

LTE Policy Configuration Mode Commands

The LTE Policy Configuration Mode is used to create and manage the LTE policies supporting ePDG, MME, S-GW, SAEGW, SGSN and HeNBGW configurations on the system.

Command Modes

Exec > Global Configuration > LTE Policy Configuration

configure > lte-policy

Entering the above command sequence results in the following prompt:

[local]host_name(lte-policy)#



Important

Available commands or keywords/variables vary based on platform type, product version, and installed license(s).

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cause-code-group

Creates a new cause code group, or specifies an existing cause code group and enters the Cause Code Group Configuration Mode.

Product

MME

SGSN

Privilege

Administrator

Command Modes

Exec > Global Configuration > LTE Policy Configuration

configure > lte-policy

Entering the above command sequence results in the following prompt:

[local]host name(lte-policy)#

Syntax Description

```
[ no ] cause-code-group group_name protocol { bssgp | ranap | slap }
```

no

Removes the specified cause code group with all related configuration from the LTE Policy.

group_name

Specify a name of a cause-code-group to create, modify, or remove. This name must be an alphanumeric string of 1 through 16 characters. Each new cause-code-group must have a unique name.

A maximum of 4 cause code groups can be defined across all services (MME+GPRS+SGSN).

protocol

Specifies the protocol for the cause code group being created/accessed. Options include:

- BSSGP for 2G.
- RANAP for 3G
- S1-AP

Usage Guidelines

Use this command to create or modify a group of cause codes.

Entering this command results in a prompt, with the protocol ID included, similar to the following:

```
[context name]hostname(slap-cause-code)#
```

Depending upon the protocol you have selected, the Cause Code Group configuration commands are defined in the

- BSSGP Cause Code Configuration Mode Commands chapter of this guide.
- RANAP Cause Code Configuration Mode Commands chapter of this guide.
- SIAP Cause Code Configuration Mode Commands chapter of this guide.

The following command creates an S1-AP cause code group named *move-ue-to-idle*.

cause-code-group move-ue-to-idle protocol slap

congestion-action-profile

Creates an action profile for MME or ePDG or HeNBGW critical, major and minor congestion thresholds. The profile defines the action to be taken when these thresholds are exceeded.



Important

In Release 20, 21.0 and 21.1, HeNBGW is not supported. This command must not be used for HeNBGW in these releases. For more information, contact your Cisco account representative.

Product

ePDG

HeNBGW

MME

Privilege

Administrator

Command Modes

Exec > Global Configuration > LTE Policy Configuration

configure > lte-policy

Entering the above command sequence results in the following prompt:

[local]host name(lte-policy)#

Syntax Description

[no] congestion-action-profile profile_name

no

Removes the specified profile from the system.

profile_name

Specifies the name of the action profile. If the entered name does not refer to an existing profile, a new profile is created. *profile name* is an alphanumeric string of 1 through 64 characters.

-noconfirm

Executes the command without any additional prompt and confirmation from the user.

Usage Guidelines

Use this command to establish MME or ePDG action profiles to be associated with critical, major and minor congestion thresholds. This command is also used to remove an existing profile.



Note

This command is part of a licensed feature and requires a proper license to function: MME Resiliency Bundle.

For information on setting the action to be taken within this profile, see the *Congestion Action Profile Configuration Mode Commands* chapter in this guide, and the *Congestion Control* chapter in the *System Administration Guide*.

Example

The following command creates a major congestion action profile named *mme_major_profile* and moves to the Congestion Action Profile Configuration mode:

congestion-action-profile mme major profile

enb-group

Creates eNB Group mode.

Product

MME

Privilege

Administrator

Command Modes

Exec > Global Configuration > LTE Policy Configuration

configure > lte-policy

Entering the above command sequence results in the following prompt:

[local]host_name(lte-policy)#

Syntax Description

[no] enb-group enb group name



Important

Maximum of 20 eNB groups are allowed to be configure at any given point of time.

no

Removes the specific eNB group.

enb-group *enb_group_name*

Creates the eNB Group. enb group name must be a string of 1 to 64 characters.

bits Must be an Integer from 1 to 28.

By entering this command you enter new mode enb-group

end

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

All **Product**

Security Administrator, Administrator **Privilege**

Syntax Description

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

exit

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

All **Product**

Security Administrator, Administrator **Privilege**

exit **Syntax Description**

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

foreign-plmn-guti-mgmt-db

Creates a new, or enters the existing Foreign PLMN GUTI management database.

MME Product

Administrator **Privilege**

Exec > Global Configuration > LTE Policy Configuration **Command Modes**

configure > lte-policy

Entering the above command sequence results in the following prompt:

[local]host name(lte-policy)#

foreign-plmn-guti-mgmt-db db_name [-noconfirm] **Syntax Description**

no foreign-plmn-guti-mgmt-db db name

no

Remove the specified management database from the system.

Executes the command without any additional prompt and confirmation from the user.

db_name

Specifies the name of the management database. If the name does not refer to an existing database, a new database is created.

db name is an alphanumeric string of 1 through 64 characters.

Usage Guidelines

Use this command to create a new, or enter the existing Foreign PLMN GUTI management database. This management database allows for the optional configuration of foreign PLMNs for which Attach Requests or TAU Requests containing a GUTI from such a PLMN can either be allowed or immediately rejected.

A maximum of four separate Foreign PLMN GUTI management databases can be configured.

Entering this command results in the following prompt:

[context_name]hostname(foreign-plmn-guti-mgmt-db)#

Global MME ID management database commands are defined in the *LTE Foreign PLMN GUTI Management Database Configuration Mode Commands* chapter.

Example

The following command creates a Foreign PLMN GUTI management database named fguti-db1.

foreign-plmn-guti-mgmt-db fguti-db1 -noconfirm

henbgw mme-pool



Important

In Release 20, 21.0 and 21.1, HeNBGW is not supported. This command must not be used for HeNBGW in these releases. For more information, contact your Cisco account representative.

Creates or configures a specified MME or MME pool to which the HeNB-GW is to communicate and enters the MME pool configuration mode.

Product

HeNB-GW

Privilege

Administrator

Command Modes

Exec > Global Configuration > LTE Policy Configuration

configure > lte-policy

Entering the above command sequence results in the following prompt:

[local]host name(lte-policy)#

Syntax Description

[no] henbgw mme-pool pool name [-noconfirm]

no

Removes an already configured MME or MME pool from the system.

pool_name

Specifies the name of the MME pool being created or accessed. If the pool name does not refer to an existing profile, a new pool is created. *pool name* is an alphanumeric string of 1 through 63 characters.

-noconfirm

Executes the command without any additional prompt and confirmation from the user.

Usage Guidelines

Use this command to enter the MME Pool Configuration Mode for an existing pool or for a newly defined MME pool. This command is also used to remove an existing MME pool.



Important

A maximum of eight MME pools are allowed per system.

Entering this command results in the following prompt:

[context_name]hostname(mme-pool)#

MME Pool Configuration Mode commands are defined in the *MME Pool Configuration Mode Commands* chapter.

Example

The following command helps entering the MME Pool Configuration Mode for a new or existing profile named *henb mme pool*:

henbgw mme-pool henb mme pool

henbgw overload-control



Important

In Release 20, 21.0 and 21.1, HeNBGW is not supported. This command must not be used for HeNBGW in these releases. For more information, contact your Cisco account representative.

Configures HeNBGW overload control parameters.

Product

HeNBGW

Privilege

Administrator

Command Modes

Exec > Global Configuration > LTE Policy Configuration

configure > lte-policy

Entering the above command sequence results in the following prompt:

[local] host name (lte-policy) #

Syntax Description

default

Sets/Restores the default values assigned to HeNBGW overload control parameters. The default value of load Reduction indication is 99 percent.

load-reduction-indicator percentage_value

Designates the percentage of HeNBs to relay overload start message if traffic load Reduction indication IE is not present in the overload start message.

percentage value is the percentage value, which is an integer between 1 and 99.

ochl-guard-time minutes

Designates the guard timeout value (in minutes) for sending overload stop messages if overload stop message is not received from MME to all the HeNBs in corresponding MME's overload control HeNBs list. The guard timeout value is an integer between 0 and 2147483647.

Usage Guidelines

Use this command to configure HeNBGW overload control parameters.

Example

The following command configures HeNBGW overload control parameter **ochl-guard-time** as 45 minutes:

henbgw overload-control ochl-guard-time 45

henbgw qci-dscp-mapping-table



Important

In Release 20, 21.0 and 21.1, HeNBGW is not supported. This command must not be used for HeNBGW in these releases. For more information, contact your Cisco account representative.

Use this command to configure qci-dscp-mapping-table for HENBGW. The maximum limit for the tables that can be configured is 32.

Product

HeNB-GW

Privilege

Security Administrator, Administrator

Command Modes

Exec > Global Configuration > LTE Policy Configuration

configure > lte-policy

Entering the above command sequence results in the following prompt:

[local]host name(lte-policy)#

Syntax Description

[no] henbgw qci-dscp-mapping-table table name

no

Removes the qci-dscp-mapping-table for HENBGW.



Important

This command on execution will open a new mode HeNBGW QCI DSCP Mapping Table mode.

table_name

It is the qci-dscp-mapping-table for HENBGW, a string of size between 1 and 63.

Usage Guidelines

Use this command to configure qci-dscp-mapping-table for HENBGW.

Example

Following command configures qci-dscp-mapping-table by name table1 for HENBGW.

henbgw qci-dscp-mapping-table table1

henbgw s1-reset



Important

In Release 20, 21.0 and 21.1, HeNBGW is not supported. This command must not be used for HeNBGW in these releases. For more information, contact your Cisco account representative.

Configures option to enable/disable s1-reset/partial-reset messages sent from HeNBGW.

Product

HeNBGW

Privilege

Administrator

Command Modes

Exec > Global Configuration > LTE Policy Configuration

configure > lte-policy

Entering the above command sequence results in the following prompt:

[local]host name(lte-policy)#

Syntax Description

[no] henbgw s1-reset

no

This command prefix disables s1-reset/partial-reset messages sent from HeNBGW.

s1-reset

Configures option to enable or disable sending s1-reset/partial-reset messages from HeNBGW.

Example

The following command configures HeNBGW s1-reset messages:

henbqw s1-reset

henbgw session-recovery idle-timeout



Important

In Release 20, 21.0 and 21.1, HeNBGW is not supported. This command must not be used for HeNBGW in these releases. For more information, contact your Cisco account representative.

Configures HENBGW session recovery. The HENBGW session recovery is valid only when require session recovery is configured. Base session recovery feature will enable recovery of IP-Sec tunnels when integrated IP-Sec is used. Enhanced HENBGW session recovery feature will enable recovery of SCTP/UE sessions in HENBGW. This feature should be enabled if henb(s) have the capability to retain UE S1AP state across SCTP connection restarts.

Product

HeNBGW

Privilege

Administrator

Command Modes

Exec > Global Configuration > LTE Policy Configuration

configure > lte-policy

Entering the above command sequence results in the following prompt:

[local]host name(lte-policy)#

Syntax Description

henbgw session-recovery [idle-timeout timeout_value]
no henbgw session-recovery

no

Removes the HENBGW session recovery configuration.

idle-timeout timeout_value

Configures the idle timeout.

Designates the maximum duration of the session recovered without any activity, in seconds, before system automatically terminates the session. Zero indicates function is disabled.

The *timeout_value* specifies the idle timeout in seconds (0 is disabled). It is an integer between 0 through 2147483647.

Usage Guidelines

Use this command to configure HENBGW session recovery with idle timeout.

The following command configures HeNBGW session recovery with idle timeout 45 seconds:

henbgw session-recovery idle-timeout 45

ho-restrict-list

Creates a handover (HO) restriction list or specifies an existing HO restriction list and enters the Handover Restriction List Configuration Mode.

Product

MME

ePDG

SAEGW

S-GW

Privilege

Administrator

Command Modes

Exec > Global Configuration > LTE Policy Configuration

configure > **lte-policy**

Entering the above command sequence results in the following prompt:

[local]host_name(lte-policy)#

Syntax Description

```
[ no ] ho-restrict-list list name [ -noconfirm ]
```

no

Removes the specified restriction list from the system.

-noconfirm

Executes the command without any additional prompt and confirmation from the user.

list_name

Specifies the name of the HO restriction list. If the entered list name does not refer to an existing list, a new list is created. *list name* is an alphanumeric string of 1 through 64 characters.

Usage Guidelines

Use this command to enter the Handover Restriction List Configuration Mode for an existing list or for a newly defined list. This command is also used to remove an existing list.

Entering this command results in the following prompt:

```
[context name]hostname(ho-restrict-list)#
```

Handover Restriction List Configuration Mode commands are defined in the *LTE Handover Restriction List Configuration Mode Commands* chapter.

The following command enters the Handover Restriction List Configuration Mode for a new or existing list named *ho restricit list1*:

ho-restrict-list ho_restrict_list1

imei-tac-group

Creates an IMEI-TAC group and provides commands to configure up to 25,000 IMEI-TACs (international mobile equipment identity - type allocation code (IMEI-TAC) that can be used as the filtering criteria for Operator Policy selection.



Important

This functionality is available on releases 18.6, 19.4, and 20.0 and higher.

Product

MME

Privilege

Administrator

Command Modes

Exec > Global Configuration > LTE Policy Configuration

configure > lte-policy

Entering the above command sequence results in the following prompt:

 $[local] \, host_name \, (\texttt{lte-policy}) \, \# \,$

Syntax Description

[no] imei-tac-group group name

no

Removes the specified IMEI-TAC group with all related configuration from the LTE Policy.

group_name

Specify a name for the IMEI-TAC group to create, modify, or remove the group. This name must be an alphanumeric string of 1 through 64 characters. Each new IMEI-TAC group must have a unique name.

A maximum of 50 IMEI-TAC groups can be defined on the MME.

Usage Guidelines

Use this command to create, modify, or delete an IMEI-TAC group. Create up to 50 IMEI-TAC groups. Each group can contain up to 500 unique IMEI-TAC values and/or up to 20 IMEI-TAC ranges, which can be overlapping.

This command is used as part of the configuration required to enable operator policy selection based on IMEI-TAC. Including the type allocation code (TAC) in the operator policy selection process supports network access restrictions being applied to UEs based on the type of wireless device identified by the IMEI-TAC. For details about this feature and all the other commands required for its configuration, refer to the *Operator Policy Selection Based on IMEI-TAC* chapter in the *MME Administration Guide*.

The following command creates an S1-AP cause code group named move-ue-to-idle.

cause-code-group move-ue-to-idle protocol slap

Ite-emergency-profile

Creates an LTE emergency profile or specifies an existing emergency profile and enters the LTE Emergency Profile Configuration Mode.

Product

MME

ePDG

SAEGW

S-GW

Privilege

Administrator

Command Modes

Exec > Global Configuration > LTE Policy Configuration

configure > lte-policy

Entering the above command sequence results in the following prompt:

[local]host_name(lte-policy)#

Syntax Description

[no] lte-emergency-profile profile name [-noconfirm]

no

Removes an LTE emergency profile from the system.

profile_name

Specifies the name of the LTE emergency profile being created or accessed. If the profile name does not refer to an existing profile, a new profile is created. *profile name* is an alphanumeric string of 1 through 64 characters.

-noconfirm

Executes the command without any additional prompt and confirmation from the user.

Usage Guidelines

Use this command to enter the LTE Emergency Profile Configuration Mode for an existing profile or for a newly defined profile. This command is also used to remove an existing profile.



Important

A maximum of four LTE emergency profiles are allowed per system.

Entering this command results in the following prompt:

[context name]hostname(lte-emergency-profile)#

LTE Emergency Profile Configuration Mode commands are defined in the *LTE Emergency Profile Configuration Mode Commands* chapter.

Example

The following command enters the LTE Emergency Profile Configuration Mode for a new or existing profile named *emergency profile3*:

lte-emergency-profile emergency_profile3

mme henbgw mgmt-db

Creates an MME HeNB-GW Management Database or specifies an existing database and enters the HeNB-GW Management Database Configuration mode.



Important

In Release 20, 21.0 and 21.1, HeNBGW is not supported. This command must not be used for HeNBGW in these releases. For more information, contact your Cisco account representative.

Product

MME

Privilege

Administrator

Command Modes

Exec > Global Configuration > LTE Policy Configuration

configure > lte-policy

Entering the above command sequence results in the following prompt:

[local]host name(lte-policy)#

Syntax Description

[no] mme henbgw mgmt-db db_name [-noconfirm]

no

Removes the specified management database from the system.

[-noconfirm]

Executes the command without any additional prompt and confirmation from the user.

db name

Specifies the name of the management database. If the name does not refer to an existing database, a new database is created. *db name* is an alphanumeric string of 1 through 64 characters.

Usage Guidelines

Use this command to create a new, or enter the existing MME HeNB-GW management database. This command enables configuration for the MME to distinguish between an HeNB-GW and an eNodeB.

In case of S1-based handovers to Home eNodeBs served by a HeNB-GW, the lookup at the MME for the target eNodeB based on global eNodeB id cannot be completed, as the MME is aware of only the HeNB-GW.

In those cases, an additional lookup needs to be performed based on the TAI, in order to find the HeNB-GW serving the Home eNodeB. The S1 Handover request message will then be sent to the HeNB-GW and forwarded to the correct Home eNodeB in order to prepare the target RAN node for handover.

One HeNB-GW management database is allowed per LTE Policy.

A maximum of 8 HeNB-GWs can be configured within this management database.

Entering this command results in the following prompt:

```
[context_name] hostname(henbgw-mgmt-db) #
```

MME HeNB-GW management database commands are defined in the *LTE MME HeNB-GW Management Database Configuration Mode Commands* chapter.

Example

The following command enters the existing LTE MME HeNB-GW Managment Database Configuration Mode (or creates it if it does not already exist) for the database named henbgw db1:

```
mme henbgw mgmt-db henbgw db1
```

mme paging cache

Enable or disables caching of the MME's paging and provides the operator configurable paging cache controls.

Product

MME

Privilege

Security Administrator, Administrator

Command Modes

Exec > Global Configuration > LTE Policy Configuration

configure > lte-policy

Entering the above command sequence results in the following prompt:

```
[local]host name(lte-policy)#
```

Syntax Description

```
mme paging cache { size cache_size | timeout time }
default mme paging cache { size | timeout }
```

default

Resets either the paging cache size or the paging cache timer to default settings.

size cache_size

cache_size: Enter an integer from 0 to 10000 to specify the maximum number of Tracking Area Code (TAC) entries to be cached.

Entering the '0' value disables caching and should be followed by use of the **mme paging cache clear** command (in the Exec mode). See the *Example* section.

Default cache size = 5000 TAC entries per SessMgr.

timeout time

time: Enter an integer from 1 to 1440 to specify the number of minutes that each Tracking Area Code (TAC) entry remains valid.

A lower cache timeout helps to refresh the cache frequently and enables this functionality to quickly adapt to changes in the network. We recommend the **timeout** value be less than the expected eNodeB flap frequency; for example, if the eNodeBs connected to the MME are expected to disconnect and reconnect every 10 minutes (due to network issues), then the timeout configuration should be less than 10 minutes.

Default timeout = 5 minutes.

Usage Guidelines

Both size and timeout must be configured to enable paging cache optimization. The **mme paging cache** command must be entered twice, once for each parameter.

Example

Use the following configuration to set the paging cache timeout to match the eNodeB flap frequency of 10 minutes:

```
mme paging cache timeout 10
```

Use the following configuration to set the paging cache size to 100:

```
mme paging cache size 100
```

Use the following configuration to set the paging cache size to 0 (to disable caching):

```
mme paging cache size 0
end
mme paging cache clear { all | instance sessmgr instance }
```

network-global-mme-id-mgmt-db

Creates a new, or enters the existing MME group ID management database.

Product

MME

ePDG

SAEGW

S-GW

SGSN

Privilege

Administrator

Command Modes

Exec > Global Configuration > LTE Policy Configuration

configure > lte-policy

Entering the above command sequence results in the following prompt:

[local]host name(lte-policy)#

Syntax Description

[no] network-global-mme-id-mgmt-db

no

Remove the global MME ID management database from the system.

Usage Guidelines

Use this command to create a new, or enter the existing MME group ID management database. The MME group ID management database is used to create associations between PLMN IDs and ranges of MME group IDs.

On the S4-SGSN, this command enables operators to create a MME group ID management database that can be associated with an SGSN service.



Important

Only one MME group ID management database can be created per system.

Entering this command results in the following prompt:

[context name]hostname(network-global-mme-id-mgmt-db)#

Global MME ID management database commands are defined in the *LTE Network Global MME ID Management Database Configuration Mode Commands* chapter.

paging-map

Creates a paging map or specifies an existing paging map and enters the Paging Map Configuration Mode.

Product

MME

ePDG

Privilege

Administrator

Command Modes

Exec > Global Configuration > LTE Policy Configuration

configure > lte-policy

Entering the above command sequence results in the following prompt:

[local] host name(lte-policy) #

Syntax Description

[no] paging-map paging_map_name [-noconfirm]

no

Remove the paging map from the system.

paging_map_name

Specifies the name of the paging map being created or accessed. If the map name does not refer to an existing map, a new map is created. *paging_map_name* must be an alphanumeric string of 1 through 64 characters.

Executes the command without any additional prompt and confirmation from the user.

Usage Guidelines

Enter the Paging Map Configuration Mode for an existing or newly defined map. This command is also used to remove an existing map.

Entering this command results in the following prompt:

hostname (paging-map) #

Paging Map Configuration Mode commands are defined in the *LTE Paging Map Configuration Mode Commands* chapter.

Refer to the *Heuristic and Intelligent Paging* chapter in the *MME Administration Guide* for more information about Paging Maps.

Example

The following command enters the existing Paging Map Configuration Mode (or creates it if it does not already exist) for the map named *map1*:

paging-map map1

paging-profile

Creates a paging profile or specifies an existing paging profile and enters the Paging Profile Configuration Mode.

Product

MME

ePDG

Privilege

Administrator

Command Modes

Exec > Global Configuration > LTE Policy Configuration

configure > lte-policy

Entering the above command sequence results in the following prompt:

[local]host_name(lte-policy)#

Syntax Description

[no] paging-profile paging profile name [-noconfirm]

no

Remove the paging map from the system.

paging_profile_name

Specifies the name of the paging profile being created or accessed. If the profile name does not refer to an existing profile, a new profile is created. *paging_profile_name* must be an alphanumeric string of 1 through 64 characters.

Executes the command without any additional prompt and confirmation from the user.

Usage Guidelines

Enter the Paging Profile Configuration Mode for an existing or newly defined paging profile. This command is also used to remove an existing profile.

Entering this command results in the following prompt:

hostname(paging-profile)#

Paging Profile Configuration Mode commands are defined in the *LTE Paging Profile Configuration Mode Commands* chapter.

Refer to the *Heuristic and Intelligent Paging* chapter in the *MME Administration Guide* for more information about Paging Profiles.

Example

The following command enters the existing Paging Profile Configuration Mode (or creates it if it does not already exist) for the profile named *profile1*:

paging-profile profile1

peer-map

Creates a peer map and enters the LTE Peer Map Configuration mode.

Product

P-GW

SAEGW

S-GW

Privilege

Administrator

Command Modes

Exec > Global Configuration > LTE Policy Configuration

configure > lte-policy

Entering the above command sequence results in the following prompt:

 $[local] \, host_name \, (\texttt{lte-policy}) \, \# \,$

Syntax Description

```
peer-map map_name [ -noconfirm ]
no peer-map map name
```

no

Removes the specified peer map from the LTE policy.

map_name

Specify a name of a peer map to create, modify, or remove. This name must be an alphanumeric string of 1 through 64 characters. Each new peer map must have a unique name.

Executes the command without any additional prompt and confirmation from the user.

Usage Guidelines

Use this command to create or modify a peer map.

Entering this command results in the following prompt:

```
[local] host name (peer-map) #
```

LTE Peer Map Configuration Mode commands are defined in the *LTE Peer Map Configuration Mode Commands* chapter of this guide.

Example

The following command creates a peer map named map 5 and enters the LTE Peer Map Configuration mode:

peer-map map5

sgsn-mme

This command is used to enable or disable subscriber data optimization in a SGSN-MME combo node.

Product

SGSN

MME

Privilege

Administrator

Command Modes

Exec > Global Configuration > LTE Policy Configuration

configure > lte-policy

Entering the above command sequence results in the following prompt:

[local] host name (lte-policy) #

Syntax Description

[no] sgsn-mme subscriber-data-optimization

no

Disables the configured optimization in a SGSN-MME combo node.

subscriber-data-optimization

Enables subscriber data optimization in a SGSN-MME combo node.

Usage Guidelines

This command is used to configure data optimization in a SGSN-MME combo node. When this command is configured in a co-located SGSN and MME node, lower memory or CPU utilization and reduced signaling towards other nodes in network is achieved. This feature is supported by both the S4-SGSN and the Gn-SGSN. For the feature to apply to a Gn-SGSN, the Gn-SGSN must be configured to connect to an HSS. The is a licensed Cisco feature. A separate feature license is required. Contact your Cisco account representative for detailed information on specific licensing requirements. For information on installing and verifying licenses,

refer to the Managing License Keys section of the Software Management Operations chapter in the System Administration Guide

Example

The following command is used to enable subscriber data optimization in a SGSN-MME combo node.

sgsn-mme subscriber-data-optimization

subscriber-map

Creates a subscriber map or specifies an existing subscriber map and enters the Subscriber Map Configuration Mode.

Product

MME

ePDG

SAEGW

S-GW

Privilege

Administrator

Command Modes

Exec > Global Configuration > LTE Policy Configuration

configure > lte-policy

Entering the above command sequence results in the following prompt:

[local]host name(lte-policy) #

Syntax Description

```
[ no ] subscriber-map map_name [ -noconfirm ]
```

no

Removes the specified subscriber map from the system.

-noconfirm

Executes the command without any additional prompt and confirmation from the user.

map_name

Specifies the name of the subscriber map. If the map name does not refer to an existing map, a new map is created. *map_name* must be an alphanumeric string of 1 through 64 characters.

Usage Guidelines

Enter the Subscriber Map Configuration Mode for an existing or newly defined map. This command is also used to remove an existing map.

Entering this command results in the following prompt:

hostname(subscriber-map) #

Subscriber Map Configuration Mode commands are defined in the *LTE Subscriber Map Configuration Mode Commands* chapter.

Example

The following command enters the existing Subscriber Map Configuration Mode (or creates it if it does not already exist) for the map named *map1*:

subscriber-map map1

tai-list-db



Important

In Release 20, 21.0 and 21.1, HeNBGW is not supported. This command must not be used for HeNBGW in these releases. For more information, contact your Cisco account representative.

Creates or configures a list of Tracking Area Information (TAI). This list is called TAI List Database.

Product

HeNB-GW

Privilege

Administrator

Command Modes

Exec > Global Configuration > LTE Policy Configuration

configure > lte-policy

Entering the above command sequence results in the following prompt:

 $[local] \, \textit{host_name} \, (\texttt{lte-policy}) \, \# \,$

Syntax Description

```
[ no ] tai-list-db db_name [ -noconfirm ]
```

no

Removes the specified TAI list database from the system.

-noconfirm

Executes the command without any additional prompt and confirmation from the user.

db name

Specifies the name of the TAI list database. If the name does not refer to an existing database, a new database is created. *db name* is an alphanumeric string of 1 through 64 characters.

Usage Guidelines

Enters the TAI List Database Configuration Mode for an existing or newly defined database. This command is also used to remove an existing database.



Important

Maximum of eight TAI List Database instances can be created in a system.

Entering this command results in the following prompt:

```
[context name]hostname(tai-list-db)#
```

TAI List Database Configuration Mode commands are defined in the *TAI List Database Configuration Mode Commands* chapter.

Example

The following command enters the existing TAI List Database configuration mode (or creates it if it does not already exist) for the database named *tai db1*:

```
tai-list-db tai db1
```

tai-mgmt-db

Creates a Tracking Area Identifier (TAI) Management Database or specifies an existing database and enters the TAI Management Database Configuration mode. On an S4-SGSN, this command is used as part of configuring S-GWs and their associated RAIs to bypass DNS resolution of RAI FQDN for obtaining the S-GW address.

Product

MME

ePDG

SAEGW

S-GW

SGSN

Privilege

Administrator

Command Modes

Exec > Global Configuration > LTE Policy Configuration

configure > lte-policy

Entering the above command sequence results in the following prompt:

```
[local]host name(lte-policy)#
```

Syntax Description

```
[ no ] tai-mgmt-db db name [ -noconfirm ]
```

no

Removes the specified management database from the system.

-noconfirm

Executes the command without any additional prompt and confirmation from the user.

db name

Specifies the name of the management database. If the name does not refer to an existing database, a new database is created. *db name* is an alphanumeric string of 1 through 64 characters.

Usage Guidelines

Enter the TAI Management Database Configuration Mode for an existing or newly defined database. This command is also used to remove an existing database.

On the S4-SGSN, once you have created a new, or accessed an existing, TAI Management database, a TAI Management Object must be created or accessed and the S-GWs and their associated RAIs configured using the **rai** and **sgw-address** commands. Refer to the *LTE TAI Object Configuration Mode* chapter for details on these two commands.

A maximum number of 32 TAI-DBs is supported in this release.

Entering this command results in the following prompt:

[context name]hostname(tai-mgmt-db)#

TAI Management Database Configuration Mode commands are defined in the *TAI Management Database Configuration Mode Commands* chapter.

Example

The following command enters the existing TAI Management Database configuration mode (or creates it if it does not already exist) for the database named *tai_db1*:

tai-mgmt-db tai_db1