480 Tx	The total number of Response 480 transmitted.
Response 480 Rx	The total number of Response 480 received.
Response 481 Tx	The total number of Response 481 transmitted.
Response 481 Rx	The total number of Response 481 received.
Response 487 Tx	The total number of Response 487 transmitted.
Response 487 Rx	The total number of Response 487 received.
Response 488 Tx	The total number of Response 488 transmitted.
Response 488 Rx	The total number of Response 488 received.
Response 500 Tx	The total number of Response 500 transmitted.
Response 500 Rx	The total number of Response 500 received.
PDF Call Rejects	The total number of times the subscriber initiated a call through the P-CSCF but the policy decision function (PDF) rejected it.
Local Call Rejects	The total number of local call rejects (by the P-CSCF) for this subscriber.
Emergency Calls	The total number of emergency calls made by this subscriber during this session.
Operator-assistance Calls	The total number of operator-assisted calls made by this subscriber during this session.
Tollfree Calls	The total number of toll-free calls made by this subscriber during this session.
Directory-assistance Calls	The total number of directory assisted calls made by this subscriber during this session.
Premium Calls	The total number of premium service calls made by this subscriber during this session.
International Calls	The total number of international calls made by this subscriber during this session.
LongDistance Calls	The total number of long distance calls made by this subscriber during this session.

Field	Description
Session Timer Expires	The total number of session timer expirations occurring during this session.

## show subscribers ggsn-only

Table 321. show subscribers ggsn-only Command Output Descriptions

Field	Description
Total Subscribers	Total number of subscribers registered on system for GGSN service session.
TotalPDP contexts	Total number of PDP contexts registered on the system for GGSN service session.
Total MBMS-UE contexts	Total number of MBMS-UE contexts registered on the system for GGSN service session.
pdp-type-ipv4	Total number of PDP contexts of IPv4 type registered on the system for GGSN service session.
pdp-type-ppp	Total number of PDP contexts of PPP type registered on the system for GGSN service session.
pdp-type-ipv6	Total number of PDP contexts of IPv6 type registered on the system for GGSN service session.
mbms-ue-type-ipv4	Total number of MBMS-UE contexts of IPv4 type registered on the system for GGSN service session.
ip-type-static	Total number of MS, having static IP allocation, registered with GGSN service session on this system.
ip-type-local-pool	Total number of MS, having IP allocation from local IP pool, are registered with GGSN service session on this system.
ip-type-radius-ip	Total number of MS, having IP allocation from RADIUS server, are registered with GGSN service session on this system.
ip-type-dhcp-proxy	Total number of MS, having IP allocation through DHCP-proxy, are registered with GGSN service session on this system.
ip-type-dhcp-relay	Total number of MS, having IP allocation through DHCP-relay, are registered with GGSN service session on this system.
ip-type-unknown	Total number of MS, having IP allocation through unknown method, are registered with GGSN service session on this system.
ip-type-no-alloc	Total number of MS, having no IP allocation, are registered with GGSN service session on this system. Generally IP allocation for a Multicast session of this type.
ip-type-static-nrpca	Total number of MS, having static IP allocation through network requested PDP context activation, are registered with GGSN service session on this system.
in bytes dropped	Total number of bytes dropped in downlink (from PDN) direction for GGSN service session on the system.
out bytes dropped	Total number of bytes dropped in uplink (to PDN) direction for GGSN service session on the system.
in packet dropped	Total number of packets dropped in downlink (from PDN) direction for GGSN service session on the system.
out packet dropped	Total number of packets dropped in uplink (to PDN) direction for GGSN service session on the system.

Field	Description
in packet dropped due to zero mbr	Indicates the number of packets that were dropped while receiving data due to configured maximum bit rate (MBR) was set to zero for a subscriber. This counter is applicable when system drops uplink/downlink packets when SGSN notifies Update PDP Contexts for QOS change with bandwidth rate as zero for conversation/streaming class of services.
out packet dropped due to zero mbr	Indicates the number of packets that were dropped while transmitting data due to configured maximum bit rate (MBR) was set to zero for a subscriber. This counter is applicable when system drops uplink/downlink packets when SGSN notifies Update PDP Contexts for QOS change with bandwidth rate as zero for conversation/streaming class of services.
out packet dropped due to lore	Indicates the number of packets that were dropped while UE was out of coverage area or radio coverage was lost for a subscriber. This counter is applicable when GGSN is enabled for overcharging protection for subscriber due to loss of radio coverage and SGSN notifies Update PDP Contexts for QOS change with GTP-C extension for LORC.
ipv4 ttl exceeded	Indicates the number of IPv4 packets dropped because their time-to-live was exceeded for this subscriber session.
ipv4 bad hdr	Indicates the number of IPv4 packets received with bad headers.
ipv4 bad length trim	Indicates the number of IPv4 packets received with bad trimming of packet length.
ipv4 frag failure	Indicates the number of IPv4 packet fragments that were transmitted.
ipv4 frag sent	Indicates the number of IPv4 packets that could not be fragmented.
ipv4 in-acl dropped	Indicates the number of IPv4 packets dropped due to an inbound access control list (ACL) violation. This counter may increment even if no ACL is configured.
ipv4 out-acl dropped	Indicates the number of IPv4 packets dropped due to an outbound access control list (ACL) violation.
ipv6 bad hdr	Indicates the number of IPv6 packets received with bad headers.
ipv6 bad length trim	Indicates the number of IPv6 packets received with bad trimming of packet length.
ipv6 in-acl dropped	Indicates the number of IPv4 packets dropped due to an inbound access control list (ACL) violation. This counter may increment even if no ACL is configured.
ipv6 out-acl dropped	Indicates the number of IPv4 packets dropped due to an outbound access control list (ACL) violation.
ipv4 in-css-down dropped	Indicates the number of input packets dropped because the CSS service is yet not up or the service went down.
ipv4 out-css-down dropped	Indicates the number of output packets dropped because the CSS service is yet not up or the service went down.
ipv4 early pdu rcvd	The current total number of early IP packet data units (PDUs) received.
ipv4 icmp packets dropped	Indicates the total number of IPv4 ICMP packets dropped for GGSN service on this system. When hide service address is enabled and a service in the system is sent ping packets or a traceroute is executed, the packets pertaining to the service address are dropped. This counter shows the number of those packets that have been dropped.
dormancy count	Indicates the total amount of time in seconds that the subscriber session was dormant over the duration of the GGSN session on this system.
handoff count	The total number of subscriber sessions handed off for GGSN service on this system.
Bearer not ready	Indicates the total number of instances when bearer was not ready and data received for session.

Field	Description
output bytes dropped	Indicates the cumulative number of bytes dropped for all GGSN subscriber session on this system.
output pkts dropped	Indicates the cumulative number of bytes dropped for all GGSN subscriber session on this system.
ggsn preservation mode	Indicates whether "Preservation-Mode" is enabled or not. Note that this is a customer-specific feature and may not be available for other users.
Direct Tunnel Bearers	Indicates total number of bearer contexts active for direct tunnel support for SGSN with this GGSN service on system.
ggsn LORC state	Indicates the number of session where overcharging protection is enabled due to loss of radio coverage. This counter is applicable when GGSN is enabled for overcharging protection for subscriber due to loss of radio coverage and SGSN notifies Update PDP Contexts for QOS change with GTP-C extension for LORC.

# show subscribers ggsn-only all

*Table 322. show subscribers ggsn-only all Command Output Descriptions*

Field	Description
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Field	Description
vvvvv	<p>Displays service and session state information. This column provides a code consisting of three characters. From left-to-right, the first character represents the network <b>Type</b> that the subscriber is using. The possible access types are:</p> <ul style="list-style-type: none"> <li>• <b>I</b>: ggsn-pdp-type-ipv4</li> <li>• <b>P</b>: ggsn-pdp-type-ppp</li> <li>• <b>V</b>: ggsn-pdp-type-ipv6</li> </ul> <p>From left-to-right, the second character represents the <b>Call State</b>. The possible call states are:</p> <ul style="list-style-type: none"> <li>• <b>C</b>: Connected</li> <li>• <b>c</b>: Connecting</li> <li>• <b>d</b>: Disconnecting</li> <li>• <b>u</b>: Unknown</li> </ul> <p>From left-to-right, the third character (ggsn-only output) represents the <b>Traffic Class</b>. The possible traffic classes are:</p> <ul style="list-style-type: none"> <li>• <b>C</b>: Conversational</li> <li>• <b>S</b>: Streaming</li> <li>• <b>B</b>: Background</li> <li>• <b>1</b>: Interactive 1</li> <li>• <b>2</b>: Interactive 2</li> <li>• <b>3</b>: Interactive 3</li> </ul> <p>From left-to-right, the fourth character represents the <b>Network Type</b> of the session. The possible network types are:</p> <ul style="list-style-type: none"> <li>• <b>I</b>: IP</li> <li>• <b>M</b>: Mobile-IP</li> <li>• <b>L</b>: L2TP</li> <li>• <b>P</b>: Proxy-Mobile-IP</li> <li>• <b>i</b>: IP-in-IP</li> <li>• <b>G</b>: GRE</li> <li>• <b>V</b>: IPv6-in-IPv4</li> <li>• <b>S</b>: IPSEC</li> <li>• <b>T</b>: IPv6</li> <li>• <b>A</b>: R4 (IP-GRE)</li> <li>• <b>u</b>: Unknown</li> </ul> <p>From left-to-right, the fifth character (ggsn-only output) represents the <b>PLMN</b> of the session. The possible network types are:</p> <ul style="list-style-type: none"> <li>• <b>H</b>: Home</li> <li>• <b>V</b>: Visiting</li> <li>• <b>R</b>: Roaming</li> <li>• <b>u</b>: Unknown</li> </ul>

Field	Description
CALLID	Displays the subscriber's call identification (callid) number.
IMSI	Displays the International Mobile Subscriber Identity (IMSI) number (ggsn-only output).
NSAPI	Displays the Network Service Access Point Identifier (ggsn-only output).
Address type	Displays the Address type (ggsn-only output) for the subscriber's session. The possible address types are: <ul style="list-style-type: none"> <li>• <b>S</b>: Static (Subscriber Supplied)</li> <li>• <b>L</b>: Local pool</li> <li>• <b>R</b>: RADIUSassigned</li> <li>• <b>d</b>: via DHCP proxy</li> <li>• <b>D</b>: via DHCP relay</li> <li>• <b>u</b>: Unknown</li> </ul>
IP	Displays the IP address assigned to the subscriber.
APN	Displays the Access Point Name for the session (ggsn-only output).
Gn-APN	Displays the APN that comes in CPC. If there is no virtual-apn resolution, both Gi & Gn APN are the same.
Gi-APN	Displays the APN finally selected by the GGSN based on the virtual-apn configuration. If there is no virtual-apn resolution, both Gi & Gn APN are the same.
TIME-IDLE	Displays the amount of time that the subscriber session has been idle either in an active or dormant state.

## show subscribers ggsn-only full

Table 323. show subscribers ggsn-only full Command Output Descriptions

Field	Description
Username	The name of the subscribers using GGSN service.
Status	Indicates the session status. Possible status are: <ul style="list-style-type: none"> <li>• Online/Active</li> <li>• Offline/Inactive</li> </ul>
Access Type	Indicates the session type for this subscriber. Possible access types are: <ul style="list-style-type: none"> <li>• ggsn-pdp-type-ppp</li> <li>• ggsn-pdp-type-ipv4</li> <li>• IPSEG</li> <li>• ggsn-pdp-type-ipv6</li> <li>• Unknown</li> </ul>
Network Type	Indicates the network service used for the subscriber session. Possible network types are: <ul style="list-style-type: none"> <li>• IP</li> <li>• Mobile-IP</li> <li>• L2TP</li> <li>• Proxy-Mobile-IP</li> <li>• IP-in-IP</li> <li>• GRE</li> <li>• IPv6-in-IPv4</li> <li>• IPSEC</li> <li>• R4 (IP-GRE)</li> <li>• Unknown</li> </ul>
Access Tech	Indicates the accessing technology. Possible access technologies are: <ul style="list-style-type: none"> <li>• GPRS GERAN</li> <li>• IP</li> <li>• WCDMA UTRAN</li> <li>• Wireless LAN</li> <li>• GPRS Other</li> <li>• Other/Unknown</li> </ul>
callid	The subscriber's call identification number (callid).

Field	Description
imsi	The subscriber's International mobile station identification (IMSI).
state	The session state. The possible values are: <ul style="list-style-type: none"> <li>• Connected</li> <li>• Connecting</li> <li>• Disconnecting</li> <li>• Unknown</li> </ul>
SGSN cntl address	IP address of SGSN system in network for control messages.
SGSN data address	IP address of SGSN system in network for data traffic messages.
Protocol User Name	User name of protocol.
MSISDN	The Mobile Station International ISDN Number of subscriber node.
connect time	The time of connection of this subscriber.
call duration	Duration of call session.
idle time	Duration of idle status of call session, when no activity detected for this session.
IMEI(SV)	International mobile equipment identification- software version of connected subscriber.
SGSN-MCC-MNC	Mobile country code (MCC) and mobile network code (MNC) of SGSN connected for this call.
Gi-APN	Access point name used for this session on Gi interface, towards PDN.
NSAPI	Identifier for Network Service Access Point (NSAP) index.
Gn-APN	Access point name used for this session on Gn interface, in network side between GSNs.
IMS Auth Service	Indicates whether IMS authorization (Gx) interface support is enabled or not.
GGSN Preservation Mode	Indicates whether preservation-mode support for GGSN is enabled or not. Note: This is a customer specific counter and dependent of customer specific license only.
Vendor Id	Indicates the identification of vendor who uses GGSN preservation mode feature.
GGSN LORC State	Indicates the state of the overcharging protection feature for specific subscriber. Possible status are: <ul style="list-style-type: none"> <li>• Yes- overcharging protection is enabled</li> <li>• No- overcharging protection is enabled</li> <li>• N/A- overcharging protection is not applicable</li> </ul> This counter is applicable when GGSN is enabled for overcharging protection for subscriber due to loss of radio coverage and SGSN notifies Update PDP Contexts for QoS change with GTP-C extension for LORC.
GGSN Bearer Control Mode	Indicates whether network controlled QoS negotiation enabled or not and also the mode applicable for bearer control for this. Possible values are: <ul style="list-style-type: none"> <li>• MS-Only</li> <li>• Mixed (MS and Network)</li> </ul>
FOCS	Indicates whether free of charge service is enabled or not. Note that this is a customer specific service and dependent of customer specific license only.

Field	Description
ODB	Indicates whether Operator Determined Barring is enabled or not. Note that this is a customer specific service and dependent of customer specific license only.
ip address	Indicates the primary IP address of the subscriber interface in the session.
ggsn-service-name	The name of the GGSN service for this subscriber.
initiated by	Indicates whether QoS initiated by MS or network.
Subscriber Type	Indicates the type of subscriber. Possible values are: <ul style="list-style-type: none"> <li>• Visiting</li> <li>• Home</li> </ul>
Accounting mode	Indicates the accounting mode applicable for this subscriber: Possible modes are: <ul style="list-style-type: none"> <li>• gtp</li> <li>• none</li> <li>• radius-diameter</li> </ul>
APN Selection mode	Indicates the APN selection mode applicable for this subscriber: Possible modes are: <ul style="list-style-type: none"> <li>• Chosen by SGSN</li> <li>• Sent by MS</li> <li>• Subscribed</li> </ul>
ip allocation type	Indicates the IP allocation type applicable for this subscriber: Possible types are: <ul style="list-style-type: none"> <li>• DHCP proxy</li> <li>• DHCP relay</li> <li>• local pool</li> </ul>
gtp version	Indicates the GTP version used for this subscriber: Possible versions are 0 and 1.
ggsn c-teid	Indicates the GGSN Tunnel Endpoint Identifier (TEID) for GTP-C messages.
ggsn u-teid	Indicates the GGSN Tunnel Endpoint Identifier (TEID) for GTP-U messages.
sgsn c-teid	Indicates the SGSN Tunnel Endpoint Identifier (TEID) for GTP-C messages.
sgsn u-teid	Indicates the SGSN Tunnel Endpoint Identifier (TEID) for GTP-U messages.
charging id	Indicates the charging identifier for this subscriber.
charging chars	Specifies the charging characteristics behavior applicable for this subscriber session.
access-link ip-frag	Configures IP fragmentation processing over the Access-link.
ignore DF-bit data-tunnel	Indicates if whether during Mobile IP tunneling, the DF bit is not ignored and packets are not fragmented.
traffic flow template	The name of the traffic flow template (TFT) applicable for this subscriber session.
Source context	The name of a configured source context from which the subscriber initiates a session.
Destination context	The name of a configured destination context through which the subscriber is provided access to the packet data network.

Field	Description
Authentication context	The name of a configured authentication context from which the subscriber gets authentication.
Accounting context	The name of a configured accounting context through which the subscriber is provided accounting of data session.
Mediation context	The name of a configured mediation context to use for communicating with the mediation device. If this context is not specified in APN configuration mode, the destination context will be used.
Mediation no early PDUs	Specifies whether “ <b>no-early-pdu</b> ” option configured for this subscriber or not. If “no-early-PDUs” is enabled, the chassis shall not send uplink/downlink data from/to a MS till it receives the Acct-Rsp Start for the same from the mediation device. On receiving the Acct-Rsp, pending PDUs are sent out.
Mediation No Interims	Specifies whether “ <b>no-interims</b> ” option configured for this subscriber or not. If “no-interims” is enabled, the chassis shall not send any interim message to the mediation device.
Mediation Delay GTP Response	Specifies whether “ <b>delay-GTP-response</b> ” option configured for this subscriber or not. When enabled, this option delays the Create PDP Context response until an Accounting Start response is received from the mediation device.
active input acl	The active IPv4 access control list (ACL) for inward traffic.
active output acl	The active IPv4 access control list (ACL) for outward traffic.
active input IPv6 acl	The active IPv6 access control list (ACL) for inward traffic.
active output IPv6 acl	The active IPv6 access control list (ACL) for outward traffic.
ECS Rulebase	The rulebase applicable for this subscriber when ECS is enabled.
Firewall Policy	Indicates whether firewall processing for this subscriber is enabled.
CF Policy ID	The identifier of content filtering policy ID.
active input pley grp	The active input policy group for inward traffic flow.
active output pley grp	The active output policy group for outward traffic flow.
Layer 3 tunneling	Indicates if Layer 3 tunneling is enabled.
alloc/retention priority	Indicates the traffic handling priority for quality of service (QOS) differentiated service code point (DSCP) if the allocation priority is present in the QOS profile. Possible priorities are: <ul style="list-style-type: none"> <li>• 1</li> <li>• 2</li> <li>• 3</li> </ul>
traffic class	Indicates the class of traffic applied for quality of service (QOS) in this subscriber session. Possible classes are: <ul style="list-style-type: none"> <li>• background</li> <li>• conversational</li> <li>• interactive</li> <li>• streaming</li> </ul>

Field	Description
traffic priority	Indicates the priority for interactive class of traffic for this subscriber session. Possible priorities are: <ul style="list-style-type: none"> <li>• 1</li> <li>• 2</li> <li>• 3</li> </ul>
delivery order	Specifies the delivery order included in service data unit (SDU) for packets to this subscriber.
Negotiated MBR for up (bps)	Indicates the maximum bit rate in bits per seconds negotiated for this subscriber in uplink direction.
Negotiated MBR for down (bps)	Indicates the maximum bit rate in bits per seconds negotiated for this subscriber in downlink direction.
Negotiated GBR for up (bps)	Indicates the guaranteed bit rate in bits per seconds negotiated for this subscriber in uplink direction.
Negotiated GBR for down (bps)	Indicates the guaranteed bit rate in bits per seconds negotiated for this subscriber in downlink direction.
Ran Procedure Ready buffering	Indicates whether RAN Procedure Ready delay buffering is enabled for GGSN service used by this subscriber or not. Possible states are: <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
Ran procedure pkts buffered	Indicates the total number of packets buffered in sub-system waiting for RAB setup ready flag. This is enabled for RAN Procedure Ready delay buffering feature for GGSN service used by this subscriber. Buffer limit is 1024 packets.
Ran procedure buffer overflow pkts drop	Indicates the total number of packets dropped after sub-system buffer was full (buffer limit is 1024 packets) and GGSN is still waiting for RAB setup ready flag. This is enabled for RAN Procedure Ready delay buffering feature for GGSN service used by this subscriber.
Downlink traffic-negotiate-limit	Indicates whether traffic flow negotiate limit is configured for this subscriber under traffic policing feature in downlink direction.
Downlink traffic-rate-limit	Indicates whether traffic flow rate limit is configured for this subscriber under traffic shaping feature in downlink direction.
Uplink traffic-negotiate-limit	Indicates whether traffic flow negotiate limit is configured for this subscriber under traffic policing feature in uplink direction.
Uplink traffic-rate-limit	Indicates whether traffic flow rate limit is configured for this subscriber under traffic shaping feature in uplink direction.
Downlink traffic-shaping	Indicates whether traffic shaping is enabled or not for this subscriber under traffic shaping feature in downlink direction. Possible states are: <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>

Field	Description
Uplink traffic-shaping	Indicates whether traffic shaping is enabled or not for this subscriber under traffic shaping feature in uplink direction. Possible states are: <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
Peak data rate(bps)	Indicates the peak data rate allowed in downlink/uplink direction through traffic rate limiting.
Guaranteed data rate(bps)	Indicates the guaranteed data rate allowed in downlink/uplink direction through traffic rate limiting.
Burst Size	This group indicates the static/dynamic burst size in bytes for peak and guaranteed rate limiting for this class of QoS in this APN.
Auto Readjust	Indicates whether auto readjustment of burst size is enabled or not. Possible states are: <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
Auto Readjust Duration	Indicates the configured auto readjust duration in a seconds. If auto readjust is enabled and no readjust duration is specified the default value is 1 second.
Peak Burst Size(bytes)	Indicates the peak burst size in bytes calculated dynamically by auto readjust duration and rate limit value.
Guaranteed Burst Size(bytes)	Indicates the guaranteed burst size in bytes calculated dynamically by auto readjust duration (seconds) and rate limit value (bytes). This counter is applicable only when auto readjustment is enabled.
Peak data rate(bps)	Indicates the peak data rate configured for this subscriber in bits per seconds.
Guaranteed data rate(bps)	Indicates the guaranteed data rate configured for this subscriber in bits per seconds.
Downlink CSS Information	This group provides the information regarding content steering service for downlink traffic.
Service Name	Name of the content steering service applicable for downlink traffic.
downlink pkts to svc	Total number of packets from subscriber node (downlink direction) sent to CSS service.
downlink pkts from svc	Total number of packets from CSS service sent to subscriber node (downlink direction).
Uplink CSS Information	This group provides the information regarding content steering service for uplink traffic.
Service Name	Name of the content steering service applicable for uplink traffic.
uplink pkts to svc	Total number of packets from PDN/Internet (uplink direction) sent to CSS service.
uplink pkts from svc	Total number of packets from CSS service sent to PDN/Internet (uplink direction).
Bearer Establishment	Indicates the status of bearer establishment.
Bearer not ready	This group indicates the number of bytes dropped when bearer was ready.
IM-CN Signaling Context	Specifies the name of the signaling context used for IM-CN (IP Multimedia-Core Network) for interoperability with IP multimedia subsystem (IMS) service.

Field	Description
input pkts	Indicates the number of packets received.
output pkts	Indicates the number of packets transmitted.
input bytes	Indicates the number of bytes received.
output bytes	Indicates the number of bytes transmitted.
input bytes dropped	Indicates the number of bytes that were dropped while receiving data for this subscriber session.
output bytes dropped	Indicates the number of bytes that were dropped while transmitting data for this subscriber session.
input pkts dropped	Indicates the number of packets that were dropped while receiving data for this subscriber session.
output pkts dropped	Indicates the number of packets that were dropped while transmitting data for this subscriber session. This field includes packets blocked by Access Control Lists (ACLs). Do not use this figure when computing the total number of output packets.
input pkts dropped due to zero mbr	Indicates the number of packets that were dropped while receiving data due to configured maximum bit rate (MBR) was set to zero for a subscriber. This counter is applicable when system drops uplink/downlink packets when SGSN notifies Update PDP Contexts for QOS change with bandwidth rate as zero for conversation/streaming class of services.
output pkts dropped due to zero mbr	Indicates the number of packets that were dropped while transmitting data due to configured maximum bit rate (MBR) was set to zero for a subscriber. This counter is applicable when system drops uplink/downlink packets when SGSN notifies Update PDP Contexts for QOS change with bandwidth rate as zero for conversation/streaming class of services.
out packet dropped due to lorc	Indicates the number of packets that were dropped while UE was out of coverage area or radio coverage was lost for a subscriber. This counter is applicable when GGSN is enabled for overcharging protection for subscriber due to loss of radio coverage and SGSN notifies Update PDP Contexts for QOS change with GTP-C extension for LORC.
pk rate from user(bps)	The peak data rate, in bits per second, obtained for data sent from the subscriber to the network during the last sampling period.
pk rate to user(bps)	The peak data rate, in bits per second, obtained for data received from the network by the subscriber during the last sampling period.
ave rate from user(bps)	The average data rate, in bits per second, obtained for data sent from the subscriber to the network during the last sampling period.
ave rate to user(bps)	The average data rate, in bits per second, obtained for data received from the network by the subscriber during the last sampling period.
sust rate from user(bps)	The mean data rate, in bits per second, obtained for data sent from the subscriber to the network during the last three sampling periods.
sust rate to user(bps)	The mean data rate, in bits per second, obtained for data received from the network by the subscriber during the last three sampling periods.
pk rate from user(pps)	The peak data rate, in packets per second, obtained for data sent from the subscriber to the network during the last sampling period.
pk rate to user(pps)	The peak data rate, in packets per second, obtained for data received from the network by the subscriber during the last sampling period.

Field	Description
ave rate from user(pps)	The average data rate, in packets per second, obtained for data sent from the subscriber to the network during the last sampling period.
ave rate to user(pps)	The average data rate, in packets per second, obtained for data received from the network by the subscriber during the last sampling period.
sust rate from user(pps)	The mean data rate, in packets per second, obtained for data sent from the subscriber to the network during the last three sampling periods.
sust rate to user(pps)	The mean data rate, in packets per second, obtained for data received from the network by the subscriber during the last three sampling periods.
link online/active percent	The percentage of time that the data link was online and active during the last sampling period.
ipv4 bad hdr	Indicates the number of IPv4 packets received with bad headers.
ipv4 ttl exceeded	Indicates the number of IPv4 packets dropped because their time-to-live was exceeded for this subscriber session.
ipv4 fragments sent	Indicates the number of IPv4 packet fragments that were transmitted.
ipv4 could not fragment	Indicates the number of IPv4 packets that could not be fragmented.
ipv4 input acl drop	Indicates the number of IPv4 packets dropped due to an inbound access control list (ACL) violation. This counter may increment even if no ACL is configured.
ipv4 output acl drop	Indicates the number of IPv4 packets dropped due to an outbound access control list (ACL) violation.
ipv4 input css down drop	Indicates the number of input packets dropped because the CSS service is yet not up or the service went down.
ipv4 output css down drop	Indicates the number of output packets dropped because the CSS service is yet not up or the service went down.
ipv4 output xoff pkts drop	Indicates the number of packets dropped because of flow control.
ipv4 output xoff bytes drop	Indicates the number of bytes dropped because of flow control.
ipv4 source violations	Indicates the number of IPv4 source validation violations.
ipv4 proxy-dns redirect	The number of foreign DNS request packets intercepted and redirected to the home DNS for the subscriber.
ipv4 proxy-dns pass-thru	The number of foreign DNS request packets allowed through the intercept filter for the subscriber.
ipv4 proxy-dns drop	The number of foreign DNS request packets not matching either redirect or pass-thru rules for the subscriber.
ip source violations no acct	The IP source validation violations that were detected but not included in the statistics.
ip source violations ignored	The IP source validation violations that were detected but then ignored.
ipv4 output no-flow drop	The number of IP packets not matching traffic classifier and dropped for the subscriber.

Field	Description
dormancy total	Indicates the total amount of time in seconds that the subscriber session was dormant over the duration of the session.
handoff total	The total number of subscriber sessions handed off.
ipv4 icmp packets dropped	When hide service address is enabled and a service in the system is sent ping packets or a traceroute is executed, the packets pertaining to the service address are dropped. This counter shows the number of those packets that have been dropped.
DHCP context	Name of the system context in which DHCP service is configured.
DHCP service	Name of the DHCP service configured for this subscriber.
DHCP server	Name of the DHCP servers configured for this subscriber for DHCP function.
DHCP lease expiry policy	Specifies the DHCP address lease expiry policy. Possible actions are: <ul style="list-style-type: none"> <li>• autoconnect</li> <li>• disconnect</li> </ul>
DHCP lease obtained	Specifies the whether lease obtained after lease expiry or not.
DHCP lease remaining	Specifies the status of lease obtained for DHCP allocated IP address.
Total subscribers matching specified criteria	The total number of subscribers matching the specified criteria.

## show subscribers mme-only full

Table 324. show subscribers mme-only full Command Output Descriptions

Field	Description
Username	The subscriber name connected for EPS session.
Status	Indicates the status of EPS subscriber session. Possible status are Online/Active or Offline/Dormant/Idle.
Access Type	Indicates the type of access applicable for this subscriber. For MME subscribers it should be <b>s1-mme</b> .
Network Type	Indicates the type of network service used for the subscriber session.
Access Tech	Indicates the accessing technology. For MME session it is eU-TRAN.
Access Network Peer ID	Indicates the identifier of the peer in access network.
Peer Id	Indicates the identifier of the peer MME in home network.
callid	The MME subscriber's call identification number (callid).
msid	The MME subscriber's mobile station identification (MSID).
guti	This group indicates the Globally Unique Temporary Identifier (GUTI) constructed with following identifiers: <ul style="list-style-type: none"> <li>• PLMN (MMC and MNC)</li> <li>• MME Group ID (MMEGI)</li> <li>• MME Code (MMEC)</li> <li>• MME TMSI (M-TMSI)</li> </ul>
plmn-id	Indicates the public mobile land network (PLMN) of which MME belongs. PLMN is constructed from MMC and MNC.
mme-group-id	Indicates the MME group Id of which MME belongs to.
mme-code	Indicates the MME code of which MME belongs to.
m-tmsi	Indicates the MME TMSI which is used to identify this subscriber in MME service.
MSISDN	Indicates the Mobile Subscriber Integrated Services Digital Network Number (MSISDN) of the subscriber connected to an MME service.
Card/Cpu	The card and CPU ID on which this MME subscriber session is running.
Sessmgr Instance	The session manager instances running for this subscriber.

■ show subscribers mme-only full

Field	Description
state	The state of MME subscriber session. The possible values are: <ul style="list-style-type: none"> <li>• Connected</li> <li>• Connecting</li> <li>• Disconnecting</li> <li>• Unknown</li> </ul>
Peer address	IP address of peer MME system in network.
connect time	Indicate the time in DAYMMDD HH:MM:SS YYYY format when call connected to MME service.
call duration	Total time lapsed after call connected for this subscriber with this MME service.
idle time	The time period that the subscriber session has been idle, either in an active or dormant state.
ip address	Indicates the primary IP address of the subscriber interface in the session.
mme-service name	Indicates the name of MME service which is serving this subscriber for MME calls.
mme-service context	Indicates the name of system context in which particular MME service which is serving this subscriber for MME calls is configured.
source context	The name of the source context in which the S1-MME interface is configured for this MME service
destination context	The name of the destination context in which the S5/S8 interface is configured for this MME service.

## show subscribers pdif-service

Table 325. show subscribers pdif-service Command Output Descriptions

Field	Description
vvvvv	<p>Displays service and session state information. This column provides a code consisting of three characters. From left-to-right, the first character represents the <b>Access Type</b> that the subscriber is using. The possible access types are:</p> <ul style="list-style-type: none"> <li>• <b>S</b>: pdsn-simple-ip</li> <li>• <b>M</b>: pdsn-mobile-ip</li> <li>• <b>H</b>: ha-mobile-ip</li> <li>• <b>P</b>: ggsn-pdp-type-ppp</li> <li>• <b>h</b>: ha-ipsec</li> <li>• <b>N</b>: lns-l2tp</li> <li>• <b>I</b>: ggsn-pdp-type-ipv4</li> <li>• <b>A</b>: asngw-simple-ip</li> <li>• <b>G</b>: IPSPG</li> <li>• <b>V</b>: ggsn-pdp-type-ipv6</li> <li>• <b>B</b>: asngw-mobile-ip</li> <li>• <b>C</b>: cscf-sip</li> <li>• <b>d</b>: vbm-voa</li> <li>• <b>m</b>: vbm-hoa</li> <li>• <b>D</b>: hbm-hoa</li> <li>• <b>L</b>: pdif-simple-ip</li> <li>• <b>K</b>: pdif-mobile-ip</li> <li>• <b>F</b>: standalone-fa</li> <li>• <b>J</b>: asngw-non-anchor</li> <li>• <b>u</b>: Unknown</li> </ul>

Field	Description
vvvvv (continued)	<p>From left-to-right, the second character represents the <b>Access Technology</b>. The possible call states are:</p> <ul style="list-style-type: none"> <li>• <b>X</b>: CDMA 1xRTT</li> <li>• <b>E</b>: GPRS GERAN</li> <li>• <b>I</b>: IP</li> <li>• <b>D</b>: CDMA EV-DO</li> <li>• <b>U</b>: WCDMA UTRAN</li> <li>• <b>W</b>: Wireless LAN</li> <li>• <b>A</b>: CDMA EV-DO RevA</li> <li>• <b>G</b>: GPRS Other</li> <li>• <b>M</b>: WiMAX</li> <li>• <b>C</b>: CDMA Other</li> <li>• <b>N</b>: GAN (Generic Access Network)</li> <li>• <b>H</b>: HSPA (High Speed Packet Access)</li> <li>• <b>P</b>: PDIF</li> </ul> <p>. : Other/Unknown</p>

Field	Description
vvvvv (continued)	<p>From left-to-right, the third character represents the <b>Call State</b>. The possible call states are:</p> <ul style="list-style-type: none"> <li>• <b>C</b>: Connected</li> <li>• <b>c</b>: Connecting</li> <li>• <b>d</b>: Disconnecting</li> <li>• <b>u</b>: Unknown</li> <li>• <b>r</b>: CSCF-Registering</li> <li>• <b>R</b>: CSCF-Registered</li> <li>• <b>U</b>: CSCF-Unregistered</li> </ul> <p>From left-to-right, the fourth character represents the <b>Access CSCF Status</b> of the session. The possible network types are:</p> <ul style="list-style-type: none"> <li>• <b>A</b>: Attached</li> <li>• <b>N</b>: Not Attached</li> <li>• <b>.</b>: Not Applicable</li> </ul> <p>From left-to-right, the fifth character represents the <b>Link Status</b> of the session. The possible idle states are:</p> <ul style="list-style-type: none"> <li>• <b>A</b>: Online/Active (airlink connected)</li> <li>• <b>D</b>: Dormant (airlink not connected)</li> </ul> <p>From left-to-right, the sixth character represents the session <b>Network Type</b>. The possible network types are:</p> <ul style="list-style-type: none"> <li>• <b>I</b>: IP</li> <li>• <b>M</b>: Mobile-IP</li> <li>• <b>L</b>: L2TP</li> <li>• <b>P</b>: Proxy-Mobile-IP</li> <li>• <b>i</b>: IP-in-IP</li> <li>• <b>G</b>: GRE</li> <li>• <b>V</b>: IPv6-in-IPv4</li> <li>• <b>S</b>: IPSEC</li> <li>• <b>A</b>: R4 (IP-GRE)</li> <li>• <b>u</b>: Unknown</li> </ul>
CALLID	Displays the subscriber's call identification (callid) number.
MSID	Displays the subscriber's mobile station identification (MSID) number.
USERNAME	Displays the subscriber's username.
IP	Displays the IP address assigned to the subscriber.
TIME-IDLE	Displays the amount of time that the subscriber session has been idle either in an active or dormant state.

# show subscribers wf1 all

*Table 326. show subscribers wf1 all Command Output Descriptions*

Field	Description
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Field	Description
vvvvv	<p>Displays service and session state information. This column provides a code consisting of three characters. From left-to-right, the first character represents the <b>Access Type</b> that the subscriber is using. The possible access types are:</p> <ul style="list-style-type: none"> <li>• <b>S</b>: pdsn-simple-ip</li> <li>• <b>M</b>: pdsn-mobile-ip</li> <li>• <b>H</b>: ha-mobile-ip</li> <li>• <b>P</b>: ggsn-pdp-type-ppp</li> <li>• <b>h</b>: ha-ipsec</li> <li>• <b>N</b>: lns-l2tp</li> <li>• <b>I</b>: ggsn-pdp-type-ipv4</li> <li>• <b>A</b>: asngw-simple-ip</li> <li>• <b>G</b>: IPSPG</li> <li>• <b>V</b>: ggsn-pdp-type-ipv6</li> <li>• <b>B</b>: asngw-mobile-ip</li> <li>• <b>C</b>: cscf-sip</li> <li>• <b>R</b>: sgw-gtp-ipv4</li> <li>• <b>O</b>: sgw-gtp-ipv6</li> <li>• <b>Q</b>: sgw-gtp-ipv4-ipv6</li> <li>• <b>W</b>: pgw-gtp-ipv4</li> <li>• <b>Y</b>: pgw-gtp-ipv6</li> <li>• <b>Z</b>: pgw-gtp-ipv4-ipv6</li> <li>• <b>s</b>: sgsn</li> <li>• <b>p</b>: sgsn-pdp-type-ppp</li> <li>• <b>4</b>: sgsn-pdp-type-ip</li> <li>• <b>6</b>: sgsn-pdp-type-ipv6</li> <li>• <b>L</b>: pdif-simple-ip</li> <li>• <b>K</b>: pdif-mobile-ip</li> <li>• <b>x</b>: S1-MME</li> <li>• <b>F</b>: standalone-fa</li> <li>• <b>J</b>: asngw-non-anchor</li> <li>• <b>e</b>: ggsn-mbms-ue</li> <li>• <b>i</b>: asnpc</li> <li>• <b>E</b>: ha-mobile-ipv6</li> <li>• <b>X</b>: HSGW</li> <li>• <b>u</b>: Unknown</li> </ul>

Field	Description
vvvvv (continued)	<p>From left-to-right, the second character represents the <b>Access Technology</b>. The possible call states are:</p> <ul style="list-style-type: none"> <li>• <b>X</b>: CDMA 1xRTT</li> <li>• <b>E</b>: GPRS GERAN</li> <li>• <b>I</b>: IP</li> <li>• <b>D</b>: CDMA EV-DO</li> <li>• <b>U</b>: WCDMA UTRAN</li> <li>• <b>W</b>: Wireless LAN</li> <li>• <b>A</b>: CDMA EV-DO RevA</li> <li>• <b>G</b>: GPRS Other</li> <li>• <b>M</b>: WiMAX</li> <li>• <b>C</b>: CDMA Other</li> <li>• <b>N</b>: GAN (Generic Access Network)</li> <li>• <b>H</b>: HSPA (High Speed Packet Access)</li> <li>• <b>P</b>: PDIF</li> <li>• <b>.</b>: Other/Unknown</li> </ul>
vvvvv (continued)	<p>From left-to-right, the third character represents the <b>Call State</b>. The possible call states are:</p> <ul style="list-style-type: none"> <li>• <b>C</b>: Connected</li> <li>• <b>r</b>: CSCF-Registering</li> <li>• <b>c</b>: Connecting</li> <li>• <b>d</b>: Disconnecting</li> <li>• <b>R</b>: CSCF-Registered</li> </ul> <p><b>u</b>: Unknown</p>

Field	Description
vvvvv (continued)	<p>From left-to-right, the fourth character represents the <b>Link Status</b> of the session. The possible idle states are:</p> <ul style="list-style-type: none"> <li>• <b>A</b>: Online/Active (airlink connected)</li> <li>• <b>D</b>: Dormant (airlink not connected)</li> </ul> <p>From left-to-right, the fifth character represents the session <b>Network Type</b>. The possible network types are:</p> <ul style="list-style-type: none"> <li>• <b>I</b>: IP</li> <li>• <b>M</b>: Mobile-IP</li> <li>• <b>L</b>: L2TP</li> <li>• <b>P</b>: Proxy-Mobile-IP</li> <li>• <b>i</b>: IP-in-IP</li> <li>• <b>G</b>: GRE</li> <li>• <b>V</b>: IPv6-in-IPv4</li> <li>• <b>S</b>: IPSEC</li> <li>• <b>A</b>: R4 (IP-GRE)</li> <li>• <b>u</b>: Unknown</li> </ul> <p>From left-to-right, the sixth character represents the <b>Access CSCF Status</b> of the session. The possible network types are:</p> <ul style="list-style-type: none"> <li>• <b>A</b>: Attached</li> <li>• <b>C</b>: Call (Unknown Type)</li> <li>• <b>N</b>: Not Attached</li> <li>• <b>v</b>: Voice Call</li> <li>• <b>.</b>: Not Applicable</li> <li>• <b>V</b>: Video Call</li> </ul>
CALLID	Displays the subscriber's call identification (callid) number.
MSID	Displays the subscriber's mobile station identification (MSID) number.
USERNAME	Displays the subscriber's username.
IP	Displays the IP address assigned to the subscriber.
TIME-IDLE	Displays the amount of time that the subscriber session has been idle either in an active or dormant state.
Access Peer Address	<p>The peer that accessed the system to initiate the subscriber session. This is an IP v4 address and a designator to identify the type of peer. The designator may be one of:</p> <p>BS: ASN Base Station  ASNGW: Access Service Network Gateway  PCF: Packet Control Function  FA: Mobile IP Foreign Agent  SGSN: Serving GPRS Support Node  LAC: L2TP Access Concentrator</p>

■ show subscribers wf1 all

Field	Description
Service Address	The service that is processing the subscriber session. This is listed as an IP v4 address and a designator to identify the type of service. The designator may be one of: ASNGW: Access Service Network Gateway PDSN: Packet Data Serving Node HA: Mobile IP Home Agent GGSN: Gateway GPRS Support Node LNS: L2TP Network Server
Network Peer Address	The network peer that the subscriber session connect to. This is listed as an IP v4 address and a designator to identify the type of network peer. The designator may be one of: HA: Mobile IP Home Agent LNS: L2TP Network Server IPinIP: IP-in-IP Tunnel Peer GRE: Generic Routing Encapsulation Peer 6in4: IP V6 packets encapsulated in an IP v4 tunnel peer
Connect Time	The date and time that the subscriber session was connected.

## show subscribers aaa-configuration

Table 327. show subscribers aaa-configuration Command Output Descriptions

Field	Description
Username	Specifies the name of the subscriber.
Status	Indicates the status of the subscriber's session. The status can be Online or Offline and Active or Dormant.
Access Type	Indicates the type of access for this subscriber. The possible types are: <ul style="list-style-type: none"> <li>• pdsn-simple-ip</li> <li>• pdsn-mobile-ip</li> <li>• ha-mobile-ip</li> <li>• ggsn-pdp-type-ipv4</li> <li>• ggsn-pdp-type-ppp</li> <li>• lns-l2tp</li> <li>• ggsn-pdp-type-ipv6</li> <li>• ha-ipsec</li> <li>• IPSE</li> <li>• asngw-simple-ip</li> <li>• asngw-mobile-ip</li> <li>• Unknown</li> </ul>
Network Type	Displays the type of network connection for this subscribers session. The possible network types are: <ul style="list-style-type: none"> <li>• <b>I</b>: IP</li> <li>• <b>M</b>: Mobile-IP</li> <li>• <b>L</b>: L2TP</li> <li>• <b>P</b>: Proxy-Mobile-IP</li> <li>• <b>i</b>: IP-in-IP</li> <li>• <b>G</b>: GRE</li> <li>• <b>V</b>: IPv6-in-IPv4</li> <li>• <b>S</b>: IPSEC</li> <li>• <b>A</b>: R4 (IP-GRE)</li> <li>• <b>u</b>: Unknown</li> </ul>

Field	Description
Access Tech	Represents the <b>Access Technology</b> . The possible technologies are: <ul style="list-style-type: none"> <li>• <b>X</b>: CDMA 1xRTT</li> <li>• <b>E</b>: GPRS GERAN</li> <li>• <b>I</b>: IP</li> <li>• <b>D</b>: CDMA EV-DO</li> <li>• <b>U</b>: WCDMA UTRAN</li> <li>• <b>W</b>: Wireless LAN</li> <li>• <b>A</b>: CDMA EV-DO RevA</li> <li>• <b>G</b>: GPRS Other</li> <li>• <b>M</b>: WiMAX</li> <li>• <b>C</b>: CDMA Other</li> <li>• <b>N</b>: GAN (Generic Access Network)</li> <li>• <b>H</b>: HSPA (High Speed Packet Access)</li> <li>• <b>P</b>: PDIF</li> <li>• <b>.</b>: Other/Unknown</li> </ul>
callid	Displays the subscriber's call identification number (callid).
msid	Displays the subscriber's mobile station identification (MSID).
imsi	Displays the subscriber's international mobile subscriber identity (IMSI).
AAA Information and Attributes	A list of AAA information attributes and their configuration for the specified session. Additional information on these attributes can be found throughout this guide and in the AAA Interface Administration and Reference.

## show subscribers access-flows

Table 328. show subscribers access-flows Command Output Descriptions

Field	Description
Access-Tech	<p>Indicates the session type for this subscriber. The possible types are:</p> <ul style="list-style-type: none"> <li>• <b>X</b>: CDMA 1xRTT</li> <li>• <b>E</b>: GPRS GERAN</li> <li>• <b>I</b>: IP</li> <li>• <b>D</b>: CDMA EV-DO</li> <li>• <b>U</b>: WCDMA UTRAN</li> <li>• <b>W</b>: Wireless LAN</li> <li>• <b>A</b>: CDMA EV-DO RevA</li> <li>• <b>G</b>: GPRS Other</li> <li>• <b>M</b>: WiMAX</li> <li>• <b>C</b>: CDMA Other</li> <li>• <b>N</b>: GAN (Generic Access Network)</li> <li>• <b>H</b>: HSPA (High Speed Packet Access)</li> <li>• <b>P</b>: PDIF</li> <li>• <b>L</b>: eHRPD</li> <li>• <b>.</b>: Other/Unknown</li> </ul>
Type	<p>Indicates the access flow type as one of the following:</p> <ul style="list-style-type: none"> <li>• Static</li> <li>• Dynamic</li> <li>• Pre-provisioned</li> <li>• Accounting</li> </ul>
Direction	<p>Indicates the flow direction as one of the following:</p> <ul style="list-style-type: none"> <li>• Forward/Uplink</li> <li>• Reverse/Downlink</li> </ul>
Link Status	<p>Indicates the status of the flow as one of the following:</p> <ul style="list-style-type: none"> <li>• Online/Active</li> <li>• Dormant/idle</li> <li>• Not Applicable</li> </ul>

Field	Description
Flow State	Indicates the state of the flow as one of the following: <ul style="list-style-type: none"> <li>• Active</li> <li>• Inactive</li> </ul>
Flow Mapping	Indicates the mapping of the flow as one of the following: <ul style="list-style-type: none"> <li>• Mapped</li> <li>• Unmapped</li> <li>• Not Applicable</li> </ul>
Network Type	Indicates the session <b>Network Type</b> . The possible network types are: <ul style="list-style-type: none"> <li>• <b>I</b>: IP</li> <li>• <b>M</b>: Mobile-IP</li> <li>• <b>L</b>: L2TP</li> <li>• <b>P</b>: Proxy-Mobile-IP</li> <li>• <b>i</b>: IP-in-IP</li> <li>• <b>G</b>: GRE</li> <li>• <b>V</b>: IPv6-in-IPv4</li> <li>• <b>S</b>: IPSEC</li> <li>• <b>A</b>: R4 (IP-GRE)</li> <li>• <b>u</b>: Unknown</li> </ul>
MSID	Displays the subscriber's mobile station identification (MSID).
ID	Indicates the unique identification number for the flow.
SRID	Indicates the service flow identifier for this subscriber.
PDFID	Indicates the packet data flow identifier for this subscriber.
PROFID	Indicates the QoS profile identifier for this subscriber.
PACKETS	Indicates the total number of packets processed for this flow.
BYTES	Indicates the total number of bytes processed for this flow.
POLICY	Indicates the name of the subscriber QoS policy applicable for this subscriber.

## show subscribers access-flows full

Table 329. show subscribers access-flows full Command Output Descriptions

Field	Description
Username	Specifies the name of the subscriber.
callid	Displays the subscriber's call identification number (callid).
msid	Displays the subscriber's mobile station identification (MSID).
flow ID	Indicates the unique identification number for the flow.
Access Tech	Indicates the session type for this subscriber. The possible types are: <ul style="list-style-type: none"> <li>• <b>X</b>: CDMA 1xRTT</li> <li>• <b>E</b>: GPRS GERAN</li> <li>• <b>I</b>: IP</li> <li>• <b>D</b>: CDMA EV-DO</li> <li>• <b>U</b>: WCDMA UTRAN</li> <li>• <b>W</b>: Wireless LAN</li> <li>• <b>A</b>: CDMA EV-DO RevA</li> <li>• <b>G</b>: GPRS Other</li> <li>• <b>M</b>: WiMAX</li> <li>• <b>C</b>: CDMA Other</li> <li>• <b>N</b>: GAN (Generic Access Network)</li> <li>• <b>H</b>: HSPA (High Speed Packet Access)</li> <li>• <b>P</b>: PDIF</li> <li>• <b>L</b>: eHRPD</li> <li>• <b>.</b>: Other/Unknown</li> </ul>
Status	Indicates the status of the session as one of the following: <ul style="list-style-type: none"> <li>• Active</li> <li>• Dormant/Idle</li> </ul>
Policy Name	Indicates the name of the QoS/subscriber policy.
Direction	Indicates the flow direction as one of the following: <ul style="list-style-type: none"> <li>• Forward/Uplink</li> <li>• Reverse/Downlink</li> </ul>

Field	Description
State	Indicates the status of the flow as one of the following: <ul style="list-style-type: none"> <li>• Active</li> <li>• Inactive</li> </ul>
Mapping Status	Indicates the mapping status of the flow as one of the following: <ul style="list-style-type: none"> <li>• Mapped</li> <li>• Unmapped</li> <li>• Not Applicable</li> </ul>
Flow Type	Indicates the access flow type as one of the following: <ul style="list-style-type: none"> <li>• Accounting</li> <li>• Static</li> <li>• Dynamic</li> <li>• Pre-provisioned</li> </ul>
Hdr Comp	Indicates the status of header compression.
QoS Traffic Policing	Indicates the status of the QoS traffic policing as one of the following: <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
Data Statistics	Displays the data statistics.
Packets	Displays the total number of packets.
Bytes	Displays the total number of bytes.
pkts dropped tp	Displays the number of packets dropped by the traffic policy.
pkts dropped access-ctrl	Displays the number of packets dropped by the access control.
Requested QoS	Displays the requested QoS.
Profile Ids	Displays the profile IDs for the requested QoS.
QoS Id	Displays the applicable QoS identifier.
Granted QoS	Displays the granted QoS.
Global-Service-Class-Name	Specifies the global service class name.
Service-Class-Name	Specifies the local service class name.
Schedule Type	Displays the schedule type configured for the requested QoS. This group contains relevant parameters like, minimum reserved traffic rate, maximum latency allowed, polling interval, traffic priority, sustained traffic rate, and maximum traffic burst.
Classifiers	Displays the service classifier parameters like type of traffic, priority, matching protocol, source-destination IP address and ports, DSCP marking etc. It also shows the configured permit criteria for flows.

Field	Description
Data Path(s)	Displays the available information of data path(s).
Peer Address	Indicates the IP address of the trusted peer ASN GWs for inter ASN GW handovers in this service.
BS ID	Indicates the Base station Id.
Tunnel Endpoint	Indicates the IP address of GRE tunnel endpoint.
Gre Key	Indicates the GRE key for this data tunnel.
Type	Type of GRE data tunnel. It may be R4 or R6.
State	Indicates the status of access flow. Possible states are: <ul style="list-style-type: none"> <li>• <b>I</b>: Initializing</li> <li>• <b>F</b>: Flow Added</li> <li>• <b>A</b>: Active</li> <li>• <b>P</b>: Pending</li> </ul>
RecdPkts	Indicates the total number of packets received.
SendPkts	Indicates the total number of packets sent.
Total access-flows matching specified criteria	Displays the total number of matching access-flows.

## show subscribers access-flows wf1

Table 330. show subscribers access-flows wf1 Command Output Descriptions

Field	Description
Access Tech	<p>Indicates the session type for this subscriber. The possible types are:</p> <ul style="list-style-type: none"> <li>• <b>X</b>: CDMA 1xRTT</li> <li>• <b>E</b>: GPRS GERAN</li> <li>• <b>I</b>: IP</li> <li>• <b>D</b>: CDMA EV-DO</li> <li>• <b>U</b>: WCDMA UTRAN</li> <li>• <b>W</b>: Wireless LAN</li> <li>• <b>A</b>: CDMA EV-DO RevA</li> <li>• <b>G</b>: GPRS Other</li> <li>• <b>M</b>: WiMAX</li> <li>• <b>C</b>: CDMA Other</li> <li>• <b>N</b>: GAN (Generic Access Network)</li> <li>• <b>H</b>: HSPA (High Speed Packet Access)</li> <li>• <b>P</b>: PDIF</li> <li>• <b>L</b>: eHRPD</li> <li>• <b>.</b>: Other/Unknown</li> </ul>
Policy Name	Indicates the name of the QoS/subscriber policy.
Type	<p>Indicates the access flow type as one of the following:</p> <ul style="list-style-type: none"> <li>• <b>A</b>: Accounting</li> <li>• <b>S</b>: Static</li> <li>• <b>D</b>: Dynamic</li> <li>• <b>P</b>: Pre-provisioned</li> </ul>
Direction	<p>Indicates the flow direction as one of the following:</p> <ul style="list-style-type: none"> <li>• <b>F</b>: Forward/Uplink</li> <li>• <b>R</b>: Reverse/Downlink</li> </ul>
Link Status	<p>Indicates the status of the link as one of the following:</p> <ul style="list-style-type: none"> <li>• <b>A</b>: Online/Active</li> <li>• <b>D</b>: Dormant</li> <li>• <b>.</b>: Not Applicable</li> </ul>

Field	Description
Flow Status	Indicates the status of the flow as one of the following: <ul style="list-style-type: none"> <li>• <b>A</b>: Active</li> <li>• <b>I</b>: Inactive</li> </ul>
Flow Mapping	Indicates the mapping status of the flow as one of the following: <ul style="list-style-type: none"> <li>• <b>M</b>: Mapped</li> <li>• <b>U</b>: Unmapped</li> <li>• <b>.</b>: Not Applicable</li> </ul>
Network Type	Indicates the network type as one of the following: <ul style="list-style-type: none"> <li>• <b>I</b>: IP</li> <li>• <b>M</b>: Mobile-IP</li> <li>• <b>L</b>: L2TP</li> <li>• <b>P</b>: Proxy-Mobile-IP</li> <li>• <b>i</b>: IP-in-IP</li> <li>• <b>G</b>: GRE</li> <li>• <b>V</b>: IPv6-in-IPv4</li> <li>• <b>S</b>: IPSEC</li> <li>• <b>A</b>: R4 (IP-GRE)</li> <li>• <b>u</b>: Unknown</li> </ul>
MSID	Displays the subscriber's mobile station identification (MSID) number.
ID	Indicates the unique identification number for the flow.
SRID	Indicates the service request identification number for the flow.
PROFID	Indicates the profile identification number used by the flow.
SO	Displays the service option for each flow.
PACKETS	Indicates the total number of packets.
BYTES	Indicates the total number of bytes.
POLICY	Indicates the policy name used for the flow.
HDR-COMP	Indicates the ROHC header compression feedback channel identification number carried by the link.

## show subscribers counters username

*Table 331. show subscriber counters username Command Output Descriptions*

Field	Description
Username	Specifies the name of the subscriber.
Status	Indicates the status of the subscriber's session. The status can be Online or Offline and Active or Dormant.

Field	Description
Access Type	<p>Indicates the session type for this subscriber. The possible types are:</p> <p>Indicates the access type for this subscriber. The possible types are:</p> <ul style="list-style-type: none"> <li>• pdsn-simple-ip</li> <li>• pdsn-mobile-ip</li> <li>• ha-mobile-ip</li> <li>• ggsn-pdp-type-ppp</li> <li>• ha-ipsec</li> <li>• lns-l2tp</li> <li>• ggsn-pdp-type-ipv4</li> <li>• asngw-simple-ip</li> <li>• IPSE</li> <li>• ggsn-pdp-type-ipv6</li> <li>• asngw-mobile-ip</li> <li>• cscf-sip</li> <li>• sgw-gtp-ipv4</li> <li>• sgw-gtp-ipv6</li> <li>• sgw-gtp-ipv4-ipv6</li> <li>• pgw-gtp-ipv4</li> <li>• pgw-gtp-ipv6</li> <li>• pgw-gtp-ipv4-ipv6</li> <li>• sgsn</li> <li>• sgsn-pdp-type-ppp</li> <li>• sgsn-pdp-type-ip</li> <li>• sgsn-pdp-type-ipv6</li> <li>• pdif-simple-ip</li> <li>• pdif-mobile-ip</li> <li>• S1-MME</li> <li>• standalone-fa</li> <li>• asngw-non-anchor</li> <li>• ggsn-mbms-ue</li> <li>• asnpc</li> <li>• ha-mobile-ipv6</li> <li>• HSGW</li> <li>• Unknown</li> </ul>

Field	Description
Network Type	Indicates the network service used for the subscriber session. Possible values are: <ul style="list-style-type: none"> <li>• <b>I</b>: IP</li> <li>• <b>M</b>: Mobile-IP</li> <li>• <b>L</b>: L2TP</li> <li>• <b>P</b>: Proxy-Mobile-IP</li> <li>• <b>i</b>: IP-in-IP</li> <li>• <b>G</b>: GRE</li> <li>• <b>V</b>: IPv6-in-IPv4</li> <li>• <b>S</b>: IPSEC</li> <li>• <b>A</b>: R4 (IP-GRE)</li> <li>• <b>u</b>: Unknown</li> </ul>
callid	Displays the subscriber's call identification number (callid).
msid	Displays the subscriber's mobile station identification (MSID).
input pkts	Indicates the number of packets received.
output pkts	Indicates the number of packets transmitted .
input bytes	Indicates the number of bytes received .
output bytes	Indicates the number of bytes transmitted.
input bytes dropped	Indicates the number of bytes that were dropped while receiving data for this subscriber session.
output bytes dropped	Indicates the number of bytes that were dropped while transmitting data for this subscriber session.
input pkts dropped	Indicates the number of packets that were dropped while receiving data for this subscriber session.
output pkts dropped	Indicates the number of packets that were dropped while transmitting data for this subscriber session. This field includes packets blocked by Access Control Lists (ACLs). Do not use this figure when computing the total number of output packets.
input pkts dropped due to zero mbr	Indicates the number of packets that were dropped while receiving data due to configured maximum bit rate (MBR) was set to zero for a subscriber. This counter is applicable when system drops uplink/downlink packets when SGSN notifies Update PDP Contexts for QOS change with bandwidth rate as zero for conversation/streaming class of services.
output pkts dropped due to zero mbr	Indicates the number of packets that were dropped while transmitting data due to configured maximum bit rate (MBR) was set to zero for a subscriber. This counter is applicable when system drops uplink/downlink packets when SGSN notifies Update PDP Contexts for QOS change with bandwidth rate as zero for conversation/streaming class of services.
pk rate from user(bps)	The peak data rate, in bits per second, obtained for data sent from the subscriber to the network during the last sampling period.
pk rate to user(bps)	The peak data rate, in bits per second, obtained for data received from the network by the subscriber during the last sampling period.
ave rate from user(bps)	The average data rate, in bits per second, obtained for data sent from the subscriber to the network during the last sampling period.

Field	Description
ave rate to user(bps)	The average data rate, in bits per second, obtained for data received from the network by the subscriber during the last sampling period.
sust rate from user(bps)	The mean data rate, in bits per second, obtained for data sent from the subscriber to the network during the last three sampling periods.
sust rate to user(bps)	The mean data rate, in bits per second, obtained for data received from the network by the subscriber during the last three sampling periods.
pk rate from user(pps)	The speed that packets are being received from the user in packets per second.
pk rate to user(pps)	The speed that packets are being sent to the user in packets per second.
ave rate from user(pps)	The average speed that packets are being received from the user in packets per second.
ave rate to user(pps)	The average speed that packets are being sent to the user in packets per second.
sust rate from user(pps)	The sustained speed that packets are being received from the user in packets per second.
sust rate to user(pps)	The sustained speed that packets are being sent to the user in packets per second.
link online/active percent	The percentage of time that the data link was online and active during the last sampling period.
ipv4 bad hdr	Indicates the number of IPv4 packets received with bad headers.
ipv4 ttl exceeded	Indicates the number of IPv4 packets dropped because their time-to-live was exceeded for this subscriber session.
ipv4 fragments sent	Indicates the number of IPv4 packet fragments that were transmitted.
ipv4 could not fragment	Indicates the number of IPv4 packets that could not be fragmented.
ipv4 input acl drop	Indicates the number of IPv4 packets dropped due to an inbound access control list (ACL) violation.  <div style="text-align: center;">  <b>Important:</b> This counter may increment even if no ACL is configured. </div>
ipv4 output acl drop	Indicates the number of IPv4 packets dropped due to an outbound access control list (ACL) violation.
ipv4 source violations	Indicates the number of IPv4 source validation violations.
ipv4 source violation no accounting	The IPv4 source validation violations that were detected but not included in the statistics.
ipv6 egress filtered	Enable IPv6 egress address filtering feature.
dormancy total	Indicates the total amount of time in seconds that the subscriber session was dormant over the duration of the session.
handoff total	The total number of subscriber sessions handed off.
ipv4 icmp packets dropped	When hide service address is enabled and a service in the system is sent ping packets or a traceroute is executed, the packets pertaining to the service address are dropped. This counter shows the number of those packets that have been dropped.

Field	Description
Total subscribers matching specified criteria	Displays the number of subscribers currently accessing the system that matched the criteria that was specified during the execution of this command.

## show subscribers full username

*Table 332. show subscriber full username Command Output Descriptions*

Field	Description
Username	Specifies the name of the subscriber.
Status	Indicates the status of the subscriber's session. The status can be Online/Active or Offline/Dormant/Idle.

Field	Description
Access Type	<p>Indicates the session type for this subscriber. The possible types are:</p> <p>Indicates the session type for this subscriber. The possible types are:</p> <ul style="list-style-type: none"> <li>• S: pdsn-simple-ip</li> <li>• M: pdsn-mobile-ip</li> <li>• H: ha-mobile-ip</li> <li>• P: ggsn-pdp-type-ppp</li> <li>• h: ha-ipsec</li> <li>• N: lns-l2tp</li> <li>• I: ggsn-pdp-type-ipv4</li> <li>• A: asngw-simple-ip</li> <li>• G: IPSPG</li> <li>• V: ggsn-pdp-type-ipv6</li> <li>• B: asngw-mobile-ip</li> <li>• C: cscf-sip</li> <li>• R: sgw-gtp-ipv4</li> <li>• O: sgw-gtp-ipv6</li> <li>• Q: sgw-gtp-ipv4-ipv6</li> <li>• W: pgw-gtp-ipv4</li> <li>• Y: pgw-gtp-ipv6</li> <li>• Z: pgw-gtp-ipv4-ipv6</li> <li>• s: sgsn</li> <li>• p: sgsn-pdp-type-ppp</li> <li>• 4:sgsn-pdp-type-ip</li> <li>• 6: sgsn-pdp-type-ipv6</li> <li>• L: pdif-simple-ip</li> <li>• K: pdif-mobile-ip</li> <li>• x: S1-MME</li> <li>• F: standalone-fa</li> <li>• J: asngw-non-anchor</li> <li>• e: ggsn-mbms-ue</li> <li>• i: asnpc</li> <li>• E: ha-mobile-ipv6</li> <li>• X: HSGW</li> <li>• u: Unknown</li> </ul>

Field	Description
Network Type	Indicates the network service used for the subscriber session. Possible values are: <ul style="list-style-type: none"> <li>• <b>I</b>: IP</li> <li>• <b>M</b>: Mobile-IP</li> <li>• <b>L</b>: L2TP</li> <li>• <b>P</b>: Proxy-Mobile-IP</li> <li>• <b>i</b>: IP-in-IP</li> <li>• <b>G</b>: GRE</li> <li>• <b>V</b>: IPv6-in-IPv4</li> <li>• <b>S</b>: IPSEC</li> <li>• <b>A</b>: R4 (IP-GRE)</li> <li>• <b>u</b>: Unknown</li> </ul>
Access Tech	Indicates Accessing Technology. The possible types are: <ul style="list-style-type: none"> <li>• <b>X</b>: CDMA 1xRTT</li> <li>• <b>E</b>: GPRS GERAN</li> <li>• <b>I</b>: IP</li> <li>• <b>D</b>: CDMA EV-DO</li> <li>• <b>U</b>: WCDMA UTRAN</li> <li>• <b>W</b>: Wireless LAN</li> <li>• <b>A</b>: CDMA EV-DO RevA</li> <li>• <b>G</b>: GPRS Other</li> <li>• <b>M</b>: WiMAX</li> <li>• <b>C</b>: CDMA Other</li> <li>• <b>N</b>: GAN (Generic Access Network)</li> <li>• <b>H</b>: HSPA (High Speed Packet Access)</li> <li>• <b>P</b>: PDIF</li> <li>• <b>.</b>: Other/Unknown</li> </ul>
BSID	Displays the ASN base station identifier (MAC address).
callid	Displays the subscriber's call identification number (callid).
msid	Displays the subscriber's mobile station identification (MSID).
3GPP2 Carrier ID	Unique identifier for the carrier.
3GPP2 ESN	Electronic Serial Number of the mobile handset.
Card/Cpu	Indicates the id of Card and CPU.
Sessmgr Instances	Displays the session manager instances.

Field	Description
state	Indicates the status of session. The possible status are: <ul style="list-style-type: none"> <li>• Connected</li> <li>• Connecting</li> <li>• Disconnecting</li> <li>• Unknown</li> </ul>
PCF address	Specifies the IP address of PCF in decimal notation.
connect time	Displays the time of connection starts.
call duration	Specifies total duration of call session in hh:mm:ss format
idle time	Displays the amount of time that the subscriber session has been idle either in an active or dormant state.
idle time left	Shows the amount of idle time left before timeout.
session time left	How much session time is left for the specified subscriber.
long duration time left	Shows how much time is left for the maximum duration of a specified subscriber session.
long duration action	Shows the setting for the action to take when the long duration timer expires. The possible values for this are: <ul style="list-style-type: none"> <li>• Detection - Detect and send SNMP trap and CORBA notification only.</li> <li>• Disconnection - Disconnect the session and send SNMP trap and CORBA notification.</li> </ul>
always on	Session Update message was sent to the PCF to notify the PCF that the subscriber has the Always On feature enabled.
ip address	The IP address of the interface in the session.
Primary DNS Address	The primary DNS address of the interface in the session.
Secondary DNS Address	The secondary DNS address of the interface in the session.
home-agent	The IP address of the mobile IP user's home agent.
pdsn-service name	The PDSN service that is running this session and the context name of the PDSN-service with the service-name.
fa-service name context	The FA service that is running this session and the context name of the FA-service with the service-name for a MIP call.
ggsn-service name	The GGSN service that is running this session and the context name of the GGSN-service with the service-name.
source context	Specifies the name of a configured source context from which the subscriber initiates a session.
destination context	Specifies the name of a configured destination context through which the subscriber is provided access to the packet data network.
ip header compression: (loc to rem) vj, (rem to loc) vj	This specifies what header compression method is being used.
ROHC max-cid (local/remote)	For Robust Header Compression, indicates the maximum value of a context identifier.

Field	Description
ROHC mrru (local/remote)	For Robust Header Compression, indicates the maximum reconstructed reception unit.
ROHC max-hdr (local/remote)	For Robust Header Compression, the largest header size in octets that may be compressed.
AAA context	The context in which the AAA service is configured.
AAA domain	The domain in which the AAA service is configured.
AAA start count	The number of accounting start messages sent to the accounting server for the subscriber session.
AAA stop count	The number of accounting stop messages sent to the accounting server for the subscriber session.
AAA interim count	The number of accounting interim messages sent to the accounting server for the subscriber session.
Acct-session-id	Identifies a subscriber session or PDP context.
AAA RADIUS group	Indicates the group of AAA RADIUS server assigned to specific subscriber for AAA functionality.
RADIUS Auth Server IP	The RADIUS authentication server's IP address.
RADIUS Acct Server IP	The RADIUS accounting server's IP address. When the RADIUS Accounting Mediation Device is configured, this field will NOT display the RADIUS accounting mediation server's IP address.
NAS IP Address	IP address of Network Access Server (NAS).
Nexthop IP Address	IP address of configured next-hop-forwarding-address in RADIUS attribute, subscriber configuration, or IP pool configuration.
Authentication Mode	The authentication mode. Possible modes are: <ul style="list-style-type: none"> <li>• None</li> <li>• User (Single EAP)</li> <li>• Device (Single EAP)</li> <li>• Device-User (Double EAP)</li> <li>• Device-User (Single EAP)</li> </ul>
Authentication Type	The authentication type.
EAP-Type	The type of EAP authentication. Possible types are: <ul style="list-style-type: none"> <li>• EAP-Pre-shared Key (EAP-PSK)</li> <li>• EAP-Transport Layer Security (EAP-TLS)</li> <li>• EAP-Tunneled Transport Layer Security (EAP-TTLS)</li> <li>• EAP-Authentication and Key Agreement (EAP-AKA)</li> </ul>
Client Type	The type of client, which can be: <ul style="list-style-type: none"> <li>• Regular</li> <li>• Data</li> </ul> Identifies whether the client is a regular client, which includes voice, or a data client, which is data only.
active input acl	Specifies active Access Control List (ACL) for input.

Field	Description
active output acl	Specifies active Access Control List (ACL) for output.
ECS Rulebase	Specifies applicable Rulebase for this subscriber when ECS is enabled.
active input pcy grp	Specifies active input policy group for traffic flow.
active output pcy grp	Specifies active output policy group for traffic flow.
<b>MIPHA Session</b>	
Care-of-Address	The IP address of the device terminating the tunnel to the mobile node. The address may belong to either a Foreign Agent that is facilitating the subscriber's Mobile IP session or another device that the mobile node is associated (co-located) with.
Home-Address	The IP address assigned to the subscriber's mobile node for the duration of the session.
HA-Address	The IP address of the Home Agent that is facilitating the subscriber's Mobile IP session.
Lifetime	The accepted lifetime interval for this session.
Remaining Life	The amount of time that remains after which the session expires and is torn down.
Reverse Tunneling On	Displays whether or not reverse tunneling is enabled for the subscriber's session.
Encapsulation Type	The encapsulation method used for the subscriber's session.
GRE Key	The key that uniquely identifies the subscriber session when the Generic Routing Encapsulation (GRE) protocol Encapsulation Type.
IPSec Required	Indicates whether or not IPSec is required for the subscriber Mobile IP session.
IPSec Ctrl Tunnel Estab.	If IPSec is required for the session, this field indicates whether or not the control tunnel has been established.
IPSec Data Tunnel Estab.	If IPSec is required for the session, this field indicates whether or not the data tunnel has been established.
Revocation Negotiated	Indicates whether or not MIP Registration Revocation was negotiated between the FA and the HA for this subscriber session. Possible values are : <ul style="list-style-type: none"> <li>• No</li> <li>• Yes</li> </ul>
Revocation I bit Negotiated	Indicates whether or not the Revocation I bit was negotiated. Possible values are : <ul style="list-style-type: none"> <li>• No</li> <li>• Yes</li> </ul>
Colocated COA	Indicates whether or not the subscribers that registered a MIP colocated COA directly with the HA. Options are: <ul style="list-style-type: none"> <li>• No</li> <li>• Yes</li> </ul>
NAT Detected	Indicates whether or not network address translation (NAT) is detected. Options are: <ul style="list-style-type: none"> <li>• No</li> <li>• Yes</li> </ul>

Field	Description
<b>MN-HA-Key-Present</b>	The security parameter index (SPI) key is used to verify a trusted host environment and that communications are to be established between known hosts. Checks for presence of mobile node (MN) - home agent (HA) key. Options are: <ul style="list-style-type: none"> <li>• True</li> <li>• False.</li> </ul>
MN-HA-SPI	Mobile node (MN) - home agent (HA) security parameter index (SPI).
FA-HA-Key-Present	The SPI key is used to verify a trusted host environment and that communications are to be established between known hosts. Checks for presence of the FA - HA key. Options are: <ul style="list-style-type: none"> <li>• True</li> <li>• False</li> </ul>
FA-HA-SPI	FA - HA security parameter index (SPI).
MN-FA-Key-Present	The SPI key is used to verify a trusted host environment and that communications are to be established between known hosts. Checks for presence of the MN - FA key. Options are: <ul style="list-style-type: none"> <li>• True</li> <li>• False</li> </ul>
MN-FA-SPI	MN - FA security parameter index (SPI).
Layer 3 tunneling	Indicates if Layer 3 tunneling is enabled.
prepaid status	Indicates if prepaid status is on or off.
external inline svr processing	Indicates if external inline server processing is on or off.
IPv6 Egress address filtering	Enable IPv6 egress address filtering feature.
IPv6 DNS Proxy	Enables/Disables the domain name server proxy for the current session.
Proxy DNS Intercept List	Identifies the proxy DNS intercept list used for the subscriber.
access-link ip-frag	Configures IP fragmentation processing over the Access-link.
ignore DF-bit data tunnel	Use this command to configure a user so that during Mobile IP tunneling the DF bit is not ignored and packets are not fragmented.
MIP grat-ARP mode	Indicates if gratuitous ARPs are sent out for an HA session upon handoff and renewal requests.
Downlink traffic-policing	Shows if traffic policing is enabled for the downlink direction.
Uplink traffic-policing	Shows if traffic policing is enabled for the uplink direction.
input pkts	Indicates the number of packets received.
output pkts	Indicates the number of packets transmitted.
input bytes	Indicates the number of bytes received.
output bytes	Indicates the number of bytes transmitted.

Field	Description
input bytes dropped	Indicates the number of bytes that were dropped while receiving data for this subscriber session.
output bytes dropped	Indicates the number of bytes that were dropped while transmitting data for this subscriber session.
input pkts dropped	Indicates the number of packets that were dropped while receiving data for this subscriber session.
output pkts dropped	Indicates the number of packets that were dropped while transmitting data for this subscriber session. This field includes packets blocked by Access Control Lists (ACLs). Do not use this figure when computing the total number of output packets.
input pkts dropped due to zero mbr	Indicates the number of packets that were dropped while receiving data due to configured maximum bit rate (MBR) was set to zero for a subscriber. This counter is applicable when system drops uplink/downlink packets when SGSN notifies Update PDP Contexts for QOS change with bandwidth rate as zero for conversation/streaming class of services.
output pkts dropped due to zero mbr	Indicates the number of packets that were dropped while transmitting data due to configured maximum bit rate (MBR) was set to zero for a subscriber. This counter is applicable when system drops uplink/downlink packets when SGSN notifies Update PDP Contexts for QOS change with bandwidth rate as zero for conversation/streaming class of services.
pk rate from user(bps)	The peak data rate, in bits per second, obtained for data sent from the subscriber to the network during the last sampling period.
pk rate to user(bps)	The peak data rate, in bits per second, obtained for data received from the network by the subscriber during the last sampling period.
ave rate from user(bps)	The average data rate, in bits per second, obtained for data sent from the subscriber to the network during the last sampling period.
ave rate to user(bps)	The average data rate, in bits per second, obtained for data received from the network by the subscriber during the last sampling period.
sust rate from user(bps)	The mean data rate, in bits per second, obtained for data sent from the subscriber to the network during the last three sampling periods.
sust rate to user(bps)	The mean data rate, in bits per second, obtained for data received from the network by the subscriber during the last three sampling periods.
pk rate from user(pps)	The peak data rate, in packets per second, obtained for data sent from the subscriber to the network during the last sampling period.
pk rate to user(pps)	The peak data rate, in packets per second, obtained for data received from the network by the subscriber during the last sampling period.
ave rate from user(pps)	The average data rate, in packets per second, obtained for data sent from the subscriber to the network during the last sampling period.
ave rate to user(pps)	The average data rate, in packets per second, obtained for data received from the network by the subscriber during the last sampling period.
sust rate from user(pps)	The mean data rate, in packets per second, obtained for data received from the network by the subscriber during the last three sampling periods.
link online/active percent	The percentage of time that the data link was online and active during the last sampling period.
ipv4 bad hdr	Indicates the number of IPv4 packets received with bad headers.

Field	Description
ipv4 ttl exceeded	Indicates the number of IPv4 packets dropped because their time-to-live was exceeded for this subscriber session.
ipv4 fragments sent	Indicates the number of IPv4 packet fragments that were transmitted.
ipv4 could not fragment	Indicates the number of IPv4 packets that could not be fragmented.
ipv4 input acl drop	Indicates the number of IPv4 packets dropped due to an inbound access control list (ACL) violation.  <div style="border: 1px solid black; padding: 5px; margin: 10px 0;">  <b>Important:</b> This counter may increment even if no ACL is configured. </div>
ipv4 output acl drop	Indicates the number of IPv4 packets dropped due to an outbound access control list (ACL) violation.
ipv4 input css down drop	Indicates the number of input packets dropped because the CSS service is yet not up or the service went down.
ipv4 output css down drop	Indicates the number of output packets dropped because the CSS service is yet not up or the service went down.
ipv4 output xoff pkts drop	Indicates the number of packets dropped because of flow control.
ipv4 output xoff bytes drop	Indicates the number of bytes dropped because of flow control.
ip source violations	Indicates the number of IPv4 source validation violations.
ipv6 egress filtered	Enable IPv6 egress address filtering feature.
ipv4 proxy-dns redirect	The number of foreign DNS request packets intercepted and redirected to the home DNS for the subscriber.
ipv4 proxy-dns pass-thru	The number of foreign DNS request packets allowed through the intercept filter for the subscriber.
ipv4 proxy-dns drop	The number of foreign DNS request packets not matching either redirect or pass-thru rules for the subscriber.
ip source violations no accounting	The IP source validation violations that were detected but not included in the statistics.
ip source violations ignored	The IP source validation violations that were detected but then ignored.
dormancy total	Indicates the total amount of time in seconds that the subscriber session was dormant over the duration of the session.
handoff total	The total number of subscriber sessions handed off.
ipv4 icmp packets dropped	When hide service address is enabled and a service in the system is sent ping packets or a traceroute is executed, the packets pertaining to the service address are dropped. This counter shows the number of those packets that have been dropped.
Access-flows	The total number of matching access-flows.

## show subscribers sgsn-only full

Table 333. show subscribers sgsn-only full Command Output Descriptions

Field	Description
Source context	Specifies the name of a configured source context from which the subscriber initiates a session.
Destination context	Specifies the name of a configured destination context through which the subscriber is provided access to the packet data network.
Accounting context	Specifies the name of a configured accounting context through which the subscriber is provided accounting of data session.
Subscriber Plmn Type	Indicates the subscriber type of Public Land Mobile Network area. Possible values are: <ul style="list-style-type: none"> <li>• H: Home networks</li> <li>• F: Foreign networks</li> <li>• U: Unknown networks</li> </ul>
Charging Characteristics	Displays the Charging characteristics. Hot Billing, Flat rate Billing, Prepaid Billing and Normal Billing
Charging Characteristics Selection Mode	Displays the selection mode of the Charging characteristics.
MNRG Flag	The MNRG (Mobile Not Reachable for GPRS) flag indicates whether activity from the MS will be reported to the HLR. Possible values are: <ul style="list-style-type: none"> <li>• True</li> <li>• False</li> </ul>
PPF	The PPF (Page Proceed Flag) indicates whether paging for PS and CS services can be initiated. Possible values are: <ul style="list-style-type: none"> <li>• True</li> <li>• False</li> </ul>
NGAF	The NGAF (Non-Gprs Alert Flag) indicates whether activity from the MS will be reported to the MCSC/VLR. Possible values are: <ul style="list-style-type: none"> <li>• True</li> <li>• False</li> </ul>
VLR-Reliable	Set to 'false' when the SGSN has received a reset indication from the VLR. The SGSN may request the MS, upon reception of the next routing area update (either periodic routing area update or combined routing and location area update) procedure, to re-attach to non-GPRS services if the MS is still IMSI attached to non-GPRS services. Alternatively, the SGSN may upon reception of a combined routing and location area update request or a periodic routing area update from a MS that is still attached for non-GPRS service, perform immediately the location update for non-GPRS services procedure.

Field	Description
VLR-Association	Indicates the states associated to the Gs interface in the VLR. Possible states are: <ul style="list-style-type: none"><li>• Gs-NULL</li><li>• LA-UPDATE PRESENT</li><li>• Gs-ASSOCIATED</li></ul>
NRI Assigned	The Network Resource Identifier (NRI) is used either when Iu-flex or Gb-flex is used or when MOCN configuration is used for network sharing. NRI is a 1-10 bit length value that is a part of PTMSI. This demultiplexes which SGSN handles the subscriber at the RNC or BSS. The NRI that was chosen for this subscriber is shown and this is useful to know when this SGSN is configured with more than one NRI.
Network Sharing Capability	Indicates whether the MS supports network sharing or not. When network sharing feature is enabled, it is possible that the MS is a supporting MS or a non-supporting MS. The three possible values the MS Network Sharing Support feature can hold are: <ul style="list-style-type: none"><li>• Not Applicable - Network Sharing is not enabled.</li><li>• Not Supported - Network Sharing is enabled but the MS does not support this feature.</li><li>• Supported - Network Sharing is enabled and the MS supports this feature.</li></ul>

## show subscribers sgsn-only partial qos negotiated

Table 334. show subscribers sgsn-only partial qos negotiated Command Output Descriptions

Field	Description
QoS	Indicates the type of action for QoS. Possible values are: <ul style="list-style-type: none"> <li>• QoS Requested (Req)</li> <li>• QoS Negotiated (Neg)</li> </ul>
Traffic Class	Specifies the class of traffic. Possible values are: <ul style="list-style-type: none"> <li>• Conversational (Conv)</li> <li>• Streaming (Strm)</li> <li>• Background (Back)</li> <li>• Interactive (Intr)</li> <li>• Unknown (Unkn)</li> </ul>
Value	Specifies the status of QoS and subscriber. Possible values are: <ul style="list-style-type: none"> <li>• Subscribed (Subs)</li> <li>• Reserved (Resv)</li> <li>• Best Effort (Best)</li> <li>• Negotiated (Nego)</li> </ul>
IMSI	Indicates the International Mobile Subscriber identity of subscriber.
NSAPI	Indicates the Network Service Access Point Identifier of the subscriber.
Peak Thruput octet/h	The peak throughput in octets per hour for this subscriber.
Mean Thruput octet/h	The mean throughput in octets per hour for this subscriber.
MAX SDU Size	The maximum size of service data unit (SDU) in KB.
MBR UP kbps	The maximum bit rate in kilobit per second allowed for this subscriber for upload.
MBR Down kbps	The maximum bit rate in kilobit per second allowed for this subscriber for download.
GBR UP kbps	The guaranteed bit rate in kilobit per second allowed for this subscriber for upload.
GBR Down kbps	The guaranteed bit rate in kilobit per second allowed for this subscriber for download.

# show subscribers tft

Table 335. show subscribers tft Command Output Descriptions

Field	Description
Username	Specifies the name of the subscriber.
callid	Displays the subscriber's call identification number (callid).
msid	Displays the subscriber's mobile station identification (MSID).
Number of TFTs	Displays the number of Traffic Flow Templates (TFTs).
MS IP Address	Displays the MS IP address.
Number of Packet Filters	Displays the number of Packet Filters.
<b>Filter Evaluation Precedence 1:</b>	
Flow Id	Displays the flow ID for the first precedence.
Flow Direction	Displays the flow direction (FORWARD or REVERSE) for the first precedence.
Flow State	Displays the flow state and A10 mapping for the first precedence.
Packet Filter Type	Displays the type of Packet Filter for the first precedence.
Filter Components Follows	
Ipv4 Source Addr/Mask	Displays the IP address and mask for the Ipv4 source address.
<b>Filter Evaluation Precedence 2:</b>	
Flow Id	Displays the flow ID for the second precedence.
Flow Direction	Displays the flow direction (FORWARD or REVERSE) for the second precedence.
Flow State	Displays the flow state and A10 mapping for the second precedence.
Packet Filter Type	Displays the type of Packet Filter for the second precedence.
Filter Components Follows	
Ipv4 Source Addr/Mask	Displays the IP address and mask for the Ipv4 source address.
Total TFTs matching specified criteria:	Displays the total number of matching TFTs.



# Chapter 115

## show threshold

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Table 336. *show threshold* Command Output Descriptions

Field	Description
Threshold operation model	The configured thresholding model.
Configured thresholds	Lists thresholds that were configured by the user (i.e. those that are not enabled as part of the system's default configuration). For each threshold listed, the scope, polling interval, and threshold values are displayed.
Active thresholds	Lists thresholds that are currently being monitored. Note that configured thresholds must be enabled using the <b>threshold monitoring</b> command before they're considered active. For each threshold listed, the scope, polling interval, and threshold values are displayed.
Enabled threshold groups: (name, scope)	Displays configured threshold groups and their scope (what the threshold is applied to (i.e. specific ports, IP pool groups, or system wide).
Non-default poll intervals	Displays all polling intervals whose user-configured values differ from the default values. <b>NOTE:</b> All threshold default values can be viewed using the <b>show thresholds default</b> command.
No outstanding alarm / Outstanding Alarms	Displays whether there are any outstanding (alarms for which no clear alarm was received) alarms or not. If outstanding alarms exist, they will be listed in this field.



# Chapter 116

## show url-blacklisting

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This chapter includes the `show url-blacklisting` command output tables. 

## show url-blacklisting database all

Table 337. show url-blacklisting database all Command Output Descriptions

Field	Description
<b>URL Blacklisting Static Rating Databases:</b>	
Last Upgrade Status	Indicates status of the last database upgrade.
Path	Indicates the database path, and the status—ACTIVE/NOT LOADED.
Database Status	Indicates status of the database.
Number of URLs in DB	The total number of URLs present in the database.
Type	Indicates the database type.
Version	Indicates the database version.
Creation Time	Indicates the database creation time.
Comment	Indicates additional information.
Last Access Time	Indicates the last access timestamp.
Last Modification Time	Indicates the last modification timestamp.
Last Status Change Time	Indicates the last status change timestamp.

## show url-blacklisting database facility acsmgr instance

Table 338. show url-blacklisting database facility acsmgr instance Command Output Descriptions

Field	Description
<b>URL-Blacklisting ACSMgr Instance Based Database Configuration:</b>	
ACSMgr Instance	The ACSMgr instance number.
BL DB Load Status	The Blacklisting database's load status.
BL DB Version	The Blacklisting database's version number.
Number of URLs	The total number of URLs present in the Blacklisting database.
Checksum	Indicates checksum details. The Blacklisting database has only one page, so the checksum is of the only page present in the database.

# show url-blacklisting url

Table 339. show url-blacklisting url Command Output Descriptions

Field	Description
URL	Indicates the URL.
URL Hash	Indicates the URL hash.
URL Category	Indicates the URL category.
Haspath	Indicates the haspath status.