

show sgtpu

This chapter describes the outputs of the **show sgtpu** command.

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show sgtpu statistics

Table 1: show sgtpu statistics Command Output Descriptions

Field	Description
GTPU Statistics:	
Total Packets Sent	
Packets sent to GGSN	Total number of packets for GTP-U messages sent to GGSN.
Packets sent to RNC	Total number of packets for GTP-U messages sent to RNC.
Packets sent to SGSN	Total number of packets for GTP-U messages sent to SGSN.
Total Bytes Sent	
Bytes sent to GGSN	Total number of bytes for GTP-U messages sent to GGSN at a given instance of time.
Bytes sent to RNC	Total number of bytes for GTP-U messages sent to the RNC at a given instance in time.
Bytes sent to SGSN	Total number of bytes for GTP-U messages sent to the SGSN at a given instance in time.
Total Packets Rcvd	
Total Packets from GGSN	Total number of packets for GTP-U messages received from GGSN.
Pkts queued	Total number of packets queued for GTP-U messages from GGSN.
Pkts forward from queue	**Description**: This proprietary statistic indicates the total number of packets that are forwarded from the GGSN queue. **Triggers**: Increments when a packet is forwarded from the GGSN queue. **Availability**: per SGTP service

Field	Description
Pkts dropped	Total number of packets dropped for GTP-U messages from GGSN.
Queue Full	Total number of packets dropped due to queued buffer limit full for GTP-U messages from GGSN.
Ctxt Preserved	Total number of GTP packets from GGSN dropped in preserved context.
Unknown session	Total number of GTP packets from GGSN dropped in unknown session.
Pkts when dp suspended	**Description**: This proprietary statistic indicates the total number of packets dropped because of DP session in suspended state. **Triggers**: Increments when a DP session has deactivation initiated or path failure is detected for the PDP context. **Availability**: per SGTP service
Sess Dealloc started	Total number of GTP packets from peer GGSN received during session deallocation procedure.
Paging Failure	Total number of GTP packets dropped due to paging failure when there was downlink data from GGSN.
Seq Num Not Pres(V0)	Total number of packets from GGSN dropped as GTP-Uv0 messages received with sequence number flag set to false.
Unknown version	Total number of GTP-U packets received from GGSN with unknown GTP version.
Invalid msg length	Total number of GTP packets from GGSN dropped as GTP-U messages received with invalid message length.
Traffic Policing	Total number of GTP-U packets received from GGSN under subscriber traffic policing support.
Iu Release	**Description**: Total number of downlink packets that were queued but dropped due to IU/RAB release. **Triggers**: Counter at the new SGSN increments when Iu/RAB gets released while inter-SGSN-RAU is in progress and downlink data is queued during RAU. **Availability**: per SGTP service
T3-tunnel Timer expiry	**Description**: Total number of downlink packets that were queued but dropped due to T3-tunnel timer expiry during inter-SGSN RAU procedure. **Triggers**: During inter-SGSN RAU at the old SGSN, neither Cancel Location or SGSN Context Ack are received when t3-tunnel timer is fired causing the RAU procedure to abort. If old RABs are not available, the data queued during the RAU will be dropped. **Availability**: per SGTP service

Field	Description
BVC Reset/Block Rcvd	**Description**: This proprietary statistic indicates the total number of packets that are dropped from the GGSN queue, because of BVC Block or BVC Reset messages received for the MM context. **Triggers**: Increments when a packet is dropped from the GGSN queue because of BVC Reset/BVC Block received for the MM context. **Availability**: per SGTP service
Total Bytes Rcvd	
Total Bytes from SGSN	Total number of bytes for GTP-U messages received from GGSN.
Bytes queued	Total number of bytes queued for GTP-U messages from GGSN.
Bytes forward from queue	**Description**: This proprietary statistic indicates the total number of bytes that are forwarded from the GGSN queue. **Triggers**: Increments when a byte is forwarded from the GGSN queue. **Availability**: per SGTP service
Bytes dropped	Total number of bytes dropped for GTP-U messages from GGSN.
Queue Full	Total number of bytes dropped due to queued buffer limit full for GTP-U messages from GGSN.
Ctxt Preserved	Total number of GTP bytes from GGSN dropped in preserved context.
Unknown session	Total number of GTP bytes from GGSN dropped in unknown session.
Pkts when dp suspended	**Description**: This proprietary statistic indicates the total number of bytes dropped because of DP session in suspended state. **Triggers**: Increments when a DP session has deactivation initiated or path failure is detected for the PDP context. **Availability**: per SGTP service
Sess Dealloc started	Total number of GTP bytes from peer GGSN received during session deallocation procedure.
Paging Failure	Total number of GTP bytes dropped due to paging failure when there was downlink data from GGSN.
Seq Num Not Pres(V0)	Total number of bytes from GGSN dropped as GTP-Uv0 messages received with sequence number flag set to false.
Unknown version	Total number of GTP-U bytes received from GGSN with unknown GTP version.
Invalid msg length	Total number of GTP bytes from GGSN dropped as GTP-U messages received with invalid message length.
Traffic Policing	Total number of GTP-U bytes received from GGSN under subscriber traffic policing support.

Field	Description
Iu Release	**Description**: Total number of downlink bytes that were queued but dropped due to IU/RAB release. **Triggers**: Counter at the new SGSN increments when Iu/RAB gets released while inter-SGSN-RAU is in progress and downlink data is queued during RAU. **Availability**: per SGTP service
T3-tunnel Timer expiry	**Description**: Total number of downlink bytes that were queued but dropped due to T3-tunnel timer expiry during inter-SGSN RAU procedure. **Triggers**: During inter-SGSN RAU at the old SGSN, neither Cancel Location or SGSN Context Ack are received when t3-tunnel timer is fired causing the RAU procedure to abort. If old RABs are not available, the data queued during the RAU will be dropped. **Availability**: per SGTP service
BVC Reset/Block Rcvd	**Description**: This proprietary statistic indicates the total number of bytes that are dropped from the GGSN queue, because of BVC Block or BVC Reset messages received for the MM context. **Triggers**: Increments when a byte is dropped from the GGSN queue because of BVC Reset/BVC Block received for the MM context. **Availability**: per SGTP service
Total Error Ind Sent	Indicates the total number of error indication messages sent to GGSN.
Sent to GGSN	**Description**: This proprietary counter indicates the total number of GTP-U (v1 and v0) messages sent to GGSN with error indication. **Triggers**: Increments when SGSN receives data packet from GGSN and no PDP context exists for this data packet on SGSN. In this case, SGSN sends error indications to GGSN. **Availability**: per GGSN
Sent to RNC	**Description**: This proprietary counter indicates the total number of GTP-U (v1 and v0) messages sent to RNC with error indication. **Triggers**: Increments when SGSN receives data packet from RNC and no PDP context exists for this data packet on SGSN. In this case, SGSN sends error indications to RNC. **Availability**: per RNC
Total Error Ind Rcvd	Indicates the total number of error indication messages received by SGSN.
Rcvd from GGSN	**Description**: This proprietary counter indicates the total number of GTP-U (v1 and v0) messages received by SGSN from GGSN with error indication. **Triggers**: Increments when SGSN receives error indication messages from GGSN. **Availability**: per GGSN

Field	Description
Rcvd from RNC	**Description**: This proprietary counter indicates the total number of GTP-U (v1 and v0) messages received by SGSN from RNC with error indication. **Triggers**: Increments when SGSN receives error indication messages from RNC. **Availability**: per RNC
Rcvd from GGSN through RNC	**Description**: This proprietary counter indicates the total number of error indication messages from GGSN. If direct tunnel is enabled, data flows between RNC and GGSN. When the RNC receives GTPU-PDU from the GGSN for which no RAB context exists, RNC discards GTPU-PDU and returns error indication to GGSN. In order to notify SGSN, GGSN sends UPC request with EI Flag to SGSN. **Triggers**: Increments when SGSN receives error indication messages from GGSN through RNC. **Availability**: per GGSN
Rcvd from RNC through GGSN	**Description**: This proprietary counter indicates the total number of error indication messages from RNC. If direct tunnel is enabled, data flows between RNC and GGSN. GGSN sends Error indication to RNC, and in order to notify SGSN, RNC sends RAB Release Request with the error cause 'GTP Resources Unavailable'. **Triggers**: Increments when SGSN receives error indication messages from GGSN through RNC. This is when SGSN receives (Error indication message) Update PDP Context request with EI (Error Indication) flag from GGSN. **Availability**: per RNC