show ps-network

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show ps-network all status

Important In Release 20 and later, HNBGW is not supported. For more information, contact your Cisco account representative.

Table 1: show ps-network all status Command Output Descriptions

Field	Description
PS Network name	Indicates the name of the Packet Switched (PS) network instance for which status is displayed.
Associated SCCP-Network	Indicates the name of the Signalling Connection Control Part (SCCP) network service instance which in associated with referecned PS network instance.
Associated GTPU Service	Indicates the name of the GTP-U service instance which in associated with referecned PS network instance.
GTPU Context Name	Indicates the name of the context in which GTP-U service instance is configured.
SGSN Point Code	Indicates the address of SGSN in SS7 point code notation which is serving the referenced PS network instance.
Status	Indicates the status of SGSN which is serving the referenced PS network instance.

Field	Description
Network Status	Indicates the status of network in which the referenced PS network instance is placed.
NRI	Indicates the Network Resource Identication (NRI) bit configuration status for the referenced PS network.
IDNNS	Indicates the Intra-Domain NAS Node Selector (IDNNS) configuration status for the referenced PS network to transport the NRI value.
CORE NODE MAP	Indicates the core node mapping configuration status for the referenced PS network.
Initiated Ranap Reset	Indicates if the HNB-GW Initiated RANAP Reset function is enabled or disabled. **Important** Before StarOS 14.0 release, this counter was displayed in show hnbgw-service command outputs.
Ranap Reset Ack Timer	The timer value, in seconds, that defines how long the HNB-GW waits for a RESET ACK message from the SGSN after transmitting a RESET message. This setting is used only if the HNB-GW Initiated RANAP Reset function is enabled. **Important** Before StarOS 14.0 release, this counter was displayed in show hnbgw-service command outputs.
Ranap Reset Maximum Retransmissions	Sets the maximum number of retries allowed for the HNB-GW to transmit a RANAP RESET message to the SGSN if the RESET ACK timer expires. This setting is used only if the HNB-GW Initiated RANAP Reset function is enabled. **Important** Before StarOS 14.0 release, this counter was displayed in show hnbgw-service command outputs.
Ranap Reset Guard Timer	The timer that the HNB-GW starts after receiving a RESET message from the PS core network. While this timer is running, the HNB-GW discards any new RESET messages that it receives. **Important** Before StarOS 14.0 release, this counter was displayed in show hnbgw-service command outputs.
Global RNC-Id	This group displays the information related to global Radio Network Controller settings for use by the PS core network for HNB-GW service(s) on a chassis. It is configured under the PLMN-ID.
MCC	The Mobile Country Code defined for use with this HNB-GW service. It consists of the first 3 digits of the Available Radio Network PLMN ID.

Field	Description
MNC	The Mobile Network Code defined for use with this HNB-GW service. It consists of the last 3 digits of the Available Radio Network PLMN ID.
Id	The Radio Network Controller ID provided to HNBs for use by the PS core network for this HNB-GW service. It is configured under the PLMN-ID

show ps-network statistics ranap-only

Table 2: show ps-network statistics ranap-only Command Output Descriptions

Field	Description
RANAP	This group displays the statistics of RANAP in a PS network on chassis.
Initial UE Tx	Total number of initial UE requests transmitted.
Direct Transfer Rx	Total number of Direct Transfer requests received.
Direct Transfer Tx	Total number of Direct Transfer responses sent.
Reset Rx	Total number of RESET requests received.
Reset Tx	Total number of RESET responses sent.
Reset Ack Rx	Total number of RESET Ack requests received.
Reset Ack Tx	Total number of responses against RESET Ack request sent.
Reset Resource Rx	Total number of RESET RESOURCE requests received.
Reset Resource Tx	Total number of RESET RESOURCE responses sent.
Reset Resource Ack Rx	Total number of RESET RESOURCE Ack requests received.
Reset Resource Ack Tx	Total number of responses against RESET RESOURCE Ack request sent.
Iu Release Request Tx	Total number of Iu RELEASE requests sent.
Iu Release Command Rx	Total number of Iu RELEASE command received.
Iu Release Complete Tx	Total number of Iu RELEASE Complete response sent.
Paging Request Rx	Total number of Paging rquests received.
RAB Assignment Request Rx	Total number of RAB assignment requests received.
RAB Setup/Mod Rx	Total number of RAB setup or modification requests received.

Field	Description
RAB Release Rx	Total number of RAB Release requests received.
RAB Assignment Response Tx	Total number of responses against RAB assignment requests sent.
RAB Setup/Mod Success Tx	Total number of RAB setup or modification Success response sent.
Total RAB Setup/Mod Fail Tx	Total number of RAB setup or modification Fail response sent.
RAB Setup/Mod Fail(Local) Tx	Total number of RAB setup or modification Fail response sent where RAB setup or modification failed due to local reason/cause.
RAB Release Success Tx	Total number of RAB Release Success response sent.
Total RAB Release Fail Tx	Total number of RAB Release Success response sent.
RAB Release Fail(Local) Tx	Total number of RAB Release Fail response sent where RAB Release failed due to local reason/cause.
RAB Queued Tx	Total number of RAB messages quesed for transmission.
RAB Setup/Mod Timer Exp	Total number of instances where RAB setup/modification timer expired before process of request.
RAB Release Timer Exp	Total number of instances where RAB Reelase timer expired before process of request.
RAB Set/Mod/Rel Local Fail	This group displays the total number of RAB setup or modification or release requests failed due to local reason/cause.
Local Failure Cause	This group idendifies the local cause for RAB setup or modification or release request failure.
Radio Network Layer Cause	This group idendifies the total number of RAB setup or modification or release request failure due to error in radio network layer.
Invalid Rab Id	Total number of RAB setup or modification or release requests failed due to invalid RAB id in radio network layer.
Interaction With Other Proc	Total number of RAB setup or modification or release requests failed as system was interacting with another process.
Transport Layer Cause	This group idendifies the total number of RAB setup or modification or release request failure due to error in Transport layer.
Sig Trans Res Fail	Total number of RAB setup or modification or release requests failed due to Sig trans Resource failure in transport layer.
Iu Tran Conn failed to Estab	Total number of RAB setup or modification or release requests failed where Iu Transmission connection failed to establish in transport layer.

Field	Description
Protocol Layer Cause	This group idendifies the total number of RAB setup or modification or release request failure due to error in Protocol layer.
Transfer syntax error	Total number of RAB setup or modification or release requests failed due to transfer syntax error in Protocol layer.
Asn error(Reject)	Total number of RAB setup or modification or release requests failed due to ASN (Reject) syntax error in Protocol layer.
Asn error	Total number of RAB setup or modification or release requests failed due to ASN syntax error in Protocol layer.
Msg not comp with Rcvr state	Total number of RAB setup or modification or release requests failed as message was not compatible with Recovery state in Protocol layer.
Semantic error	Total number of RAB setup or modification or release requests failed due to semantic error in Protocol layer.
Asn error(Falsely const msg)	Total number of RAB setup or modification or release requests failed due to ASN error (falsely constructed messages) in Protocol layer.
Miscellaneous Cause	This group idendifies the total number of RAB setup or modification or release request failure due to miscellaneous cause (not listed in this table).
No Resource Available	Total number of RAB setup or modification or release requests failed due to non availability of resourcse.
Unspecified	Total number of RAB setup or modification or release request failure due to sunspecified cause (not listed in this table).
<*class_name*> Class	This group displays the total number of RAB setup or modification or release request failure grouped in Class name <*class_name*>. Following groups are supported: • Conversational Class • Streaming Class • Interactive Class • Background Class • Unknown Class
RAB Setup/Mod Rx	Total number of RAB setup or modification requests received for specific class.
RAB Setup/Mod Success Tx	Total number of RAB setup or modification sucess messages sent for specific class.
RAB Release Rx	Total number of RAB Release requests received for specific class.

Field	Description
Total RAB Setup/Mod Fail Tx	Total number of RAB setup or modification failure messages sent for specific class.
RAB Setup/Mod Fail(Local) Tx	Total number of RAB setup or modification failure messages sent for specific class where RAB setup or modification failed due to local reason/cause.
RAB Release Success Tx	Total number of RAB Release success messages sent for specific class.
Total RAB Release Fail Tx	Total number of RAB Release fail messages sent for specific class.
RAB Release Fail(Local) Tx	Total number of RAB Release fail messages sent for specific class where RAB setup or modification failed due to local reason/cause.
RAB Queued Tx	Total number of RAB messages queued for processing or transmission.
Relocation Request Rx	Total number of RAB Relocation request received by system for this PS network.
RAB Setup Rx	Total number of RAB Relocation setup request received by system for this PS network.
Relocation Request ACK Tx	Total number of RAB Relocation Ack messages sent agains setup request received by system for this PS network.
RAB Setup Success Tx	Total number of RAB setup success messages sent agains setup request received by system for this PS network.
Total RAB Setup Fail Tx	Total number of RAB setup fail messages sent agains setup request received by system for this PS network.
RAB Setup Fail(Local) Tx	Total number of RAB setup failure messages sent from this system where RAB setup or modification failed due to local reason/cause.
Local Failure Cause	This group idendifies the local cause for RAB setup or modification or release request failure.
Radio Network Layer Cause	This group idendifies the total number of RAB setup or modification or release request failure due to error in radio network layer.
Invalid Rab Id	Total number of RAB setup or modification or release requests failed due to invalid RAB id in radio network layer.
Interaction With Other Proc	Total number of RAB setup or modification or release requests failed as system was interacting with another process.
Transport Layer Cause	This group idendifies the total number of RAB setup or modification or release request failure due to error in Transport layer.

Field	Description
Sig Trans Res Fail	Total number of RAB setup or modification or release requests failed due to Sig trans Resource failure in transport layer.
Iu Tran Conn failed to Estab	Total number of RAB setup or modification or release requests failed where Iu Transmission connection failed to establish in transport layer.
Protocol Layer Cause	This group idendifies the total number of RAB setup or modification or release request failure due to error in Protocol layer.
Transfer syntax error	Total number of RAB setup or modification or release requests failed due to transfer syntax error in Protocol layer.
Asn error(Reject)	Total number of RAB setup or modification or release requests failed due to ASN (Reject) syntax error in Protocol layer.
Asn error	Total number of RAB setup or modification or release requests failed due to ASN syntax error in Protocol layer.
Msg not comp with Rcvr state	Total number of RAB setup or modification or release requests failed as message was not compatible with Recovery state in Protocol layer.
Semantic error	Total number of RAB setup or modification or release requests failed due to semantic error in Protocol layer.
Asn error(Falsely const msg)	Total number of RAB setup or modification or release requests failed due to ASN error (falsely constructed messages) in Protocol layer.
Miscellaneous Cause	This group idendifies the total number of RAB setup or modification or release request failure due to miscellaneous cause (not listed in this table).
No Resource Available	Total number of RAB setup or modification or release requests failed due to non availability of resourcse.
Unspecified	Total number of RAB setup or modification or release request failure due to sunspecified cause (not listed in this table).
<*class_name*> Class	This group displays the total number of RAB Setup request grouped in Class name <*class_name*>.
RAB Setup Rx	Total number of RAB setup requests received for specific class.
RAB Setup Success Tx	Total number of RAB setup sucess messages sent for specific class.
Total RAB Setup Fail Tx	Total number of RAB setup failure messages sent for specific class.

Field	Description
RAB Setup Fail(Local) Tx	Total number of RAB setup failure messages sent for specific class where RAB setup failed due to local reason/cause.
Relocation Detect Tx	Total number of RAB Relocation Detect messages sent by system in this PS network.
Relocation Required Tx	Total number of RAB Relocation Required request messages sent by system in this PS network.
Fwd SRNS Context Request Tx	Total number of FWD SRNS Context request messages sent by system in this PS network.
Relocation Prep Failure Rx	Total number of Relocation Preparation failure response messages sent by system in this PS network.
Relocation Cancel Tx	Total number of Relocation cancle command messages received by system in this PS network.
Relocation Command Rx	Total number of Relocation command messages received by system in this PS network.
Srns Context Request Rx	Total number of SRNS Context Request messages received by system in this PS network.
Srns Context Response Tx	Total number of response sent for SRNS Context Request messages received by system in this PS network.
<*class_name*> Class	This group displays the total number of RAB Setup request grouped in Class name <*class_name*>.
RAB Setup Rx	Total number of RAB setup requests received for specific class.

show ps-network statistics sccp-only

Important In Release 20 and later, HNBGW is not supported. For more information, contact your Cisco account representative.

Table 3: show ps-network statistics sccp-only Command Output Descriptions

Field	Description
SCCP	This group displays the statistics of SCCP in a PS network on chassis.

Field	Description
SCCP Connection Request Rx	Total number of SCCP connection Request received by HNB-GW from the Core Node. This counter changes when Core Node initiates SCCP connection during Relocation.
SCCP Connection Request Tx	Total number of SCCP connection Request sent by HNB-GW towards the CN after getting RUA Connect Request for a Registered UE. This counter changes when RUA Connect Request sent for a Registered UE.
SCCP Connection Confirm Rx	Total number of SCCP Connection Confirmation messages received by HNB-GW from the Core Node. This counter changes when CN sends the SCCP connection confirmation for a requested SCCP Connection Request.
SCCP Connection Confirm Tx	Total number of SCCP Connection Confirmation response messages sent by HNB-GW to the Core Node. This counter changes when HNB-GW sends the SCCP connection confirmation response for a requested SCCP Connection Request to CN.
SCCP Connection Reject Rx	Total number of SCCP Connection Reject messages received by HNB-GW from the Core Node. This counter changes when Core node Rejects the SCCP Conn Request due to some parameter mismatch, etc.
SCCP Connection Reject Tx	Total number of SCCP Connection Rejection response messages sent by HNB-GW to the Core Node. This counter changes when HNBGW initiates the tear Down on receiving RUA disconnect from HNB which doesn't contain RANAP Iu-release complete message and other failure scenarios.
SCCP Connection Data Rx	Total data received by HNB-GW over SCCP connection between HNB-GW and Core Node. This counter changes when CN sends the data towards HNB-GW over SCCP connection.
SCCP Connection Data Tx	Total data sent by HNB-GW over SCCP connection between HNB-GW and Core Node. This counter changes when HNB-GW sends the data towards CN over SCCP connection.
SCCP Disconnect Rx	Total number of SCCP Disconnect messages received by HNB-GW from Core Node. This counter changes when CN initiate tear-down procedure for SCCP connection.

Field	Description
SCCP Disconnect Tx	Total number of SCCP Disconnect response messages sent by HNB-GW to Core Node. This counter changes when HNBGW initiates the tear-down procedure on receiving RUA disconnect from HNB which doesn't contain RANAP Iu-release complete message and other failure scenarios.
SCCP Uni Data Rx	Total Connection-less data, like paging, received by HNB-GW over SCCP connection between HNB-GW and Core Node. This counter changes when CN sends any connection-less data, like paging, towards HNB-GW over SCCP connection.
SCCP Uni Data Tx	Total Connection-less data, RANAP Reset, RANAP reset Resource, sent by HNB-GW over SCCP connection between HNB-GW and Core Node. This counter changes when HNB-GW sends or forward any Connection-less data, like RANAP reset, RANAP Reset Resource, towards CN over SCCP connection.

show ps-network statistics gtpu-only

Important In Release 20 and later, HNBGW is not supported. For more information, contact your Cisco account representative.

Table 4: show ps-network statistics gtpu-only Command Output Descriptions

Variables	Description
GTPU	This group displays the statistics of SCCP in a PS network on chassis.
GTPU Fwd Packets Tx	Indicates the total number of packets forwarded by HNB-GW to SGSN over GTP-U connection during a session. This counter increments when a GTP-U packet forwarded by HNB-GW to CN.
GTPU Fwd Bytes Tx	Indicates the total number of Bytes forwarded by HNB-GW to SGSN over GTP-U connection during a session. This counter increments when a GTP-U Byte forwarded by HNB-GW to CN.

Variables	Description
GTPU Packets Rx	Indicates the total number of packets received by HNB-GW from SGSN over GTP-U connection during a session. This counter increments when a packet received by HNB-GW from CN.
GTPU Packets Tx	Indicates the total number of packets sent by HNB-GW towards SGSN over GTP-U connection during a session. This counter increments when a GTP-U packet sent by HNB-GW to CN.
GTPU Bytes Rx	Indicates the total number of bytes received by HNB-GW from SGSN over GTP-U connection during a session. This counter increments when a byte received by HNB-GW from CN.
GTPU Bytes Tx	Indicates the total number of bytes sent by HNB-GW towards SGSN over GTP-U connection. Trigger: Increments when a byte sent by HNB-GW to CN. Availability: Across PS Networks