

LTE TAI Management Database Configuration Mode Commands

The LTE TAI Management Database Configuration Mode is used to create and manage the LTE Tracking Area Identifier (TAI) management database on this system.

Command Modes

Exec > Global Configuration > LTE Policy Configuration > LTE TAI Management Database Configuration

configure > lte-policy > tai-mgmt-db *db_name*

Entering the above command sequence results in the following prompt:

`[local]`*`host_name`*`(tai-mgmt-db)#`

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

Important For information on common commands available in this configuration mode, refer to the Common Commands chapter.

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access-type

This command is used to configure the NB-IoT RAT per TAI database.

Product MME

Privilege Administrator

Command Modes

Exec > Global Configuration > LTE Policy Configuration > LTE TAI Management Database Configuration

configure > lte-policy > tai-mgmt-db *db_name*

Entering the above command sequence results in the following prompt:

`[local]host_name(tai-mgmt-db)#`

Syntax Description

`[ no ] access-type nb-iot`

no

Removes the configured access type for the TAI database.

nb-iot

Configures the access type as NB-IoT for a TAI database.

Usage Guidelines

The LTE TAI Management Database Configuration Mode is used to create and manage the LTE Tracking Area Identifier (TAI) management database on the system. Enter the TAI Management Database Configuration Mode for an existing or newly defined database. This command is also used to remove an existing database. Use this command to configure the access type of a TAC or group of TACs as NB-IoT RAT. As per 3GPP standards, the same TAC cannot belong to both EUTRAN and NB-IoT RATs. This command is not enabled by default. The default RAT is WB-EUTRAN.

Example

The following command is used to configure the access type as NB-IoT:

`access-type nb-iot`

network-name

This command configures the long (full) and short network name used in the Long and Short network name IE in the EMM Information message that is sent to the UE from the MME.

Product

MME

Privilege

Administrator

Command Modes

Exec > Global Configuration > LTE Policy Configuration > LTE TAI Management Database Configuration

configure > lte-policy > tai-mgmt-db *db_name*

Entering the above command sequence results in the following prompt:

`[local]host_name(tai-mgmt-db)#`

Syntax Description

`[ no ] network-name [ full` *`full_name`* **`| short`** *`short_name`* **`]`**

no

Removes a configured network-name.

full *full_name*

Defines the full (long) network name. *full_name* is an alphanumeric string of 1 through 251 characters.

short *short_name*

Defines the short network name. *short_name* is an alphanumeric string of 1 through 251 characters.

Usage Guidelines

Use this command to configure the full and short network name on the tai-db object.

This configuration affects the actions of the MME when the MME is configured to set the UE time. If this configuration exists, and there is no interaction with an MSC that sends a EMM INFORMATION message, the MME uses the above configuration while sending an EMM INFORMATION message.

There is no default for this configuration. If this configuration does not exist at the tai-db level and tai-mgmt-object level, no network name will be signaled in a EMM Information message.

tai-custom-list

Creates a new custom TAI list, and/or enters the tai-cstm-list configuration mode.

Product

MME

Privilege

Administrator

Command Modes

Exec > Global Configuration > LTE Policy Configuration > LTE TAI Management Database Configuration

configure > lte-policy > tai-mgmt-db *db_name*

Entering the above command sequence results in the following prompt:

```
[local]host_name(tai-mgmt-db)#
```

Syntax Description

tai-custom-list tac *value* **[-noconfirm]**

tac *value*

Specifies the Tracking Area Code portion of the TAI as an integer from 1 through 65535.

A maximum of 1000 Custom TAI Lists can be configured per TAI Management Database.

Usage Guidelines

Use this command to enter the Custom TAI List Configuration Mode for an existing object or for a newly defined object.

Prior to 17.0, the MME could have a tracking area in only one tracking area list (TAI List). Consequently, the tracking area list assigned to subscribers attaching from different TAIs will be same, even if the adjacency of these tracking areas is not same. This resulted in the MME getting TAUs even as subscribers moved to the adjacent area.

With this functionality, you can configure adjacency lists as TAI Lists, thus reducing the Tracking Area Updates (TAU) received by MME. This feature enables the MME to send configured customized TAI List in ATTACH_ACCEPT/TAU_ACCEPT when a request is received from the custom or border TAIs.

Entering this command results in the following prompt:

```
[local]hostname{tai-cstm-list}#
```

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

Example

The following command creates a Custom TAI List for TAC 2325 and enters the Custom TAI List Configuration Mode:

```
custom-tai-list tac 2325
```

tai-mgmt-obj

Creates new, or removes/enters existing, LTE Tracking Area Identifier (TAI) object configurations. On the S4-SGSN, this command is required 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

SGSN

Privilege

Administrator

Command Modes

Exec > Global Configuration > LTE Policy Configuration > LTE TAI Management Database Configuration

configure > lte-policy > tai-mgmt-db *db_name*

Entering the above command sequence results in the following prompt:

```
[local]host_name(tai-mgmt-db)#
```

Syntax Description

[no] tai-mgmt-obj *object_name* **[-noconfirm]**

no

Removes a configured TAI management object from the TAI management database.

-noconfirm

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

object_name

Specifies the name of the TAI management object and enters the LTE TAI Management Object Configuration Mode as an alphanumeric string of 1 through 64 characters.

Usage Guidelines

Use this command to enter the LTE TAI Management Object Configuration Mode for an existing object or for a newly defined object. This command is also used to remove an existing object.

On the S4-SGSN, after creating the TAI Management Object and entering TAI Management Object Configuration Mode, the **rai** and **sgw-address** commands are used to complete the S-GW for RAI configuration. Refer to the *LTE TAI Management Object Configuration* mode chapter for details on these commands.

The maximum number of TAI-Objects that can be configured per TAI-DB is 4000. The total number of TAI-Objects across all 32 TAI-DBs is limited to 16000.

Entering this command results in the following prompt:

```
[context_name]hostname(tai-mgmt-obj)#
```

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

Example

The following command creates a TAI management object called *tai-obj3* and enters the LTE TAI Management Object Configuration Mode:

```
tai-mgmt-obj tai-obj3
```

timezone

Configures the timezone to be used for the UE timezone in S11 and Non Access Stratum (NAS) messages.

Product

MME

Privilege

Administrator

Command Modes

Exec > Global Configuration > LTE Policy Configuration > LTE TAI Management Database Configuration

configure > lte-policy > tai-mgmt-db *db_name*

Entering the above command sequence results in the following prompt:

```
[local]host_name(tai-mgmt-db)#
```

Syntax Description

```
timezone { + | - } hours value [ minutes { 0 | 15 | 30 | 45 } |
daylight-savings-time-increment { 0 | 1 | 2 } ]
no timezone
```

no

Removes the timezone configuration from the management database.

+|-

Specifies the offset direction from the Coordinated Universal Time (UTC).

hours *value*

Specifies the offset from UTC in hours. *value* must be an integer from 0 through 14.

minutes { 0 | 15 | 30 | 45 }

Optionally specifies the offset minutes added to the hours value.

daylight-savings-time-increment { 0 | 1 | 2 }

Specifies the number of hours the timezone should be offset due to daylight savings time. This allows the MME to serve areas that have daylight savings time different than that of the MME. This keyword is available in release 14.0 and higher.

If the TAI management database/object is configured for daylight savings using this keyword, the daylight savings time adjustment is applied in these messages only if the system time is within a daylight savings period.

Usage Guidelines

Use this command to configure the timezone to be used for the UE timezone in S11 and NAS messages.



Important Time zone configurations at the TAI Management Object level take precedence over time zone configurations at the TAI Management Database level. If neither is configured, the system defaults to the MME (system) time zone.

Example

The following command sets the timezone mapping for this management database to plus-3 hours and 15 minutes from UTC:

```
timezone + hours 3 minutes 15
```