



## show sgs-service

This chapter describes the output of the **show sgs-service** command.

- [show sgs-service all, on page 1](#)
- [show sgs-service offload-status service-name, on page 1](#)
- [show sgs-service statistics all, on page 2](#)
- [show sgs-service vlr-status full, on page 4](#)

## show sgs-service all

The output of this command is enhanced to display the following fields.

**Table 1: show sgs-service all Command Output Descriptions**

| Field                    | Description                        |
|--------------------------|------------------------------------|
| <b>Non-Broadcast LAI</b> |                                    |
| MCC                      | Displays the configured MCC value. |
| MNC                      | Displays the configured MNC value. |
| LAC                      | Displays the configured LAC value. |

## show sgs-service offload-status service-name

Displays statistics for all VLRs flagged for offload for the specified SGs service.

**Table 2: show sgs-service offload-status service-name Command Output Descriptions**

| Field                           | Description  |
|---------------------------------|--|
| VLR Name                        | The VLR name as configured in the SGs service.           |
| VLR Offload                     | Displays if the VLR is configured/marked for offload.    |
| Offload Marked Subscriber Count | The number of subscribers that have yet to be offloaded. |

| Field                               | Description                                      |
|-------------------------------------|--|
| Total Attached Attached Subscribers | The total number of subscribers to be offloaded. |

## show sgs-service statistics all

Displays SGs service statistics for all SGs services configured on the system.

**Table 3: show sgs-service statistics all Command Output Descriptions**

| Field                    | Description   |
|--------------------------|---|
| <b>SCTP Statistics</b>   |   |
| Transmitted SCTP Data    |   |
| Init Chunks              | The total number of initial chunks transmitted by this service.           |
| Init Ack Chunks          | The total number of initial ack chunks transmitted by this service.       |
| Shutdown Chunks          | The total number of shutdown chunks transmitted by this service.          |
| Cookie Chunks            | The total number of cookie chunks transmitted by this service.            |
| Data Chunks              | The total number of chunks transmitted by this service.                   |
| Data Ack Chunks          | The total number of data ack chunks transmitted by this service.          |
| Shutdown Complete Chunks | The total number of shutdown complete chunks transmitted by this service. |
| Heartbeat Chunks         | The total number of heartbeat chunks transmitted by this service.         |
| HeartBeat Ack Chunks     | The total number of heartbeat ack chunks transmitted by this service.     |
| Abort Chunks             | The total number of abort chunks transmitted by this service.             |
| Error Chunks             | The total number of error chunks transmitted by this service.             |
| Init Chunks              | The total number of initial chunks received by this service.              |
| Init Ack Chunks          | The total number of initial ack chunks received by this service.          |
| Shutdown Chunks          | The total number of shutdown chunks received by this service.             |
| Cookie Chunks            | The total number of cookie chunks received by this service.               |
| Data Chunks              | The total number of chunks received by this service.                      |
| Data Ack Chunks          | The total number of data ack chunks received by this service.             |
| Shutdown Complete Chunks | The total number of shutdown complete chunks received by this service.    |
| Heartbeat Chunks         | The total number of heartbeat chunks received by this service.            |
| HeartBeat Ack Chunks     | The total number of heartbeat ack chunks received by this service.        |
| Abort Chunks             | The total number of abort chunks received by this service.                |
| Error Chunks             | The total number of error chunks received by this service.                |
| Init Chunks              | The total number of initial chunks retransmitted by this service.         |

| Field                      | Description   |
|----------------------------|---|
| Total Bytes Sent           | The total number of SCTP bytes sent by this service.  |
| Total Bytes Received       | The total number of SCTP bytes received by this service.  |
| Total Packets Sent         | The total number of SCTP packets sent by this service.  |
| Total Packets Received     | The total number of SCTP packets received by this service.  |
| <b>SGS-AP Statistics</b>   |   |
| SGS-AP Data                |   |
| <b>Tx</b>                  | The total number of messages transmitted by this service for the associated message type.   |
| <b>ReTx</b>                | The total number of messages retransmitted by this service for the associated message type.   |
| <b>Rx</b>                  | The total number of messages received by this service for the associated message type.  |
| Paging Request             | The total number of paging request messages.  |
| Paging Reject              | The total number of paging reject messages.   |
| Service Request            | The total number of service request messages.   |
| Downlink Unitdata          | The total number of downlink unit data messages.  |
| Uplink Unitdata            | The total number of uplink unit data messages.  |
| Location Update Request    | The total number of Location Update Request messages.   |
| Location Update Accept     | The total number of Location Update Accept messages.  |
| Location Update Reject     | The total number of Location Update Reject messages.  |
| Location Update Timeout    | The total number of Location Update Request messages not received from HSS/MSC due to ts6-1 timeout.<br><br>Note that only the Rx counter will increment. Tx and ReTx counters are not supported. |
| TMSI Reallocation Complete | The total number of TMSI reallocation complete messages.  |
| Alert Request              | The total number of alert request messages.   |
| Alert Ack                  | The total number of alert ack messages.   |
| Alert Reject               | The total number of alert reject messages.  |
| UE Activity Indication     | The total number of UE activity indication messages.  |
| EPS Detach Indication      | The total number of EPS detach indication messages.   |
| EPS Detach Ack             | The total number of EPS detach ack messages.  |
| IMSI Detach Indication     | The total number of IMSI detach indication messages.  |
| IMSI Detach Ack            | The total number of IMSI detach ack messages.   |
| Reset Indication           | The total number of reset indication messages.  |

| Field                  | Description   |
|------------------------|---|
| Reset Ack              | The total number of reset ack messages.                   |
| MM Information Request | The total number of MM information request messages.      |
| Release Request        | The total number of release request messages.             |
| Status                 | The total number of status messages.                      |
| UE Unreachable         | The total number of UE unreachable messages.              |
| Service Abort Request  | The total number of SGsAP-SERVICE-ABORT-REQUEST messages. |
| Unknown MSG            | The total number of unknown messages.                     |

## show sgs-service vlr-status full

Table 4: show sgs-service vlr-status Command Output Descriptions

| Field               | Description   |
|---------------------|---|
| MMEMGR              | The MME manager instance where the SGs service is running.  |
| MME Reset           | A system-wide parameter which is set to "Yes" when the MME service ( and SGS service) is up or after the MME restarts after a failure. This is a restoration indicator at MME service.  |
| Service ID          | The system generated identification number of the SGs service.  |
| Peer ID             | The system generated identification number of the VLR's SCTP connection.  |
| VLR Name            | The VLR name as configured in the SGs service.  |
| SGS Service Name    | The configured SGs service name.  |
| VLR Offload         | Displays if the VLR is configured/marked for offload state.   |
| SGS Service Address | The IP address of the interface to which the SGs service is bound.  |
| SGS Service Port    | The port number of the interface to which the SGs service is bound.   |
| VLR IP Address (es) | The VLR IP address as configured in the SGs service. If multi-homing is configured, both addresses will be shown. The path status for each is displayed as either UP or DOWN.   |
| VLR Port            | The VLR port number as configured in the SGs service.   |
| Assoc State         | The current state of the SCTP association, either UP or DOWN.   |
| Assoc Uptime        | The total amount of time ( hours   minutes   seconds) the current SCTP association has been active (up).<br><br>The format of Assoc UpTime is 0000d00h00m (where d= day, h=hour, m=minutes) when h >=24 hrs, otherwise it will be displayed as 00h00m00s. |

| Field                              | Description   |
|------------------------------------|---|
| Assoc State Up Count               | The total number of times the SCTP association has come up.   |
| VLR Failure Detach                 | <p>Indicates if the <b>sgs vlr-failure</b> Exec Mode command is enabled (Yes) or disabled (No).</p> <p>Detach Count: The total number of subscribers that have already been detached as a result of the sgs vlr-failure command.</p> <p>Total: Indicates the total number of subscribers that have to be detached.</p> <p><b>Note:</b> This field is <b>not</b> displayed when the <b>vlr-recover</b> Config Mode command is enabled.</p>               |
| SGs Service Configured VLR Failure | <p>Indicates if the SGs service <b>vlr-recover</b> Config Mode command is enabled (Yes) or disabled (No).</p> <p>Detach Count: The total number of subscribers that have already been detached as a result of the SGs Service VLR Failure feature.</p> <p>Total: Indicates the total number of subscribers that have to be detached.</p> <p><b>Note:</b> This field is only displayed when the SGs Service VLR Failure feature has been configured.</p> |
| VLR Recover Detach                 | <p>Indicates if the <b>sgs vlr-recover</b> Exec Mode command is enabled (Yes) or disabled (No).</p> <p>Detach Count: The total number of subscribers that have already been detached as a result of the sgs vlr-recover command.</p> <p>Total: Indicates the total number of subscribers that have to be detached.</p>  |
| <b>SGS-AP Statistics</b>           |   |
| <b>Tx</b>                          | The total number of messages transmitted by this service for the associated message type.   |
| <b>ReTx</b>                        | The total number of messages retransmitted by this service for the associated message type.   |
| <b>Rx</b>                          | The total number of messages received by this service for the associated message type.  |
| Paging Request                     | The total number of paging request messages.  |
| Paging Reject                      | The total number of paging reject messages.   |
| Service Request                    | The total number of service request messages.   |
| Downlink Unitdata                  | The total number of downlink unit data messages.  |
| Uplink Unitdata                    | The total number of uplink unit data messages.  |
| Location Update Request            | The total number of Location Update Request messages.   |
| Location Update Accept             | The total number of Location Update Accept messages.  |
| Location Update Reject             | The total number of Location Update Reject messages.  |

| Field                      | Description   |
|----------------------------|---|
| Location Update Timeout    | The total number of Location Update Request messages not received from HSS/MSC due to ts6-1 timeout.<br><br>Note that only the Rx counter will increment. Tx and ReTx counters are not supported. |
| TMSI Reallocation Complete | The total number of TMSI reallocation complete messages.  |
| Alert Request              | The total number of alert request messages.   |
| Alert Ack                  | The total number of alert ack messages.   |
| Alert Reject               | The total number of alert reject messages.  |
| UE Activity Indication     | The total number of UE activity indication messages.  |
| EPS Detach Indication      | The total number of EPS detach indication messages.   |
| EPS Detach Ack             | The total number of EPS detach ack messages.  |
| IMSI Detach Indication     | The total number of IMSI detach indication messages.  |
| IMSI Detach Ack            | The total number of IMSI detach ack messages.   |
| Reset Indication           | This statistic has been deprecated.   |
| Reset Ack                  | This statistic has been deprecated.   |
| MM Information Request     | The total number of MM information request messages.  |
| Release Request            | The total number of release request messages.   |
| Status                     | The total number of status messages.  |
| UE Unreachable             | The total number of UE unreachable messages.  |
| Service Abort Request      | The total number of SGsAP-SERVICE-ABORT-REQUEST messages.   |
| Unknown MSG                | The total number of unknown messages.   |

#### Flow debug stats for VLR address index :

*Each of the following statistics is only displayed if the stat's value is non-zero. These stats are typically used for debugging.*

|   |  |
|---|--|
| NPU Flow created for Primary IPA        | The total number of NPU Flow created for Primary IPA.        |
| NPU Flow created for Secondary IPA      | The total number of NPU Flow created for Secondary IPA.      |
| Primary IPA flow add requests sent      | The total number of Primary IPA flow add requests sent.      |
| Secondary IPA flow add requests sent    | The total number of Secondary IPA flow add requests sent.    |
| Primary IPA flow add success received   | The total number of Primary IPA flow add success received.   |
| Secondary IPA flow add success received | The total number of Secondary IPA flow add success received. |
| Primary IPA flow add failed             | The total number of Primary IPA flow add failed.             |

| Field                                   | Description  |
|---|--|
| Secondary IPA flow add failed           | The total number of Secondary IPA flow add failed.           |
| Primary IPA flow alloc failed           | The total number of Primary IPA flow alloc failed.           |
| Secondary IPA flow alloc failed         | The total number of Secondary IPA flow alloc failed .        |
| Primary IPA flow insert failed          | The total number of Primary IPA flow insert failed.          |
| Secondary IPA flow insert failed        | The total number of Secondary IPA flow insert failed.        |
| Primary IPA flow delete requests sent   | The total number of Primary IPA flow delete requests sent.   |
| Secondary IPA flow delete requests sent | The total number of Secondary IPA flow delete requests sent. |
| Primary IPA flow delete success         | The total number of Primary IPA flow delete success.         |
| Secondary IPA flow delete success       | The total number of Secondary IPA flow delete success .      |
| Primary IPA flow delete failed          | The total number of Primary IPA flow delete failed .         |
| Secondary IPA flow delete failed        | The total number of Secondary IPA flow delete failed.        |
| Primary IPA flow delete no match        | The total number of Primary IPA flow delete no match.        |
| Secondary IPA flow delete no match      | The total number of Secondary IPA flow delete no match.      |
| Primary IPA invalid flowid              | The total number of Primary IPA invalid flowid.              |
| Secondary IPA invalid flowid            | The total number of Secondary IPA invalid flowid.            |
| Primary IPA invalid NPU response        | The total number of Primary IPA invalid NPU response.        |
| Secondary IPA invalid NPU response      | The total number of Secondary IPA invalid NPU response.      |
| Max per VLR associations reached        | The total number of Max per VLR associations reached .       |
| Invalid NPU response codes              | The total number of Invalid NPU response codes .             |
| Primary IPA flow resp code[%s] count    | The total number of Primary IPA flow resp code[%s] count.    |
| Secondary IPA flow resp code[%s] count  | The total number of Secondary IPA flow resp code[%s] count.  |
| Total VLRs                              | The total number of VLRs configured in the SGs service.      |

show sgs-service vlr-status full