SGSN Interface Management Configuration Mode

Command Modes

The interface management commands, accessed via the SGSN Global configuration mode, are applicable to the SGSN on a global level. They map the NSC/BSC to the SGSN's Gb interface and enable the operator to quickly configure lock or unlock for the BSC interface on the basis of the NSE's ID or name.

Exec > Global Configuration > SGSN Global Configuration > Interface Management Configuration

configure > sgsn-global > interface-management

Entering the above command sequence results in the following prompt:

```
[local]host_name(config-sgsn-interface-mgmt)#
```

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

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   SGSN

Privilege   Security Administrator, Administrator

Syntax Description   `end`

Usage Guidelines   Return to the Exec mode.

exit

Exits the current configuration mode and returns to the SGSN Global configuration mode.

Product	SGSN
Privilege	Security Administrator, Administrator
Syntax Description	`exit`
Usage Guidelines	Returns to the SGSN Global configuration mode.

interface

Maps the Gb interface to an NSE-ID and an NSE-name to facilitate the identification of the peer NSE/BSC.This command also allows the SGSN to configure the mapping between RNC-ID and RNC-NAME which allows the operator to associate rlf-template either by NAME or ID.

Product	SGSN
Privilege	Security Administrator, Administrator
Command Modes	Exec > Global Configuration > SGSN Global Configuration > Interface Management Configuration

configure > sgsn-global > interface-management

Entering the above command sequence results in the following prompt:

```
[local]host_name(config-sgsn-interface-mgmt)#
```

Syntax Description

```
interface  { gb peer-nsei id | iu peer-rnc id } { name <value> | id <value>
 }
no interface{ gb peer-nsei id | iu peer-rnc id } { name <value> | id <value>
 }
```

no

Removes the interface mapping from the configuration.

The "No" option removes the mapping and action configuration from the SGSN and it resets the behavior to default for that RNC. By default, no throttling is done.

gb peer-nsei id *id*

Maps a specific peer NSE/BSC to the Gb interface by the NSEI.

id - Enter an integer from 0 to 65535.

gb peer-nsei *name*

Identifies a BSC by name assigned to the NSEI, which is stored in the SCT.

name - Enter an alphanumeric string of 1 to 64 characters.

iu peer-rnc id *id*

Maps a specific peer RNC-ID .

id - Enter an integer from 0 to 65535.

iu peer-rnc *name*

Maps a specific peer RNC-Name.

name - Enter an alphanumeric string of 1 to 64 characters.

Usage Guidelines

This command configures mapping between an NSE-ID and an NSE name and the SGSN's Gb interface. The mapping allows the operator to use the **lock-interface** command (also in this mode) to more easily configure locking or unlocking of the interface to the BSC by identifying the network service entity by ID or by name.

This command provides a configuration option to create a mapping for RNC to the interface name for the interface identifier which allows the operator to associate rlf-template either by using name or identifier.

Related Commands:

lock-interface

Example

Map NSE with ID of *422* and the name *Dover* to the Gb interface:

```
interface gb peer-nsei id 422 name Dover
```

The following example disables the mapping for NSEI *2321*:

```
no interface gb peer-nsei id 2321
```

lock-interface

This command enables the operator to configure the SGSN's Gb interface, toward the peer NSE/BSC, as locked or unlocked on the basis of the NSE's name or identifier.

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Privilege	Security Administrator, Administrator
Command Modes	Exec > Global Configuration > SGSN Global Configuration > Interface Management Configuration

configure > sgsn-global > interface-management

Entering the above command sequence results in the following prompt:

```
[local]host_name(config-sgsn-interface-mgmt)#
```

Syntax Description

```
[ no ] lock-interface gb peer-nsei { id nse-id | name nse_name }
```

no

Disables a previously configured lock on the interface to the NSE/BSC.

peer-nsei id *nsei_id*

Specifies the numeric identifier of the network service entity mapped to the Gb interface.

nse_id - Enter an integer from 0 to 65535.

peer-nsei *nsei_name*

Specifies the name of the NSE associated with the BSC, which is stored in the SCT.

nse_id - Enter an alphanumeric string of 1 to 64 characters.

Usage Guidelines

This command allows the operator to lock/unlock the interface, towards the NSE/BSC, based on the NSE name or NSE identifier.

Lock is configured primarily to avoid the high CPU usage the SGSN can experience when BSCs attempt to reconnect after an SGSN reboot or reload. The lock stops the auto-learn procedure for the locked BSC connected via Gb over IP.

The auto-learn facility can be enabled in a staggered manner for each BSC after reboot/reload by unlocking the BSCs one-by-one.

The NSE unlock state is the default state and the NSE can accept or send any uplink and downlink data.

Related Commands:

interface

Example

Lockout NSE/BSC ID *319* from the SGSN:

```
lock-interface gb peer-nsei id 319
```

paging-rlf-template

This command allows the SGSN to associate the RLF template either at global level which limits the paging messages initiated across both 2G (NSE level) and 3G (RNC level) access or at per entity level either at RNC level for 3G access or at NSE level for 2G access.

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Privilege	Security Administrator, Administrator
Command Modes	Exec > Global Configuration > SGSN Global Configuration > Interface Management Configuration

configure > sgsn-global > interface-management

Entering the above command sequence results in the following prompt:

```
[local]host_name(config-sgsn-interface-mgmt)#
```

Syntax Description

```
[no] paging-rlf-template {template-name <template-name>} {gb peer-nsei | iu
 peer-rnc} {name <value> | id <value>}
```

no

The "No" option removes the association of the rlf-template against the global level or at particular NSE/RNC.

template-name *<template-name>*

Specifies the template name.

gb peer-nsei *id*

Maps a specific peer NSE/BSC to the Gb interface by the NSEI.

id - Enter an integer from 0 to 65535.

gb peer-nsei *name*

Identifies a BSC by name assigned to the NSEI, which is stored in the SCT.

name - Enter an alphanumeric string of 1 to 64 characters.

iu peer-rnc *id*

Maps a specific peer RNC-ID .

id - Enter an integer from 0 to 65535.

iu peer-rnc *name*

Maps a specific peer RNC-Name.

name - Enter an alphanumeric string of 1 to 64 characters.

Usage Guidelines

This command helps to limit the paging load sent out from the SGSN as it consumes more bandwidth in the radio interface. The NSE/RNC level rlf-template association overrides the globally associated rlf-template

which throttles the paging messages initiated from that NSE/RNC with the configured message rate. The actual RLF template can be configured under the global configuration mode which provides the option to configure the message-rate, burst-size, threshold and delay-tolerance for throttling or rate-limiting.

Example

Use the following command to associate a RLF template with name "rlf1":

paging-rlf-template template-name *rlf1*

paging-rlf-template