

show egtp

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show egtpc peers interface

Table 1: show egtpc peers interface Command Output Descriptions

Field	Description
Status	The status of the GTPC session. - **A**: Online/Active - **I**: Offline/Inactive
GTPC Echo	Displays whether GTPC echo is enable or not. - **D**: Disabled - **E**: Enabled
Restart Counter	Displays whether restart counter messages have been sent or not. - **S**: Sent - **N**: Not Sent
Peer Restart Counter	Displays the status of the peer restart counter. - **K**: Known - **U**: Unknown

Field	Description
Type of Node	Indicates the type of node with which the interface communicates. - **S**: SGW - **P**: PGW - **M**: MME - **G**: SGSN
Node Feature	Indicates the Node Feature capability of the peer. - **P**: P-GW Restart Notification - **M**: Modify Access Bearer Request - **N**: Network triggered Service Request
Service ID	The Service ID for the eGTP service
Peer Address	Indicates the IP address of the peer service (MME/P-GW/S-GW).
Restart Counter	Indicates the restart counter value.
No. of restarts	Indicates the number of restarts of the peer node (MME/S-GW/P-GW).
Current sessions	Indicates the number of sessions currently active on eGTP service.
Max sessions	Indicates the total number of sessions allowed on this eGTP service.

show egtpc peers path-failure-history

This command provides path failure history information for the last five path failures per peer. This information assists operators in isolating the root cause of eGTP-C path failures in the network

Field	Description
Peer Address	The IP address of the peer involved in the GTP-C path failure.
Time of Path Failure	The date and time of the GTP-C path failure.
Reason	The reason for the GTP-C path failure.
Event/Msg Type	The event or message type related to the GTP-C path failure.
Old RC	The old restart counter value.
New RC	The new restart counter value.
Session Count	The total number of sessions at the time of the GTP-C path failure.
IMSI	The subscriber IMSI at the time of the GTP-C path failure.
Local TEID	The local tunnel endpoint identifier.

Field	Description
Remote TEID	The remote tunnel endpoint identifier.

show egtpc statistics path-failure-reasons

The output of this command provides detailed statistics for the types of eGTP-C path failures that have been detected. These statistics assist operators in isolating the root cause of eGTP-C path failures in the network.

Table 2: show egtpc statistics path-failure-reasons Command Output Descriptions

Field	Description
Reasons for path failure at EGTPC	
Echo Request restart counter change	The total number of GTP-C path failures detected due to an Echo Request restart counter change.
Echo Response restart counter change	The total number of GTP-C path failures detected due to an Echo Response restart counter change.
No Echo Response received	The total number of GTP-C path failures detected due to an no Echo Response received.
Control message restart counter change at demux	
Create Session Request	The total number of GTP-C path failures detected due to a Create Session Request control message restart counter change at the demuxmgr.
Forward Relocation Request	The total number of GTP-C path failures detected due to a Forward Relocation Request control message restart counter change at the demuxmgr.
MBMS Session Start Request	The total number of GTP-C path failures detected due to an MBMS Session Start Request control message restart counter change at the demuxmgr.
Control message restart counter change at sessmgr	
Modify Bearer Request	The total number of GTP-C path failures detected due to a Modify Bearer Request control message restart counter change at the sessmgr.
Create Session Response	The total number of GTP-C path failures detected due to a Create Session Response control message restart counter change at the sessmgr.
Modify Bearer Response	The total number of GTP-C path failures detected due to a Create Session Response control message restart counter change at the sessmgr.
Delete Session Response	The total number of GTP-C path failures detected due to a Delete Session Response control message restart counter change at the sessmgr.

Field	Description
Delete Bearer Response	The total number of GTP-C path failures detected due to a Delete Bearer Response control message restart counter change at the sessmgr.
Update Bearer Response	The total number of GTP-C path failures detected due to a Update Bearer Response control message restart counter change at the sessmgr.
Create Bearer Response	The total number of GTP-C path failures detected due to a Create Bearer Response control message restart counter change at the sessmgr.
Release Access Bearer Response	The total number of GTP-C path failures detected due to a Release Access Bearer Response control message restart counter change at the sessmgr.
Downlink Data Notification Acknowledge	The total number of GTP-C path failures detected due to a Release Access Bearer Response control message restart counter change at the sessmgr.
Delete Bearer Command Failure Indication	The total number of GTP-C path failures detected due to a Delete Bearer Command Failure Indication control message restart counter change at the sessmgr.
Bearer Resource Command Failure Indication	The total number of GTP-C path failures detected due to a Bearer Resource Command Failure Indication control message restart counter change at the sessmgr.
Modify Bearer Command Failure Indication	The total number of GTP-C path failures detected due to a Modify Bearer Command Failure Indication control message restart counter change at the sessmgr.
Create Ind Data Forwarding Response	The total number of GTP-C path failures detected due to a Create Ind Data Forwarding Response control message restart counter change at the sessmgr.
Delete Ind Data Forwarding Response	The total number of GTP-C path failures detected due to a Delete Ind Data Forwarding Response control message restart counter change at the sessmgr.
Forward Relocation Complete Acknowledge	The total number of GTP-C path failures detected due to a Forward Relocation Complete Acknowledge control message restart counter change at the sessmgr.
MBMS Session Start Response	The total number of GTP-C path failures detected due to a MBMS Session Start Response control message restart counter change at the sessmgr.
MBMS Session Stop Response	The total number of GTP-C path failures detected due to a MBMS Session Stop Response control message restart counter change at the sessmgr.
MBMS Session Update Response	The total number of GTP-C path failures detected due to a MBMS Session Update Response control message restart counter change at the sessmgr.

Field	Description
Total path failures detected	The total number of GTP-C path failures detected for any reason.
Path failure detection ignored at EGTPC	
Echo Request/Response restart counter change	The total number of GTP-C path failures ignored at EGTPC due to an Echo Request/Echo Response restart counter change.
No Echo Response received	The total number of GTP-C path failures ignored at EGTPC due to an Echo Response not received.
Control message restart counter change	The total number of GTP-C path failures ignored at EGTPC due to a control message restart counter change.
Control Rsp message restart counter change	The total number of GTP-C path failures ignored at EGTPC due to a control Response message restart counter change.
Control Rsp message received from wrong peer	The total number of GTP-C path failures ignored at EGTPC due to a control Response message received from the wrong peer.

show egtp-service all

Table 3: show egtp service all Command Output Descriptions

Field	Description
Service name	The name of the service configured in the named context.
Service-ID	A system generated ID number applied to the service.
Context	The name of the context where the service is configured.
Interface Type	The type of LTE interface this service is supporting. The following fields are in the output of the show egtp-service all command to accept or reject Create Session Request (CSR) on GTP based S2a and S2b interfaces. • s5/s8 • s2a • s2b **Important** This is a license-controlled feature. A valid feature license must be installed prior to configuring this feature. Contact your Cisco account representative for more information. These fields are only visible if the license is enabled.
Status	The status of the service, i.e., "STARTED".
Restart Counter	Specifies the restart counter.

Field	Description
Max Remote Restart Counter Change	An integer from 1 to 255 that specifies the value configured with the **gtpc max-restart-counter-change** command in *eGTP-C Configuration Mode*. This value represents the counter change after which the node will detect a peer restart. Note that a peer restart will be detected only if the absolute difference between the New and Old restart counters is less than the value configured. For example, if the **max-remote-restart-counter-change** is 10 and current peer restart counter is 251, then eGTP will detect a peer restart only if the new restart counter is 252 through 255 or 0 through 5. Similarly, if the stored restart counter is 1, eGTP will detect a peer restart only if the new restart counter is 2 through 11. The default value is 255.
Message Validation Mode	The type of IE validation to be performed on messages received by this service.
GTPC Retransmission Timeout	The number of seconds between the re-sending of GTP-C echo messages.
GTPC Maximum Request Retransmissions	The number of control packet request message retransmissions that can be sent before an error condition is established.
GTPC IP QOS DSCP value	The IP QoS DSCP per-hop behavior to be marked on the outer header of signalling packets originating from the LTE component.
GTPC Echo	Identifies if GTP-C echo messages will be sent.
GTPC Echo Interval	The duration between the sending of GTP-C echo messages.
GTP-C Bind IPv4 Address	The IPv4 address of the interface to which this service is bound.
GTP-C Bind IPv6 Address	The IPv6 address of the interface to which this service is bound.
GTPC Peer Salvation	Indicates if peer salvation is enabled or disabled.
GTPC path failure detection policy	
Echo Timeout	Indicates if the Echo Timeout failure detection policy is enabled/disabled.
Echo Req/Rsp Restart counter change	Indicates if the Echo Req/Rsp Restart counter failure detection policy is enabled/disabled. If enabled, path failure detection occurs when the restart counter in Echo Request/Echo Response messages changes.
Control Mesg Restart counter change	Indicates if the Control Mesg Restart counter failure detection policy is enabled/disabled. If enabled, path failure detection occurs when the restart counter in Control Request/Control Response messages changes.

Field	Description
Collision handling DBcmd when MBreq pending	The collision handling setting for a Delete Bearer command (DBcmd) message when the Modify Bearer Request (MBreq) message for the default bearer is pending at the P-GW. Possible settings are: • Queue DBcmd: Queue the DBcmd message when the MBreq message is pending. • Drop DBcmd: Drop the DBcmd message when the MBreq message is pending. • Abort MBreq and handle Dbcmd: Abort the MBreq message and handle the DBcmd message.
GTPC Private Extension Overcharging Protection	Indicates if **gtpc private-extension overcharge-protection** is enabled in the egtp-service. If it is enabled, then EGTPC will encode/decode Overcharge-protection related data in/from private extension instead of Indication IE. If this option is disabled, then by default the EGTPC layer will encode/decode Overcharge-protection related data in the Indication IE.
GTPC Node Feature GTPC Lte-M RAT	Displays the node features enabled in this egtpc service. Indicates that if the **allow-Item-rat** type is Enabled or Disabled in the egtp-service.

show egtpc sessions

Table 4: show egtpc sessions Command Output Descriptions

Field	Description
vvvv	From left to right, the first value indicates the **Interface Type**. - **M**: MME Egress - **P**: PGW Ingress - **S**: SGW Ingress v**s**: SGW Egress - **G**: SGSN Egress The second value indicates the **PDN Type**. - **N**: Non-Data Forwarding - **F**: Data Forwarding The third value indicates the **UEID Type**. - **M**: MEI (Mobile Equipment ID) - **I**: IMSI (International Mobile Subscriber Identity) The fourth value is a string of characters that indicate the **Bearer States**. - **A**: Active - **C**: Create Session Pending - **D**: Delete Session Pending - **d**: Delete Bearer Pending - **M**: Modify Bearer Pending - **R**: Release Access Bearer Pending - **L**: Downlink Data Notification Pending - **u**: Update User Plane Pending - **c**: Create Bearer Pending - **U**: Update Bearer Pending - **E**: Delete Bearer Command Pending - **B**: Bearer Resource Command Pending

Field	Description
vvvv *(cont.)*	- **m**: Modify Bearer Command Pending - **I**: Create Indirect Data Forwarding Pending - **i**: Delete Indirect Forwarding Pending - **t**: Context Acknowledge Pending - **T**: Context Request Pending - **F**: Identification Request Pending - **W**: Forward Relocation Pending - **X**: Forward Access Context Notification Pending - **w**: Forward Relocation Complete Pending - **r**: Release Cancel pending - **S**: Suspend Pending - **Y**: Resume Pending - **P**: PS to CS Response Pending - **p**: PS to CS Complete Pending - **Q**: PS to CS Cancel Pending - **.**: Inactive
SVC ID	Displays the Service ID.
IMSI/MEI	Displays the IMSI or MEI number.
Def EBI	Displays the default EPS Bearer Identity
EBIs	EBI Bearer States (see fourth value indicators described above).
Control TEIDs	Lists the Tunnel Endpoint Identifiers (TEIDs)
Local	Local TEID.
Remote	Remote TEID.
CallID	Displays the Call Identifier.
Peer Address	Displays the IP address of the eGTP-C peer.
Total sessions matching specified criteria	Displays the total number of eGTP-C sessions matching the specified criteria.

show egtpc statistics

Table 5: show egtpc statistics Command Output Descriptions

Field	Description
Tunnel Management Messages	
Create Session Request	
Total TX	The total number of tunnel - create session request messages sent by this system, the specified service, or the specified interface.
Total RX	The total number of tunnel - create session request messages received by this system, the specified service, or the specified interface.
Initial TX	The total number of tunnel - initially transmitted create session request messages sent by the system, the specified service, or the specified interface.
Initial RX	The total number of tunnel - initially transmitted create session request messages received by the system, the specified service, or the specified interface.
Retrans TX	The total number of tunnel - retransmitted create session request messages sent by the system, the specified service, or the specified interface.
Retrans RX	The total number of tunnel - retransmitted create session request messages received by this system, the specified service, or the specified interface.
Create Session Response	
Total TX	The total number of tunnel - create session response messages sent by this system, a specified service, or a specified interface.
Total RX	The total number of tunnel - create session response messages received by this system, the specified service, or the specified interface.
Initial TX Accepted Denied	The total number of tunnel - initially transmitted create session response messages sent by the system, the specified service, or the specified interface. Accepted and Denied display the total number of tunnel - initially transmitted create session response (accept or denied) messages sent by the system, the specified service, or the specified interface.
Initial RX Accepted Denied	The total number of tunnel - initially transmitted create session request messages received by the system, the specified service, or the specified interface. Accepted and Denied display the total number of tunnel - initially transmitted create session response (accept or denied) messages received by the system, the specified service, or the specified interface.
Retrans TX	The total number of tunnel - retransmitted create session response messages sent by this system, the specified service, or the specified interface.

Field	Description
Modify Bearer Request	
Total TX	The total number of tunnel - modify bearer request messages sent by this system, the specified service, or the specified interface.
Total RX	The total number of tunnel - modify bearer request messages received by this system, the specified service, or the specified interface.
Initial TX	The total number of tunnel - initially transmitted modify bearer request messages sent by the system, the specified service, or the specified interface.
Initial RX	The total number of tunnel - initially transmitted modify bearer request messages received by the system, the specified service, or the specified interface.
Retrans TX	The total number of tunnel - retransmitted modify bearer request messages sent by the system, the specified service, or the specified interface.
Retrans RX	The total number of tunnel - retransmitted modify bearer request messages received by this system, the specified service, or the specified interface.
Discarded	The total number of tunnel - retransmitted modify bearer request messages discarded by the system, the specified service, or the specified interface.
No Rsp RX	The total number of tunnel - retransmitted modify bearer request messages sent but where no response was received by the system, the specified service, or the specified interface.
Modify Bearer Response	
Total TX	The total number of tunnel - modify bearer response messages sent by this system, a specified service, or a specified interface.
Total RX	The total number of tunnel - modify bearer response messages received by this system, the specified service, or the specified interface.
Initial TX Accepted Denied	The total number of tunnel - initially transmitted modify bearer response messages sent by the system, the specified service, or the specified interface. Accepted and Denied display the total number of tunnel - initially transmitted modify bearer response (accept or denied) messages sent by the system, the specified service, or the specified interface.
Initial RX Accepted Denied	The total number of tunnel - initially transmitted modify bearer request messages received by the system, the specified service, or the specified interface. Accepted and Denied display the total number of tunnel - initially transmitted modify bearer response (accept or denied) messages received by the system, the specified service, or the specified interface.
Retrans TX	The total number of tunnel - retransmitted modify bearer response messages sent by this system, the specified service, or the specified interface.

Field	Description
Discarded	The total number of tunnel - retransmitted modify bearer response messages discarded by the system, the specified service, or the specified interface.
Delete Session Request	
Total TX	The total number of tunnel - delete session request messages sent by this system, the specified service, or the specified interface.
Total RX	The total number of tunnel - delete session request messages received by this system, the specified service, or the specified interface.
Initial TX	The total number of tunnel - initially transmitted delete session request messages sent by the system, the specified service, or the specified interface.
Initial RX	The total number of tunnel - initially transmitted delete session request messages received by the system, the specified service, or the specified interface.
Retrans TX	The total number of tunnel - retransmitted delete session request messages sent by the system, the specified service, or the specified interface.
Retrans RX	The total number of tunnel - retransmitted delete session request messages received by this system, the specified service, or the specified interface.
Delete Session Response	
Total TX Accepted Denied	The total number of tunnel - delete session response messages sent by the system, the specified service, or the specified interface. Accepted and Denied display the total number of tunnel - delete session response (accept or denied) messages sent by the system, the specified service, or the specified interface.
Total RX Accepted Denied	The total number of tunnel - delete session request messages received by the system, the specified service, or the specified interface. Accepted and Denied display the total number of tunnel - delete session response (accept or denied) messages received by the system, the specified service, or the specified interface.
Downlink Data Notification Request	
Total TX	The total number of tunnel - downlink data notification request messages sent by this system, the specified service, or the specified interface.
Total RX	The total number of tunnel - downlink data notification request messages received by this system, the specified service, or the specified interface.
Initial TX	The total number of tunnel - initially transmitted downlink data notification request messages sent by the system, the specified service, or the specified interface.

Field	Description
Initial RX	The total number of tunnel - initially transmitted downlink data notification request messages received by the system, the specified service, or the specified interface.
Retrans TX	The total number of tunnel - retransmitted downlink data notification request messages sent by the system, the specified service, or the specified interface.
Retrans RX	The total number of tunnel - retransmitted downlink data notification request messages received by this system, the specified service, or the specified interface.
Downlink Data Notification Response	
Total TX	The total number of tunnel - downlink data notification response messages sent by this system, the specified service, or the specified interface.
Total RX	The total number of tunnel - downlink data notification response messages received by this system, the specified service, or the specified interface.
Initial TX Accepted Denied	The total number of tunnel - initially transmitted downlink data notification response messages sent by the system, the specified service, or the specified interface. Accepted and Denied display the total number of tunnel - initially transmitted downlink data notification response (accept or denied) messages sent by the system, the specified service, or the specified interface.
Initial RX Accepted Denied	The total number of tunnel - initially transmitted downlink data notification response messages received by the system, the specified service, or the specified interface. Accepted and Denied display the total number of tunnel - initially transmitted downlink data notification response (accept or denied) messages received by the system, the specified service, or the specified interface.
Retrans TX	The total number of tunnel - retransmitted downlink data notification response messages sent by the system, the specified service, or the specified interface.
Downlink Data Failure Indication	
Initial TX	The total number of tunnel - initially transmitted downlink data failure indication messages sent by this system, the specified service, or the specified interface.
Initial RX	The total number of tunnel - initially transmitted downlink data failure indication messages received by this system, the specified service, or the specified interface.
Release Access Bearers Request	
Total TX	The total number of tunnel - release access bearers request messages sent by this system, the specified service, or the specified interface.

Field	Description
Total RX	The total number of tunnel - release access bearers request messages received by this system, the specified service, or the specified interface.
Initial TX	The total number of tunnel - initially transmitted release access bearers request messages sent by the system, the specified service, or the specified interface.
Initial RX	The total number of tunnel - initially transmitted release access bearers request messages received by the system, the specified service, or the specified interface.
Retrans TX	The total number of tunnel - retransmitted release access bearers request messages sent by this system, the specified service, or the specified interface.
Retrans RX	The total number of tunnel - retransmitted release access bearers request messages received by this system, the specified service, or the specified interface.
Release Access Bearer Response	
Total TX	The total number of tunnel - release access bearer response messages sent by this system, the specified service, or the specified interface.
Total RX	The total number of tunnel - release access bearer response messages received by this system, the specified service, or the specified interface.
Initial TX Accepted Denied	The total number of tunnel - initially transmitted release access bearer response messages sent by the system, the specified service, or the specified interface. Accepted and Denied display the total number of tunnel - initially transmitted release access bearer response (accept or denied) messages sent by the system, the specified service, or the specified interface.
Initial RX Accepted Denied	The total number of tunnel - initially transmitted release access bearer response messages received by the system, the specified service, or the specified interface. Accepted and Denied display the total number of tunnel - initially transmitted release access bearer response (accept or denied) messages received by the system, the specified service, or the specified interface.
Retrans TX	The total number of tunnel - retransmitted release access bearer response messages sent by the system, the specified service, or the specified interface.
Create Bearer Request	
Total TX	The total number of tunnel - create bearer request messages sent by this system, the specified service, or the specified interface.
Total RX	The total number of tunnel - create bearer request messages received by this system, the specified service, or the specified interface.
Initial TX	The total number of tunnel - initially transmitted create bearer request messages sent by the system, the specified service, or the specified interface.

Field	Description
Initial RX	The total number of tunnel - initially transmitted create bearer request messages received by the system, the specified service, or the specified interface.
Retrans TX	The total number of tunnel - retransmitted create bearer request messages sent by the system, the specified service, or the specified interface.
Retrans RX	The total number of tunnel - retransmitted create bearer request messages received by this system, the specified service, or the specified interface.
Create Bearer Response	
Total TX	The total number of tunnel - create bearer response messages sent by this system, the specified service, or the specified interface.
Total RX	The total number of tunnel - create bearer response messages received by this system, the specified service, or the specified interface.
Initial TX Accepted Denied	The total number of tunnel - initially transmitted create bearer response messages sent by the system, the specified service, or the specified interface. Accepted and Denied display the total number of tunnel - initially transmitted create bearer response (accept or denied) messages sent by the system, the specified service, or the specified interface.
Initial RX Accepted Denied	The total number of tunnel - initially transmitted create bearer response messages received by the system, the specified service, or the specified interface. Accepted and Denied display the total number of tunnel - initially transmitted create bearer response (accept or denied) messages received by the system, the specified service, or the specified interface.
Retrans TX	The total number of tunnel - retransmitted create bearer response messages sent by the system, the specified service, or the specified interface.
Update Bearer Request	
Total TX	The total number of tunnel - update bearer request messages sent by this system, the specified service, or the specified interface.
Total RX	The total number of tunnel - update bearer request messages received by this system, the specified service, or the specified interface.
Initial TX	The total number of tunnel - initially transmitted update bearer request messages sent by the system, the specified service, or the specified interface.
Initial RX	The total number of tunnel - initially transmitted update bearer request messages received by the system, the specified service, or the specified interface.
Retrans TX	The total number of tunnel - retransmitted update bearer request messages sent by the system, the specified service, or the specified interface.

Field	Description
Retrans RX	The total number of tunnel - retransmitted update bearer request messages received by this system, the specified service, or the specified interface.
Update Bearer Response	
Total TX	The total number of tunnel - update bearer response messages sent by this system, the specified service, or the specified interface.
Total RX	The total number of tunnel - update bearer response messages received by this system, the specified service, or the specified interface.
Initial TX Accepted Denied	The total number of tunnel - initially transmitted update bearer response messages sent by the system, the specified service, or the specified interface. Accepted and Denied display the total number of tunnel - initially transmitted update bearer response (accept or denied) messages sent by the system, the specified service, or the specified interface.
Initial RX Accepted Denied	The total number of tunnel - initially transmitted update bearer response messages received by the system, the specified service, or the specified interface. Accepted and Denied display the total number of tunnel - initially transmitted update bearer response (accept or denied) messages received by the system, the specified service, or the specified interface.
Delete Bearer Request	
Total TX	The total number of tunnel - delete bearer request messages sent by the system, the specified service, or the specified interface.
Total RX	The total number of tunnel - delete bearer request messages received by this system, the specified service, or the specified interface.
Initial TX	The total number of tunnel - initially transmitted delete bearer request messages sent by the system, the specified service, or the specified interface.
Initial RX	The total number of tunnel - initially transmitted delete bearer request messages received by the system, the specified service, or the specified interface.
Retrans TX	The total number of tunnel - retransmitted delete bearer request messages sent by the system, the specified service, or the specified interface.
Retrans RX	The total number of tunnel - retransmitted delete bearer request messages received by this system, the specified service, or the specified interface.
Delete Bearer Response	
Total TX Accepted Denied	The total number of tunnel - delete bearer response messages sent by the system, the specified service, or the specified interface. Accepted and Denied display the total number of tunnel - delete bearer response (accept or denied) messages sent by the system, the specified service, or the specified interface.

Field	Description
Total RX Accepted Denied	The total number of tunnel - initially transmitted update bearer response messages received by the system, the specified service, or the specified interface. Accepted and Denied display the total number of tunnel - delete bearer response (accept or denied) messages received by the system, the specified service, or the specified interface.
Modify Bearer Command	
Total TX	The total number of tunnel - modify bearer command messages sent by this system, the specified service, or the specified interface.
Total RX	The total number of tunnel - modify bearer command messages received by this system, or the specified interface.
Initial TX	The total number of tunnel - initially transmitted modify bearer command messages sent by the system, the specified service, or the specified interface.
Initial RX	The total number of tunnel - initially transmitted modify bearer command messages received by the system, the specified service, or the specified interface.
Retrans TX	The total number of tunnel - retransmitted modify bearer command messages sent by the system, the specified service, or the specified interface.
Retrans RX	The total number of tunnel - retransmitted modify bearer command messages received by this system, the specified service, or the specified interface.
Modify Bearer Failure Indication	
Total TX	The total number of tunnel - modify bearer failure indication messages sent by this system, the specified service, or the specified interface.
Total RX	The total number of tunnel - modify bearer failure indication messages received by this system, or the specified interface.
Initial TX	The total number of tunnel - initially transmitted modify bearer failure indication messages sent by the system, the specified service, or the specified interface.
Initial RX	The total number of tunnel - initially transmitted modify bearer failure indication messages received by the system, the specified service, or the specified interface.
Retrans TX	The total number of tunnel - retransmitted modify bearer failure indication messages sent by the system, the specified service, or the specified interface.
Bearer Resource Command	
Total TX	The total number of tunnel - bearer resource command messages sent by this system, the specified service, or the specified interface.

Field	Description
Total RX	The total number of tunnel - bearer resource command messages received by this system, or the specified interface.
Initial TX	The total number of tunnel - initially transmitted bearer resource command messages sent by the system, the specified service, or the specified interface.
Initial RX	The total number of tunnel - initially transmitted bearer resource command messages received by the system, the specified service, or the specified interface.
Retrans TX	The total number of tunnel - retransmitted bearer resource command messages sent by the system, the specified service, or the specified interface.
Retrans RX	The total number of tunnel - retransmitted bearer resource command messages received by this system, the specified service, or the specified interface.
Discarded	The total number of tunnel - retransmitted bearer resource command messages discarded by the system, the specified service, or the specified interface.
No Rsp RX	The total number of tunnel - retransmitted bearer resource command messages sent but where no response was received by the system, the specified service, or the specified interface.
Bearer Resource Failure Indication	
Total TX	The total number of tunnel - bearer resource failure indication messages sent by this system, the specified service, or the specified interface.
Total RX	The total number of tunnel - bearer resource failure indication messages received by this system, or the specified interface.
Initial TX	The total number of tunnel - initially transmitted bearer resource failure indication messages sent by the system, the specified service, or the specified interface.
Initial RX	The total number of tunnel - initially transmitted bearer resource failure indication messages received by the system, the specified service, or the specified interface.
Retrans TX	The total number of tunnel - retransmitted bearer resource failure indication messages sent by the system, the specified service, or the specified interface.
Discarded	The total number of tunnel - retransmitted bearer resource failure indication messages discarded by the system, the specified service, or the specified interface.
Delete Bearer Command	
Total TX	The total number of tunnel - delete bearer command messages sent by this system, the specified service, or the specified interface.
Total RX	The total number of tunnel - delete bearer command messages received by this system, the specified service, or the specified interface.

Field	Description
Initial TX	The total number of tunnel - initially transmitted delete bearer command messages sent by the system, the specified service, or the specified interface.
Initial RX	The total number of tunnel - initially transmitted delete bearer command messages received by the system, the specified service, or the specified interface.
Retrans TX	The total number of tunnel - retransmitted delete bearer command messages sent by the system, the specified service, or the specified interface.
Retrans RX	The total number of tunnel - retransmitted delete bearer command messages received by this system, the specified service, or the specified interface.
Discarded	The total number of tunnel - retransmitted delete bearer command messages discarded by the system, the specified service, or the specified interface.
Delete Bearer Failure Indication	
Total TX	The total number of tunnel - delete bearer failure indication messages sent by this system, the specified service, or the specified interface.
Total RX	The total number of tunnel - delete bearer failure indication messages received by this system, the specified service, or the specified interface.
Initial TX	The total number of tunnel - initially transmitted delete bearer failure indication messages sent by the system, the specified service, or the specified interface.
Initial RX	The total number of tunnel - initially transmitted delete bearer failure indication messages received by the system, the specified service, or the specified interface.
Retrans TX	The total number of tunnel - retransmitted delete bearer failure indication messages sent by the system, the specified service, or the specified interface.
Create Ind Data Forwarding Tunnel Request	
Total TX	The total number of tunnel - create indirect data forwarding tunnel requests sent by this system, the specified service, or the specified interface.
Total RX	The total number of tunnel - create indirect data forwarding tunnel requests received by this system, or the specified interface.
Initial TX	The total number of tunnel - initially transmitted create indirect data forwarding tunnel requests sent by the system, the specified service, or the specified interface.
Initial RX	The total number of tunnel - initially transmitted create indirect data forwarding tunnel requests received by the system, the specified service, or the specified interface.
Retrans TX	The total number of tunnel - retransmitted create indirect data forwarding tunnel requests sent by the system, the specified service, or the specified interface.

Field	Description
Retrans RX	The total number of tunnel - retransmitted create indirect data forwarding tunnel requests received by this system, the specified service, or the specified interface.
Create Ind Data Forwarding Tunnel Response	
Total TX	The total number of tunnel - create indirect data forwarding tunnel response messages sent by this system, the specified service, or the specified interface.
Total RX	The total number of tunnel - create indirect data forwarding tunnel response messages received by this system, or the specified interface.
Initial TX Accepted Denied	The total number of tunnel - initially transmitted create indirect data forwarding tunnel response messages sent by the system, the specified service, or the specified interface. Accepted and Denied display the total number of create indirect data forwarding tunnel response (accept or denied) messages sent by the system, the specified service, or the specified interface.
Initial RX Accepted Denied	The total number of tunnel - initially transmitted create indirect data forwarding tunnel response messages received by the system, the specified service, or the specified interface. Accepted and Denied display the total number of create indirect data forwarding tunnel response (accept or denied) messages received by the system, the specified service, or the specified interface.
Retrans TX	The total number of tunnel - retransmitted create indirect data forwarding tunnel response messages sent by the system, the specified service, or the specified interface.
Delete Ind Data Forwarding Tunnel Request	
Total TX	The total number of tunnel - delete indirect data forwarding tunnel requests sent by this system, the specified service, or the specified interface.
Total RX	The total number of tunnel - delete indirect data forwarding tunnel requests received by this system, or the specified interface.
Initial TX	The total number of tunnel - initially transmitted delete indirect data forwarding tunnel requests sent by the system, the specified service, or the specified interface.
Initial RX	The total number of tunnel - initially transmitted delete indirect data forwarding tunnel requests received by the system, the specified service, or the specified interface.
Retrans TX	The total number of tunnel - retransmitted delete indirect data forwarding tunnel requests sent by the system, the specified service, or the specified interface.

Field	Description
Retrans RX	The total number of tunnel - retransmitted delete indirect data forwarding tunnel requests received by this system, the specified service, or the specified interface.
Delete Ind Data Forwarding Tunnel Response	
Total TX	The total number of tunnel - delete indirect data forwarding tunnel response messages sent by this system, the specified service, or the specified interface.
Total RX	The total number of tunnel - delete indirect data forwarding tunnel response messages received by this system, or the specified interface.
Initial TX Accepted Denied	The total number of tunnel - initially transmitted delete indirect data forwarding tunnel response messages sent by the system, the specified service, or the specified interface. Accepted and Denied display the total number of delete indirect data forwarding tunnel response (accept or denied) messages sent by the system, the specified service, or the specified interface.
Initial RX Accepted Denied	The total number of tunnel - initially transmitted delete indirect data forwarding tunnel response messages received by the system, the specified service, or the specified interface. Accepted and Denied display the total number of delete indirect data forwarding tunnel response (accept or denied) messages received by the system, the specified service, or the specified interface.
Retrans TX	The total number of tunnel - retransmitted delete indirect data forwarding tunnel response messages sent by the system, the specified service, or the specified interface.
Stop Paging Indication	
Total TX	The total number of stop paging indication messages sent by this system, the specified service, or the specified interface.
Total RX	The total number of stop paging indication messages received by this system, or the specified interface.
Initial TX Accepted Denied	The total number of initially transmitted stop paging indication messages sent by the system, the specified service, or the specified interface. Accepted and Denied display the total number of stop paging indication (accept or denied) messages sent by the system, the specified service, or the specified interface.
Initial RX Accepted Denied	The total number of initially transmitted stop paging indication messages received by the system, the specified service, or the specified interface. Accepted and Denied display the total number of delete indirect data forwarding tunnel response (accept or denied) messages received by the system, the specified service, or the specified interface.

Field	Description
Retrans TX	The total number of retransmitted stop paging indication messages sent by the system, the specified service, or the specified interface.
Retrans RX	The total number of retransmitted stop paging indication messages sent by the system, the specified service, or the specified interface.
Change Notification Request	
Total TX	The total number of change notification request messages sent by this system, the specified service, or the specified interface.
Total RX	The total number of change notification request messages received by this system, or the specified interface.
Initial TX	The total number of initially transmitted change notification request messages sent by the system, the specified service, or the specified interface.
Initial RX	The total number of initially transmitted change notification request messages received by the system, the specified service, or the specified interface.
Retrans TX	The total number of retransmitted change notification request messages sent by the system, the specified service, or the specified interface.
Change Notification Response	
Total TX	The total number of change notification response messages sent by this system, the specified service, or the specified interface.
Total RX	The total number of change notification response messages received by this system, or the specified interface.
Initial TX Accepted Denied	The total number of initially transmitted change notification response messages sent by the system, the specified service, or the specified interface. Accepted and Denied display the total number of change notification response (accept or denied) messages sent by the system, the specified service, or the specified interface.
Initial RX Accepted Denied	The total number of initially transmitted change notification response messages received by the system, the specified service, or the specified interface. Accepted and Denied display the total number of change notification response (accept or denied) messages received by the system, the specified service, or the specified interface.
Retrans TX	The total number of retransmitted change notification response messages sent by the system, the specified service, or the specified interface.
PGW Restart Notification Request	
Total TX	The total number of P-GW restart notification request messages sent by this system, the specified service, or the specified interface.

Field	Description
Total RX	The total number of P-GW restart notification request messages received by this system, or the specified interface.
Initial TX	The total number of initially transmitted P-GW restart notification request messages sent by the system, the specified service, or the specified interface.
Initial RX	The total number of initially transmitted P-GW restart notification request messages received by the system, the specified service, or the specified interface.
Retrans TX	The total number of retransmitted P-GW restart notification request messages sent by the system, the specified service, or the specified interface.
Discarded	The total number of retransmitted P-GW restart notification request messages discarded by the system, the specified service, or the specified interface.
No Rsp RX	The total number of P-GW restart notification request messages sent but where no response was received by the system, the specified service, or the specified interface.
PGW Restart Notification Ack	
Total TX	The total number of P-GW restart notification acknowledge messages sent by this system, the specified service, or the specified interface.
Total RX	The total number of P-GW restart notification acknowledge messages received by this system, or the specified interface.
Initial TX Accepted Denied	The total number of initially transmitted P-GW restart notification acknowledge messages sent by the system, the specified service, or the specified interface. Accepted and Denied display the total number of P-GW restart notification acknowledge (accept or denied) messages sent by the system, the specified service, or the specified interface.
Initial RX Accepted Denied	The total number of initially transmitted P-GW restart notification acknowledge messages received by the system, the specified service, or the specified interface. Accepted and Denied display the total number of P-GW restart notification acknowledge (accept or denied) messages received by the system, the specified service, or the specified interface.
Retrans TX	The total number of retransmitted P-GW restart notification acknowledge messages sent by the system, the specified service, or the specified interface.
Discarded	The total number of retransmitted P-GW restart notification request messages discarded by the system, the specified service, or the specified interface.
Path Management Messages	
Echo Request	

Field	Description
Total TX	The total number of path - echo request messages sent by this system, the specified service, or the specified interface.
Total RX	The total number of path - echo request messages received by this system, the specified service, or the specified interface.
Initial TX	The total number of path - initially transmitted echo request messages sent by the system, the specified service, or the specified interface.
Initial RX	The total number of path - initially transmitted echo request messages received by the system, the specified service, or the specified interface.
Retrans TX	The total number of path - retransmitted echo request messages sent by the system, the specified service, or the specified interface.
Echo Response	
Total TX	The total number of path - echo response messages sent by this system, the specified service, or the specified interface.
Total RX	The total number of path - echo response messages received by this system, the specified service, or the specified interface.
Version Not Supported	
Total TX	The total number of path - version not supported messages sent by this system, the specified service, or the specified interface.
Total RX	The total number of path - version not supported messages received by this system, the specified service, or the specified interface.
Mobility Management Messages	
Context Request	
Total TX	The total number of mobility - context request messages sent by this system, the specified service, or the specified interface.
Total RX	The total number of mobility - context request messages received by this system, the specified service, or the specified interface.
Initial TX	The total number of mobility - initially transmitted context request messages sent by the system, the specified service, or the specified interface.
Initial RX	The total number of mobility - initially transmitted context request messages received by the system, the specified service, or the specified interface.
Retrans TX	The total number of retransmitted mobility context request messages sent by the system, the specified service, or the specified interface.
Retrans RX	The total number of mobility - retransmitted context response messages received by the system, the specified service, or the specified interface.

Field	Description
Context Response	
Total TX	The total number of mobility - context response messages sent by this system, the specified service, or the specified interface.
Total RX	The total number of mobility - context response messages received by this system, the specified service, or the specified interface.
Initial TX Accepted Denied	The total number of mobility - initially transmitted context response messages sent by the system, the specified service, or the specified interface. Accepted and Denied display the total number of mobility - initially transmitted context response (accept or denied) messages sent by the system, the specified service, or the specified interface.
Initial RX Accepted Denied	The total number of mobility - initially transmitted context response messages received by the system, the specified service, or the specified interface. Accepted and Denied display the total number of mobility - initially transmitted context response (accept or denied) messages received by the system, the specified service, or the specified interface.
Retrans RX	The total number of mobility - retransmitted identification request messages received by the system, the specified service, or the specified interface.
Context Acknowledge	
Total TX	The total number of mobility - context acknowledge messages sent by this system, the specified service, or the specified interface.
Total RX	The total number of mobility - context acknowledge messages received by this system, the specified service, or the specified interface.
Initial TX Accepted Denied	The total number of mobility - initially transmitted context acknowledge messages sent by the system, the specified service, or the specified interface. Accepted and Denied display the total number of mobility - initially transmitted context acknowledge (accept or denied) messages sent by the system, the specified service, or the specified interface.
Initial RX Accepted Denied	The total number of mobility - initially transmitted context acknowledge messages received by the system, the specified service, or the specified interface. Accepted and Denied display the total number of mobility - initially transmitted context acknowledge (accept or denied) messages received by the system, the specified service, or the specified interface.
Retrans TX	The total number of mobility - retransmitted context acknowledge messages sent by the system, the specified service, or the specified interface.
Identification Request	

Field	Description
Total TX	The total number of mobility - identification request messages sent by this system, the specified service, or the specified interface.
Total RX	The total number of mobility - identification request messages received by this system, the specified service, or the specified interface.
Initial TX	The total number of mobility - initially transmitted identification request messages sent by the system, the specified service, or the specified interface.
Initial RX	The total number of mobility - initially transmitted identification request messages received by the system, the specified service, or the specified interface.
Retrans TX	The total number of mobility - retransmitted identification request messages sent by the system, the specified service, or the specified interface.
Retrans RX	The total number of mobility - retransmitted identification request messages received by the system, the specified service, or the specified interface.
Identification Response	
Total TX Accepted Denied	The total number of mobility - identification response messages sent by this system, the specified service, or the specified interface. Accepted and Denied display the total number of mobility - identification response (accept or denied) messages sent by the system, the specified service, or the specified interface.
Total RX Accepted Denied	The total number of mobility - identification response messages received by this system, the specified service, or the specified interface. Accepted and Denied display the total number of mobility - identification response (accept or denied) messages received by the system, the specified service, or the specified interface.
Retrans TX	The total number of mobility - retransmitted identification response messages sent by the system, the specified service, or the specified interface.
Forward Relocation Request	
Total TX	The total number of mobility - forward relocation request messages sent by this system, the specified service, or the specified interface.
Total RX	The total number of mobility - forward relocation request messages received by this system, the specified service, or the specified interface.
Initial TX	The total number of mobility - initially transmitted forward relocation request messages sent by the system, the specified service, or the specified interface.
Initial RX	The total number of mobility - initially transmitted forward relocation request messages received by the system, the specified service, or the specified interface.

Field	Description
Retrans TX	The total number of mobility - retransmitted forward relocation request messages sent by the system, the specified service, or the specified interface.
Retrans RX	The total number of mobility - retransmitted forward relocation request messages received by the system, the specified service, or the specified interface.
Forward Relocation Response	
Total TX	The total number of mobility - forward relocation response messages sent by this system, the specified service, or the specified interface.
Total RX	The total number of mobility - forward relocation response messages received by this system, the specified service, or the specified interface.
Initial TX Accepted Denied	The total number of mobility - initially transmitted forward relocation response messages sent by the system, the specified service, or the specified interface. Accepted and Denied display the total number of mobility - initially transmitted forward relocation response (accept or denied) messages sent by the system, the specified service, or the specified interface.
Initial RX Accepted Denied	The total number of mobility - initially transmitted forward relocation response messages received by the system, the specified service, or the specified interface. Accepted and Denied display the total number of mobility - initially transmitted forward relocation response (accept or denied) messages received by the system, the specified service, or the specified interface.
Retrans TX	The total number of mobility - retransmitted forward relocation response messages sent by the system, the specified service, or the specified interface.
Forward Access Context Notification	
Total TX	The total number of mobility - forward access context notification messages sent by this system, the specified service, or the specified interface.
Total RX	The total number of mobility - forward access context notification messages received by this system, the specified service, or the specified interface.
Initial TX	The total number of mobility - initially transmitted forward access context notification messages sent by the system, the specified service, or the specified interface.
Initial RX	The total number of mobility - initially transmitted forward access context notification messages received by the system, the specified service, or the specified interface.
Retrans TX	The total number of mobility - retransmitted forward access context notification messages sent by the system, the specified service, or the specified interface.

Field	Description
Retrans RX	The total number of mobility - retransmitted forward access context notification messages received by the system, the specified service, or the specified interface.
Forward Access Context Acknowledge	
Total TX	The total number of mobility - forward access context acknowledge messages sent by this system, the specified service, or the specified interface.
Total RX	The total number of mobility - forward access context acknowledge messages received by this system, the specified service, or the specified interface.
Initial TX Accepted Denied	The total number of mobility - initially transmitted forward access context acknowledge messages sent by the system, the specified service, or the specified interface. Accepted and Denied display the total number of mobility - initially transmitted forward access context acknowledge (accept or denied) messages sent by the system, the specified service, or the specified interface.
Initial RX Accepted Denied	The total number of mobility - initially transmitted forward access context acknowledge messages received by the system, the specified service, or the specified interface. Accepted and Denied display the total number of mobility - initially transmitted forward access context acknowledge (accept or denied) messages received by the system, the specified service, or the specified interface.
Retrans TX	The total number of mobility - retransmitted forward access context acknowledge messages sent by the system, the specified service, or the specified interface.
Forward Relocation Complete Notification	
Total TX	The total number of mobility - forward relocation complete notification messages sent by this system, the specified service, or the specified interface.
Total RX	The total number of mobility - forward relocation complete notification messages received by this system, the specified service, or the specified interface.
Initial TX	The total number of mobility - initially transmitted forward relocation complete notification messages sent by the system, the specified service, or the specified interface.
Initial RX	The total number of mobility - initially transmitted forward relocation complete notification messages received by the system, the specified service, or the specified interface.
Retrans TX	The total number of mobility - retransmitted forward relocation complete notification messages sent by the system, the specified service, or the specified interface.

Field	Description
Retrans RX	The total number of mobility - retransmitted forward relocation complete notification messages received by the system, the specified service, or the specified interface.
Forward Relocation Complete Acknowledge	
Total TX	The total number of mobility - forward relocation complete acknowledge messages sent by this system, the specified service, or the specified interface.
Total RX	The total number of mobility - forward relocation complete acknowledge messages received by this system, the specified service, or the specified interface.
Initial TX Accepted Denied	The total number of mobility - initially transmitted forward relocation complete acknowledge messages sent by the system, the specified service, or the specified interface. Accepted and Denied display the total number of mobility - initially transmitted forward relocation complete acknowledge (accept or denied) messages sent by the system, the specified service, or the specified interface.
Initial RX Accepted Denied	The total number of mobility - initially transmitted forward relocation complete acknowledge messages received by the system, the specified service, or the specified interface. Accepted and Denied display the total number of mobility - initially transmitted forward relocation complete acknowledge (accept or denied) messages received by the system, the specified service, or the specified interface.
Retrans TX	The total number of mobility - retransmitted forward relocation complete acknowledge messages sent by the system, the specified service, or the specified interface.
Relocation Cancel Request	
Total TX	The total number of mobility - relocation cancel request messages sent by this system, the specified service, or the specified interface.
Total RX	The total number of mobility - relocation cancel request messages received by this system, the specified service, or the specified interface.
Initial TX	The total number of mobility - initially transmitted relocation cancel request messages sent by the system, the specified service, or the specified interface.
Initial RX	The total number of mobility - initially transmitted relocation cancel request messages received by the system, the specified service, or the specified interface.
Retrans TX	The total number of mobility - retransmitted relocation cancel request messages sent by the system, the specified service, or the specified interface.
Retrans RX	The total number of mobility - retransmitted relocation cancel request messages received by the system, the specified service, or the specified interface.

Field	Description
Relocation Cancel Response	
Total TX	The total number of mobility - relocation cancel response messages sent by this system, the specified service, or the specified interface.
Total RX	The total number of mobility - relocation cancel response messages received by this system, the specified service, or the specified interface.
Initial TX Accepted Denied	The total number of mobility - initially transmitted relocation cancel response messages sent by the system, the specified service, or the specified interface. Accepted and Denied display the total number of mobility - initially transmitted relocation cancel response (accept or denied) messages sent by the system, the specified service, or the specified interface.
Initial RX Accepted Denied	The total number of mobility - initially transmitted relocation cancel response messages received by the system, the specified service, or the specified interface. Accepted and Denied display the total number of mobility - initially transmitted relocation cancel response (accept or denied) messages received by the system, the specified service, or the specified interface.
Retrans TX	The total number of mobility - retransmitted relocation cancel response messages sent by the system, the specified service, or the specified interface.
RAN Information Relay	
Initial TX	The total number of initially transmitted RAN Information Management (RIM) messages sent by the system, the specified service, or the specified interface.
Initial RX	The total number of initially transmitted RAN Information Management (RIM) messages received by the system, the specified service, or the specified interface.
Configuration Transfer Tunnel	
Initial TX	The total number of initially transmitted configuration transfer tunnel messages sent by the system, the specified service, or the specified interface.
Initial RX	The total number of initially transmitted configuration transfer tunnel messages received by the system, the specified service, or the specified interface.
Detach Notification	
Total TX	The total number of detach notification messages sent by this system, the specified service, or the specified interface.
Total RX	The total number of detach notification messages received by this system, the specified service, or the specified interface.

Field	Description
Initial TX Accepted Denied	The total number of initially transmitted detach notification messages sent by the system, the specified service, or the specified interface. Accepted and Denied display the total number of detach notification (accept or denied) messages sent by the system, the specified service, or the specified interface.
Initial RX Accepted Denied	The total number of initially transmitted detach notification messages received by the system, the specified service, or the specified interface. Accepted and Denied display the total number of detach notification (accept or denied) messages received by the system, the specified service, or the specified interface.
Retrans TX	The total number of retransmitted detach notification messages sent by the system, the specified service, or the specified interface.
Retrans RX	The total number of retransmitted detach notification messages received by the system, the specified service, or the specified interface.
Detach Acknowledge	
Total TX	The total number of detach acknowledge messages sent by this system, the specified service, or the specified interface.
Total RX	The total number of detach acknowledge messages received by this system, the specified service, or the specified interface.
Initial TX Accepted Denied	The total number of initially transmitted detach acknowledge messages sent by the system, the specified service, or the specified interface. Accepted and Denied display the total number of detach acknowledge (accept or denied) messages sent by the system, the specified service, or the specified interface.
Initial RX Accepted Denied	The total number of initially transmitted detach acknowledge messages received by the system, the specified service, or the specified interface. Accepted and Denied display the total number of detach acknowledge (accept or denied) messages received by the system, the specified service, or the specified interface.
Alert MME Notification	
Total TX	The total number of alert MME notification messages sent by this system, the specified service, or the specified interface.
Total RX	The total number of alert MME notification messages received by this system, the specified service, or the specified interface.

Field	Description
Initial TX Accepted Denied	The total number of initially transmitted alert MME notification messages sent by the system, the specified service, or the specified interface. Accepted and Denied display the total number of alert MME notification (accept or denied) messages sent by the system, the specified service, or the specified interface.
Initial RX Accepted Denied	The total number of initially transmitted alert MME notification messages received by the system, the specified service, or the specified interface. Accepted and Denied display the total number of alert MME notification (accept or denied) messages received by the system, the specified service, or the specified interface.
Retrans TX	The total number of retransmitted alert MME notification messages sent by the system, the specified service, or the specified interface.
Retrans RX	The total number of retransmitted alert MME notification messages received by the system, the specified service, or the specified interface.
Alert MME Acknowledge	
Total TX	The total number of alert MME acknowledge messages sent by this system, the specified service, or the specified interface.
Total RX	The total number of alert MME acknowledge messages received by this system, the specified service, or the specified interface.
Initial TX Accepted Denied	The total number of initially transmitted alert MME acknowledge messages sent by the system, the specified service, or the specified interface. Accepted and Denied display the total number of detach notification (accept or denied) messages sent by the system, the specified service, or the specified interface.
Initial RX Accepted Denied	The total number of initially transmitted alert MME acknowledge messages received by the system, the specified service, or the specified interface. Accepted and Denied display the total number of alert MME acknowledge (accept or denied) messages received by the system, the specified service, or the specified interface.
Retrans TX	The total number of initially retransmitted alert MME acknowledge messages sent by the system, the specified service, or the specified interface.
UE Activation Notification	
Total TX	The total number of UE activation messages sent by this system, the specified service, or the specified interface.
Total RX	The total number of UE activation messages received by this system, the specified service, or the specified interface.

Field	Description
Initial TX Accepted Denied	The total number of initially transmitted UE activation messages sent by the system, the specified service, or the specified interface. Accepted and Denied display the total number of UE activation (accept or denied) messages sent by the system, the specified service, or the specified interface.
Initial RX Accepted Denied	The total number of initially transmitted UE activation messages received by the system, the specified service, or the specified interface. Accepted and Denied display the total number of UE activation (accept or denied) messages received by the system, the specified service, or the specified interface.
Retrans TX	The total number of retransmitted UE activation messages sent by the system, the specified service, or the specified interface.
Retrans RX	The total number of retransmitted UE activation messages received by the system, the specified service, or the specified interface.
UE Activity Acknowledge	
Total TX	The total number of UE activity acknowledge messages sent by this system, the specified service, or the specified interface.
Total RX	The total number of UE activity acknowledge messages received by this system, the specified service, or the specified interface.
Initial TX Accepted Denied	The total number of initially transmitted UE activity acknowledge messages sent by the system, the specified service, or the specified interface. Accepted and Denied display the total number of UE activity acknowledge (accept or denied) messages sent by the system, the specified service, or the specified interface.
Initial RX Accepted Denied	The total number of initially transmitted UE activity acknowledge messages received by the system, the specified service, or the specified interface. Accepted and Denied display the total number of UE activity acknowledge (accept or denied) messages received by the system, the specified service, or the specified interface.
Retrans TX	The total number of initially retransmitted UE activity acknowledge messages sent by the system, the specified service, or the specified interface.
CS Paging Indication	
Total TX	The total number of CS (Circuit Switched) paging indication messages sent by this system, the specified service, or the specified interface.
Total RX	The total number of CS paging indication messages received by this system, the specified service, or the specified interface.

Field	Description
Initial TX Accepted Denied	The total number of initially transmitted CS paging indication messages sent by the system, the specified service, or the specified interface. Accepted and Denied display the total number of CS paging indication (accept or denied) messages sent by the system, the specified service, or the specified interface.
Initial RX Accepted Denied	The total number of initially transmitted CS paging indication messages received by the system, the specified service, or the specified interface. Accepted and Denied display the total number of CS paging indication (accept or denied) messages received by the system, the specified service, or the specified interface.
Retrans TX	The total number of retransmitted CS paging indication messages sent by the system, the specified service, or the specified interface.
Retrans RX	The total number of retransmitted CS paging indication messages received by the system, the specified service, or the specified interface.
SRVCC Messages (Single Radio Voice Call Continuity)	
PS to CS Request	
Total TX	The total number of PS (Packet Switched) to CS (Circuit Switched) request messages sent by this system, the specified service, or the specified interface.
Initial TX Accepted Denied	The total number of initially transmitted PS to CS request messages sent by the system, the specified service, or the specified interface. Accepted and Denied display the total number of PS to CS request (accept or denied) messages sent by the system, the specified service, or the specified interface.
Retrans TX	The total number of retransmitted PS to CS request messages sent by the system, the specified service, or the specified interface.
Discarded	Not used.
No Rsp Rcvd	The total number of times the MME did not receive an expected response from an MSC for a PS to CS request. Note: For a given subscriber, retransmitted requests to the same MSC do not increment this counter. For retransmitted requests to different MSCs, if no response is received from either MSC, this counter will increment twice.
PS to CS Response	
Total RX	The total number of PS (Packet Switched) to CS (Circuit Switched) response messages received by this system, the specified service, or the specified interface.

Field	Description
Initial RX Denied	The total number of initial PS to CS response messages received by the system, the specified service, or the specified interface.
Accepted	The total number of PS to CS response messages received and accepted by the system, the specified service, or the specified interface.
Denied	The total number of PS to CS response messages received and denied by the system, the specified service, or the specified interface. Note: Denied will be incremented when the PS to CS response is received with cause code of EGTP_CAUSE_REQ_ACCEPTED.
Discarded	The total number of PS to CS response messages received and discarded by the system, the specified service, or the specified interface. The system/interface will discard the message when a decoding error occurs (for example due to wrong header length, wrong IE format, etc.).
PS to CS Complete Notification	
Total RX	The total number of PS (Packet Switched) to CS (Circuit Switched) complete notification messages received by this system, the specified service, or the specified interface.
Initial RX	The total number of initially transmitted PS to CS complete notification messages received by the system, the specified service, or the specified interface.
Retrans RX	The total number of retransmitted PS to CS complete notification messages received by the system, the specified service, or the specified interface.
Discarded	The total number of PS to CS complete notification messages received and discarded by the system, the specified service, or the specified interface. The system/interface will discard the message when a decoding error occurs (for example due to wrong header length, wrong IE format, etc.).
PS to CS Complete Acknowledge	
Total TX	The total number of PS (Packet Switched) to CS (Circuit Switched) complete acknowledge messages sent by this system, the specified service, or the specified interface.
Initial TX	The total number of initially transmitted PS to CS complete acknowledge messages sent by the system, the specified service, or the specified interface.
Accepted	The total number of PS to CS complete acknowledge messages sent by the system, the specified service, or the specified interface, with a cause code of ACCEPTED.
Denied	The total number of PS to CS complete acknowledge messages sent by the system, the specified service, or the specified interface, with a cause code of DENIED.

Field	Description
Retrans TX	The total number of retransmitted PS to CS complete acknowledge messages sent by the system, the specified service, or the specified interface.
Discarded	Not used.
PS to CS Cancel Notification	
Total TX	The total number of PS (Packet Switched) to CS (Circuit Switched) cancel notification messages sent by this system, the specified service, or the specified interface.
Initial TX	The total number of initially transmitted PS to CS cancel notification messages sent by the system, the specified service, or the specified interface.
Retrans TX	The total number of retransmitted PS to CS cancel notification messages sent by the system, the specified service, or the specified interface.
PS to CS Cancel Acknowledge	
Total TX	The total number of PS (Packet Switched) to CS (Circuit Switched) cancel acknowledge messages sent by this system, the specified service, or the specified interface.
Initial TX Accepted Denied	The total number of initially transmitted PS to CS cancel acknowledge messages sent by the system, the specified service, or the specified interface. Accepted and Denied display the total number of PS to CS cancel acknowledge (accept or denied) messages sent by the system, the specified service, or the specified interface.
Trace Management Messages	
Trace Session Activation	
Initial TX	The total number of trace - initially transmitted session activation messages sent by the system, the specified service, or the specified interface.
Initial RX	The total number of trace - initially transmitted session activation messages received by the system, the specified service, or the specified interface.
Trace Session Deactivation	
Initial TX	The total number of trace - initially transmitted session deactivation messages sent by the system, the specified service, or the specified interface.
Initial RX	The total number of trace - initially transmitted session deactivation messages received by the system, the specified service, or the specified interface.
CS Fallback Messages (CSFB)	
Suspend Notification	

Field	Description
Initial TX	The total number of CSFB (Circuit Switched Fallback) - initially transmitted suspend notification messages sent by the system, the specified service, or the specified interface.
Initial RX	The total number of CSFB - initially transmitted suspend notification messages received by the system, the specified service, or the specified interface.
Retrans TX	The total number of CSFB (Circuit Switched Fallback) - retransmitted suspend notification messages that had to be retransmitted by the system, the specified service, or the specified interface.
Discarded	The total number of CSFB (Circuit Switched Fallback) - suspend notification messages that were discarded.
Retrans RX	The total number of CSFB (Circuit Switched Fallback) - suspend notification messages received by this system, the specified service, or the specified interface.
Suspend Acknowledge	
Initial TX Accepted Denied	The total number of CSFB - initially transmitted suspend acknowledge messages sent by the system, the specified service, or the specified interface. Accepted and Denied display total number of CSFB (Circuit Switched Fallback) - suspend acknowledge messages received by the system, the specified service, or the specified interface.
Initial RX Accepted Denied	The total number of CSFB - initially transmitted suspend acknowledge messages received by the system, the specified service, or the specified interface. Accepted and Denied display total number of CSFB (Circuit Switched Fallback) - suspend acknowledge messages received by the system, the specified service, or the specified interface.
Discarded	The total number of CSFB (Circuit Switched Fallback) - suspend acknowledge messages that were discarded.
Resume Notification	
Initial TX	The total number of CSFB - initially transmitted resume notification messages sent by the system, the specified service, or the specified interface.
Initial RX	The total number of CSFB - initially transmitted resume notification messages received by the system, the specified service, or the specified interface.
Retrans TX	The total number of retransmitted CSFB - resume notification messages that had to be retransmitted by the system, the specified service, or the specified interface.
Discarded	The total number of CSFB (Circuit Switched Fallback) - resume notification messages that were discarded.

Field	Description
No Rsp RX	The total number of CSFB (Circuit Switched Fallback) - resume notification messages for which no response was received.
Retrans RX	The total number of retransmitted CSFB (Circuit Switched Fallback) - resume notification messages received by this system, the specified service, or the specified interface.
Resume Acknowledge	
Initial TX Accepted Denied	The total number of CSFB - initially transmitted resume acknowledge messages sent by the system, the specified service, or the specified interface. Accepted and Denied display the total number of CSFB (Circuit Switched Fallback) - resume acknowledge messages sent by the system, the specified service, or the specified interface.
Initial RX Accepted Denied	The total number of CSFB - initially transmitted resume acknowledge messages received by the system, the specified service, or the specified interface. Accepted and Denied display the total number of CSFB (Circuit Switched Fallback) - resume acknowledge messages sent by the system, the specified service, or the specified interface.
Discarded	The total number of CSFB (Circuit Switched Fallback) - resume acknowledge messages that were discarded.
Total Signalling Packets	
TX	The total number of signalling packets sent by the system, the specified service, or the specified interface.
RX	The total number of signalling packets received by the system, the specified service, or the specified interface.
Total Signalling Bytes	
TX	The total number of signalling bytes sent by the system, the specified service, or the specified interface.
RX	The total number of signalling bytes received by the system, the specified service, or the specified interface.
Control Request Messages	
Initial TX	The total number of control request messages sent by the system, the specified service, or the specified interface.
Retrans TX	The total number of control request retransmitted messages sent by the system, the specified service, or the specified interface.
Initial RX	The total number of control request messages received by the system, the specified service, or the specified interface.
Discarded	The total number of control request messages that were discarded.

Field	Description
No Response RX	The total number of control request messages that are not received.
Control Response Messages	
Initial TX Accepted Denied	The total number of control response messages sent by the system, the specified service, or the specified interface. Accepted and Denied display the total number of control response messages sent by the system, the specified service, or the specified interface.
Retrans TX	The total number of control response retransmitted messages sent by the system, the specified service, or the specified interface.
Initial RX Accepted Denied	The total number of control response messages received by the system, the specified service, or the specified interface. Accepted and Denied display the of control response messages received by the system, the specified service, or the specified interface.
Discarded	The total number of control response messages that were discarded.
Retrans RX	The total number of control response messages received by this system, the specified service, or the specified interface.
Load Control Information TX	
No of times Load Control info TX	The total number of times that Load Control information has been transmitted to a peer or peers for any reason.
Accepted	The total number of times that load control information has been sent to the peer node. This statistic is also subdivided into: • Homer: The total number of times that load control information has been sent to the home PLMN. • Non Homer: The total number of times that load control information has been sent to the visited PLMN.
Ignored	The total number of times that this node ignored load control information and the load control information was not sent to the peer node. This statistic is also subdivided into: • Homer: The total number of times that load control info was Ignored and not sent to the home PLMN. • Non Homer: The total number of times that load control info was ignored and not sent to visited PLMN. • No config: The total number of times that the node ignored load control information because there is no load control association configured. • Wrong Sequence Number: The total number of times the node ignored load control information due to an incorrect sequence number.

Field	Description
Current Load Factor	The currently configured load control factor, as a percentage of 100.
Sequence Number	Indicates the current unique sequence number that will be sent to the peer along with the load control information element.
Overload Control Information TX	
No of times Overload Control info TX	The total number of times Overload Control information has been transmitted to a peer or peers.
Accepted	The total number of times that overload control information has been sent to the peer node. This statistic is also subdivided into: • Homer: The total number of times that overload control information has been sent to the home PLMN. • Non Homer: The total number of times that overload control information has been sent to the visited PLMN.
Ignored	The total number of times that this node ignored overload control information and overload control information was not sent to the peer node. This statistic is also subdivided into: • Total number of times that overload control info was Ignored and not sent to home PLMN. • Non Homer: Total number of times that overload control info was Ignored and not sent to visited PLMN. • No config: Total number of times that the node ignored overload control information because there is no load control configuration association on this node. • Wrong Sequence Number: Total number of times this node ignored overload control information due to an incorrect sequence number.
Current Overload Factor	The currently configured overload factor, as a percentage of 100.
Current Overload Reduction Metric	The overload reduction metric configured on the node. This metric is sent to the peer node for load balancing purposes.
Sequence Number	Indicates the current unique sequence number that will be sent to the peer along with the overload control information element.
Validity Period(Secs)	The currently configured validity period. This value indicates how long the overload control information is considered valid.
No of times Overload Threshold Reached	The total number of times the overload threshold has been reached on this node. This is based on how many times the node has reached the overload condition that is configured with **self-protection-limit** command.

Field	Description
Number of Messages Throttled	The total number of transmitted messages throttled due to the node signaling that it has reached its overload control limit and has been instructed by the peer node to reduce its signaling. This statistic is further subdivided into: • Message group 1: Total number of messages throttled in **group1** as configured via the **message-prioritization** command. • Message group 2: Total number of messages throttled in **group2** as configured via the **message-prioritization** command. • Self Protection: The total number of messages throttled due to the node being in self-protection mode and cannot handle any new messages.
Number of Messages Accepted in Self Protection	The total number of messages accepted in self-protection mode for any reason. This statistic is further subdivided into: • APN level: The total number of messages accepted in self-protection mode for the configured APN level(s). • EARP level: The total number of messages accepted in self-protection mode for the configured EARP level(s).
Load Control Information RX	
No of times Load Control info RX	The total number of times that Load Control information has been received from a peer for any reason.
Accepted	The total number of times that load control information has been received from the peer node. This statistic is also subdivided into: • Homer: The total number of times that load control information has been received from the home PLMN. • Non Homer: The total number of times that load control information has been received from the visited PLMN.
Ignored	The total number of times that this node ignored load control information and the load control information was not received from the peer node. This statistic is also subdivided into: • Homer: The total number of times that load control info was Ignored and not received from the home PLMN. • Non Homer: The total number of times that load control info was ignored and not received from the visited PLMN. • No config: The total number of times that the node ignored load control information received because there is no load control association configured. • Wrong Sequence Number: The total number of times the node ignored load control information received due to an incorrect sequence number.
Current Load Factor	The currently configured load control factor, as a percentage of 100.
Sequence Number	Indicates the current unique sequence number that will be received from the peer along with the load control information element.
Overload Control Information RX	

Field	Description
No of times Overload Control info TX	The total number of times Overload Control information has been received from a peer for any reason.
Accepted	The total number of times that overload control information has been received from a peer node. This statistic is also subdivided into: • Homer: The total number of times that overload control information has been received from the home PLMN. • Non Homer: The total number of times that overload control information has been received from the visited PLMN.
Ignored	The total number of times that this node ignored overload control information and overload control information was not received from the peer node. This statistic is also subdivided into: • Total number of times that overload control info was ignored and not received from the home PLMN. • Non Homer: Total number of times that overload control info was ignored and not received by the visited PLMN. • No config: Total number of times that the node ignored received overload control information because there was no load control configuration association on the node. • Wrong Sequence Number: Total number of times this node ignored overload control information due to an incorrect sequence number.
Current Overload Factor	The currently configured overload factor, as a percentage of 100.
Current Overload Reduction Metric	The overload reduction metric configured on the node. This metric is sent to the peer node for load balancing purposes.
Sequence Number	Indicates the current unique sequence number that will be sent to the peer along with the overload control information element.
Validity Period(Secs)	The currently configured validity period. This value indicates how long the overload control information is considered valid.
No of times Overload Threshold Reached	The total number of times the overload threshold has been reached on this node. This is based on how many times the node has reached the overload condition that is configured with **self-protection-limit** command.
Number of Messages Throttled	The total number of received messages throttled due to the node signaling that it has reached its overload control limit and has been instructed by the peer node to reduce its signaling. This statistic is further subdivided into: • Message group 1: Total number of messages throttled in **group1** as configured via the **message-prioritization** command. • Message group 2: Total number of messages throttled in **group2** as configured via the **message-prioritization** command. • Self Protection: The total number of messages throttled due to the node being in self-protection mode and cannot handle any new messages.

Field	Description
Number of Messages Accepted in Self Protection	The total number of messages accepted in self-protection mode for any reason. This statistic is further subdivided into: • APN level: The total number of messages accepted in self-protection mode for the configured APN level(s). • EARP level: The total number of messages accepted in self-protection mode for the configured EARP level(s).

show egtpc statistics verbose

3GPP Release 9, 29.274

The **show egtpc statistics verbose** command includes all of the data provided in the **show egtpc statistics** command and appends detailed rejection statistics for the following call request/response/notification denials [3GPP Release 9, 29.274]:

- Reject Statistics
- Modify Bearer Request Denied
- Delete Bearer Request Denied
- Delete Session Request Denied
- Downlink Data Notification Denied
- Release Access Bearers Denied
- Create Bearer Denied
- Update Bearer Denied
- Delete Bearer Command Denied
- Modify Bearer Command Denied
- Bearer Resource Command Denied
- Create Indirect Data Forwarding Tunnel Request Denied
- Delete Indirect Data Forwarding Tunnel Request Denied
- Change Notification Request Denied
- Context Request Denied
- Context Response Denied
- Identification Request Denied
- Forward Relocation Request Denied
- Forward Access Context Notification Denied
- Forward Relocation Complete Notification Denied
- Relocation Cancel Request Denied
- Suspend Notification Denied
- Resume Notification Denied

The table below lists and describes the transmit and receive parameters output for all of the call denials listed above.

Table 6: show egtpc statistics verbose Command Output Descriptions -- 3GPP Release 9, 29.274

Field	Description
Context not existent TX	The total number of Context Does Not Exist messages sent by this system, the specified service, or the specified interface.
Context not existent RX	The total number of Context Does Not Exist messages received by this system, the specified service, or the specified interface.
Invalid message format TX	The total number of Invalid Message Format messages sent by the system, the specified service, or the specified interface.
Invalid message format RX	The total number of Invalid Message Format messages received by the system, the specified service, or the specified interface.
Version not supported TX	The total number of Version Not Supported messages sent by the system, the specified service, or the specified interface.
Version not supported RX	The total number of Version Not Supported messages received by this system, the specified service, or the specified interface.
Invalid length TX	The total number of Invalid Length messages sent by the system, the specified service, or the specified interface.
Invalid length RX	The total number of Invalid Length messages received by this system, the specified service, or the specified interface.
Mandatory IE incorrect TX	The total number of Mandatory IE (Information Element) Incorrect messages sent by the system, the specified service, or the specified interface.
Mandatory IE incorrect RX	The total number of Mandatory IE Incorrect messages received by this system, the specified service, or the specified interface.
Mandatory IE missing TX	The total number of Mandatory IE Missing messages sent by the system, the specified service, or the specified interface.
Mandatory IE missing RX	The total number of Mandatory IE Missing messages received by this system, the specified service, or the specified interface.
System failure TX	The total number of System Failure messages sent by the system, the specified service, or the specified interface.
System failure RX	The total number of System Failure messages received by this system, the specified service, or the specified interface.
No resources available TX	The total number of No Resources Available messages sent by the system, the specified service, or the specified interface.
No resources available RX	The total number of No Resources Available messages received by the system, the specified service, or the specified interface.
Semantic error in TFT TX	The total number of Semantic Error in TFT (Traffic Flow Template) messages sent by the system, the specified service, or the specified interface.

Field	Description
Semantic error in TFT RX	The total number of Semantic Error in TFT messages received by this system, the specified service, or the specified interface.
Syntactic error in TFT TX	The total number of Syntactic Error in TFT messages sent by the system, the specified service, or the specified interface.
Syntactic error in TFT RX	The total number of Syntactic Error in TFT messages received by this system, the specified service, or the specified interface.
Semantic error in Pkt Fltr TX	The total number of Semantic Error in Packet Filtering messages sent by the system, the specified service, or the specified interface.
Semantic error in Pkt Fltr RX	The total number of Semantic Error in Packet Filtering messages received by this system, the specified service, or the specified interface.
Syntactic error in Pkt Fltr TX	The total number of Syntactic Error in Packet Filtering messages sent by the system, the specified service, or the specified interface.
Syntactic error in Pkt Fltr RX	The total number of Syntactic Error in Packet Filtering messages received by this system, the specified service, or the specified interface.
Missing or unknown APN TX	The total number of Missing or Unknown APN (Access Point number) messages sent by the system, the specified service, or the specified interface.
Missing or unknown APN RX	The total number of Missing or Unknown APN messages received by this system, the specified service, or the specified interface.
GRE key not found TX	The total number of GRE (Generic Routing Encapsulation) Key Not Found messages sent by the system, the specified service, or the specified interface.
GRE key not found RX	The total number of GRE Key Not Found messages received by this system, the specified service, or the specified interface.
Reallocation failure TX	The total number of Reallocation Failure messages sent by the system, the specified service, or the specified interface.
Reallocation failure RX	The total number of Reallocation Failure messages received by this system, the specified service, or the specified interface.
Denied in RAT TX	The total number of Denied in RAT (Radio Access Technology) messages sent by the system, the specified service, or the specified interface.
Denied in RAT RX	The total number of Denied in RAT messages received by this system, the specified service, or the specified interface.
Pref. PDN type unsupported TX	The total number of Preferred PDN Type Unsupported messages sent by the system, the specified service, or the specified interface.
Pref. PDN type unsupported RX	The total number of Preferred PDN Type Unsupported messages received by this system, the specified service, or the specified interface.
All dynamic addr occupied TX	The total number of All Dynamic Addresses Occupied messages sent by the system, the specified service, or the specified interface.

Field	Description
All dynamic addr occupied RX	The total number of All Dynamic Addresses Occupied messages received by this system, the specified service, or the specified interface.
UE ctx w/o TFT activated TX	The total number of UE Context without TFT (Traffic Flow Template) Already Activated messages sent by the system, the specified service, or the specified interface.
UE ctx w/o TFT activated RX	The total number of UE Context without TFT Already Activated messages received by this system, the specified service, or the specified interface.
Prot type not supported TX	The total number of Protocol Type Not Supported messages sent by the system, the specified service, or the specified interface.
Prot type not supported RX	The total number of Protocol Type Not Supported messages received by this system, the specified service, or the specified interface.
UE not responding TX	The total number of UE (User Equipment) Not Responding messages sent by the system, the specified service, or the specified interface.
UE not responding RX	The total number of UE Not Responding messages received by this system, the specified service, or the specified interface.
UE refuses TX	The total number of UE Refuses messages sent by the system, the specified service, or the specified interface.
UE refuses RX	The total number of UE Refuses messages received by this system, the specified service, or the specified interface.
Service denied TX	The total number of Service Denied messages sent by the system, the specified service, or the specified interface.
Service denied RX	The total number of Service Denied messages received by this system, the specified service, or the specified interface.
Unable to page UE TX	The total number of Unable to Page UE (User Equipment) messages sent by the system, the specified service, or the specified interface.
Unable to page UE RX	The total number of Unable to Page UE messages received by this system, the specified service, or the specified interface.
No Memory TX	The total number of No Memory messages sent by the system, the specified service, or the specified interface.
No Memory RX	The total number of No Memory messages received by this system, the specified service, or the specified interface.
User Auth Failed TX	The total number of User Authentication Failed messages sent by the system, the specified service, or the specified interface.
User Auth Failed RX	The total number of User Authentication Failed messages received by this system, the specified service, or the specified interface.

Field	Description
Apn Access Denied TX	The total number of APN (Access Point Number) Access Denied messages sent by the system, the specified service, or the specified interface.
Apn Access Denied RX	The total number of APN Access Denied messages received by this system, the specified service, or the specified interface.
Request Rejected TX	The total number of Request Rejected messages sent by the system, the specified service, or the specified interface.
Request Rejected RX	The total number of Request Rejected messages received by this system, the specified service, or the specified interface.
Semantic error in TAD TX	The total number of Semantic Error in TAD (Traffic Aggregate Description) messages sent by the system, the specified service, or the specified interface.
Semantic error in TAD RX	The total number of Semantic Error in TAD messages received by this system, the specified service, or the specified interface.
Syntactic error in TAD TX	The total number of Syntactic Error in TAD messages sent by the system, the specified service, or the specified interface.
Syntactic error in TAD RX	The total number of Syntactic Error in TAD messages received by this system, the specified service, or the specified interface.
Collision with Nw init Req TX	The total number of Collision with Network Initiated Request messages sent by the system, the specified service, or the specified interface.
Collision with Nw init Req RX	The total number of Collision with Network Initiated Request messages received by this system, the specified service, or the specified interface.
UE page unable due to Susp TX	The total number of Unable to Page UE (User Equipment) Due to Suspension messages sent by the system, the specified service, or the specified interface.
UE page unable due to Susp RX	The total number of Unable to Page UE Due to Suspension messages received by this system, the specified service, or the specified interface.
Conditional IE missing TX	The total number of Conditional IE (Information Element) Missing messages sent by the system, the specified service, or the specified interface.
Conditional IE missing RX	The total number of Conditional IE Missing messages received by this system, the specified service, or the specified interface.
Apn Restr Type Incompatible TX	The total number of APN (Access Point Number) Restriction Type Incompatible with Currently Active PDN Connection messages sent by the system, the specified service, or the specified interface.
Apn Restr Type Incompatible RX	The total number of APN Restriction Type Incompatible with Currently Active PDN Connection messages received by this system, the specified service, or the specified interface.
Invalid len Piggybacked msg TX	The total number of Invalid Overall Length of the Triggered Response Message and a Piggybacked Initial Message messages sent by the system, the specified service, or the specified interface.

Field	Description
Invalid len Piggybacked msg RX	The total number of Invalid Overall Length of the Triggered Response Message and a Piggybacked Initial Message messages received by this system, the specified service, or the specified interface.
Invalid remote Peer reply TX	The total number of Invalid Reply from Remote Peer messages sent by the system, the specified service, or the specified interface.
Invalid remote Peer reply RX	The total number of Invalid Reply from Remote Peer messages received by this system, the specified service, or the specified interface.
PTMSI signature mismatch TX	The total number of PTMSI (Packet Temporary Mobile Subscriber Identity) Signature Mismatch messages sent by the system, the specified service, or the specified interface.
PTMSI signature mismatch RX	The total number of PTMSI Signature Mismatch messages received by this system, the specified service, or the specified interface.
IMSI not Known TX	The total number of IMSI (International Mobile Subscriber Identity) Not Known messages sent by the system, the specified service, or the specified interface.
IMSI not Known RX	The total number of IMSI Not Known messages received by this system, the specified service, or the specified interface.
Peer not responding TX	The total number of Remote Peer Not Responding messages sent by the system, the specified service, or the specified interface.
Peer not responding RX	The total number of Remote Peer Not Responding messages received by this system, the specified service, or the specified interface.
Data Fwding not supported TX	The total number of Data Forwarding Not Supported messages sent by the system, the specified service, or the specified interface.
Data Fwding not supported RX	The total number of Data Forwarding Not Supported messages received by this system, the specified service, or the specified interface.
Fallback to GTPV1 TX	The total number of Fallback to GTPv1 messages sent by the system, the specified service, or the specified interface.
Fallback to GTPV1 RX	The total number of Fallback to GTPv1 messages received by this system, the specified service, or the specified interface.
Invalid Peer TX	The total number of Invalid Reply from Remote Peer messages sent by the system, the specified service, or the specified interface.
Invalid Peer RX	The total number of Invalid Reply from Remote Peer messages received by this system, the specified service, or the specified interface.
Temp Rej due to HO in prog TX	The total number of Temporarily Rejected Due to Handover Procedure in Progress messages sent by the system, the specified service, or the specified interface.

Field	Description
Temp Rej due to HO in prog RX	The total number of Temporarily Rejected Due to Handover Procedure in Progress messages received by this system, the specified service, or the specified interface.
GTPC Entity Congestion TX	The number of times this peer has transmitted an overload condition indication to a peer.
GTPC Entity Congestion RX	The number of times this node has received an overload condition indication from a peer.
Unknown TX	The total number of Unknown (unspecified rejection cause) messages sent by the system, the specified service, or the specified interface.
Unknown RX	The total number of Unknown (unspecified rejection cause) messages received by this system, the specified service, or the specified interface.

SRVCC Messages

The **show egtpc statistics verbose**command includes all of the data provided in the **show egtpc statistics** command, and appends the detailed rejection statistics as described in the table above as well the following statist is tics for SRVCC (Single Radio Voice Call Continuity) requests and notifications:

- PS to CS Request Denied [RX only]
- PS to CS Complete Notification Denied [TX only]
- PS to CS Cancel Notification Denied [RX only]

Table 7: show egtpc statistics verbose Command Output Descriptions -- SRVCC Messages

Field	Description
PS to CS Request Denied [RX only]	
Context not existent RX	The total number of Context Does Not Exist messages received by this system, the specified service, or the specified interface.
Invalid message format RX	The total number of Invalid Message Format messages received by this system, the specified service, or the specified interface.
Version not supported RX	The total number of Version Not Supported messages received by this system, the specified service, or the specified interface.
Invalid length RX	The total number of Invalid Length messages received by this system, the specified service, or the specified interface.
Service not supported	The total number of Service not Supported messages received by this system, the specified service, or the specified interface.
Mandatory IE incorrect RX	The total number of Mandatory IE Incorrect messages received by this system, the specified service, or the specified interface.

Field	Description
Mandatory IE missing RX	The total number of Mandatory IE Missing messages received by this system, the specified service, or the specified interface.
System failure RX	The total number of System Failure messages received by this system, the specified service, or the specified interface.
No resources available RX	The total number of No Resources Available messages received by the system, the specified service, or the specified interface.
Semantic error in TFT RX	The total number of Semantic Error in TFT (Traffic Flow Template) messages received by this system, the specified service, or the specified interface.
Syntactic error in TFT RX	The total number of Syntactic Error in TFT messages received by this system, the specified service, or the specified interface.
Semantic error in Pkt Fltr RX	The total number of Semantic Error in Packet Filtering messages received by this system, the specified service, or the specified interface.
Syntactic error in Pkt Fltr RX	The total number of Syntactic Error in Packet Filtering messages received by this system, the specified service, or the specified interface.
Missing or unknown APN RX	The total number of Missing or Unknown APN (Access Point number) messages received by this system, the specified service, or the specified interface.
GRE key not found RX	The total number of GRE (Generic Routing Encapsulation) Key Not Found messages received by this system, the specified service, or the specified interface.
Reallocation failure RX	The total number of Reallocation Failure messages received by this system, the specified service, or the specified interface.
Denied in RAT RX	The total number of Denied in RAT (Radio Access Technology) messages received by this system, the specified service, or the specified interface.
Pref. PDN type unsupported RX	The total number of Preferred PDN Type Unsupported messages received by this system, the specified service, or the specified interface.
All dynamic addr occupied RX	The total number of All Dynamic Addresses Occupied messages received by this system, the specified service, or the specified interface.
UE ctx w/o TFT activated RX	The total number of UE (User Equipment) Context without TFT Already Activated messages received by this system, the specified service, or the specified interface.
Prot type not supported RX	The total number of Protocol Type Not Supported messages received by this system, the specified service, or the specified interface.
UE not responding RX	The total number of UE (User Equipment) Not Responding messages received by this system, the specified service, or the specified interface.
UE refuses RX	The total number of UE Refuses messages received by this system, the specified service, or the specified interface.

Field	Description
Service denied RX	The total number of Service Denied messages received by this system, the specified service, or the specified interface.
Unable to page UE RX	The total number of Unable to Page UE messages received by this system, the specified service, or the specified interface.
No Memory RX	The total number of No Memory messages received by this system, the specified service, or the specified interface.
User Auth Failed RX	The total number of User Authentication Failed messages received by this system, the specified service, or the specified interface.
Apn Access Denied RX	The total number of APN (Access Point Number) Access Denied messages received by this system, the specified service, or the specified interface.
Request Rejected RX	The total number of Request Rejected messages received by this system, the specified service, or the specified interface.
Semantic error in TAD RX	The total number of Semantic Error in TAD (Traffic Aggregate Description) messages received by this system, the specified service, or the specified interface.
Syntactic error in TAD RX	The total number of Syntactic Error in TAD messages received by this system, the specified service, or the specified interface.
Collision with Nw init Req RX	The total number of Collision with Network Initiated Request messages received by this system, the specified service, or the specified interface.
UE page unable due to Susp RX	The total number of Unable to Page UE Due to Suspension messages received by this system, the specified service, or the specified interface.
Conditional IE missing RX	The total number of Conditional IE Missing messages received by this system, the specified service, or the specified interface.
Apn Restr Type Incompatible RX	The total number of APN (Access Point Name) Restriction Type Incompatible with Currently Active PDN Connection messages sent by the system, the specified service, or the specified interface.
Invalid len Piggybacked msg RX	The total number of Invalid Overall Length of the Triggered Response Message and a Piggybacked Initial Message messages received by this system, the specified service, or the specified interface.
Invalid remote Peer reply RX	The total number of Invalid Reply from Remote Peer messages received by this system, the specified service, or the specified interface.
PTMSI signature mismatch RX	The total number of PTMSI (Packet Temporary Mobile Subscriber Identity) Signature Mismatch messages received by this system, the specified service, or the specified interface.
IMSI not Known RX	The total number of IMSI (International Mobile Subscriber Identity) Not Known messages received by this system, the specified service, or the specified interface.

Field	Description
Peer not responding RX	The total number of Remote Peer Not Responding messages received by this system, the specified service, or the specified interface.
Data Fwding not supported RX	The total number of Data Forwarding Not Supported messages received by this system, the specified service, or the specified interface.
Fallback to GTPV1 RX	The total number of Fallback to GTPv1 messages received by this system, the specified service, or the specified interface.
Invalid Peer RX	The total number of Invalid Reply from Remote Peer messages received by this system, the specified service, or the specified interface.
Temp Rej due to HO in prog RX	The total number of Temporarily Rejected Due to Handover Procedure in Progress messages received by this system, the specified service, or the specified interface.
GTPC Entity Congestion RX	The number of times this node has received an overload condition indication from a peer.
Unknown RX	The total number of Unknown (unspecified rejection cause) messages received by this system, the specified service, or the specified interface.
PS to CS Complete Notification Denied [TX only]	
Context not existent TX	The total number of Context Does Not Exist messages sent by this system, the specified service, or the specified interface.
Invalid message format TX	The total number of Invalid Message Format messages sent by the system, the specified service, or the specified interface.
Version not supported TX	The total number of Version Not Supported messages sent by the system, the specified service, or the specified interface.
Invalid length TX	The total number of Invalid Length messages sent by the system, the specified service, or the specified interface.
Mandatory IE incorrect TX	The total number of Mandatory IE (Information Element) Incorrect messages sent by the system, the specified service, or the specified interface.
Mandatory IE missing TX	The total number of Mandatory IE Missing messages sent by the system, the specified service, or the specified interface.
System failure TX	The total number of System Failure messages sent by the system, the specified service, or the specified interface.
No resources available TX	The total number of No Resources Available messages sent by the system, the specified service, or the specified interface.
Semantic error in TFT TX	The total number of Semantic Error in TFT (Traffic Flow Template) messages sent by the system, the specified service, or the specified interface.
Syntactic error in TFT TX	The total number of Syntactic Error in TFT messages sent by the system, the specified service, or the specified interface.

Field	Description
Semantic error in Pkt Fltr TX	The total number of Semantic Error in Packet Filtering messages sent by the system, the specified service, or the specified interface.
Syntactic error in Pkt Fltr TX	The total number of Syntactic Error in Packet Filtering messages sent by the system, the specified service, or the specified interface.
Missing or unknown APN TX	The total number of Missing or Unknown APN (Access Point number) messages sent by the system, the specified service, or the specified interface.
GRE key not found TX	The total number of GRE (Generic Routing Encapsulation) Key Not Found messages sent by the system, the specified service, or the specified interface.
Reallocation failure TX	The total number of Reallocation Failure messages sent by the system, the specified service, or the specified interface.
Denied in RAT TX	The total number of Denied in RAT (Radio Access Technology) messages sent by the system, the specified service, or the specified interface.
Pref. PDN type unsupported TX	The total number of Preferred PDN Type Unsupported messages sent by the system, the specified service, or the specified interface.
All dynamic addr occupied TX	The total number of All Dynamic Addresses Occupied messages sent by the system, the specified service, or the specified interface.
UE ctx w/o TFT activated TX	The total number of UE Context without TFT (Traffic Flow Template) Already Activated messages sent by the system, the specified service, or the specified interface.
Prot type not supported TX	The total number of Protocol Type Not Supported messages sent by the system, the specified service, or the specified interface.
UE not responding TX	The total number of UE (User Equipment) Not Responding messages sent by the system, the specified service, or the specified interface.
UE refuses TX	The total number of UE Refuses messages sent by the system, the specified service, or the specified interface.
Service denied TX	The total number of Service Denied messages sent by the system, the specified service, or the specified interface.
Unable to page UE TX	The total number of Unable to Page UE (User Equipment) messages sent by the system, the specified service, or the specified interface.
No Memory TX	The total number of No Memory messages sent by the system, the specified service, or the specified interface.
User Auth Failed TX	The total number of User Authentication Failed messages sent by the system, the specified service, or the specified interface.
Apn Access Denied TX	The total number of APN (Access Point Number) Access Denied messages sent by the system, the specified service, or the specified interface.

Field	Description
Request Rejected TX	The total number of Request Rejected messages sent by the system, the specified service, or the specified interface.
Semantic error in TAD TX	The total number of Semantic Error in TAD (Traffic Aggregate Description) messages sent by the system, the specified service, or the specified interface.
Syntactic error in TAD TX	The total number of Syntactic Error in TAD messages sent by the system, the specified service, or the specified interface.
Collision with Nw init Req TX	The total number of Collision with Network Initiated Request messages sent by the system, the specified service, or the specified interface.
UE page unable due to Susp TX	The total number of Unable to Page UE (User Equipment) Due to Suspension messages sent by the system, the specified service, or the specified interface.
Conditional IE missing TX	The total number of Conditional IE (Information Element) Missing messages sent by the system, the specified service, or the specified interface.
Apn Restr Type Incompatible TX	The total number of APN (Access Point Number) Restriction Type Incompatible with Currently Active PDN Connection messages sent by the system, the specified service, or the specified interface.
Invalid len Piggybacked msg TX	The total number of Invalid Overall Length of the Triggered Response Message and a Piggybacked Initial Message messages sent by the system, the specified service, or the specified interface.
Invalid remote Peer reply TX	The total number of Invalid Reply from Remote Peer messages sent by the system, the specified service, or the specified interface.
PTMSI signature mismatch TX	The total number of PTMSI (Packet Temporary Mobile Subscriber Identity) Signature Mismatch messages sent by the system, the specified service, or the specified interface.
IMSI not Known TX	The total number of IMSI (International Mobile Subscriber Identity) Not Known messages sent by the system, the specified service, or the specified interface.
Peer not responding TX	The total number of Remote Peer Not Responding messages sent by the system, the specified service, or the specified interface.
Data Fwding not supported TX	The total number of Data Forwarding Not Supported messages sent by the system, the specified service, or the specified interface.
Fallback to GTPV1 TX	The total number of Fallback to GTPv1 messages sent by the system, the specified service, or the specified interface.
Invalid Peer TX	The total number of Invalid Reply from Remote Peer messages sent by the system, the specified service, or the specified interface.
Temp Rej due to HO in prog TX	The total number of Temporarily Rejected Due to Handover Procedure in Progress messages sent by the system, the specified service, or the specified interface.

Field	Description
GTPC Entity Congestion TX	The number of times this node has transmitted and overload condition indication to a peer.
Unknown TX	The total number of Unknown (unspecified rejection cause) messages sent by the system, the specified service, or the specified interface.
PS to CS Cancel Notification Denied [RX only]	
Context not existent RX	The total number of Context Does Not Exist messages received by this system, the specified service, or the specified interface.
Invalid message format RX	The total number of Invalid Message Format messages received by the system, the specified service, or the specified interface.
Version not supported RX	The total number of Version Not Supported messages received by this system, the specified service, or the specified interface.
Invalid length RX	The total number of Invalid Length messages received by this system, the specified service, or the specified interface.
Mandatory IE incorrect RX	The total number of Mandatory IE (Information Element) Incorrect messages received by this system, the specified service, or the specified interface.
Mandatory IE missing RX	The total number of Mandatory IE Missing messages received by this system, the specified service, or the specified interface.
System failure RX	The total number of System Failure messages received by this system, the specified service, or the specified interface.
No resources available RX	The total number of No Resources Available messages received by the system, the specified service, or the specified interface.
Semantic error in TFT RX	The total number of Semantic Error in TFT (Traffic Flow Template) messages received by this system, the specified service, or the specified interface.
Syntactic error in TFT RX	The total number of Syntactic Error in TFT messages received by this system, the specified service, or the specified interface.
Semantic error in Pkt Fltr RX	The total number of Semantic Error in Packet Filtering messages received by this system, the specified service, or the specified interface.
Syntactic error in Pkt Fltr RX	The total number of Syntactic Error in Packet Filtering messages received by this system, the specified service, or the specified interface.
Missing or unknown APN RX	The total number of Missing or Unknown APN (Access Point Number) messages received by this system, the specified service, or the specified interface.
GRE key not found RX	The total number of GRE Key Not Found messages received by this system, the specified service, or the specified interface.
Reallocation failure RX	The total number of Reallocation Failure messages received by this system, the specified service, or the specified interface.

Field	Description
Denied in RAT RX	The total number of Denied in RAT (Radio Access Technology) messages received by this system, the specified service, or the specified interface.
Pref. PDN type unsupported RX	The total number of Preferred PDN Type Unsupported messages received by this system, the specified service, or the specified interface.
All dynamic addr occupied RX	The total number of All Dynamic Addresses Occupied messages received by this system, the specified service, or the specified interface.
UE ctx w/o TFT activated RX	The total number of UE (User Equipment) Context without TFT Already Activated messages received by this system, the specified service, or the specified interface.
Prot type not supported RX	The total number of Protocol Type Not Supported messages received by this system, the specified service, or the specified interface.
UE not responding RX	The total number of UE Not Responding messages received by this system, the specified service, or the specified interface.
UE refuses RX	The total number of UE Refuses messages received by this system, the specified service, or the specified interface.
Service denied RX	The total number of Service Denied messages received by this system, the specified service, or the specified interface.
Unable to page UE RX	The total number of Unable to Page UE (User Equipment) messages received by this system, the specified service, or the specified interface.
No Memory RX	The total number of No Memory messages received by this system, the specified service, or the specified interface.
User Auth Failed RX	The total number of User Authentication Failed messages received by this system, the specified service, or the specified interface.
Apn Access Denied RX	The total number of APN (Access Point Name) Access Denied messages received by this system, the specified service, or the specified interface.
Request Rejected RX	The total number of Request Rejected messages received by this system, the specified service, or the specified interface.
Semantic error in TAD RX	The total number of Semantic Error in TAD (Traffic Aggregate Description) messages received by this system, the specified service, or the specified interface.
Syntactic error in TAD RX	The total number of Syntactic Error in TAD messages received by this system, the specified service, or the specified interface.
Collision with Nw init Req RX	The total number of Collision with Network Initiated Request messages received by this system, the specified service, or the specified interface.
UE page unable due to Susp RX	The total number of Unable to Page UE Due to Suspension messages received by this system, the specified service, or the specified interface.

Field	Description
Conditional IE missing RX	The total number of Conditional IE Missing messages received by this system, the specified service, or the specified interface.
Apn Restr Type Incompatible RX	The total number of APN Restriction Type Incompatible with Currently Active PDN Connection messages sent by the system, the specified service, or the specified interface.
Invalid len Piggybacked msg RX	The total number of Invalid Overall Length of the Triggered Response Message and a Piggybacked Initial Message messages received by this system, the specified service, or the specified interface.
Invalid remote Peer reply RX	The total number of Invalid Reply from Remote Peer messages received by this system, the specified service, or the specified interface.
PTMSI signature mismatch RX	The total number of PTMSI (Packet Temporary Mobile Subscriber Identity) Signature Mismatch messages received by this system, the specified service, or the specified interface.
IMSI not Known RX	The total number of IMSI (International Mobile Subscriber Identity) Not Known messages received by this system, the specified service, or the specified interface.
Peer not responding RX	The total number of Remote Peer Not Responding messages received by this system, the specified service, or the specified interface.
Data Fwding not supported RX	The total number of Data Forwarding Not Supported messages received by this system, the specified service, or the specified interface.
Fallback to GTPV1 RX	The total number of Fallback to GTPv1 messages received by this system, the specified service, or the specified interface.
Invalid Peer RX	The total number of Invalid Reply from Remote Peer messages received by this system, the specified service, or the specified interface.
Temp Rej due to HO in prog RX	The total number of Temporarily Rejected Due to Handover Procedure in Progress messages received by this system, the specified service, or the specified interface.
GTPC Entity Congestion RX	The number of times this node has received an overload condition indication from a peer.
Unknown RX	The total number of Unknown (unspecified rejection cause) messages received by this system, the specified service, or the specified interface.

IMSI/IMEI Statistics

The **show egtpc statistics verbose**command includes all of the data provided in the **show egtpc statistics** command, and appends the detailed rejection statistics and statist is tics for SRVCC requests and notifications, as described in the tables above. In addition, it tracks PDN session handling for invalid IMEI and IMSI-less devices.

Table 8: show egtpc statistics verbose Command Output Descriptions -- IMSI/IMEI Statistics

Field	Description
IMSI/IMEI Statistics:	
IMSI Invalid Length	The total number of IMSI with invalid length.
IMSI All Zero	The total number of invalid value IMSI with all 0 content.
IMSI Not BCD	The total number of invalid IMSI with value violating 3GPP defined format.
IMEI Invalid Length	The total number of valid IMSI but Invalid IMEI with Protocol violations.
IMEI All Zero	The total number of valid IMSI but Invalid value IMEI with all 0 content.
IMEI Not BCD	The total number of valid IMSI but Invalid IMEI with value violating 3GPP defined format.
IMEI All Zero (unauthenticated imsi)	The total number of Emergency PDN connections with missing IMSI and invalid value IMEI with all 0 content.
IMEI Not BCD (unauthenticated imsi)	The total number of Emergency PDN connections with missing IMSI and Invalid IMEI with value violating 3GPP defined format.
IMEI All Zero (unauthenticated imsi and context replacement)	The total number of Emergency PDN connections with missing IMSI and IMEI session replacements because of invalid value IMEI with all 0 content.
IMEI Not BCD (unauthenticated imsi and context replacement)	The total number of Emergency PDN connections with missing IMSI and IMEI session replacements because of invalid IMEI with value violating 3GPP defined format.

Collision Counter Support in the GTP Layer

GTPv2 message collisions occur in the network when a node is expecting a particular procedure message from a peer node but instead receives a different procedure message from the peer. The SAEGW software has been enhanced so that these collisions are now tracked by statistics and handled based on a pre-defined action for each message collision type.

If the SAEGW is configured as a pure P-GW or a pure S-GW, operators will still see the respective collision statistics if they occur.

The output of this command has been enhanced to provide information on GTPv2 message collisions, including:

- **Interface**: The interface on which the collision occurred: SGW (S4/S11), SGW (S5), or PGW (S5).
- **Old Proc (Msg Type)**: Indicates the ongoing procedure at eGTP-C when a new message arrived at the interface which caused the collision. The Msg Type in brackets specifies which message triggered this ongoing procedure.
- **New Proc (Msg Type)**: The new procedure and message type.
- **Action**: The pre-defined action taken to handle the collision. The action can be one of:
  - **No Collision Detected**
  - **Suspend Old**: Suspend processing of the original (old) message, process the new message, then resume old message handling.

- **Abort Old**: Abort the original message handling and processes the new message.
- **Reject New**: The new message is rejected, and the original (old) message is processed.
- **Silent Drop New**: Drop the new incoming message, and the old message is processed.
- **Parallel Hndl**: Both the original (old) and new messages are handled in parallel.
- **Buffer New**: The new message is buffered and processed once the original (old) message processing is done.

- **Counter**: The number of times each collision type has occurred.



Important The *Message Collision Statistics* section of the command output only appears if any of the collision statistics have a counter total that is greater than zero.

Sample output:

```
Message Collision Statistics
    Interface      Old Proc (Msg Type)          New Proc (Msg Type)          Action
Counter
      SGW(S5)    NW Init Bearer Create (95)  NW Init PDN Delete (99)  Abort Old    1
```

In this instance, the output states that at the S-GW egress interface (S5) a Bearer creation procedure is going on due to a CREATE BEARER REQUEST(95) message from the P-GW. Before its response comes to the S-GW from the MME, a new procedure PDN Delete is triggered due to a DELETE BEARER REQUEST(99) message from the P-GW.

The action that is carried out due to this collision at eGTP-C is to abort (Abort Old) the Bearer Creation procedure and carry on normally with the PDN Delete procedure. The Counter total of 1 indicates that this collision happened only once.

show egtp-service all

Table 9: show egtp service all Command Output Descriptions

Field	Description
Service name	The name of the service configured in the named context.
Service-ID	A system generated ID number applied to the service.
Context	The name of the context where the service is configured.

Field	Description
Interface Type	The type of LTE interface this service is supporting. The following fields are in the output of the show egtp-service all command to accept or reject Create Session Request (CSR) on GTP based S2a and S2b interfaces. • s5/s8 • s2a • s2b **Important** This is a license-controlled feature. A valid feature license must be installed prior to configuring this feature. Contact your Cisco account representative for more information. These fields are only visible if the license is enabled.
Status	The status of the service, i.e., "STARTED".
Restart Counter	Specifies the restart counter.
Max Remote Restart Counter Change	An integer from 1 to 255 that specifies the value configured with the **gtpc max-restart-counter-change** command in *eGTP-C Configuration Mode*. This value represents the counter change after which the node will detect a peer restart. Note that a peer restart will be detected only if the absolute difference between the New and Old restart counters is less than the value configured. For example, if the **max-remote-restart-counter-change** is 10 and current peer restart counter is 251, then eGTP will detect a peer restart only if the new restart counter is 252 through 255 or 0 through 5. Similarly, if the stored restart counter is 1, eGTP will detect a peer restart only if the new restart counter is 2 through 11. The default value is 255.
Message Validation Mode	The type of IE validation to be performed on messages received by this service.
GTPC Retransmission Timeout	The number of seconds between the re-sending of GTP-C echo messages.
GTPC Maximum Request Retransmissions	The number of control packet request message retransmissions that can be sent before an error condition is established.
GTPC IP QOS DSCP value	The IP QoS DSCP per-hop behavior to be marked on the outer header of signalling packets originating from the LTE component.
GTPC Echo	Identifies if GTP-C echo messages will be sent.
GTPC Echo Interval	The duration between the sending of GTP-C echo messages.
GTP-C Bind IPv4 Address	The IPv4 address of the interface to which this service is bound.
GTP-C Bind IPv6 Address	The IPv6 address of the interface to which this service is bound.
GTPC Peer Salvation	Indicates if peer salvation is enabled or disabled.

Field	Description
GTPC path failure detection policy	
Echo Timeout	Indicates if the Echo Timeout failure detection policy is enabled/disabled.
Echo Req/Rsp Restart counter change	Indicates if the Echo Req/Rsp Restart counter failure detection policy is enabled/disabled. If enabled, path failure detection occurs when the restart counter in Echo Request/Echo Response messages changes.
Control Mesg Restart counter change	Indicates if the Control Mesg Restart counter failure detection policy is enabled/disabled. If enabled, path failure detection occurs when the restart counter in Control Request/Control Response messages changes.
Collision handling DBcmd when MBreq pending	The collision handling setting for a Delete Bearer command (DBcmd) message when the Modify Bearer Request (MBreq) message for the default bearer is pending at the P-GW. Possible settings are: • Queue DBcmd: Queue the DBcmd message when the MBreq message is pending. • Drop DBcmd: Drop the DBcmd message when the MBreq message is pending. • Abort MBreq and handle Dbcmd: Abort the MBreq message and handle the DBcmd message.
GTPC Private Extension Overcharging Protection	Indicates if **gtpc private-extension overcharge-protection** is enabled in the egtp-service. If it is enabled, then EGTPC will encode/decode Overcharge-protection related data in/from private extension instead of Indication IE. If this option is disabled, then by default the EGTPC layer will encode/decode Overcharge-protection related data in the Indication IE.
GTPC Node Feature GTPC Lte-M RAT	Displays the node features enabled in this egtpc service. Indicates that if the **allow-Item-rat** type is Enabled or Disabled in the egtp-service.