

SMS Service Configuration Mode Commands

The SGSN uses the SMS Service component to communicate via the Gd interface with a gateway message service controller (GMSC) to send short text messages (up to 140 octets in length) to a mobile (SMS-MT) and/or receive messages from a mobile (SMS-MO) .

Command Modes

The SMS (short message service) Service configuration mode is used to create and manage properties of the SMS Service configuration.

Exec > Global Configuration > Context Configuration > MAP Service Configuration > SMS Service Configuration

configure > context *context_name* **> map-service** *service_name* **> short-message-service**

Entering the above command sequence results in the following prompt:

```
[context_name]host_name(config-map-service-service_name-sms-service)#
```

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

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cp-data

Enables the SGSN to send and/or receive cp-data (text messages).

Product

SGSN

Privilege

Security Administrator, Administrator

Command Modes

Exec > Global Configuration > Context Configuration > MAP Service Configuration > SMS Service Configuration

configure > context *context_name* **> map-service** *service_name* **> short-message-service**

Entering the above command sequence results in the following prompt:

`[context_name]host_name(config-map-service-service_name-sms-service)#`

Syntax Description

`cp-data max-retransmission` *`retries_num`*
`default cp-data max-retransmissions`

default

This keyword resets the SGSN's max-retransmission to the default number of retries.

max-retransmission *retries_num*

retries_num: enter an integer from 1 to 3.

Usage Guidelines

Use this command to configure the number of times the SGSN will attempt to retransmit a message.

Example

`cp-data max-retransmission` *`2`*

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.

mo-message-forwarding-destination

This command defines the SGSN's handling policy for MO (mobile originating) message.

Product SGSN

Privilege Security Administrator, Administrator

Command Modes Exec > Global Configuration > Context Configuration > MAP Service Configuration > SMS Service Configuration

configure > **context** *context_name* > **map-service** *service_name* > **short-message-service**

Entering the above command sequence results in the following prompt:

`[`*`context_name`*`]`*`host_name`*`(config-map-service-`*`service_name`*`-sms-service)#`

Syntax Description **`[ default ] mo-message-forwarding-destination { gmsc-selected-from-imsi | smsc-supplied-by-subscriber }`**

default

Resets the SMS service configuration to the default message forwarding technique.

gmsc-selected-from-imsi

Entering this keyword enables SMS-MO messages to be forwarded on the basis of their IMSI prefix.

smsc-supplied-by-subscriber

Entering this keyword enables SMS-MO messages to be forwarded on the basis of the SMSC (SMS controller) address provided by the subscriber.

Usage Guidelines

Use this command to define how the mobile originated SMS are to be routed.

Example

```
mo-message-forwarding-destination gmsc-selected-from-imsi
```

smsc-address-restiction-list

Define the list of SMS-C addresses to be screened.

Product

SGSN

Privilege

Security Administrator, Administrator

Command Modes

Exec > Global Configuration > Context Configuration > MAP Service Configuration > SMS Service Configuration

configure > **context** *context_name* > **map-service** *service_name* > **short-message-service**

Entering the above command sequence results in the following prompt:

```
[context_name]host_name(config-map-service-service_name-sms-service)#
```

Syntax Description

smsc-address-restriction-list *isdn-no +*
no smsc-address-restriction-list *isdn-no*

no

Delete an SMS-C address (ISDN number) from the list.

isdn-no +

Enter up to 10 ISDN numbers, each up to 15 digits. Put a single space, without a comma, between each ISDN number being added to the list with one command.

Usage Guidelines

Use this command to identify a list of SMS-C that are to be screened and restricted from receiving forwarded SMS. This list is part of the SMS-C address denial mechanism. For the mechanism to actually function, a second command must be configured, the **smsc-address-restriction-list** command.

Example

Add 3 ISDN numbers to the list of restricted SMS-C addresses.

smsc-address-restriction-list *443719933751427 422311198977765 901231445513131*

Remove an ISDN number from the list of restricted SMS-C addresses.

no smsc-address-restriction-list *443719933751427*

smsc-address-restiction-type

Define the list of SMS-C addresses to be screened.

Product

SGSN

Privilege

Security Administrator, Administrator

Command Modes

Exec > Global Configuration > Context Configuration > MAP Service Configuration > SMS Service Configuration

configure > context *context_name* **> map-service** *service_name* **> short-message-service**

Entering the above command sequence results in the following prompt:

`[context_name]host_name(config-map-service-service_name-sms-service)#`

Syntax Description

smsc-address-restriction-type { mo-mt-sms | mo-sms | mt-sms }
default smsc-address-restriction-type

default

Resets the restriction type to the default of both MT and MO types.

mo-mt-sms

Sets the restriction for both types of messages - mobile-originated (MO-SMS) and mobile-terminated (MT-SMS).

mo-sms

Sets the restriction for the mobile-originated (MO-SMS) messages.

mo-mt-sms

Sets the restriction for the mobile-terminated (MT-SMS) messages.

Usage Guidelines

Use this command to identify the types of messages that are to be denied to the SMS-C identified in the **smsc-address-restriction-type**. Both commands must be configured for the SMS-C address denial mechanism to function.

Example

Restrict MO-SMS messages from being forwarded to the SMS-C listed in the restriction list:

smsc-address-restriction-type mo-sms

Reset the restriction to both types of messages:

default smsc-address-restriction-type

smsc-address-selection-prioritization

Define the routing selection priority for the SMSC (short message service center) address to be used for all MO-SMS.

Product

SGSN

Privilege

Security Administrator, Administrator

Command Modes

Exec > Global Configuration > Context Configuration > MAP Service Configuration > SMS Service Configuration

configure > context *context_name* **> map-service** *service_name* **> short-message-service**

Entering the above command sequence results in the following prompt:

`[context_name]host_name(config-map-service-service_name-sms-service)#`

Syntax Description

smsc-address-selection-prioritization from-ms *priority* **imsi-prefix** *priority* **msisdn-prefix** *priority*
default smsc-address-selection-prioritization

from-ms *priority*

Configures a priority for the SMSC address send from the MS.

priority : Value must be a single digit, range 1-3.

imsi-prefix *priority*

Configures a priority for the SMSC address that is based on the IMSI-prefix.

priority : Value must be a single digit, range 1-3.

msisdn-prefix *priority*

Configures a priority for the SMSC address that is based on the MSISDN-prefix.

priority : Value must be a single digit, range 1-3.

default

By including the **default** keyword with the command, the SGSN knows to use the encoded default priorities for SMSC address selection for SMSC routing:

- *from-ms* priority 1,
- *imsi-prefix* priority 2,
- *msisdn-prefix* priority 3.

Usage Guidelines

Use this command to define SMSC address routing priorities. Priorities must be defined for all parameters, all keywords, but they can be entered in any order. The addresses for the SMSCs are defined with the **smsc-routing** command.

An operator can use this configuration to prevent subscribers from using unauthorized SMSC addresses, for example, an unauthorized international SMSC.

Example

The keywords can be entered in any order but all keywords must be included in the command:

smsc-address-selection-prioritization msisdn-prefix *3* **from-ms** *1* **imsi-prefix** *2*

smsc-routing

This command configures the routing to the short message service center (SMSC).

Product

SGSN

Privilege

Security Administrator, Administrator

Command Modes

Exec > Global Configuration > Context Configuration > MAP Service Configuration > SMS Service Configuration

configure > context *context_name* **> map-service** *service_name* **> short-message-service**

Entering the above command sequence results in the following prompt:

`[context_name]host_name(config-map-service-service_name-sms-service)#`

Syntax Description

[no] smsc-routing { { any | imsi-starts-with | msisdn-starts-with } { isdn *isdn_number* **| mobile-global-title** *mgt_number* **[max-gt-address-len** *max_gt_length* **] | point-code** *pt_code* **} }**

any

Configures routing according to any IMSI prefix.

imsi-starts-with *IMSI_prefix*

Defines the IMSI prefix. Enter a string of up to 15 digits.

msisdn-starts-with *msisdn_prefix*

Defines the MSISDN prefix. Enter a string of up to 15 digits.

isdn *isdn_number*

Defines the ISDN E.164 number (up to 15 digits) of the SMSC.

mobile-global-title *mgt_number* [max-gt-address-len *max_gt_length*]

Defines the mobile global title (MGT) E.214 address to be used for IMSI conversion.

Optionally, the maximum length of the GT address can be defined. If the length of the MGT string is greater than the defined max, then the least significant digits will be omitted.

mgt_number is a string of digits, up to 18 digits.

max_gt_address is an integer from 1 to 32.

point-code *pt_code*

Defines the point code for the SMSC. Enter a string of up to 11 digits in SS7 dotted decimal or decimal format

Usage Guidelines

This command defines the address format (IMSI, point code, mobile global title) and the address for SMSC routing.

Example

Use this command to define routing to the SMSC based on any point code.

```
smsc-routing any point-code 1.222.1
```

timeout

This command defines the SMS service timers.

Product

SGSN

Privilege

Security Administrator, Administrator

Command Modes

Exec > Global Configuration > Context Configuration > MAP Service Configuration > SMS Service Configuration

configure > **context** *context_name* > **map-service** *service_name* > **short-message-service**

Entering the above command sequence results in the following prompt:

```
[context_name]host_name(config-map-service-service_name-sms-service)#
```

Syntax Description

```
timeout { tc1n-timertime | tr1n-timer time | tr2n timer time }
default timeout { tc1n-timer | tr1n-timer | tr2n timer }
```

default

Resets the configuration to the default value for the specified timer.

tc1n-timer *time*

Configures the TC1N timer in seconds.

time: Must an integer from 1 to 255. The default is 5 seconds.

tr1n-timer *time*

Configures the TR1N timer in seconds.

time: Must an integer from 1 to 255. The default is 30 seconds.

tr2n-timer *time*

Configures the TR2N timer in seconds.

time: Must an integer from 1 to 255. The default is 30 seconds.

Usage Guidelines

Use this command to set SMS service timers. The command can be repeated to set all of the timers, one-at-a-time.

Example

```
tr1n-timer 25
```