

# show hss-peer-service

This chapter includes the **show hss-peer-service** command output tables.


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# show hss-peer-service service name <name>

***Table 1: show hss-peer-service service name <name> Command Output Descriptions***

| Field | Description |
|---|---|
| Service name | The name of the HSS peer service configured and running on the system. |
| Context | The name of the VPN context in which HSS peer service configured and running on the system. |
| Status | Indicates whether the HSS peer service is started or not. |
| Diameter hss-endpoint | The Diameter endpoint name configured in the HSS peer service configuration mode for the S6a HSS interface. |
| Diameter eir-endpoint | The Diameter endpoint name configured in the HSS peer service configuration mode for the S13 EIR interface. |
| Diameter hss-dictionary | The name of Diameter dictionary configured for messaging which is to be used for HSS peer service sessions. |
| Update-Dictionary-AVPs | The release of 3GPP 29.272 that is configured to be used for the HSS peer service, either 3gpp-r10, 3gpp-r9, or N/A if **diameter update-dictionary-avps** command is not configured. |
| Request timeout | The timeout duration in seconds set for heartbeat checking of Diameter requests with the HSS server. |

| Field | Description |
|---|---|
| Request Auth-vectors | The number of authentication vectors the MME requests in an Authentication-Information-Request (AIR) message to the HSS for each UE requiring authentication. |
| Zone Code format | Displays how the MME is to interpret the zone-code received from the HSS. This field displays the setting, as configured using the **zone-code-format** command in the HSS Peer Service configuration mode. The possible values are "octet-string" (default) and "ascii-string". |
| Notify-Req-Msg | Displays if the MME is configured to send Notify-Request-Messages to the HSS. Possible values are Enable and Disable. |
| Destination Realm | Displays the configuration of the **dynamic-destination-realm** HSS Peer Service command. Possible values are "Configured Peer Realm" (default) or "Dynamic Realm". |
| **Failure-Handling** | This group shows the configuration/settings of failure handling actions on various type of Diameter messages for different type of failure. |
| Message Type | The type of Diameter messages configured for failure handling on specific type of failure or error.<br>The following types of Diameter messages can be configured for failure handling:<br>• Authentication-Information-Request<br>• Check-Identity-Request<br>• Notify-Request<br>• Purge-UE-Request<br>• Update-Location-Request |
| Failure Type | The type of message failures to trigger the failure handing actions on specific Diameter messages.<br>The following types of failure can be handled for different types of diameter messages:<br>• Diameter Result Code (3000 to 9999) single or a range of code.<br>• Request Timeout |

| Field | Description |
|---|---|
| Action | The type of action to be taken of a type of failure for specific type of Diameter messages.<br>The following types of action can be configured for different types of diameter message failures:<br>• Continue<br>• Retry-and-terminate<br>• Terminate |

# show hss-peer-service session full

***Table 2: show hss-peer-service session full Command Output Descriptions***

| Field | Description |
|---|---|
| **HSS** | |
| Peer | The HSS peer name. |
| Mode | The mode of the session. |
| Callid | The EPS subscriber's call identity in 8 digit hex number of the connected call to an HSS peer service session. |
| NAI | The network access identifier (NAI) of MME-HSS session on the HSS peer service. |
| MDN | The mobile directory number (MDN) of the MME-HSS session on the HSS peer service. |
| Service Name | The name of HSS peer service for which statistics are displayed. |
| State | The status of MME-HSS session on the HSS peer service. |
| Pending Requests | The status of pending request between the MME and the HSS over the S6a interface during this MME-HSS session on the HSS peer service. |
| **API Requests** | |
| Open | The number of api sessions opened. |
| Close | The number of api sessions closed. |
| Update Locations | The number of ULR messages initiated by the MME or SGSN application. |

| Field | Description |
|---|---|
| Purge UE | The number of Purge Request messages initiated by the MME or SGSN application. |
| Authenticate | The number of AIR messages initiated by the MME or SGSN application. |
| Notify | The number of Notify Request messages initiated by the MME or SGSN application. |
| Identity Check | The number of MICR messages initiated by the MME or SGSN application. |
| Recoveries | The number of api session recoveries initiated. |
| Micro Checkpoint | Not used. |
| Full Checkpoint | Note used. |
| User Data Query | The number of user data requests sent by the MME or SGSN application. |
| **API Successes** | |
| Open | The number of api sessions opened successfully. |
| Close | The number of api sessions closed successfully. |
| Update Locations | The number of ULR messages successfully sent by the MME or SGSN application. |
| Purge UE | The number of Purge Request messages successfully sent by the MME or SGSN application. |
| Authenticate | The number of AIR messages successfully sent by the MME or SGSN application. |
| Notify | The number of Notify Request messages successfully sent by the MME or SGSN application. |
| Identity Check | The number of MICR messages successfully sent by the MME or SGSN application. |
| Recoveries | The number of api sessions recovered successfully. |
| Micro Checkpoint | Not used. |
| Full Checkpoint | Not used. |
| User Data Query | Not used. |
| **API Errors** | |
| Open | The number of api sessions which encountered an error when opened. |

| Field | Description |
|---|---|
| Close | The number of api sessions which encountered an error when closed. |
| Update Locations | The number of ULR messages that failed to be sent by the MME or SGSN application. |
| Purge UE | The number of Purge Request messages that failed to be sent by the MME or SGSN application. |
| Authenticate | The number of AIR messages that failed to be sent by the MME or SGSN application. |
| Notify | The number of Notify Request messages that failed to be sent by the MME or SGSN application. |
| Identity Check | The number of MICR messages that failed to be sent by the MME or SGSN application. |
| Recoveries | The number of api sessions that failed recovering. |
| Micro Checkpoint | Not used. |
| Full Checkpoint | Not used. |
| User Data Query | The number of user data request that couldn not be processed. |
| **Server Requests** | |
| Update Locations | The number of ULR messages created at the session level. |
| Purge UE | The number of Purge Request messages created at the session level. |
| Authenticate | The number of AIR messages created at the session level. |
| Notify | The number of Notify Request messages created at the session level. |
| Identity Check | The number of MICR messages created at the session level. |
| User Data Req | Not used. |
| **Server Successes** | |
| Update Locations | The number of ULR messages successfully sent. |
| Purge UE | The number of Purge Request messages successfully sent. |
| Authenticate | The number of AIR messages successfully sent. |
| Notify | The number of Notify Request messages successfully sent. |
| Identity Check | The number of MICR messages successfully sent. |

| Field | Description |
|---|---|
| User Data Req | Not used. |
| **Server Errors** | |
| Update Locations | The number of ULR messages which could not be sent. The peer is unavailable, down, or the session could not be opened. |
| Purge UE | The number of Purge Request messages which could not be sent. The peer is unavailable, down, or the session could not be opened. |
| Authenticate | The number of AIR messages which could not be sent. The peer is unavailable, down, or the session could not be opened. |
| Notify | The number of Notify Request messages which could not be sent. The peer is unavailable, down, or the session could not be opened. |
| Identity Check | The number of MICR messages which could not be sent. The peer is unavailable, down, or the session could not be opened. |
| User Data Req | Not used. |

# show hss-peer-service statistics all

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

| Field | Description |
|---|---|
| **HSS Statistics for all services** | |
| **Session Stats** | |
| Total Current Sessions | The total number of sessions currently accessing the HSS peer service. |
| Session Failovers | The total number of session failovers occurring on the SS peer service. |
| Total Starts | The total number os sessions started on the HSS peer service. |
| Total Session Updates | The total number of sessions updated on the HSS peer service. |
| Total Terminated | The total number of sessions that were terminated on the HSS peer service. |
| **Message Stats** | |
| UL Request | The total number of Update Location Request messages sent by the HSS peer service to the HSS. |
| UL Answer | The total number of Update Location Answer messages received by the HSS peer service from the HSS. |

| Field | Description |
|---|---|
| ULR Retries | The total number of Update Location Request Retry messages sent by the HSS peer service to the HSS. |
| ULA Timeouts | The total number of Update Location Answer Timeout messages received by the HSS peer service from the HSS. |
| ULA Dropped | The total number of Update Location Answer Dropped messages received by the HSS peer service from the HSS. |
| PU Request | The total number of Purge UE Request messages sent by the HSS peer service to the HSS. |
| PU Answer | The total number of Purge UE Answer messages received by the HSS peer service from the HSS. |
| PUR Retries | The total number of Purge UE Request Retry messages sent by the HSS peer service to the HSS. |
| PUA Timeouts | The total number of Purge UE Answer Timeout messages received by the HSS peer service from the HSS. |
| PUA Dropped | The total number of Purge UE Answer Dropped messages received by the HSS peer service from the HSS. |
| AI Request | The total number of Authentication Information Request messages sent by the HSS peer service to the HSS. |
| AI Answer | The total number of Authentication Information Answer messages received by the HSS peer service from the HSS. |
| AIR Retries | The total number of Authentication Information Request Retry messages sent by the HSS peer service to the HSS. |
| AIA Timeouts | The total number of Authentication Information Answer Timeout messages received by the HSS peer service from the HSS. |
| AIA Dropped | The total number of Authentication Information Answer Dropped messages received by the HSS peer service from the HSS. |
| CL Request | The total number of Cancel Location Request messages sent by the HSS peer service to the HSS. |
| CL Answer | The total number of Cancel Location Answer messages received by the HSS peer service from the HSS. |
| CLR Retries | The total number of Cancel Location Request Retry messages sent by the HSS peer service to the HSS. |
| CLA Timeouts | The total number of Cancel Location Answer Timeout messages received by the HSS peer service from the HSS. |
| CLA Dropped | The total number of Cancel Location Answer Dropped messages received by the HSS peer service from the HSS. |

| Field | Description |
|---|---|
| ISD Request | The total number of Insert Subscriber Data Request messages received by the HSS peer service from the HSS. |
| ISD Answer | The total number of Insert Subscriber Data Answer messages sent by the HSS peer service to the HSS. |
| ISDR Retries | The total number of Insert Subscriber Data Request Retry messages received by the HSS peer service from the HSS. |
| ISDA Timeouts | The total number of Insert Subscriber Data Answer Timeout messages sent by the HSS peer service to the HSS. |
| ISDA Dropped | The total number of Insert Subscriber Data Answer Dropped messages sent by the HSS peer service to the HSS. |
| DSD Request | The total number of Delete Subscriber Data Request messages received by the HSS peer service from the HSS. |
| DSD Answer | The total number of Delete Subscriber Data Answer messages sent by the HSS peer service to the HSS. |
| DSDR Retries | The total number of Delete Subscriber Data Request Retry messages received by the HSS peer service from the HSS. |
| DSDA Timeouts | The total number of Delete Subscriber Data Answer Timeout messages sent by the HSS peer service to the HSS. |
| DSDA Dropped | The total number of Delete Subscriber Data Answer Dropped messages sent by the HSS peer service to the HSS. |
| R Request | The total number of Reset Request messages received by the HSS peer service from the HSS. |
| R Answer | The total number of Reset Answer messages sent by the HSS peer service to the HSS. |
| RR Retries | The total number of Reset Request Retry messages received by the HSS peer service from the HSS. |
| RA Timeouts | The total number of Reset Answer Timeout messages sent by the HSS peer service to the HSS. |
| RA Dropped | The total number of Reset Answer Dropped messages sent by the HSS peer service to the HSS. |
| N Request | The total number of Notify Request messages sent by the HSS peer service to the HSS. |
| N Answer | The total number of Notify Answer messages received by the HSS peer service from the HSS. |
| NR Retries | The total number of Notify Request Retry messages sent by the HSS peer service to the HSS. |

| Field | Description |
|---|---|
| NA Timeouts | The total number of Notify Answer Timeout messages received by the HSS peer service from the HSS. |
| NA Dropped | The total number of Notify Answer Dropped messages received by the HSS peer service from the HSS. |
| MIC Request | The total number of Mobile Identity Check Request messages sent by the HSS peer service to the HSS. |
| MIC Answer | The total number of Mobile Identity Check Answer messages received by the HSS peer service from the HSS. |
| MICR Retries | The total number of Mobile Identity Check Request Retry messages sent by the HSS peer service to the HSS. |
| MICA Timeouts | The total number of Mobile Identity Check Answer Timeout messages received by the HSS peer service from the HSS. |
| MICA Dropped | The total number of Mobile Identity Check Answer Dropped messages received by the HSS peer service to the HSS. |
| **Message Error Stats** | |
| Unable To Comply | The total number of Update Location Answer messages containing the result code "Unable To Comply" received by the HSS peer service from the HSS. |
| Auth Data Unavailable | The total number of Update Location Answer messages containing the result code "Auth Data Unavailable" received by the HSS peer service from the HSS. |
| User Unknown | The total number of Update Location Answer messages containing the result code "User Unknown" received by the HSS peer service from the HSS. |
| Equipment Unknown | The total number of Update Location Answer messages containing the result code "Equipment Unknown" received by the HSS peer service from the HSS. |
| Unknown EPS Subscription | The total number of Update Location Answer messages containing the result code "Unknown EPS Subscription" received by the HSS peer service from the HSS. |
| RAT Not Allowed | The total number of Update Location Answer messages containing the result code "RAT Not Allowed" received by the HSS peer service from the HSS. |
| Authorization Rejected | The total number of Update Location Answer messages containing the result code "Authorization Rejected" received by the HSS peer service from the HSS. |

| Field | Description |
|---|---|
| Roaming Not Allowed | The total number of Update Location Answer messages containing the result code "Roaming Not Allowed" received by the HSS peer service from the HSS. |
| Other Errors | The total number of Update Location Answer messages containing the result code "Other Errors" received by the HSS peer service from the HSS. |
| **Subscription-Data Stats** | |
| Skip Subscription Data | The Skip Subscription Data statistic is incremented when the ULR is sent with the skip-subscription-data flag set. |
| Subscription-Data Not Received | The Subscription-Data Not Received statistic is incremented if the HSS does not send the subscription data in the ULA when skip-subscription-data flag is set in ULR. The difference between the Skip Subscription Data and Subscription-Data Not Received gives us the number of times HSS does not honour the skip-subscription-data flag. |
| **Location Message Stats** | |
| Asynchronous ISDR Req | |
| Asynchronous ISDR Dropped | This counter pegs the asynchronous ISD request dropped. |
| Asynchronous ISDA | |
| Aynchronous ISDA Dropped | |
| ISDR Req with Current Location | This statistics is updated when ISDR is received with the Current Location bit set in the IDR flags. |
| ISDA with Cached Location | This statistics is updated when an ISDR is responded with the current location information immediately from the cache, before the location validity timer expires. |