



## show cs-network

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## show cs-network all status



### Important

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

**Table 1: show cs-network all status Command Output Descriptions**

| Field                    | Description   |
|--------------------------|---|
| CS Network name          | Indicates the name of the Circuit Switched (CS) network instance for which status is displayed.   |
| Associated SCCP-Network  | Indicates the name of the Signalling Connection Control Part (SCCP) network service instance which is associated with the referenced CS network instance. |
| Associated Alcap-Service | Indicates the name of the Access Link Control Application Protocol (ALCAP) service instance which is associated with the referenced CS network instance.  |
| Alcap Context Name       | Indicates the name of the context in which the ALCAP service instance is configured.  |
| Associated RTP Pool      | Indicates the name of the RTP IP pool configured and associated with the referenced CS network instance for RTP stream management.                        |
| RTP Pool Context Name    | Indicates the name of the context in which the RTP IP pool is configured for RTP stream management.   |

| Field   | Description   |
|---|---|
| MSC Point Code                                  | Indicates the address of MSC in SS7 point code notation which is serving the referenced CS network instance.  |
| Status  | Indicates the status of MSC which is serving the referenced CS network instance.  |
| Network Status                                  | Indicates the status of network in which the referenced CS network instance is placed.  |
| RTP IP Addresses                                | Indicates the session manager instances and associated IP pools with them for RTP stream management support.  |
| NRI   | Indicates the Network Resource Identification (NRI) bit configuration status for the referenced CS network.   |
| IDNNS   | Indicates the Intra-Domain NAS Node Selector (IDNNS) configuration status for the referenced CS network to transport the NRI value.   |
| Lac range <nnn> to <nnn> MSC Point-code <x.x.x> | Indicates the mapping configured between MSC point-code and range of LAC for multiple MSC selection without Iu-Flex in CS network.  |
| CORE NODE MAP                                   | Indicates the core node mapping configuration status for the referenced CS network.   |
| Initiated Ranap Reset                           | Indicates if the HNB-GW Initiated RANAP Reset function is enabled or disabled.<br><br><b>Important</b> 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 MSC after transmitting a RESET message. This setting is used only if the HNB-GW Initiated RANAP Reset function is enabled.<br><br><b>Important</b> 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 MSC if the RESET ACK timer expires. This setting is used only if the HNB-GW Initiated RANAP Reset function is enabled.<br><br><b>Important</b> Before StarOS 14.0 release, this counter was displayed in show hnbgw-service command outputs.       |

| Field                   | Description  |
|-------------------------|--|
| Ranap Reset Guard Timer | The timer that the HNB-GW starts after receiving a RESET message from the CS core network. While this timer is running, the HNB-GW discards any new RESET messages that it receives.<br><b>Important</b> 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 CS 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.  |
| 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 CS core network for this HNB-GW service. It is configured under the PLMN-ID  |

## show cs-network statistics ranap-only

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

| Field              | Description   |
|--------------------|---|
| RANAP              | This group displays the statistics of RANAP in a CS 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.                          |

| Field                        | Description   |
|------------------------------|---|
| 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 requests 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.  |
| 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 queued 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 Release 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 identifies the local cause for RAB setup or modification or release request failure.                                     |
| Radio Network Layer Cause    | This group identifies the total number of RAB setup or modification or release request failure due to error in radio network layer. |

| Field                        | Description   |
|------------------------------|---|
| 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 identifies 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.         |
| Protocol Layer Cause         | This group identifies 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 identifies 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 resource.   |
| Unspecified                  | Total number of RAB setup or modification or release request failure due to unspecified cause (not listed in this table).                             |

| Field                        | Description  |
|------------------------------|--|
| <codec_name> Codec           | This group displays the total number of RAB setup or modification or release request failure grouped in Codec name <codec_name>. Following groups are supported: <ul style="list-style-type: none"> <li>• UMTS AMR Codec</li> <li>• UMTS AMR2 Codec</li> <li>• Other Codec</li> <li>• No Codec</li> <li>• Unknown Codec</li> </ul> |
| RAB Setup/Mod Rx             | Total number of RAB setup or modification requests received for specific codec.  |
| RAB Setup/Mod Success Tx     | Total number of RAB setup or modification success messages sent for specific codec.  |
| RAB Release Rx               | Total number of RAB Release requests received for specific codec.  |
| Total RAB Setup/Mod Fail Tx  | Total number of RAB setup or modification failure messages sent for specific codec.  |
| RAB Setup/Mod Fail(Local) Tx | Total number of RAB setup or modification failure messages sent for specific codec 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 codec.  |
| Total RAB Release Fail Tx    | Total number of RAB Release fail messages sent for specific codec.   |
| RAB Release Fail(Local) Tx   | Total number of RAB Release fail messages sent for specific codec 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 CS network.   |
| RAB Setup Rx                 | Total number of RAB Relocation setup request received by system for this CS network.   |
| Relocation Request ACK Tx    | Total number of RAB Relocation Ack messages sent against setup request received by system for this CS network.   |
| RAB Setup Success Tx         | Total number of RAB setup success messages sent against setup request received by system for this CS network.  |
| Total RAB Setup Fail Tx      | Total number of RAB setup fail messages sent against setup request received by system for this CS network.   |

| Field                        | Description   |
|------------------------------|---|
| 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 identifies the local cause for RAB setup or modification or release request failure.   |
| Radio Network Layer Cause    | This group identifies 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 identifies 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. |
| Protocol Layer Cause         | This group identifies 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.       |

| Field                       | Description   |
|-----------------------------|---|
| Miscellaneous Cause         | This group identifies 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 resource.   |
| Unspecified                 | Total number of RAB setup or modification or release request failure due to unspecified cause (not listed in this table).                             |
| <codec_name> Codec          | This group displays the total number of RAB Setup request grouped in Codec name <codec_name>.   |
| RAB Setup Rx                | Total number of RAB setup requests received for specific codec.   |
| RAB Setup Success Tx        | Total number of RAB setup success messages sent for specific codec.   |
| Total RAB Setup Fail Tx     | Total number of RAB setup failure messages sent for specific codec.   |
| RAB Setup Fail(Local) Tx    | Total number of RAB setup failure messages sent for specific codec where RAB setup failed due to local reason/cause.                                  |
| Relocation Detect Tx        | Total number of RAB Relocation Detect messages sent by system in this CS network.   |
| Relocation Required Tx      | Total number of RAB Relocation Required request messages sent by system in this CS network.   |
| Fwd SRNS Context Request Tx | Total number of FWD SRNS Context request messages sent by system in this CS network.  |
| Relocation Prep Failure Rx  | Total number of Relocation Preparation failure response messages sent by system in this CS network.   |
| Relocation Cancel Tx        | Total number of Relocation cancel command messages received by system in this CS network.   |
| Relocation Command Rx       | Total number of Relocation command messages received by system in this CS network.  |
| Srns Context Request Rx     | Total number of SRNS Context Request messages received by system in this CS network.  |
| Srns Context Response Tx    | Total number of response sent for SRNS Context Request messages received by system in this CS network.  |



# show cs-network statistics sccp-only



**Important** In Release 20, 21.0 and 21.1, HeNBGW is not supported. For more information, contact your Cisco account representative.

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

| Field                      | Description   |
|----------------------------|---|
| SCCP                       | This group displays the statistics of SCCP in a CS network on chassis.  |
| SCCP Connection Request Rx | Total number of SCCP connection Request received by HNB-GW from the Core Node.<br><br>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.<br><br>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.<br><br>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.<br><br>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.<br><br>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.<br><br>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. |

| Field                   | Description  |
|-------------------------|--|
| SCCP Connection Data Rx | Total data received by HNB-GW over SCCP connection between HNB-GW and Core Node.<br><br>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.<br><br>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.<br><br>This counter changes when CN initiate tear-down procedure for SCCP connection.  |
| SCCP Disconnect Tx      | Total number of SCCP Disconnect response messages sent by HNB-GW to Core Node.<br><br>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.<br><br>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.<br><br>This counter changes when HNB-GW sends or forward any Connection-less data, like RANAP reset, RANAP Reset Resource, towards CN over SCCP connection. |