

Session Trace Template Configuration Mode Commands

The commands of the Session Trace Template configuration mode define the various template parameters needed to manage the trace functionality of the Session Trace and Cell Traffic Trace features. These functions are described in your product Administration Guide.

Command Modes

Exec > Global Configuration > Session Trace Template Configuration

configure > template-session-trace network-element { { enb template-name cell-trace } | { { ggsn | hnbgw | mme | pgw | saegw | sgw } template-name *template_name* **} }**

Entering the above command sequence results in the following prompt:

`[local]`*`host_name`*`(config-sesstrc-template)#`

Important The commands or keywords/variables that are available are dependent on platform type, product version, and installed license(s).

- archive, on page 1
- disk-limit, on page 2
- do show, on page 3
- end, on page 4
- exit, on page 4
- interface, on page 4
- target-interface, on page 7
- target-ne, on page 9
- trace-extension, on page 11

archive

This command defines the archive directory capacity and other related parameters.

Product

MME

Privilege

Security Administrator, Administrator

Command Modes Exec > Global Configuration > Session Trace Template Configuration

configure > template-session-trace network-element { { enb template-name cell-trace } | { { ggsn | hnbgw | mme | pgw | saegw | sgw } template-name *template_name* **} }**

Entering the above command sequence results in the following prompt:

```
[local]host_name(config-sesstrc-template)#
```

Syntax Description **[no] archive files** *number_of_files* **size** *size***timer***timer_value*

files *number_of_files*

Specifies the number of files that go into a directory before it is closed for archiving. The range is an integer from 1 to 10000.

size

Specifies the total file size in Megabytes (MB) an Archive Directory can hold. The range is an integer from 1 to 10.

timer *timer_value*

Specifies the timer expiry limit for files to be collected in the directory after which the pending directories are archived. The timer value is specified in seconds.

Usage Guidelines The **archive** command is specific to the Cell Traffic Trace. This command is available under the **cell-trace** template under the eNodeB network element.

The **archive** command is used to archive file directories in a cell traffic tracing procedure. The file directories archived are displayed using a C Type file format. The C Type file includes trace information, which are available in the following fields: IMEI, IMSI, eNodeB identity, UE S1 AP identity and the MME UE S1 AP identity.

Example

The following configuration archives 100 files that can be stroed in a diectory of size 2 MB with timer limit of 200 seconds:

```
archive files 100 size 2 timer 200
```

disk-limit

This command defines the total space reserved for files in the hard-disk.

Product MME

Privilege Security Administrator, Administrator

Command Modes Exec > Global Configuration > Session Trace Template Configuration

configure > template-session-trace network-element { { enb template-name cell-trace } | { { ggsn | hnbgw | mme | pgw | saegw | sgw } template-name *template_name* **} }**

Entering the above command sequence results in the following prompt:

```
[local]host_name(config-sesstrc-template)#
```

Syntax Description

[no] disk-limit *disk_size*

no

Disables its following configured options.

disk_size

Specifies the disk reservation size in megabytes (MB). The disk-limit size ranges from 1 MB to 20480 MB. If disk-limit is not configured, a default size of 200 MB is allocated in the hard disk.

Usage Guidelines

The **disk-limit** command is specific to Cell Traffic Trace. This command is available under the **cell-trace** template under the eNodeB network element.

The **disk-limit** command defines the total space to be reserved on the hard disk. If disk-limit alone is configured then compression is not considered. However, a default size of 200 MB is allocated in the hard disk for storing Cell Traffic Trace files.

Example

The following configuration reserves 100 MB of space in the hard-disk for storing Cell Traffic Trace files:

```
disk-limit 100
```

do show

Executes all **show** commands while in Configuration mode.

Product

All

Privilege

Security Administrator, Administrator

Syntax Description

do show

Usage Guidelines

Use this command to run all Exec mode **show** commands while in Configuration mode. It is not necessary to exit the Config mode to run a **show** command.

The pipe character **|** is only available if the command is valid in the Exec mode.



Caution There are some Exec mode **show** commands which are too resource intensive to run from Config mode. These include: **do show support collection**, **do show support details**, **do show support record** and **do show support summary**. If there is a restriction on a specific **show** command, the following error message is displayed:

```
Failure: Cannot execute 'do show support' command from Config mode.
```

end

Exits the current configuration mode and returns to the Exec mode.

Product All

Privilege Security Administrator, Administrator

Syntax Description **`end`**

Usage Guidelines Use this command to return to the Exec mode.

exit

Exits the current mode and returns to the parent configuration mode.

Product All

Privilege Security Administrator, Administrator

Syntax Description **`exit`**

Usage Guidelines Use this command to return to the parent configuration mode.

interface

This command specifies the name of the interface applicable for a specific Network Element (NE) on which subscriber session traces have to be collected.

Product GGSN

MME

P-GW

SAEGW

S-GW

Privilege Security Administrator, Administrator

Command Modes Exec > Global Configuration > Session Trace Template Configuration

configure > template-session-trace network-element { { enb template-name cell-trace } | { { ggsn | hnbgw | mme | pgw | saegw | sgw } template-name *template_name* **} }**

Entering the above command sequence results in the following prompt:

```
[local]host_name(config-sesstrc-template)#
```

Syntax Description

[no] interface *interface_name*

no

Disables its following configured options.

interface_name

Specifies the interface name for tracing. The available interfaces depend on the **network-element** selected.

GGSN. The available **ggsn** interfaces are:

- **all**: Specifies that all interfaces are to be traced.
- **gi**: Specifies that the interface where the trace will be performed is the Gi interface between the GGSN and RADIUS server.
- **gmb**: Specifies that the interface where the trace will be performed is the Gmb interface between the GGSN and BM-SC.
- **gn**: Specifies that the interface where the trace will be performed is the Gn interface between the GGSN and the SGSN.
- **gx**: Specifies that the interface where the trace will be performed is the Gx interface between the GGSN and PCRF.
- **gy**: Specifies that the interface where the trace will be performed is the Gy interface between the GGSN and OCS.

HNBGW. The available interfaces for **hnbgw** are as follows:

- **all**: Specifies that all **hnbgw** interfaces are to be traced.
- **iucs**: Specifies that the interface where the trace will be performed is the **iucs** interface between the HNB-GW and the Mobile Switching Centre (3G MSC) in a 3G UMTS Femtocell Access Network.
- **iups**: Specifies that the interface where the trace will be performed is the **iups** interface between the HNB-GW and the SGSN.

MME. The available interfaces for **mme** are as follows:

- **all**
- **s10:** Specifies that the interface where the trace will be performed is the S10 interface between the MME and another MME.
- **s11:** Specifies that the interface where the trace will be performed is the S11 interface between the MME and the S-GW.
- **s13:** Specifies that the interface where the trace will be performed is the S13 interface between the MME and the EIR.
- **s1mme:** Specifies that the interface where the trace will be performed is the S1-MME interface between the MME and the eNodeB.
- **s3:** Specifies that the interface where the trace will be performed is the S3 interface between the MME and an SGSN.
- **s6a:** Specifies that the interface where the trace will be performed is the S6a interface between the MME and the HSS.

PGW. The available interfaces for **pgw** are as follows:

- **all**: Specifies that all interfaces are to be traced.
- **gx**: Specifies that the interface where the trace will be performed is the Gx interface between the P-GW and the PCRF.

- **gy**: Specifies that the interface where the trace will be performed is the Gy interface between the P-GW and OCS.
- **s2a**: Specifies that the interface where the trace will be performed is the S2a interface between the P-GW and the HSGW.
- **s2b**: Specifies that the interface where the trace will be performed is the S2b interface between the P-GW and an ePDG.
- **s2c**: Specifies that the interface where the trace will be performed is the S2c interface between the P-GW and a trusted, non-3GPP access device.
- **s5**: Specifies that the interface where the trace will be performed is the S5 interface between an S-GW and P-GW located within the same administrative domain (non-roaming).
- **s6b**: Specifies that the interface where the trace will be performed is the S6b interface between the P-GW and the 3GPP AAA server.
- **s8**: Specifies that the interface where the trace will be performed is the S8 interface -- an inter-PLMN reference point between the S-GW and the P-GW used during roaming scenarios.
- **sgi**: Specifies that the interface where the trace will be performed is the SGi interface between the P-GW and the PDN.

SAEGW: The available interfaces for the SAEGW are as follows:

- **func-pgw interface**: The following interfaces are available for a configured P-GW under an SAEGW service:
  - **all**: Specifies that all interfaces are to be traced.
  - **gx**: Specifies that the interface where the trace will be performed is the Gx interface between the P-GW and the PCRF.
  - **gy**: Specifies that the interface where the trace will be performed is the Gy interface between the P-GW and OCS.
  - **s2a**: Specifies that the interface where the trace will be performed is the S2a interface between the P-GW and the HSGW.
  - **s2b**: Specifies that the interface where the trace will be performed is the S2b interface between the P-GW and an ePDG.
  - **s2c**: Specifies that the interface where the trace will be performed is the S2c interface between the P-GW and a trusted, non-3GPP access device.
  - **s5**: Specifies that the interface where the trace will be performed is the S5 interface between an S-GW and P-GW located within the same administrative domain (non-roaming).
  - **s6b**: Specifies that the interface where the trace will be performed is the S6b interface between the P-GW and the 3GPP AAA server.
  - **s8**: Specifies that the interface where the trace will be performed is the S8 interface -- an inter-PLMN reference point between the S-GW and the P-GW used during roaming scenarios..
  - **sgi**: Specifies that the interface where the trace will be performed is the SGi interface between the P-GW and the PDN.
- **func-sgw interface**: The following interfaces are available for a configured S-GW under an SAEGW service:
  - **all**: Specifies that all interfaces are to be traced.
  - **gxc**: Specifies that the interface where the trace will be performed is the Gxc interface between the S-GW and the PCRF.
  - **s11**: Specifies that the interface where the trace will be performed is the S11 interface between the S-GW and the MME.

- **s4**: Specifies that the interface where the trace will be performed is the S4 interface between the S-GW and an SGSN.
- **s5**: Specifies that the interface where the trace will be performed is the S5 interface between the S-GW and the P-GW.
- **s8**: Specifies that the interface where the trace will be performed is the S8 interface between the S-GW and the P-GW.

SGW. The available interfaces for the S-GW are as follows:

- **all**: Specifies that all interfaces are to be traced.
- **gxc**: Specifies that the interface where the trace will be performed is the Gxc interface between the S-GW and the PCRF.
- **s11**: Specifies that the interface where the trace will be performed is the S11 interface between the S-GW and the MME.
- **s4**: Specifies that the interface where the trace will be performed is the S4 interface between the S-GW and an SGSN.
- **s5**: Specifies that the interface where the trace will be performed is the S5 interface between the S-GW and the P-GW.
- **s8**: Specifies that the interface where the trace will be performed is the S8 interface between the S-GW and the P-GW.

Usage Guidelines

The **interface** command is specific to Session Tracing. This command is available in the template for the MME NE. This command specifies the interfaces for Session Tracing from the MME.

Example

The following command selects S1-MME as the interface for session tracing:

```
interface s1mme
```

target-interface

This command specifies the interface for the selected Network Element for session tracing.

Product

GGSN

HNBGW

MME

P-GW

SAEGW

S-GW

Privilege

Security Administrator, Administrator

Command Modes

Exec > Global Configuration > Session Trace Template Configuration

configure > template-session-trace network-element { { enb template-name cell-trace } | { { ggsn | hnbgw | mme | pgw | saegw | sgw } template-name *template_name* **} }**

Entering the above command sequence results in the following prompt:

```
[local]host_name(config-sesstrc-template)#
```

Syntax Description

target-interface *interface_name*

interface_name

Specifies the interface for the selected Network Element for tracing.

- Available **target-interface** options for **enb** are as follows:
  - **all**
  - **s1mme:** Specifies that the interface where the trace will be performed is the S1-MME interface between the MME and the eNodeB.
  - **uu:** Specifies that the interface where the trace will be performed is the UU interface between the MME and the eNodeB.
  - **x2:** Specifies that the interface where the trace will be performed is the X2 interface between the MME and the eNodeB.
- Available **target-interface** options for **pgw** are as follows:
  - **all**
  - **gx:** Specifies that the interface where the trace will be performed is the Gx interface between the P-GW and the PCRF.
  - **s2a:** Specifies that the interface where the trace will be performed is the S2a interface between the PGW and the HSGW.
  - **s2b:** Specifies that the interface where the trace will be performed is the S2b interface between the PGW and an ePDG.
  - **s2c:** Specifies that the interface where the trace will be performed is the S2c interface between the PGW and a trusted, non-3GPP access device.
  - **s5:** Specifies that the interface where the trace will be performed is the S5 interface between the P-GW and the S-GW.
  - **s6b:** Specifies that the interface where the trace will be performed is the S6b interface between the PGW and the 3GPP AAA server.
  - **s8:** Specifies that the interface where the trace will be performed is the S8b interface between the PGW and the S-GW.
  - **sgi:** Specifies that the interface where the trace will be performed is the SGi interface between the PGW and the PDN.
- Available **target-interface** options for **sgw** are as follows:
  - **all**
  - **gxc:** Specifies that the interface where the trace will be performed is the Gx interface between the PGW and the PCRF.
  - **s11:** Specifies that the interface where the trace will be performed is the S11 interface between the MME and the S-GW.
  - **s4:** Specifies that the interface where the trace will be performed is the S4 interface between the S-GW and the SGSN.
  - **s5:** Specifies that the interface where the trace will be performed is the S5 interface between the P-GW and the S-GW.
  - **s8:** Specifies that the interface where the trace will be performed is the S8b interface between the PGW and the S-GW.

Usage Guidelines The **target-interface** specifies the interface for tracing for a specified NE. This keyword is prompted only when a specific Network Element is selected using the **target-ne** command.

Example

The following configures session tracing for the network element **pgw** and its S8 interface:

```
target-ne pgw target-interface s8
```

target-ne

This command initiates tracing towards other network elements.

Product

GGSN

HNBGW

MME

P-GW

SAEGW

S-GW

Privilege Security Administrator, Administrator

Command Modes Exec > Global Configuration > Session Trace Template Configuration

configure > template-session-trace network-element { { enb template-name cell-trace } | { { ggsn | hnbgw | mme | pgw | saegw | sgw } template-name *template_name* **} }**

Entering the above command sequence results in the following prompt:

```
[local]host_name(config-sesstrc-template)#
```

Syntax Description **[no] target-ne { all | { enb | pgw | sgw } [target-interface** *interface_name* **] }**

no

Disables its following configured options.

all

Selects all interfaces supported under MME for session trace.

target-interface *interface_name*

Specifies the interface for the selected Network Element for tracing.

- Available **target-interface** options for **enb** are as follows:
  - **all**

- **s1mme:** Specifies that the interface where the trace will be performed is the S1-MME interface between the MME and the eNodeB.
- **uu:** Specifies that the interface where the trace will be performed is the UU interface between the MME and the eNodeB.
- **x2:** Specifies that the interface where the trace will be performed is the X2 interface between the MME and the eNodeB.

- Available **target-interface** options for **pgw** are as follows:
  - **all**
  - **gx:** Specifies that the interface where the trace will be performed is the Gx interface between the P-GW and the PCRF.
  - **s2a:** Specifies that the interface where the trace will be performed is the S2a interface between the PGW and the HSGW.
  - **s2b:** Specifies that the interface where the trace will be performed is the S2b interface between the PGW and an ePDG.
  - **s2c:** Specifies that the interface where the trace will be performed is the S2c interface between the PGW and a trusted, non-3GPP access device.
  - **s5:** Specifies that the interface where the trace will be performed is the S5 interface between the P-GW and the S-GW.
  - **s6b:** Specifies that the interface where the trace will be performed is the S6b interface between the PGW and the 3GPP AAA server.
  - **s8:** Specifies that the interface where the trace will be performed is the S8b interface between the PGW and the S-GW.
  - **sgi:** Specifies that the interface where the trace will be performed is the SGi interface between the PGW and the PDN.

- Available **target-interface** options for **sgw** are as follows:
  - **all**
  - **gxc:** Specifies that the interface where the trace will be performed is the Gx interface between the PGW and the PCRF.
  - **s11:** Specifies that the interface where the trace will be performed is the S11 interface between the MME and the S-GW.
  - **s4:** Specifies that the interface where the trace will be performed is the S4 interface between the S-GW and the SGSN.
  - **s5:** Specifies that the interface where the trace will be performed is the S5 interface between the P-GW and the S-GW.
  - **s8:** Specifies that the interface where the trace will be performed is the S8b interface between the PGW and the S-GW.

Usage Guidelines

The **target-ne** command is specific to Session Tracing. This command is available in the template for the MME NE. This command initiates tracing towards other network elements. The **target-interface** specifies the interface for tracing for a specified NE.

Example

The following configures session tracing for the network element **pgw** and its S8 interface:

```
target-ne pgw target-interface s8
```

trace-extension

This command defines the UE or ENodeB identity extension parameters for C Type file.

Product

MME

Privilege

Security Administrator, Administrator

Command Modes

Exec > Global Configuration > Session Trace Template Configuration

configure > template-session-trace network-element { { enb template-name cell-trace } | { { ggsn | hnbgw | mme | pgw | saegw | sgw } template-name *template_name* **} }**

Entering the above command sequence results in the following prompt:

`[local]`*`host_name`*`(config-sesstrc-template)#`

Syntax Description

`[ no ] trace-extension enb-id ue-s1ap-id`

enb-id

Specifies the Global EnodeB identity.

ue-s1ap-id

Specifies the eNodeB UE S1AP Identity and MME UE S1AP Identity

Usage Guidelines

The **trace-extension** keyword is used to provide additional cell trace information from the global UE identity, eNodeB UE identity and the MME UE identity fields in the C Type files.

Example

The following configuration enables trace extension:

```
trace-extension  enb-id ue-s1ap-id
```