



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

**Version 12.2**

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# About this Guide

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

This preface includes the following sections:

- [Conventions Used](#)
- [Contacting Customer Support](#)
- [Additional Information](#)

# 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.
	Electrostatic Discharge (ESD)	Warns you to take proper grounding precautions before handling ESD sensitive components or devices.

Typeface Conventions	Description
Text represented as a <i>screen display</i>	This typeface represents text that appears on your terminal screen, for example: Login:
Text represented as <b>commands</b>	This typeface represents commands that you enter at the CLI, for example: <b>show ip access-list</b> This document always gives the full form of a command in lowercase letters. Commands are <u>not</u> 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> <i>slot_number</i> 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 braces. They must be entered as part of the command syntax.
[ <b>keyword</b> or <i>variable</i> ]	Optional keywords or variables that may or may not be used are surrounded by brackets.

Command Syntax Conventions	Description
	<p>Some commands support alternative variables. These “options” are documented within braces or brackets by separating each variable with a vertical bar.</p> <p>These variables 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

Go to <http://www.cisco.com/cisco/support/> to submit a service request. A valid Cisco account (username and password) is required to access this site. Please contact your Cisco account representative for additional information.



## Additional Information

Refer to the following guides for supplemental information about the ASR 5000 chassis:

- *ASR 5000 Command Line Interface Reference*
- *Statistics and Counters Reference*
- *Thresholding Configuration Guide*
- *Cisco ASR 5000 SNMP MIB Reference*
- *Cisco Web Element Manager Installation and Administration Guide*
- Product-specific and feature-specific Administration guides
- *Release Notes* that accompany updates and upgrades to StarOS



# Chapter 1

## Affected Documents

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This addendum provides new and/or expanded information pertaining to the Statistics and Counters documentation delivered as part of this 12.2 release.

Documentation updates provided in this addendum pertain to the documents listed in the following table and correspond to the stated release date(s):

Document	Part Number	Release Date
<i>Cisco ASR 5000 Series Statistics and Counters Reference: Version 12.2</i>	OL-25556-01	October 17, 2011



# Chapter 2

## ECS Schema Statistics

This chapter lists new bulkstatistics introduced in the 12.2 release in support of the ECS DNS Snooping feature.

*Table 1. Bulk Statistic Variables in the ECS Schema*

Variable	Description	Data Type
ecs-dns-learnt-ipv4-entries	<b>Description:</b> The total number of learnt IPv4 entries. <b>Triggers:</b> Increments if a new IPv4 entry is received, and decrements if the entry gets timed out and gets flushed, or when the rule line corresponding to an IPv4 entry is removed from the rulebase. <b>Availability:</b> Per Active Charging Service.	Int64
ecs-dns-flushed-ipv4-entries	<b>Description:</b> The total number of flushed IPv4 entries. <b>Triggers:</b> Increments if the TTL for an IPv4 entry expires. When the rule lines (URLs to be snooped) are removed from the rulebase, the counter is set to 0. <b>Availability:</b> Per Active Charging Service.	Int64
ecs-dns-replaced-ipv4-entries	<b>Description:</b> The total number of replaced IPv4 entries. <b>Triggers:</b> Increments if the TTL value of that entry is replaced with a new value. If the rule lines (URLs to be snooped) are removed from the rulebase, the counter is set to 0. <b>Availability:</b> Per Active Charging Service.	Int64
ecs-dns-overflown-ipv4-entries	<b>Description:</b> The total number of overflown IPv4 entries. <b>Triggers:</b> Increments if the number of learnt DNS entries exceeds “ACS maximum learnt IPv4 entries per pool” or “ACS maximum learnt IPv4 entries across system”. If the rule lines (URLs to be snooped) are removed from the rulebase, the counter is set to 0. <b>Availability:</b> Per Active Charging Service.	Int64
ecs-dns-learnt-ipv6-entries	<b>Description:</b> The total number of learnt IPv6 entries. <b>Triggers:</b> Increments if a new IPv6 entry is received, and decrements if the entry gets timed out and gets flushed, or when the rule line corresponding to an IPv6 entry is removed from the rulebase. <b>Availability:</b> Per Active Charging Service.	Int64
ecs-dns-flushed-ipv6-entries	<b>Description:</b> The total number of flushed IPv6 entries. <b>Triggers:</b> Increments if the TTL for an IPv6 entry expires. When the rule lines (URLs to be snooped) are removed from the rulebase, the counter is set to 0. <b>Availability:</b> Per Active Charging Service.	Int64
ecs-dns-replaced-ipv6-entries	<b>Description:</b> The total number of replaced IPv6 entries. <b>Triggers:</b> Increments if the TTL value of that entry is replaced with a new value. When the rule lines (URLs to be snooped) are removed from the rulebase, the counter is set to 0. <b>Availability:</b> Per Active Charging Service.	Int64

Variable	Description	Data Type
ecs-dns-overflown-ipv6-entries	<p><b>Description:</b> The total number of overflown IPv6 entries.</p> <p><b>Triggers:</b> Increments if the number of learnt DNS entries exceeds “ACS maximum learnt IPv6 entries per pool” or “ACS maximum learnt IPv6 entries across system”. If the rule lines (URLs to be snooped) are removed from the rulebase, the counter is set to 0.</p> <p><b>Availability:</b> Per Active Charging Service.</p>	Int64

# Chapter 3

## eGTP-C Schema Statistics

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This chapter lists new bulkstatistics introduced in the 12.2 release in support of the eGTP-C data forwarding feature.

*Table 2. Bulk Statistic Variables in the eGTP-C Schema*

Variable	Description	Data Type
tun-recv-creinddatafwdngrspaccept	The total number of tunnel - create indicators for data forwarding responses accepted, received by the system.	Int32





# Chapter 4

## HSGW Schema Statistics

This chapter lists new and modified bulkstatistics introduced in the 12.2 release in support of the HSGW IPv4 and IPv6 PDN feature.

**Table 3. Bulk Statistic Variables in the HSGW Schema**

Variable	Description	Data Type
sessstat-totcur-pdn-ipv4	Session Statistics - Total Current - PDN IPv4 <b>Type:</b> Gauge	Int32
sessstat-totcur-pdn-ipv6	Session Statistics - Total Current - PDN IPv6 <b>Type:</b> Gauge	Int32
sessstat-totcur-pdn-ipv4v6	Session Statistics - Total Current - PDN IPv4v6 <b>Type:</b> Gauge	Int32
ipv4-pdn-to-user-pkt	Data Statistics - IPv4 PDN to user packets	Int64
ipv4-pdn-to-user-byte	Data Statistics - IPv4 PDN to user bytes	Int64
ipv4-pdn-from-user-pkt	Data Statistics - IPv4 PDN from user packets	Int64
ipv4-pdn-from-user-byte	Data Statistics - IPv4 PDN from user bytes	Int64
ipv6-pdn-to-user-pkt	Data Statistics - IPv6 PDN to user packets	Int64
ipv6-pdn-to-user-byte	Data Statistics - IPv6 PDN to user bytes	Int64
ipv6-pdn-from-user-pkt	Data Statistics - IPv6 PDN from user packets	Int64
ipv6-pdn-from-user-byte	Data Statistics - IPv6 PDN from user bytes	Int64
ipv4v6-pdn-ipv4-to-user-pkt	Data Statistics - IPv4v6 PDN IPv4 to user packets	Int64
ipv4v6-pdn-ipv4-to-user-byte	Data Statistics - IPv4v6 PDN IPv4 to user bytes	Int64
ipv4v6-pdn-ipv4-from-user-pkt	Data Statistics - IPv4v6 PDN IPv4 from user packets	Int64
ipv4v6-pdn-ipv4-from-user-byte	Data Statistics - IPv4v6 PDN IPv4 from user bytes	Int64
ipv4v6-pdn-ipv6-to-user-pkt	Data Statistics - IPv4v6 PDN IPv6 to user packets	Int64
ipv4v6-pdn-ipv6-to-user-byte	Data Statistics - IPv4v6 PDN IPv6 to user bytes	Int64
ipv4v6-pdn-ipv6-from-user-pkt	Data Statistics - IPv4v6 PDN IPv6 from user packets	Int64
ipv4v6-pdn-ipv6-from-user-byte	Data Statistics - IPv4v6 PDN IPv6 from user bytes	Int64



# Chapter 5

## PDG Schema Statistics

This chapter lists the new and modified PDG/TTG bulk statistics introduced in this release of the 12.2 PDG schema. The chapter also lists a bulk statistic that has been removed from the 12.2 PDG schema in this release.

The following table lists the new and modified PDG/TTG bulk statistics introduced in this release of the 12.2 PDG schema.

*Table 4. New and Modified Bulk Statistic Variables in the 12.2 PDG Schema*

Variable	Description	Data Type
state	<b>Description:</b> System-wide PDG state identified by the following codes: <ul style="list-style-type: none"><li>inservice(1): The PDG service is started (active).</li><li>outofservice(2): The PDG service is not started. It is in the initial state (inactive).</li></ul> This variable is proprietary. <b>Availability:</b> IPSec/SSL.	String
sess-discremote	<b>Description:</b> Number of sessions terminated by a remote disconnect (for IPSec) and by TCP Reset Received, TCP Socket Error, TCP Remote Close (for SSL). This variable is proprietary. <b>Trigger:</b> A TCP failure scenario in SSL PDG and SSL TTG after the call is in the CONNECTED state. A UE-initiated session disconnect in IPSec PDG and IPSec TTG after the call is in the CONNECTED state. <b>Availability:</b> IPSec/SSL.	Int32
sess-attemptfaildiscremote	<b>Description:</b> Number of sessions attempts failed due to a remote disconnect (for IPSec) and by TCP Reset Received, TCP Socket Error, TCP Remote Close (for SSL). <b>Trigger:</b> A TCP failure scenario in SSL PDG and SSL TTG before the call is in the CONNECTED state. A UE-initiated session disconnect in IPSec PDG and IPSec TTG before the call is in the CONNECTED state. <b>Availability:</b> IPSec/SSL.	Int32
sess-discadmin	<b>Description:</b> Number of sessions terminated because of an admin release. This variable is proprietary. <b>Trigger:</b> Incremented for all sessions in a CONNECTED state that are cleared due to an Admin Disconnect disconnect reason and RADUIS triggered disconnect session. <b>Availability:</b> IPSec/SSL.	Int32
sess-attemptfaildiscadmin	<b>Description:</b> Number of session attempts failed due to an admin disconnect. This variable is proprietary. <b>Trigger:</b> Incremented for all session setups that failed due to an Admin Disconnect disconnect reason and RADIUS triggered disconnect session before the session is in a CONNECTED state. <b>Availability:</b> IPSec/SSL.	Int32

Variable	Description	Data Type
sess-discauthfail	<p><b>Description:</b> Number of sessions terminated because of an AAA authentication failure. This variable is proprietary.</p> <p><b>Trigger:</b> Incremented on receiving an Access-Reject message, an invalid AAA attribute in an Access-Accept message, an AAA timeout message, a missing AAA attribute in an Access-Accept message, an invalid W-APN format, or an invalid NAI format. Also incremented in PDG mode if W-APN is not configured.</p> <p><b>Availability:</b> IPSec/SSL.</p>	Int32
sess-discreauthfail	<p><b>Description:</b> Number of sessions terminated because of a session re-authentication failure. This variable is proprietary.</p> <p><b>Trigger:</b> Incremented for all AAA failures during fast re-authentication or pseudonym re-authentication.</p> <p><b>Availability:</b> IPSec.</p>	Int32
sess-disccgtp	<p><b>Description:</b> Number of sessions terminated because of a GTP failure. This variable is proprietary.</p> <p><b>Trigger:</b> Incremented for all GTP path failures or DPC requests from the GGSN.</p> <p><b>Availability:</b> IPSec/SSL (TTG only).</p>	Int32
sess-attemptfaildisccgtp	<p><b>Description:</b> Number of sessions attempts failed because of GTP failure. This variable is proprietary.</p> <p><b>Trigger:</b> Incremented for all session setups failed due to CPC failure/timeout.</p> <p><b>Availability:</b> IPSec/SSL (TTG only).</p>	Int32
sess-discdupreq	<p><b>Description:</b> Number of sessions terminated because of duplicate requests. This variable is proprietary.</p> <p><b>Trigger:</b> Incremented on receiving a new call when a previous call exists in the CONNECTED state with the same IMSI and APN on the same Session Manager. When this occurs, the original call is cleared.</p> <p><b>Availability:</b> IPSec/SSL (TTG only).</p>	Int32
sess-attemptfaildiscdupreq	<p><b>Description:</b> Number of session attempts failed because of duplicate requests. This variable is proprietary.</p> <p><b>Trigger:</b> Incremented on receiving a new call when a previous call exists but not yet in the CONNECTED state with the same IMSI and APN on the same Session Manager. When this occurs, the original call is cleared.</p> <p><b>Availability:</b> IPSec/SSL (TTG only).</p>	Int32
sess-discmisc	<p><b>Description:</b> Number of sessions terminated because of miscellaneous reasons. This variable is proprietary.</p> <p><b>Trigger:</b> Incremented for all SSL failures and all remaining disconnect reasons (for example, for IPSec, no-response or remote-error-notification).</p> <p><b>Availability:</b> IPSec/SSL.</p>	Int32
sess-attemptfaildiscmisc	<p><b>Description:</b> Number of session attempts failed because of miscellaneous reasons. This variable is proprietary.</p> <p><b>Trigger:</b> Incremented for all session setup failures due to SSL failures (for example, handshake failures, ssl-alert, ssl-bad-message), or an unknown APN case in which the TTG is unable to resolve the APN and all remaining disconnect reasons before the call is in the CONNECTED state.</p> <p><b>Availability:</b> IPSec/SSL.</p>	Int32

The following table lists the bulk statistic variable that has been removed from this release of the 12.2 PDG schema.

*Table 5. Bulk Statistic Variable Removed from the 12.2 PDG Schema*

Variable	Description	Data Type
sess-discipsec	<p><b>Description:</b> Number of sessions terminated because of IPSec. This variable is proprietary.</p> <p><b>Trigger:</b> A UE-initiated session disconnect (applicable in both IPSec and SSL). This variable contains all sessions disconnected by a remote disconnect.</p> <p><b>Availability:</b> IPSec/SSL.</p>	Int32



# Chapter 6

## P-GW Schema Statistics

This chapter lists new and modified bulkstatistics introduced in the 12.2 release in support of the P-GW IPv4 and IPv6 PDN feature.

**Table 6. Bulk Statistic Variables in the P-GW Schema**

Variable	Description	Data Type
sessstat-bearmodfail-uesyntft	Session Statistics - Total bearers modification failure - UE-initiated Syntax error in TFT oper	Int32
ipv4-pdn-to-user-pkt	Subscriber Data Statistics - IPv4 PDN to user packets	Int64
ipv4-pdn-to-user-byte	Subscriber Data Statistics - IPv4 PDN to user bytes	Int64
ipv4-pdn-from-user-pkt	Subscriber Data Statistics - IPv4 PDN from user packets	Int64
ipv4-pdn-from-user-byte	Subscriber Data Statistics - IPv4 PDN from user bytes	Int64
ipv6-pdn-to-user-pkt	Subscriber Data Statistics - IPv6 PDN to user packets	Int64
ipv6-pdn-to-user-byte	Subscriber Data Statistics - IPv6 PDN to user bytes	Int64
ipv6-pdn-from-user-pkt	Subscriber Data Statistics - IPv6 PDN from user packets	Int64
ipv6-pdn-from-user-byte	Subscriber Data Statistics - IPv6 PDN from user bytes	Int64
ipv4v6-pdn-ipv4-to-user-pkt	Subscriber Data Statistics - IPv4v6 PDN IPv4 to user packets	Int64
ipv4v6-pdn-ipv4-to-user-byte	Subscriber Data Statistics - IPv4v6 PDN IPv4 to user bytes	Int64
ipv4v6-pdn-ipv4-from-user-pkt	Subscriber Data Statistics - IPv4v6 PDN IPv4 from user packets	Int64
ipv4v6-pdn-ipv4-from-user-byte	Subscriber Data Statistics - IPv4v6 PDN IPv4 from user bytes	Int64
ipv4v6-pdn-ipv6-to-user-pkt	Subscriber Data Statistics - IPv4v6 PDN IPv6 to user packets	Int64
ipv4v6-pdn-ipv6-to-user-byte	Subscriber Data Statistics - IPv4v6 PDN IPv6 to user bytes	Int64
ipv4v6-pdn-ipv6-from-user-pkt	Subscriber Data Statistics - IPv4v6 PDN IPv6 from user packets	Int64
ipv4v6-pdn-ipv6-from-user-byte	Subscriber Data Statistics - IPv4v6 PDN IPv6 from user bytes	Int64





# Chapter 7

## S-GW Schema Statistics

This chapter lists new and modified bulkstatistics introduced in the 12.2 release in support of the S-GW IPv4 and IPv6 PDN feature.

*Table 7. Bulk Statistic Variables in the S-GW Schema*

Variable	Description	Data Type
sessstat-totcut-pdn-ipv4	Session Statistics - Total Current - PDN - IPv4 Setups <b>Type:</b> Gauge	Int32
sessstat-totcur-pdn-ipv6	Session Statistics - Total Current - PDN - IPv6 Setups <b>Type:</b> Gauge	Int32
sessstat-totcur-pdnipv4v6	Session Statistics - Total Current - PDN - IPv4 and IPv6 Setups <b>Type:</b> Gauge	Int32
ipv4-pdn-to-user-pkt	Subscriber Data Statistics - IPv4 PDN to user packets	Int64
ipv4-pdn-to-user-byte	Subscriber Data Statistics - IPv4 PDN to user bytes	Int64
ipv4-pdn-from-user-pkt	Subscriber Data Statistics - IPv4 PDN from user packets	Int64
ipv4-pdn-from-user-byte	Subscriber Data Statistics - IPv4 PDN from user bytes	Int64
ipv6-pdn-to-user-pkt	Subscriber Data Statistics - IPv6 PDN to user pkts	Int64
ipv6-pdn-to-user-byte	Subscriber Data Statistics - IPv6 PDN to user bytes	Int64
ipv6-pdn-from-user-pkt	Subscriber Data Statistics - IPv6 PDN from user packets	Int64
ipv6-pdn-from-user-byte	Subscriber Data Statistics - IPv6 PDN from user bytes	Int64
ipv4v6-pdn-ipv4-to-user-pkt	Subscriber Data Statistics - IPv4v6 PDN IPv4 to user packets	Int64
ipv4v6-pdn-ipv4-to-user-byte	Subscriber Data Statistics - IPv4v6 PDN IPv4 to user bytes	Int64
ipv4v6-pdn-ipv4-from-user-pkt	Subscriber Data Statistics - IPv4v6 PDN IPv4 from user packets	Int64
ipv4v6-pdn-ipv4-from-user-byte	Subscriber Data Statistics - IPv4v6 PDN IPv4 from user bytes	Int64
ipv4v6-pdn-ipv6-to-user-pkt	Subscriber Data Statistics - IPv4v6 PDN IPv6 to user packets	Int64
ipv4v6-pdn-ipv6-to-user-byte	Subscriber Data Statistics - IPv4v6 PDN IPv6 to user bytes	Int64
ipv4v6-pdn-ipv6-from-user-pkt	Subscriber Data Statistics - IPv4v6 PDN IPv6 from user packets	Int64
ipv4v6-pdn-ipv6-from-user-byte	Subscriber Data Statistics - IPv4v6 PDN IPv6 from user bytes	Int64



# Chapter 8

## System Schema Statistics

This chapter lists new and modified bulkstatistics introduced in the 12.2 release.

**Table 8. Bulk Statistic Variables in the System Schema**

Variable	Description	Data Type
sess-txpackets-umts	The number of packets transmitted via UMTS.	Int64
sess-txbytes-umts	The number of bytes transmitted via UMTS.	Int64
sess-rxpackets-umts	The number of packets received via UMTS.	Int64
sess-rxbytes-umts	The number of bytes received via UMTS.	Int64
sess-txpackets-gprs	The number of packets transmitted via GPRS.	Int64
sess-txbytes-gprs	The number of bytes transmitted via GPRS.	Int64
sess-rxpackets-gprs	The number of packets received via GPRS.	Int64
sess-rxbytes-gprs	The number of bytes received via GPRS.	Int64
sess-txpackets-lte	The number of packets transmitted via LTE.	Int64
sess-txbytes-lte	The number of bytes transmitted via LTE.	Int64
sess-rxpackets-lte	The number of packets received via LTE.	Int64
sess-rxbytes-lte	The number of bytes received via LTE.	Int64
sess-txpackets-ehrpd	The number of packets transmitted via eHRPD.	Int64
sess-txbytes-ehrpd	The number of bytes transmitted via eHRPD.	Int64
sess-rxpackets-ehrpd	The number of packets received via eHRPD.	Int64
sess-rxbytes-ehrpd	The number of bytes received via eHRPD.	Int64
sess-total-sessions-1xrtt	The number of bytes transmitted via 1xRTT.	Int32
sess-num-calls-arrived-1xrtt	The total number of 1xRTT calls arrived.	Int32
sess-num-calls-disconnected-1xrtt	The total number of 1xRTT calls disconnected.	Int32
sess-total-sessions-evdorev0	The total number of EvDO Rev 0 sessions.	Int32
sess-num-calls-arrived-evdorev0	The total number of EvDO Rev 0 calls arrived.	Int32

## ■ Additional Information

Variable	Description	Data Type
sess-num-calls-disconnected-evdorev0	The total number of EvDO Rev 0 calls disconnected.	Int32
sess-total-sessions-evdoreva	The total number of EvDO Rev A sessions.	Int32
sess-num-calls-arrived-evdoreva	The total number of EvDO Rev A calls arrived.	Int32
sess-num-calls-disconnected-evdoreva	The total number of EvDO Rev A calls disconnected.	Int32
sess-total-sessions-evdora	The total number of EVDOOrA sessions.	Int32
sess-num-calls-arrived-evdora	The total number of EVDOOrA calls arrived.	Int32
sess-num-calls-disconnected-evdora	The total number of EVDOOrA calls disconnected.	Int32
sess-total-sessions-umts	The total number of UMTS sessions.	Int32
sess-num-calls-arrived-umts	The total number of UMTS calls arrived.	Int32
sess-ttlconnected-umts	The total number of sessions connected with UMTS.	Int32
sess-num-calls-disconnected-umts	The total number of UMTS calls disconnected.	Int32
sess-total-sessions-gprs	The total number of GPRS sessions.	Int32
sess-num-calls-arrived-gprs	The total number of GPRS calls arrived.	Int32
sess-ttlconnected-gprs	The total number of sessions connected with GPRS.	Int32
sess-num-calls-disconnected-gprs	The total number of GPRS calls disconnected.	Int32
sess-total-sessions-ehrpdpd	The total number of eHRPD sessions.	Int32
sess-num-calls-arrived-ehrpdpd	The total number of eHRPD calls arrived.	Int32
sess-ttlconnected-ehrpdpd	The total number of sessions connected with eHRPD.	Int32
sess-num-calls-disconnected-ehrpdpd	The total number of eHRPD calls disconnected.	Int32
sess-total-sessions-lte	The total number of LTE sessions.	Int32
sess-num-calls-arrived-lte	The total number of LTE calls arrived.	Int32
sess-ttlconnected-lte	The total number of sessions connected with LTE.	Int32
sess-num-calls-disconnected-lte	The total number of LTE calls disconnected.	Int32
ikev2-csa-delmultspisnt	Total number of IKEv2 INFORMATIONAL Exchanges with a CHILD_SA Delete payload with multiple SPIs sent.	Int32
ikev2-csa-delmultspircv	Total number of IKEv2 INFORMATIONAL Exchanges with a CHILD_SA Delete payload with multiple SPIs received.	Int32

The following table lists the new bulk statistics for disconnect reasons introduced in this release of the 12.2 system schema.

**Table 9. New Bulk Statistic Variables for Disconnect Reasons in the 12.2 System Schema**

Variable	Description	Data Type
disc-reason-496	The total number of sessions disconnected due to a TCP FIN (finished sending) message received from the UE.	Int64
disc-reason-497	The total number of sessions disconnected due to a TCP RST (reset) message received from the UE.	Int64
disc-reason-498	The total number of sessions disconnected due to a socket error received from the trek stack at the access-side TCP socket connection between the UE and the TTG.	Int64



## Chapter 9

# show pdg-service statistics

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This chapter describes the new fields added to the output of the **show pdg-service statistics** command in this release. The chapter also lists the fields that have been removed from the command output in this release.

## show pdg-service statistics

The following table lists the new fields added to the output of the **show pdg-service statistics** command in this release.

**Table 10. New Fields in the show pdg-service statistics Command Output**

Field	Description
<b>Session Attempts Failed Disconnect reason</b>	
Remote disconnect	Number of session attempts failed before the call is in the CONNECTED state due to a remote disconnect.
Admin disconnect	Number of session attempts failed before the call is in the CONNECTED state due to a disconnect by the administrator.
Session setup timeout	Number of session attempts failed before the call is in the CONNECTED state because the Session Manager's session setup timer has timed out.
No resource	Number of session attempts failed before the call is in the CONNECTED state because the system has run out of resources (flows, memory resources, etc.).
Auth failure	Number of session attempts failed before the call is in the CONNECTED state because of an AAA authentication failure.
Flow add failure	Number of session attempts failed before the call is in the CONNECTED state because a flow could not be added on the NPU.
Invalid dest-context	Number of session attempts failed before the call is in the CONNECTED state because the destination context received from the AAA server is invalid.
GTP	Number of session attempts failed before the call is in the CONNECTED state because of a GTP failure.
Duplicate request	Number of session attempts failed before the call is in the CONNECTED state because of duplicate requests.
Addr assign failure	Number of session attempts failed before the call is in the CONNECTED state because no remote IP address has been assigned.
Miscellaneous reasons	Number of session attempts failed because of miscellaneous reasons, including all session setup failures due to SSL failures (for example, handshake failures, ssl-alert, ssl-bad-message), or an unknown APN case in which the TTG is unable to resolve the APN, and all remaining disconnect reasons before the call is in the CONNECTED state.
<b>Session Disconnect reason</b>	
Remote disconnect	Number of sessions disconnected after the call is in the CONNECTED state because of a remote disconnect.
Admin disconnect	Number of sessions disconnected after the call is in the CONNECTED state by the administrator.
Idle timeout	Number of sessions disconnected after the call is in the CONNECTED state because the Idle timer has timed out.



Field	Description
Absolute timeout	Number of sessions disconnected after the call is in the CONNECTED state because the Absolute timer has timed out.
Long duration timeout	Number of sessions disconnected after the call is in the CONNECTED state because the Long Duration timer has timed out.
Re-Auth failure	Number of sessions disconnected after the call is in the CONNECTED state because of a re-authentication failure.
Source address violation	Number of sessions disconnected after the call is in the CONNECTED state because the source IP address is invalid.
GTP	Number of GTP sessions disconnected after the call is in the CONNECTED state.
Duplicate request	Number of sessions disconnected after the call is in the CONNECTED state because of duplicate requests.
Miscellaneous reasons	Number sessions disconnected after the call is in the CONNECTED state because of miscellaneous reasons.

The following table lists the fields that have been removed from the output of the **show pdg-service statistics** command in this release.

**Table 11. Fields Removed from the show pdg-service statistics Command Output**

Field	Description
<b>Session Disconnect reason</b>	
Remote disconnect	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.

Field	Description
Addr assign failure	Number of sessions disconnected because no remote IP address has been assigned.
Miscellaneous reasons	Number sessions disconnected because of miscellaneous reasons.

# Chapter 10

## show session disconnect-reasons verbose

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This chapter describes the new fields added to the output of the **show session disconnect-reasons verbose** command in this release.

# show session disconnect-reasons verbose

The following table lists the new fields added to the output of the `show session disconnect-reasons verbose` command in this release.

Table 12. New Fields in the show session disconnect-reasons verbose Command Output

Field	Description
tcp-remote-close (496)	The total number of sessions disconnected due to a TCP FIN (finished sending) message received from the UE.
tcp-reset-received (497)	The total number of sessions disconnected due to a TCP RST (reset) message received from the UE.
tcp-socket-error (498)	The total number of sessions disconnected due to a socket error received from the trek stack at the access-side TCP socket connection between the UE and the TTG.