OsmoBSC VTY Reference

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Contents

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Chapter 1

VTY reference

The Virtual Tele Type (VTY) has the concept of nodes and commands. This chapter lists all nodes and the commands that are available within the node. Each command can consist out of several words followed by a variable number of parameters. There are common patterns for the parameters, these include IPv4 addresses, number ranges, a word, a line of text and choice. The following will explain the commonly used patterns.

Pattern	Example	Explanation
A.B.C.D	127.0.0.1	A IPv4 address
TEXT	example01	A single string without any spaces, tabs
.TEXT	Some information	A line of text
(OptionA|OptionB|OptionC)	OptionA	A choice between a list of available options
<0-10>	5	A number from a range

Table 1.1: VTY Parameter Patterns

The application is configured through the VTY. For configuring a system one needs to enter the **enable** node and then enter the **configure terminal** command. Then the configuration can be made according to the available commands. After the system has been configured one can use the **write** command to write the new configuration to the configuration file. The new file will be used after the application has been restarted.

The following table lists the TCP port numbers of the VTY for the various Osmocom GSM related programs as used on sysmocom products:

Port Number	Software
4240	osmo-pcu
4241	osmo-bts
4242	osmo-nitb, osmo-bsc
4243	osmo-bsc_mgcp
4244	osmo-bsc_nat
4245	osmo-sgsn
4246	osmo-gbproxy

Table 1.2: VTY port numbers

1.1 Common Commands

These commands are available on all VTY nodes. They are listed here only once, to unclutter the VTY reference.

1.1.1 end

Command

```
end
```

Parameters

end
: End current mode and change to enable mode.

1.1.2 exit

Command

```
exit
```

Parameters

exit
: Exit current mode and down to previous mode

1.1.3 help

Command

```
help
```

Parameters

help
: Description of the interactive help system

1.1.4 list

Command

```
list
```

Parameters

list
: Print command list

1.1.5 show running-config

Command

```
show running-config
```

Parameters

show
: Show running system information

running-config
: running configuration

1.1.6 write

Command

```
write
```

Parameters

write
: Write running configuration to memory, network, or terminal

1.1.7 write file

Command

```
write file
```

Parameters

write
: Write running configuration to memory, network, or terminal

file
: Write to configuration file

1.1.8 write memory

Command

```
write memory
```

Parameters

write
: Write running configuration to memory, network, or terminal

memory
: Write configuration to the file (same as write file)

1.1.9 write terminal

Command

```
write terminal
```

Parameters

write
: Write running configuration to memory, network, or terminal

terminal
: Write to terminal

1.2 view

The view node is the default node when connecting to the VTY interface. This node does not require any additional permission and allows to introspect the application.

1.2.1 enable

Command

```
enable
```

Parameters

enable
: Turn on privileged mode command

1.2.2 logging color (0|1)

Command

```
logging color (0|1)
```

Parameters

logging
: Configure logging

color
: Configure color-printing for log messages

0
: Don't use color for printing messages

1
: Use color for printing messages

1.2.3 logging disable

Command

```
logging disable
```

Parameters

logging
: Configure logging

disable
: Disables logging to this vty

1.2.4 logging enable

This command is required to make logging commands available on the telnet VTY.

Command

```
logging enable
```

Parameters

logging
: Configure logging

enable
: Enables logging to this vty

1.2.5 logging filter all (0|1)

Disable/enable general log output on a given target. Typically, 'logging filter all 1' allows to see the usual log output on a given target. Setting to '0' can be useful when logging to the telnet VTY console: mute all log output to allow typing VTY commands on the telnet prompt without interference from log output; 'logging filter all 1' then re-enables logging in the same log output configuration as before. Some applications provide more specific filters, e.g. to log a given IMSI only. To employ such filters, set 'logging filter all 0' to disable general logging, and then enable a more specific filter instead.

Command

```
logging filter all (0|1)
```

Parameters

logging
: Configure logging

filter
: Filter log messages

all
: Do you want to log all messages?

0
: Only print messages matched by other filters

1
: Bypass filter and print all messages

1.2.6 logging filter imsi IMSI

Command

```
logging filter imsi IMSI
```

Parameters

logging
: Configure logging

filter
: Filter log messages

imsi
: Filter log messages by IMSI

IMSI
: IMSI to be used as filter

1.2.7 logging level (rll|mm|rr|rsl|nm|pag|meas|msc|ho|hodec|ref|nat|ctrl|filter|pcu|lc...

Command

```
logging level (rll|mm|rr|rsl|nm|pag|meas|msc|ho|hodec|ref|nat|ctrl|filter|pcu|lcls|chan ↩
    |ts|as|lglobal|llapd|linp|lmux|lmi|lmib|lsms|lctrl|lgtp|lstats|lgsup|loap|lss7| ↩
    lsccp|lsua|lm3ua|lmgcp|ljibuf) (debug|info|notice|error|fatal)
```

Parameters

logging
: Configure logging

level
: Set the log level for a specified category

rll
: A-bis Radio Link Layer (RLL)

mm
: Layer3 Mobility Management (MM)

rr
: Layer3 Radio Resource (RR)

rsl
: A-bis Radio Signalling Link (RSL)

nm
: A-bis Network Management / O&M (NM/OML)

pag
: Paging Subsystem

meas
: Radio Measurement Processing

msc
: Mobile Switching Center

ho
: Hand-Over Process

hodec
: Hand-Over Decision

ref
: Reference Counting

nat
: GSM 08.08 NAT/Multiplexer

ctrl
: Control interface

filter
: BSC/NAT IMSI based filtering

pcu
: PCU Interface

lcls
: Local Call, Local Switch

chan
: lchan FSM

ts
: timeslot FSM

as
: assignment FSM

lglobal
: Library-internal global log family

llapd
: LAPD in libosmogsm

linp
: A-bis Intput Subsystem

lmux
: A-bis B-Subchannel TRAU Frame Multiplex

lmi
: A-bis Input Driver for Signalling

lmib
: A-bis Input Driver for B-Channels (voice)

lsms
: Layer3 Short Message Service (SMS)

lctrl
: Control Interface

lgtp
: GPRS GTP library

lstats
: Statistics messages and logging

lgsup
: Generic Subscriber Update Protocol

loap
: Osmocom Authentication Protocol

lss7
: libosmo-sigtran Signalling System 7

lsccp
: libosmo-sigtran SCCP Implementation

lsua
: libosmo-sigtran SCCP User Adaptation

lm3ua
: libosmo-sigtran MTP3 User Adaptation

lmgcp
: libosmo-mgcp Media Gateway Control Protocol

ljibuf
: libosmo-netif Jitter Buffer

debug
: Log debug messages and higher levels

info
: Log informational messages and higher levels

notice
: Log noticeable messages and higher levels

error
: Log error messages and higher levels

fatal
: Log only fatal messages

1.2.8 logging level force-all (debug|info|notice|error|fatal)

Command

```
logging level force-all (debug|info|notice|error|fatal)
```

Parameters

logging
: Configure logging

level
: Set the log level for a specified category

force-all
: Globally force all logging categories to a specific level. This is released by the 'no logging level force-all' command. Note: any 'logging level <category> <level>' commands will have no visible effect after this, until the forced level is released.

debug
: Log debug messages and higher levels

info
: Log informational messages and higher levels

notice
: Log noticeable messages and higher levels

error
: Log error messages and higher levels

fatal
: Log only fatal messages

1.2.9 logging level set-all (debug|info|notice|error|fatal)

Command

```
logging level set-all (debug|info|notice|error|fatal)
```

Parameters

logging
: Configure logging

level
: Set the log level for a specified category

set-all
: Once-off set all categories to the given log level. There is no single command to take back these changes -- each category is set to the given level, period.

debug
: Log debug messages and higher levels

info
: Log informational messages and higher levels

notice
: Log noticeable messages and higher levels

error
: Log error messages and higher levels

fatal
: Log only fatal messages

1.2.10 logging print category (0|1)

Command

```
logging print category (0|1)
```

Parameters

logging
: Configure logging

print
: Log output settings

category
: Configure log message

0
: Don't prefix each log message

1
: Prefix each log message with category/subsystem name

1.2.11 logging print category-hex (0|1)

Command

```
logging print category-hex (0|1)
```

Parameters

logging
: Configure logging

print
: Log output settings

category-hex
: Configure log message

0
: Don't prefix each log message

1
: Prefix each log message with category/subsystem nr in hex ('<000b>')

1.2.12 logging print extended-timestamp (0|1)

Command

```
logging print extended-timestamp (0|1)
```

Parameters

logging
: Configure logging

print
: Log output settings

extended-timestamp
: Configure log message timestamping

0
: Don't prefix each log message

1
: Prefix each log message with current timestamp with YYYYMMDDhhmmssnnn

1.2.13 logging print file (0|1|basename) [last]

Command

```
logging print file (0|1|basename) [last]
```

Parameters

logging
: Configure logging

print
: Log output settings

file
: Configure log message

0
: Don't prefix each log message

1
: Prefix each log message with the source file and line

basename
: Prefix each log message with the source file's basename (strip leading paths) and line

[last]
: Log source file info at the end of a log line. If omitted, log source file info just before the log text.

1.2.14 logging print level (0|1)

Command

```
logging print level (0|1)
```

Parameters

logging
: Configure logging

print
: Log output settings

level
: Configure log message

0
: Don't prefix each log message

1
: Prefix each log message with the log level name

1.2.15 logging set-log-mask MASK

Command

```
logging set-log-mask MASK
```

Parameters

logging
: Configure logging

set-log-mask
: Set the logmask of this logging target

MASK
: List of logging categories to log, e.g. 'abc:mno:xyz'. Available log categories depend on the specific application, refer to the 'logging level' command. Optionally add individual log levels like 'abc,1:mno,3:xyz,5', where the level numbers are LOGL_DEBUG=1 LOGL_INFO=3 LOGL_NOTICE=5 LOGL_ERROR=7 LOGL_FATAL=8

1.2.16 logging timestamp (0|1)

Command

```
logging timestamp (0|1)
```

Parameters

logging
: Configure logging

timestamp
: Configure log message timestamping

0
: Don't prefix each log message

1
: Prefix each log message with current timestamp

1.2.17 no logging level force-all

Command

```
no logging level force-all
```

Parameters

no
: Negate a command or set its defaults

logging
: Configure logging

level
: Set the log level for a specified category

force-all
: Release any globally forced log level set with 'logging level force-all <level>'

1.2.18 show access-list NAME

Command

```
show access-list NAME
```

Parameters

show
: Show running system information

access-list
: IMSI access list

NAME
: Name of the access list

1.2.19 show alarms

Command

```
show alarms
```

Parameters

show
: Show running system information

alarms
: Show current logging configuration

1.2.20 show asciidoc counters

Command

```
show asciidoc counters
```

Parameters

show
: Show running system information

asciidoc
: Asciidoc generation

counters
: Generate table of all registered counters

1.2.21 show bts <0-255> neighbor arfcn <0-1023> bsic (<0-63>|any)

Command

```
show bts <0-255> neighbor arfcn <0-1023> bsic (<0-63>|any)
```

Parameters

show
: Show running system information

bts
: Display information about a BTS

<0-255>
: BTS number

neighbor
: Query which cell would be the target for this neighbor ARFCN+BSIC

arfcn
: ARFCN of neighbor cell

<0-1023>
: ARFCN value

bsic
: BSIC of neighbor cell

<0-63>
: BSIC value

any
: for all BSICs / use any BSIC in this ARFCN

1.2.22 show bts [<0-255>]

Command

```
show bts [<0-255>]
```

Parameters

show
: Show running system information

bts
: Display information about a BTS

[<0-255>]
: BTS number

1.2.23 show conns

Command

```
show conns
```

Parameters

show
: Show running system information

conns
: Display currently active subscriber connections

1.2.24 show cs7 (sua|m3ua|ipa) [<0-65534>]

Command

```
show cs7 (sua|m3ua|ipa) [<0-65534>]
```

Parameters

show
: Show running system information

cs7
: ITU-T Signaling System 7

sua
: SCCP User Adaptation

m3ua
: MTP3 User Adaptation

ipa
: IPA Multiplex (SCCP Lite)

[<0-65534>]
: Port Number

1.2.25 show cs7 instance <0-15> as (active|all|m3ua|sua)

Command

```
show cs7 instance <0-15> as (active|all|m3ua|sua)
```

Parameters

show
: Show running system information

cs7
: ITU-T Signaling System 7

instance
: An instance of the SS7 stack

<0-15>
: An instance of the SS7 stack

as
: Application Server (AS)

active
: Display all active ASs

all
: Display all ASs (default)

m3ua
: Display all m3ua ASs

sua
: Display all SUA ASs

1.2.26 show cs7 instance <0-15> asp

Command

```
show cs7 instance <0-15> asp
```

Parameters

show
: Show running system information

cs7
: ITU-T Signaling System 7

instance
: An instance of the SS7 stack

<0-15>
: An instance of the SS7 stack

asp
: Application Server Process (ASP)

1.2.27 show cs7 instance <0-15> sccp addressbook

Command

```
show cs7 instance <0-15> sccp addressbook
```

Parameters

show
: Show running system information

cs7
: ITU-T Signaling System 7

instance
: An instance of the SS7 stack

<0-15>
: An instance of the SS7 stack

sccp
: Signalling Connection Control Part

addressbook
: List all SCCP addressbook entries

1.2.28 show cs7 instance <0-15> sccp connections

Command

```
show cs7 instance <0-15> sccp connections
```

Parameters

show
: Show running system information

cs7
: ITU-T Signaling System 7

instance
: An instance of the SS7 stack

<0-15>
: An instance of the SS7 stack

sccp
: Signalling Connection Control Part

connections
: Show List of active SCCP connections

1.2.29 show cs7 instance <0-15> sccp ssn <0-65535>

Command

```
show cs7 instance <0-15> sccp ssn <0-65535>
```

Parameters

show
: Show running system information

cs7
: ITU-T Signaling System 7

instance
: An instance of the SS7 stack

<0-15>
: An instance of the SS7 stack

sccp
: Signalling Connection Control Part

ssn
: Find an SCCP User registered for the given SSN

<0-65535>
: Subsystem Number (SSN)

1.2.30 show cs7 instance <0-15> sccp timers

Command

```
show cs7 instance <0-15> sccp timers
```

Parameters

show
: Show running system information

cs7
: ITU-T Signaling System 7

instance
: An instance of the SS7 stack

<0-15>
: An instance of the SS7 stack

sccp
: Signaling Connection Control Part

timers
: Show List of SCCP timers

1.2.31 show cs7 instance <0-15> sccp users

Command

```
show cs7 instance <0-15> sccp users
```

Parameters

show
: Show running system information

cs7
: ITU-T Signaling System 7

instance
: An instance of the SS7 stack

<0-15>
: An instance of the SS7 stack

sccp
: Signalling Connection Control Part

users
: Show List of SCCP Users registered

1.2.32 show cs7 instance <0-15> users

Command

```
show cs7 instance <0-15> users
```

Parameters

show
: Show running system information

cs7
: ITU-T Signaling System 7

instance
: An instance of the SS7 stack

<0-15>
: An instance of the SS7 stack

users
: User Table

1.2.33 show e1_driver

Command

```
show e1_driver
```

Parameters

show
: Show running system information

e1_driver
: Display information about available E1 drivers

1.2.34 show e1_line [line_nr] [stats]

Command

```
show e1_line [line_nr] [stats]
```

Parameters

show
: Show running system information

e1_line
: Display information about a E1 line

[line_nr]
: E1 Line Number

[stats]
: Include statistics

1.2.35 show e1_timeslot [line_nr] [ts_nr]

Command

```
show e1_timeslot [line_nr] [ts_nr]
```

Parameters

show
: Show running system information

e1_timeslot
: Display information about a E1 timeslot

[line_nr]
: E1 Line Number

[ts_nr]
: E1 Timeslot Number

1.2.36 show fsm NAME

Command

```
show fsm NAME
```

Parameters

show
: Show running system information

fsm
: Show information about finite state machines

NAME
: Display information about a single named finite state machine

1.2.37 show fsm all

Command

```
show fsm all
```

Parameters

show
: Show running system information

fsm
: Show information about finite state machines

all
: Display a list of all registered finite state machines

1.2.38 show fsm-instances NAME

Command

```
show fsm-instances NAME
```

Parameters

show
: Show running system information

fsm-instances
: Show information about finite state machine instances

NAME
: Display a list of all FSM instances of the named finite state machine

1.2.39 show fsm-instances all

Command

```
show fsm-instances all
```

Parameters

show
: Show running system information

fsm-instances
: Show information about finite state machine instances

all
: Display a list of all FSM instances of all finite state machine

1.2.40 show history

Command

```
show history
```

Parameters

show
: Show running system information

history
: Display the session command history

1.2.41 show lchan [<0-255>] [<0-255>] [<0-7>] [<0-7>]

Command

```
show lchan [<0-255>] [<0-255>] [<0-7>] [<0-7>]
```

Parameters

show
: Show running system information

lchan
: Display information about a logical channel

[<0-255>]
: BTS Number

[<0-255>]
: TRX Number

[<0-7>]
: Timeslot Number

[<0-7>]
: Logical Channel Number

1.2.42 show lchan summary [<0-255>] [<0-255>] [<0-7>] [<0-7>]

Command

```
show lchan summary [<0-255>] [<0-255>] [<0-7>] [<0-7>]
```

Parameters

show
: Show running system information

lchan
: Display information about a logical channel

summary
: Short summary

[<0-255>]
: BTS Number

[<0-255>]
: TRX Number

[<0-7>]
: Timeslot Number

[<0-7>]
: Logical Channel Number

1.2.43 show logging vty

Command

```
show logging vty
```

Parameters

show
: Show running system information

logging
: Show current logging configuration

vty
: Show current logging configuration for this vty

1.2.44 show mscs

Command

```
show mscs
```

Parameters

show
: Show running system information

mscs
: MSC Connections and State

1.2.45 show network

Command

```
show network
```

Parameters

show
: Show running system information

network
: Display information about a GSM NETWORK

1.2.46 show online-help

Command

```
show online-help
```

Parameters

show
: Show running system information

online-help
: Online help

1.2.47 show paging [<0-255>]

Command

```
show paging [<0-255>]
```

Parameters

show
: Show running system information

paging
: Display information about paging requests of a BTS

[<0-255>]
: BTS Number

1.2.48 show paging-group <0-255> IMSI

Command

```
show paging-group <0-255> IMSI
```

Parameters

show
: Show running system information

paging-group
: Display the paging group

<0-255>
: BTS Number

IMSI
: IMSI

1.2.49 show position

Command

```
show position
```

Parameters

show
: Show running system information

position
: Position information of the BTS

1.2.50 show rate-counters

Command

```
show rate-counters
```

Parameters

show
: Show running system information

rate-counters
: Show all rate counters

1.2.51 show rejected-bts

Command

```
show rejected-bts
```

Parameters

show
: Show running system information

rejected-bts
: Display recently rejected BTS devices

1.2.52 show statistics

Command

```
show statistics
```

Parameters

show
: Show running system information

statistics
: Statistics about the BSC

1.2.53 show stats

Command

```
show stats
```

Parameters

show
: Show running system information

stats
: Show statistical values

1.2.54 show stats level (global|peer|subscriber)

Command

```
show stats level (global|peer|subscriber)
```

Parameters

show
: Show running system information

stats
: Show statistical values

level
: Set the maximum group level

global
: Show global groups only

peer
: Show global and network peer related groups

subscriber
: Show global, peer, and subscriber groups

1.2.55 show subscriber all

Command

```
show subscriber all
```

Parameters

show
: Show running system information

subscriber
: Display information about subscribers

all
: All Subscribers

1.2.56 show talloc-context (application|all) (full|brief|DEPTH)

Command

```
show talloc-context (application|all) (full|brief|DEPTH)
```

Parameters

show
: Show running system information

talloc-context
: Show talloc memory hierarchy

application
: Application's context

all
: All contexts, if NULL-context tracking is enabled

full
: Display a full talloc memory hierarchy

brief
: Display a brief talloc memory hierarchy

DEPTH
: Specify required maximal depth value

1.2.57 show talloc-context (application|all) (full|brief|DEPTH) filter REGEXP

Command

```
show talloc-context (application|all) (full|brief|DEPTH) filter REGEXP
```

Parameters

show
: Show running system information

talloc-context
: Show talloc memory hierarchy

application
: Application's context

all
: All contexts, if NULL-context tracking is enabled

full
: Display a full talloc memory hierarchy

brief
: Display a brief talloc memory hierarchy

DEPTH
: Specify required maximal depth value

filter
: Filter chunks using regular expression

REGEXP
: Regular expression

1.2.58 show talloc-context (application|all) (full|brief|DEPTH) tree ADDRESS

Command

```
show talloc-context (application|all) (full|brief|DEPTH) tree ADDRESS
```

Parameters

show
: Show running system information

talloc-context
: Show talloc memory hierarchy

application
: Application's context

all
: All contexts, if NULL-context tracking is enabled

full
: Display a full talloc memory hierarchy

brief
: Display a brief talloc memory hierarchy

DEPTH
: Specify required maximal depth value

tree
: Display only a specific memory chunk

ADDRESS
: Chunk address (e.g. 0xdeadbeef)

1.2.59 show timer [TNNNN]

Command

```
show timer [TNNNN]
```

Parameters

show
: Show running system information

timer
: GSM Timers

[TNNNN]
: Specific timer to show, or all timers if omitted.

1.2.60 show timeslot [<0-255>] [<0-255>] [<0-7>]

Command

```
show timeslot [<0-255>] [<0-255>] [<0-7>]
```

Parameters

show
: Show running system information

timeslot
: Display information about a TS

[<0-255>]
: BTS Number

[<0-255>]
: TRX Number

[<0-7>]
: Timeslot Number

1.2.61 show trx [<0-255>] [<0-255>]

Command

```
show trx [<0-255>] [<0-255>]
```

Parameters

show
: Show running system information

trx
: Display information about a TRX

[<0-255>]
: BTS Number

[<0-255>]
: TRX Number

1.2.62 show version

Command

```
show version
```

Parameters

show
: Show running system information

version
: Displays program version

1.2.63 terminal length <0-512>

Command

```
terminal length <0-512>
```

Parameters

terminal
: Set terminal line parameters

length
: Set number of lines on a screen

<0-512>
: Number of lines on screen (0 for no pausing)

1.2.64 terminal no length

Command

```
terminal no length
```

Parameters

terminal
: Set terminal line parameters

no
: Negate a command or set its defaults

length
: Set number of lines on a screen

1.2.65 who

Command

```
who
```

Parameters

who
: Display who is on vty

1.3 enable

The enable node is a privileged node, allowing to make changes to the configuration and to access further commands like 'configure'. All commands seen on the view node are also available here.

1.3.1 assignment any

Command

```
assignment any
```

Parameters

assignment
: Manually trigger assignment (for debugging)

any
: Pick any actively used TCH/F or TCH/H lchan and re-assign within the same BTS. This will fail if no lchans of the same type are available besides the used one.

1.3.2 bts <0-255> om2000 class (trxc|ts|tf|is|con|dp|cf|tx|rx) <0-255> <0-255> <0-255>

Command

```
bts <0-255> om2000 class (trxc|ts|tf|is|con|dp|cf|tx|rx) <0-255> <0-255> <0-255>
```

Parameters

bts
: BTS related commands

<0-255>
: BTS Number

om2000
: Manipulate the OM2000 managed objects

class
: Object Class

trxc
: TRX Controller

ts
: Timeslot

tf
: Timing Function

is
: Interface Switch

con
: Abis Concentrator

dp
: Digital Path

cf
: Central Function

tx
: Transmitter

rx
: Receiver

<0-255>
: BTS Number

<0-255>
: Associated SO Instance

<0-255>
: Instance Number

1.3.3 bts <0-255> om2000 class <0-255> <0-255> <0-255> <0-255>

Command

```
bts <0-255> om2000 class <0-255> <0-255> <0-255> <0-255>
```

Parameters

bts
: BTS related commands

<0-255>
: BTS Number

om2000
: Manipulate the OML managed objects

class
: Object Class

<0-255>
: Object Class

<0-255>
: BTS Number

<0-255>
: Associated SO Instance

<0-255>
: Instance Number

1.3.4 bts <0-255> oml class (site-manager|bts|radio-carrier|baseband-transceiver|chann...

Command

```
bts <0-255> oml class (site-manager|bts|radio-carrier|baseband-transceiver|channel|adjc ↩
    |handover|power-contorl|btse|rack|test|envabtse|bport|gprs-nse|gprs-cell|gprs-nsvc| ↩
    siemenshw) instance <0-255> <0-255> <0-255>
```

Parameters

bts
: BTS related commands

<0-255>
: BTS Number

oml
: Manipulate the OML managed objects

class
: Object Class

site-manager
: Site Manager Object

bts
: BTS Object

radio-carrier
: Radio Carrier Object

baseband-transceiver
: Baseband Transceiver Object

channel
: Channel (Timeslot) Object

adjc
: Adjacent Object (Siemens)

handover
: Handover Object (Siemens)

power-contorl
: Power Control Object (Siemens)

btse
: BTSE Object (Siemens)

rack
: Rack Object (Siemens)

test
: Test Object (Siemens)

envabtse
: ENVABTSE Object (Siemens)

bport
: BPORT Object (Siemens)

gprs-nse
: GPRS NSE Object (ip.access/osmo-bts)

gprs-cell
: GPRS Cell Object (ip.acecss/osmo-bts)

gprs-nsvc
: GPRS NSVC Object (ip.acecss/osmo-bts)

siemenshw
: SIEMENSHW Object (Siemens)

instance
: Object Instance

<0-255>
: BTS Number

<0-255>
: TRX Number

<0-255>
: TS Number

1.3.5 bts <0-255> oml class <0-255> instance <0-255> <0-255> <0-255>

Command

```
bts <0-255> oml class <0-255> instance <0-255> <0-255> <0-255>
```

Parameters

bts
: BTS related commands

<0-255>
BTS Number

oml
Manipulate the OML managed objects

class
Object Class

<0-255>
Object Class

instance
Object Instance

<0-255>
BTS Number

<0-255>
TRX Number

<0-255>
TS Number

1.3.6 bts <0-255> resend-system-information

Command

```
bts <0-255> resend-system-information
```

Parameters

bts
BTS Specific Commands

<0-255>
BTS Number

resend-system-information
Re-generate + re-send BCCH SYSTEM INFORMATION

1.3.7 bts <0-255> smscb-command <1-4> HEXSTRING

Command

```
bts <0-255> smscb-command <1-4> HEXSTRING
```

Parameters

bts
BTS related commands

<0-255>
BTS Number

smscb-command
SMS Cell Broadcast

<1-4>
Last Valid Block

HEXSTRING
Hex Encoded SMSCB message (up to 88 octets)

1.3.8 bts <0-255> trx <0-255> timeslot <0-7> pdch (activate|deactivate)

Command

```
bts <0-255> trx <0-255> timeslot <0-7> pdch (activate|deactivate)
```

Parameters

bts
BTS for manual command

<0-255>
BTS Number

trx
TRX for manual command

<0-255>
TRX Number

timeslot
Timeslot for manual command

<0-7>
Timeslot Number

pdch
Packet Data Channel

activate
Activate Dynamic PDCH/TCH (-> PDCH mode)

deactivate
Deactivate Dynamic PDCH/TCH (-> TCH mode)

1.3.9 bts <0-255> trx <0-255> timeslot <0-7> sub-slot <0-7> (activate|deactivate) (hr|...

Command

```
bts <0-255> trx <0-255> timeslot <0-7> sub-slot <0-7> (activate|deactivate) (hr|fr|efr| ↩
    amr) [<0-7>]
```

Parameters

bts
: BTS for manual command

<0-255>
: BTS Number

trx
: TRX for manual command

<0-255>
: TRX Number

timeslot
: Timeslot for manual command

<0-7>
: Timeslot Number

sub-slot
: Sub-slot for manual command

<0-7>
: Sub-slot Number

activate
: Manual Channel Activation (e.g. for BER test)

deactivate
: Manual Channel Deactivation (e.g. for BER test)

hr
: Half-Rate v1

fr
: Full-Rate

efr
: Enhanced Full Rate

amr
: Adaptive Multi-Rate

[<0-7>]
: AMR Mode

1.3.10 bts <0-255> trx <0-255> timeslot <0-7> sub-slot <0-7> assignment

Command

```
bts <0-255> trx <0-255> timeslot <0-7> sub-slot <0-7> assignment
```

Parameters

bts
: BTS for manual command

<0-255>
: BTS Number

trx
: TRX for manual command

<0-255>
: TRX Number

timeslot
: Timeslot for manual command

<0-7>
: Timeslot Number

sub-slot
: Sub-slot for manual command

<0-7>
: Sub-slot Number

assignment
: Manually trigger assignment (for debugging)

1.3.11 bts <0-255> trx <0-255> timeslot <0-7> sub-slot <0-7> handover <0-255>

Command

```
bts <0-255> trx <0-255> timeslot <0-7> sub-slot <0-7> handover <0-255>
```

Parameters

bts
: BTS for manual command

<0-255>
: BTS Number

trx
: TRX for manual command

<0-255>
: TRX Number

timeslot
: Timeslot for manual command

<0-7>
: Timeslot Number

sub-slot
: Sub-slot for manual command

<0-7>
: Sub-slot Number

handover
: Manually trigger handover (for debugging)

<0-255>
: New BTS Number

1.3.12 bts <0-255> trx <0-255> timeslot <0-7> sub-slot <0-7> mdcx A.B.C.D <0-65535>

Command

```
bts <0-255> trx <0-255> timeslot <0-7> sub-slot <0-7> mdcx A.B.C.D <0-65535>
```

Parameters

bts
: BTS for manual command

<0-255>
: BTS Number

trx
: TRX for manual command

<0-255>
: TRX Number

timeslot
: Timeslot for manual command

<0-7>
: Timeslot Number

sub-slot
: Sub-slot for manual command

<0-7>
: Sub-slot Number

mdcx
: Modify RTP Connection

A.B.C.D
: MGW IP Address

<0-65535>
: MGW UDP Port

1.3.13 configure terminal

Command

```
configure terminal
```

Parameters

configure
: Configuration from vty interface

terminal
: Configuration terminal

1.3.14 copy running-config startup-config

Command

```
copy running-config startup-config
```

Parameters

copy
: Copy configuration

running-config
: Copy running config to...

startup-config
: Copy running config to startup config (same as write file)

1.3.15 ctrl-interface generate-trap TRAP VALUE

Command

```
ctrl-interface generate-trap TRAP VALUE
```

Parameters

ctrl-interface
: Commands related to the CTRL Interface

generate-trap
: Generate a TRAP for test purpose

TRAP
: Identity/Name of the TRAP variable

VALUE
: Value of the TRAP variable

1.3.16 disable

Command

```
disable
```

Parameters

disable
: Turn off privileged mode command

1.3.17 drop bts connection <0-65535> (oml|rsl)

Command

```
drop bts connection <0-65535> (oml|rsl)
```

Parameters

drop
: Debug/Simulation command to drop Abis/IP BTS

bts
: Debug/Simulation command to drop Abis/IP BTS

connection
: Debug/Simulation command to drop Abis/IP BTS

<0-65535>
: BTS NR

oml
: Drop OML Connection

rsl
: Drop RSL Connection

1.3.18 generate-location-state-trap <0-255>

Command

```
generate-location-state-trap <0-255>
```

Parameters

generate-location-state-trap
: Generate location state report

<0-255>
: BTS to report

1.3.19 handover any

Command

```
handover any
```

Parameters

handover
: Manually trigger handover (for debugging)

any
: Pick any actively used TCH/F or TCH/H lchan and handover to any other BTS. This is likely to fail if not all BTS are guaranteed to be reachable by the MS.

1.3.20 handover any to arfcn <0-1023> bsic (<0-63>|any)

Command

```
handover any to arfcn <0-1023> bsic (<0-63>|any)
```

Parameters

handover
: Manually trigger handover (for debugging)

any
: Pick any actively used TCH/F or TCH/H lchan to handover to another cell. This is likely to fail outside of a lab setup where you are certain that all MS are able to see the target cell.

to
: 'to'

arfcn
: ARFCN of neighbor cell

<0-1023>
: ARFCN value

bsic
: BSIC of neighbor cell

<0-63>
: BSIC value

any
: for all BSICs / use any BSIC in this ARFCN

1.3.21 logging color (0|1)

Command

```
logging color (0|1)
```

Parameters

logging
: Configure logging

color
: Configure color-printing for log messages

0
: Don't use color for printing messages

1
: Use color for printing messages

1.3.22 logging disable

Command

```
logging disable
```

Parameters

logging
: Configure logging

disable
: Disables logging to this vty

1.3.23 logging enable

This command is required to make logging commands available on the telnet VTY.

Command

```
logging enable
```

Parameters

logging
: Configure logging

enable
: Enables logging to this vty

1.3.24 logging filter all (0|1)

Disable/enable general log output on a given target. Typically, 'logging filter all 1' allows to see the usual log output on a given target. Setting to '0' can be useful when logging to the telnet VTY console: mute all log output to allow typing VTY commands on the telnet prompt without interference from log output; 'logging filter all 1' then re-enables logging in the same log output configuration as before. Some applications provide more specific filters, e.g. to log a given IMSI only. To employ such filters, set 'logging filter all 0' to disable general logging, and then enable a more specific filter instead.

Command

```
logging filter all (0|1)
```

Parameters

logging
: Configure logging

filter
: Filter log messages

all
: Do you want to log all messages?

0
: Only print messages matched by other filters

1
: Bypass filter and print all messages

1.3.25 logging filter imsi IMSI

Command

```
logging filter imsi IMSI
```

Parameters

logging
: Configure logging

filter
: Filter log messages

imsi
: Filter log messages by IMSI

IMSI
: IMSI to be used as filter

1.3.26 logging level (rll|mm|rr|rsl|nm|pag|meas|msc|ho|hodec|ref|nat|ctrl|filter|pcu|lc...

Command

```
logging level (rll|mm|rr|rsl|nm|pag|meas|msc|ho|hodec|ref|nat|ctrl|filter|pcu|lcls|chan ↩
    |ts|as|lglobal|llapd|linp|lmux|lmi|lmib|lsms|lctrl|lgtp|lstats|lgsup|loap|lss7| ↩
    lsccp|lsua|lm3ua|lmgcp|ljibuf) (debug|info|notice|error|fatal)
```

Parameters

logging
: Configure logging

level
: Set the log level for a specified category

rll
: A-bis Radio Link Layer (RLL)

mm
: Layer3 Mobility Management (MM)

rr
: Layer3 Radio Resource (RR)

rsl
: A-bis Radio Signalling Link (RSL)

nm
: A-bis Network Management / O&M (NM/OML)

pag
: Paging Subsystem

meas
: Radio Measurement Processing

msc
: Mobile Switching Center

ho
: Hand-Over Process

hodec
: Hand-Over Decision

ref
: Reference Counting

nat
: GSM 08.08 NAT/Multiplexer

ctrl
: Control interface

filter
: BSC/NAT IMSI based filtering

pcu
: PCU Interface

lcls
: Local Call, Local Switch

chan
: lchan FSM

ts
: timeslot FSM

as
: assignment FSM

lglobal
: Library-internal global log family

llapd
: LAPD in libosmogsm

linp
: A-bis Intput Subsystem

lmux
: A-bis B-Subchannel TRAU Frame Multiplex

lmi
: A-bis Input Driver for Signalling

lmib
: A-bis Input Driver for B-Channels (voice)

lsms
: Layer3 Short Message Service (SMS)

lctrl
: Control Interface

lgtp
: GPRS GTP library

lstats
: Statistics messages and logging

lgsup
: Generic Subscriber Update Protocol

loap
: Osmocom Authentication Protocol

lss7
: libosmo-sigtran Signalling System 7

lsccp
: libosmo-sigtran SCCP Implementation

lsua
: libosmo-sigtran SCCP User Adaptation

lm3ua
: libosmo-sigtran MTP3 User Adaptation

lmgcp
: libosmo-mgcp Media Gateway Control Protocol

ljibuf
: libosmo-netif Jitter Buffer

debug
: Log debug messages and higher levels

info
: Log informational messages and higher levels

notice
: Log noticeable messages and higher levels

error
: Log error messages and higher levels

fatal
: Log only fatal messages

1.3.27 logging level force-all (debug|info|notice|error|fatal)

Command

```
logging level force-all (debug|info|notice|error|fatal)
```

Parameters

logging
: Configure logging

level
: Set the log level for a specified category

force-all
: Globally force all logging categories to a specific level. This is released by the 'no logging level force-all' command. Note: any 'logging level <category> <level>' commands will have no visible effect after this, until the forced level is released.

debug
: Log debug messages and higher levels

info
: Log informational messages and higher levels

notice
: Log noticeable messages and higher levels

error
: Log error messages and higher levels

fatal
: Log only fatal messages

1.3.28 logging level set-all (debug|info|notice|error|fatal)

Command

```
logging level set-all (debug|info|notice|error|fatal)
```

Parameters

logging
: Configure logging

level
: Set the log level for a specified category

set-all
: Once-off set all categories to the given log level. There is no single command to take back these changes -- each category is set to the given level, period.

debug
: Log debug messages and higher levels

info
: Log informational messages and higher levels

notice
: Log noticeable messages and higher levels

error
: Log error messages and higher levels

fatal
: Log only fatal messages

1.3.29 logging print category (0|1)

Command

```
logging print category (0|1)
```

Parameters

logging
: Configure logging

print
: Log output settings

category
: Configure log message

0
: Don’t prefix each log message

1
: Prefix each log message with category/subsystem name

1.3.30 logging print category-hex (0|1)

Command

```
logging print category-hex (0|1)
```

Parameters

logging
: Configure logging

print
: Log output settings

category-hex
: Configure log message

0
: Don’t prefix each log message

1
: Prefix each log message with category/subsystem nr in hex (’<000b>’)

1.3.31 logging print extended-timestamp (0|1)

Command

```
logging print extended-timestamp (0|1)
```

Parameters

logging
: Configure logging

print
: Log output settings

extended-timestamp
: Configure log message timestamping

0
: Don’t prefix each log message

1
: Prefix each log message with current timestamp with YYYYMMDDhhmmssnnn

1.3.32 logging print file (0|1|basename) [last]

Command

```
logging print file (0|1|basename) [last]
```

Parameters

logging
: Configure logging

print
: Log output settings

file
: Configure log message

0
: Don't prefix each log message

1
: Prefix each log message with the source file and line

basename
: Prefix each log message with the source file's basename (strip leading paths) and line

[last]
: Log source file info at the end of a log line. If omitted, log source file info just before the log text.

1.3.33 logging print level (0|1)

Command

```
logging print level (0|1)
```

Parameters

logging
: Configure logging

print
: Log output settings

level
: Configure log message

0
: Don't prefix each log message

1
: Prefix each log message with the log level name

1.3.34 logging set-log-mask MASK

Command

```
logging set-log-mask MASK
```

Parameters

logging
: Configure logging

set-log-mask
: Set the logmask of this logging target

MASK
: List of logging categories to log, e.g. 'abc:mno:xyz'. Available log categories depend on the specific application, refer to the 'logging level' command. Optionally add individual log levels like 'abc,1:mno,3:xyz,5', where the level numbers are LOGL_DEBUG=1 LOGL_INFO=3 LOGL_NOTICE=5 LOGL_ERROR=7 LOGL_FATAL=8

1.3.35 logging timestamp (0|1)

Command

```
logging timestamp (0|1)
```

Parameters

logging
: Configure logging

timestamp
: Configure log message timestamping

0
: Don't prefix each log message

1
: Prefix each log message with current timestamp

1.3.36 no logging level force-all

Command

```
no logging level force-all
```

Parameters

no
: Negate a command or set its defaults

logging
: Configure logging

level
: Set the log level for a specified category

force-all
: Release any globally forced log level set with 'logging level force-all <level>'

1.3.37 restart-bts <0-65535>

Command

```
restart-bts <0-65535>
```

Parameters

restart-bts
: Restart ip.access nanoBTS through OML

<0-65535>
: BTS Number

1.3.38 show access-list NAME

Command

```
show access-list NAME
```

Parameters

show
: Show running system information

access-list
: IMSI access list

NAME
: Name of the access list

1.3.39 show alarms

Command

```
show alarms
```

Parameters

show
: Show running system information

alarms
: Show current logging configuration

1.3.40 show asciidoc counters

Command

```
show asciidoc counters
```

Parameters

show
: Show running system information

asciidoc
: Asciidoc generation

counters
: Generate table of all registered counters

1.3.41 show bts <0-255> neighbor arfcn <0-1023> bsic (<0-63>|any)

Command

```
show bts <0-255> neighbor arfcn <0-1023> bsic (<0-63>|any)
```

Parameters

show
: Show running system information

bts
: Display information about a BTS

<0-255>
: BTS number

neighbor
: Query which cell would be the target for this neighbor ARFCN+BSIC

arfcn
: ARFCN of neighbor cell

<0-1023>
: ARFCN value

bsic
: BSIC of neighbor cell

<0-63>
: BSIC value

any
: for all BSICs / use any BSIC in this ARFCN

1.3.42 show bts [<0-255>]

Command

```
show bts [<0-255>]
```

Parameters

show
: Show running system information

bts
: Display information about a BTS

[<0-255>]
: BTS number

1.3.43 show conns

Command

```
show conns
```

Parameters

show
: Show running system information

conns
: Display currently active subscriber connections

1.3.44 show cs7 (sua|m3ua|ipa) [<0-65534>]

Command

```
show cs7 (sua|m3ua|ipa) [<0-65534>]
```

Parameters

show
: Show running system information

cs7
: ITU-T Signaling System 7

sua
: SCCP User Adaptation

m3ua
: MTP3 User Adaptation

ipa
: IPA Multiplex (SCCP Lite)

[<0-65534>]
: Port Number

1.3.45 show cs7 instance <0-15> as (active|all|m3ua|sua)

Command

```
show cs7 instance <0-15> as (active|all|m3ua|sua)
```

Parameters

show
: Show running system information

cs7
: ITU-T Signaling System 7

instance
: An instance of the SS7 stack

<0-15>
: An instance of the SS7 stack

as
: Application Server (AS)

active
: Display all active ASs

all
: Display all ASs (default)

m3ua
: Display all m3ua ASs

sua
: Display all SUA ASs

1.3.46 show cs7 instance <0-15> asp

Command

```
show cs7 instance <0-15> asp
```

Parameters

show
: Show running system information

cs7
: ITU-T Signaling System 7

instance
: An instance of the SS7 stack

<0-15>
: An instance of the SS7 stack

asp
: Application Server Process (ASP)

1.3.47 show cs7 instance <0-15> sccp addressbook

Command

```
show cs7 instance <0-15> sccp addressbook
```

Parameters

show
: Show running system information

cs7
: ITU-T Signaling System 7

instance
: An instance of the SS7 stack

<0-15>
: An instance of the SS7 stack

sccp
: Signalling Connection Control Part

addressbook
: List all SCCP addressbook entries

1.3.48 show cs7 instance <0-15> sccp connections

Command

```
show cs7 instance <0-15> sccp connections
```

Parameters

show
: Show running system information

cs7
: ITU-T Signaling System 7

instance
: An instance of the SS7 stack

<0-15>
: An instance of the SS7 stack

sccp
: Signalling Connection Control Part

connections
: Show List of active SCCP connections

1.3.49 show cs7 instance <0-15> sccp ssn <0-65535>

Command

```
show cs7 instance <0-15> sccp ssn <0-65535>
```

Parameters

show
: Show running system information

cs7
: ITU-T Signaling System 7

instance
: An instance of the SS7 stack

<0-15>
: An instance of the SS7 stack

sccp
: Signalling Connection Control Part

ssn
: Find an SCCP User registered for the given SSN

<0-65535>
: Subsystem Number (SSN)

1.3.50 show cs7 instance <0-15> sccp timers

Command

```
show cs7 instance <0-15> sccp timers
```

Parameters

show
: Show running system information

cs7
: ITU-T Signaling System 7

instance
: An instance of the SS7 stack

<0-15>
: An instance of the SS7 stack

sccp
: Signaling Connection Control Part

timers
: Show List of SCCP timers

1.3.51 show cs7 instance <0-15> sccp users

Command

```
show cs7 instance <0-15> sccp users
```

Parameters

show
: Show running system information

cs7
: ITU-T Signaling System 7

instance
: An instance of the SS7 stack

<0-15>
: An instance of the SS7 stack

sccp
: Signalling Connection Control Part

users
: Show List of SCCP Users registered

1.3.52 show cs7 instance <0-15> users

Command

```
show cs7 instance <0-15> users
```

Parameters

show
: Show running system information

cs7
: ITU-T Signaling System 7

instance
: An instance of the SS7 stack

<0-15>
: An instance of the SS7 stack

users
: User Table

1.3.53 show e1_driver

Command

```
show e1_driver
```

Parameters

show
: Show running system information

e1_driver
: Display information about available E1 drivers

1.3.54 show e1_line [line_nr] [stats]

Command

```
show e1_line [line_nr] [stats]
```

Parameters

show
: Show running system information

e1_line
: Display information about a E1 line

[line_nr]
: E1 Line Number

[stats]
: Include statistics

1.3.55 show e1_timeslot [line_nr] [ts_nr]

Command

```
show e1_timeslot [line_nr] [ts_nr]
```

Parameters

show
: Show running system information

e1_timeslot
: Display information about a E1 timeslot

[line_nr]
: E1 Line Number

[ts_nr]
: E1 Timeslot Number

1.3.56 show fsm NAME

Command

```
show fsm NAME
```

Parameters

show
: Show running system information

fsm
: Show information about finite state machines

NAME
: Display information about a single named finite state machine

1.3.57 show fsm all

Command

```
show fsm all
```

Parameters

show
: Show running system information

fsm
: Show information about finite state machines

all
: Display a list of all registered finite state machines

1.3.58 show fsm-instances NAME

Command

```
show fsm-instances NAME
```

Parameters

show
: Show running system information

fsm-instances
: Show information about finite state machine instances

NAME
: Display a list of all FSM instances of the named finite state machine

1.3.59 show fsm-instances all

Command

```
show fsm-instances all
```

Parameters

show
: Show running system information

fsm-instances
: Show information about finite state machine instances

all
: Display a list of all FSM instances of all finite state machine

1.3.60 show history

Command

```
show history
```

Parameters

show
: Show running system information

history
: Display the session command history

1.3.61 show lchan [<0-255>] [<0-255>] [<0-7>] [<0-7>]

Command

```
show lchan [<0-255>] [<0-255>] [<0-7>] [<0-7>]
```

Parameters

show
: Show running system information

lchan
: Display information about a logical channel

[<0-255>]
: BTS Number

[<0-255>]
: TRX Number

[<0-7>]
: Timeslot Number

[<0-7>]
: Logical Channel Number

1.3.62 show lchan summary [<0-255>] [<0-255>] [<0-7>] [<0-7>]

Command

```
show lchan summary [<0-255>] [<0-255>] [<0-7>] [<0-7>]
```

Parameters

show
: Show running system information

lchan
: Display information about a logical channel

summary
: Short summary

[<0-255>]
: BTS Number

[<0-255>]
: TRX Number

[<0-7>]
: Timeslot Number

[<0-7>]
: Logical Channel Number

1.3.63 show logging vty

Command

```
show logging vty
```

Parameters

show
: Show running system information

logging
: Show current logging configuration

vty
: Show current logging configuration for this vty

1.3.64 show mscs

Command

```
show mscs
```

Parameters

show
: Show running system information

mscs
: MSC Connections and State

1.3.65 show network

Command

```
show network
```

Parameters

show
: Show running system information

network
: Display information about a GSM NETWORK

1.3.66 show online-help

Command

```
show online-help
```

Parameters

show
: Show running system information

online-help
: Online help

1.3.67 show paging [<0-255>]

Command

```
show paging [<0-255>]
```

Parameters

show
: Show running system information

paging
: Display information about paging requests of a BTS

[<0-255>]
: BTS Number

1.3.68 show paging-group <0-255> IMSI

Command

```
show paging-group <0-255> IMSI
```

Parameters

show
: Show running system information

paging-group
: Display the paging group

<0-255>
: BTS Number

IMSI
: IMSI

1.3.69 show position

Command

```
show position
```

Parameters

show
: Show running system information

position
: Position information of the BTS

1.3.70 show rate-counters

Command

```
show rate-counters
```

Parameters

show
: Show running system information

rate-counters
: Show all rate counters

1.3.71 show rejected-bts

Command

```
show rejected-bts
```

Parameters

show
: Show running system information

rejected-bts
: Display recently rejected BTS devices

1.3.72 show startup-config

Command

```
show startup-config
```

Parameters

show
: Show running system information

startup-config
: Contentes of startup configuration

1.3.73 show statistics

Command

```
show statistics
```

Parameters

show
: Show running system information

statistics
: Statistics about the BSC

1.3.74 show stats

Command

```
show stats
```

Parameters

show
: Show running system information

stats
: Show statistical values

1.3.75 show stats level (global|peer|subscriber)

Command

```
show stats level (global|peer|subscriber)
```

Parameters

show
: Show running system information

stats
: Show statistical values

level
: Set the maximum group level

global
: Show global groups only

peer
: Show global and network peer related groups

subscriber
: Show global, peer, and subscriber groups

1.3.76 show subscriber all

Command

```
show subscriber all
```

Parameters

show
: Show running system information

subscriber
: Display information about subscribers

all
: All Subscribers

1.3.77 show talloc-context (application|all) (full|brief|DEPTH)

Command

```
show talloc-context (application|all) (full|brief|DEPTH)
```

Parameters

show
: Show running system information

talloc-context
: Show talloc memory hierarchy

application
: Application's context

all
: All contexts, if NULL-context tracking is enabled

full
: Display a full talloc memory hierarchy

brief
: Display a brief talloc memory hierarchy

DEPTH
: Specify required maximal depth value

1.3.78 show talloc-context (application|all) (full|brief|DEPTH) filter REGEXP

Command

```
show talloc-context (application|all) (full|brief|DEPTH) filter REGEXP
```

Parameters

show
: Show running system information

talloc-context
: Show talloc memory hierarchy

application
: Application's context

all
: All contexts, if NULL-context tracking is enabled

full
: Display a full talloc memory hierarchy

brief
: Display a brief talloc memory hierarchy

DEPTH
: Specify required maximal depth value

filter
: Filter chunks using regular expression

REGEXP
: Regular expression

1.3.79 show talloc-context (application|all) (full|brief|DEPTH) tree ADDRESS

Command

```
show talloc-context (application|all) (full|brief|DEPTH) tree ADDRESS
```

Parameters

show
: Show running system information

talloc-context
: Show talloc memory hierarchy

application
: Application's context

all
: All contexts, if NULL-context tracking is enabled

full
: Display a full talloc memory hierarchy

brief
: Display a brief talloc memory hierarchy

DEPTH
: Specify required maximal depth value

tree
: Display only a specific memory chunk

ADDRESS
: Chunk address (e.g. 0xdeadbeef)

1.3.80 show timer [TNNNN]

Command

```
show timer [TNNNN]
```

Parameters

show
: Show running system information

timer
: GSM Timers

[TNNNN]
: Specific timer to show, or all timers if omitted.

1.3.81 show timeslot [<0-255>] [<0-255>] [<0-7>]

Command

```
show timeslot [<0-255>] [<0-255>] [<0-7>]
```

Parameters

show
: Show running system information

timeslot
: Display information about a TS

[<0-255>]
: BTS Number

[<0-255>]
: TRX Number

[<0-7>]
: Timeslot Number

1.3.82 show trx [<0-255>] [<0-255>]

Command

```
show trx [<0-255>] [<0-255>]
```

Parameters

show
: Show running system information

trx
: Display information about a TRX

[<0-255>]
: BTS Number

[<0-255>]
: TRX Number

1.3.83 show version

Command

```
show version
```

Parameters

show
: Show running system information

version
: Displays program version

1.3.84 terminal length <0-512>

Command

```
terminal length <0-512>
```

Parameters

terminal
: Set terminal line parameters

length
: Set number of lines on a screen

<0-512>
: Number of lines on screen (0 for no pausing)

1.3.85 terminal monitor

Command

```
terminal monitor
```

Parameters

terminal
: Set terminal line parameters

monitor
: Copy debug output to the current terminal line

1.3.86 terminal no length

Command

```
terminal no length
```

Parameters

terminal
: Set terminal line parameters

no
: Negate a command or set its defaults

length
: Set number of lines on a screen

1.3.87 terminal no monitor

Command

```
terminal no monitor
```

Parameters

terminal
: Set terminal line parameters

no
: Negate a command or set its defaults

monitor
: Copy debug output to the current terminal line

1.3.88 who

Command

```
who
```

Parameters

who
: Display who is on vty

1.4 config

The config node is the root for all configuration commands, which are identical to the config file format. Changes made on the telnet VTY can be made persistent with the 'write file' command.

1.4.1 banner motd default

Command

```
banner motd default
```

Parameters

banner
: Set banner string

motd
: Strings for motd

default
: Default string

1.4.2 banner motd file [FILE]

Command

```
banner motd file [FILE]
```

Parameters

banner
: Set banner

motd
: Banner for motd

file
: Banner from a file

[FILE]
: Filename

1.4.3 bsc

Command

```
bsc
```

Parameters

bsc
: Configure BSC

1.4.4 cs7 instance <0-15>

Command

```
cs7 instance <0-15>
```

Parameters

cs7
: ITU-T Signaling System 7

instance
: Configure a SS7 Instance

<0-15>
: An instance of the SS7 stack

1.4.5 ctrl

Command

```
ctrl
```

Parameters

ctrl
: Configure the Control Interface

1.4.6 e1_input

Command

```
e1_input
```

Parameters

e1_input
: Configure E1/T1/J1 TDM input

1.4.7 enable password (8|) WORD

Command

```
enable password (8|) WORD
```

Parameters

enable
: Modify enable password parameters

password
: Assign the privileged level password

8
: Specifies a HIDDEN password will follow

dummy string

WORD
: The HIDDEN 'enable' password string

1.4.8 enable password LINE

Command

```
enable password LINE
```

Parameters

enable
: Modify enable password parameters

password
: Assign the privileged level password

LINE
: The UNENCRYPTED (cleartext) 'enable' password

1.4.9 hostname WORD

Command

```
hostname WORD
```

Parameters

hostname
: Set system's network name

WORD
: This system's network name

1.4.10 line vty

Command

```
line vty
```

Parameters

line
: Configure a terminal line

vty
: Virtual terminal

1.4.11 log alarms <2-32700>

Command

```
log alarms <2-32700>
```

Parameters

log
: Configure logging sub-system

alarms
: Logging alarms to osmo_strrb

<2-32700>
: Maximum number of messages to log

1.4.12 log file .FILENAME

Command

```
log file .FILENAME
```

Parameters

log
: Configure logging sub-system

file
: Logging to text file

.FILENAME
: Filename

1.4.13 log gsmtap [HOSTNAME]

Command

```
log gsmtap [HOSTNAME]
```

Parameters

log
: Configure logging sub-system

gsmtap
: Logging via GSMTAP

[HOSTNAME]
: Host name to send the GSMTAP logging to (UDP port 4729)

1.4.14 log stderr

Command

```
log stderr
```

Parameters

log
: Configure logging sub-system

stderr
: Logging via STDERR of the process

1.4.15 log syslog (authpriv|cron|daemon|ftp|lpr|mail|news|user|uucp)

Command

```
log syslog (authpriv|cron|daemon|ftp|lpr|mail|news|user|uucp)
```

Parameters

log
: Configure logging sub-system

syslog
: Logging via syslog

authpriv
: Security/authorization messages facility

cron
: Clock daemon (cron/at) facility

daemon
: General system daemon facility

ftp
: Ftp daemon facility

lpr
: Line printer facility

mail
: Mail facility

news
: News facility

user
: Generic facility

uucp
: UUCP facility

1.4.16 log syslog local <0-7>

Command

```
log syslog local <0-7>
```

Parameters

log
: Configure logging sub-system

syslog
: Logging via syslog

local
: Syslog LOCAL facility

<0-7>
: Local facility number

1.4.17 msc [<0-1000>]

Command

```
msc [<0-1000>]
```

Parameters

msc
: Configure MSC details

[<0-1000>]
: MSC connection to configure

1.4.18 network

Command

```
network
```

Parameters

network
: Configure the GSM network

1.4.19 no banner motd

Command

```
no banner motd
```

Parameters

no
: Negate a command or set its defaults

banner
: Set banner string

motd
: Strings for motd

1.4.20 no enable password

Command

```
no enable password
```

Parameters

no
: Negate a command or set its defaults

enable
: Modify enable password parameters

password
: Assign the privileged level password

1.4.21 no hostname [HOSTNAME]

Command

```
no hostname [HOSTNAME]
```

Parameters

no
: Negate a command or set its defaults

hostname
: Reset system's network name

[HOSTNAME]
: Host name of this router

1.4.22 no log alarms

Command

```
no log alarms
```

Parameters

no
: Negate a command or set its defaults

log
: Configure logging sub-system

alarms
: Logging alarms to osmo_strrb

1.4.23 no log file .FILENAME

Command

```
no log file .FILENAME
```

Parameters

no
: Negate a command or set its defaults

log
: Configure logging sub-system

file
: Logging to text file

.FILENAME
: Filename

1.4.24 no log stderr

Command

```
no log stderr
```

Parameters

no
: Negate a command or set its defaults

log
: Configure logging sub-system

stderr
: Logging via STDERR of the process

1.4.25 no log syslog

Command

```
no log syslog
```

Parameters

no
: Negate a command or set its defaults

log
: Configure logging sub-system

syslog
: Logging via syslog

1.4.26 no service advanced-vty

Command

```
no service advanced-vty
```

Parameters

no
: Negate a command or set its defaults

service
: Set up miscellaneous service

advanced-vty
: Enable advanced mode vty interface

1.4.27 no service terminal-length [<0-512>]

Command

```
no service terminal-length [<0-512>]
```

Parameters

no
: Negate a command or set its defaults

service
: Set up miscellaneous service

terminal-length
: System wide terminal length configuration

[<0-512>]
: Number of lines of VTY (0 means no line control)

1.4.28 no stats reporter log

Command

```
no stats reporter log
```

Parameters

no
: Negate a command or set its defaults

stats
: Configure stats sub-system

reporter
: Configure a stats reporter

log
: Report to the logger

1.4.29 no stats reporter statsd

Command

```
no stats reporter statsd
```

Parameters

no
: Negate a command or set its defaults

stats
: Configure stats sub-system

reporter
: Configure a stats reporter

statsd
: Report to a STATSD server

1.4.30 password (8|) WORD

Command

```
password (8|) WORD
```

Parameters

password
: Assign the terminal connection password

8
: Specifies a HIDDEN password will follow

dummy string

WORD
: The HIDDEN line password string

1.4.31 password LINE

Command

```
password LINE
```

Parameters

password
: Assign the terminal connection password

LINE
: The UNENCRYPTED (cleartext) line password

1.4.32 service advanced-vty

Command

```
service advanced-vty
```

Parameters

service
: Set up miscellaneous service

advanced-vty
: Enable advanced mode vty interface

1.4.33 service terminal-length <0-512>

Command

```
service terminal-length <0-512>
```

Parameters

service
: Set up miscellaneous service

terminal-length
: System wide terminal length configuration

<0-512>
: Number of lines of VTY (0 means no line control)

1.4.34 show history

Command

```
show history
```

Parameters

show
: Show running system information

history
: Display the session command history

1.4.35 stats interval <1-65535>

Command

```
stats interval <1-65535>
```

Parameters

stats
: Configure stats sub-system

interval
: Set the reporting interval

<1-65535>
: Interval in seconds

1.4.36 stats reporter log

Command

```
stats reporter log
```

Parameters

stats
: Configure stats sub-system

reporter
: Configure a stats reporter

log
: Report to the logger

1.4.37 stats reporter statsd

Command

```
stats reporter statsd
```

Parameters

stats
: Configure stats sub-system

reporter
: Configure a stats reporter

statsd
: Report to a STATSD server

1.5 config-log

The log node is commonly available in all Osmocom programs and allows configuring logging to stderr and/or log files, including logging category and level filtering as well as output formatting options. Note that the 'logging enable' command is required to make logging commands available on the telnet VTY.

1.5.1 logging color (0|1)

Command

```
logging color (0|1)
```

Parameters

logging
: Configure logging

color
: Configure color-printing for log messages

0
: Don't use color for printing messages

1
: Use color for printing messages

1.5.2 logging filter all (0|1)

Disable/enable general log output on a given target. Typically, 'logging filter all 1' allows to see the usual log output on a given target. Setting to '0' can be useful when logging to the telnet VTY console: mute all log output to allow typing VTY commands on the telnet prompt without interference from log output; 'logging filter all 1' then re-enables logging in the same log output configuration as before. Some applications provide more specific filters, e.g. to log a given IMSI only. To employ such filters, set 'logging filter all 0' to disable general logging, and then enable a more specific filter instead.

Command

```
logging filter all (0|1)
```

Parameters

logging
: Configure logging

filter
: Filter log messages

all
: Do you want to log all messages?

0
: Only print messages matched by other filters

1
: Bypass filter and print all messages

1.5.3 logging filter imsi IMSI

Command

```
logging filter imsi IMSI
```

Parameters

logging
: Configure logging

filter
: Filter log messages

imsi
: Filter log messages by IMSI

IMSI
: IMSI to be used as filter

1.5.4 logging level (rll|mm|rr|rsl|nm|pag|meas|msc|ho|hodec|ref|nat|ctrl|filter|pcu|lc...

Command

```
logging level (rll|mm|rr|rsl|nm|pag|meas|msc|ho|hodec|ref|nat|ctrl|filter|pcu|lcls|chan ↩
    |ts|as|lglobal|llapd|linp|lmux|lmi|lmib|lsms|lctrl|lgtp|lstats|lgsup|loap|lss7| ↩
    lsccp|lsua|lm3ua|lmgcp|ljibuf) (debug|info|notice|error|fatal)
```

Parameters

logging
: Configure logging

level
: Set the log level for a specified category

rll
: A-bis Radio Link Layer (RLL)

mm
: Layer3 Mobility Management (MM)

rr
: Layer3 Radio Resource (RR)

rsl
: A-bis Radio Signalling Link (RSL)

nm
: A-bis Network Management / O&M (NM/OML)

pag
: Paging Subsystem

meas
: Radio Measurement Processing

msc
: Mobile Switching Center

ho
: Hand-Over Process

hodec
: Hand-Over Decision

ref
: Reference Counting

nat
: GSM 08.08 NAT/Multiplexer

ctrl
: Control interface

filter
: BSC/NAT IMSI based filtering

pcu
: PCU Interface

lcls
: Local Call, Local Switch

chan
: lchan FSM

ts
: timeslot FSM

as
: assignment FSM

lglobal
: Library-internal global log family

llapd
: LAPD in libosmogsm

linp
: A-bis Intput Subsystem

lmux
: A-bis B-Subchannel TRAU Frame Multiplex

lmi
: A-bis Input Driver for Signalling

lmib
: A-bis Input Driver for B-Channels (voice)

lsms
: Layer3 Short Message Service (SMS)

lctrl
: Control Interface

lgtp
: GPRS GTP library

lstats
: Statistics messages and logging

lgsup
: Generic Subscriber Update Protocol

loap
: Osmocom Authentication Protocol

lss7
: libosmo-sigtran Signalling System 7

lsccp
: libosmo-sigtran SCCP Implementation

lsua
: libosmo-sigtran SCCP User Adaptation

lm3ua
: libosmo-sigtran MTP3 User Adaptation

lmgcp
: libosmo-mgcp Media Gateway Control Protocol

ljibuf
: libosmo-netif Jitter Buffer

debug
: Log debug messages and higher levels

info
: Log informational messages and higher levels

notice
: Log noticeable messages and higher levels

error
: Log error messages and higher levels

fatal
: Log only fatal messages

1.5.5 logging level force-all (debug|info|notice|error|fatal)

Command

```
logging level force-all (debug|info|notice|error|fatal)
```

Parameters

logging
: Configure logging

level
: Set the log level for a specified category

force-all

Globally force all logging categories to a specific level. This is released by the 'no logging level force-all' command. Note: any 'logging level <category> <level>' commands will have no visible effect after this, until the forced level is released.

debug

Log debug messages and higher levels

info

Log informational messages and higher levels

notice

Log noticeable messages and higher levels

error

Log error messages and higher levels

fatal

Log only fatal messages

1.5.6 logging level set-all (debug|info|notice|error|fatal)

Command

```
logging level set-all (debug|info|notice|error|fatal)
```

Parameters

logging

Configure logging

level

Set the log level for a specified category

set-all

Once-off set all categories to the given log level. There is no single command to take back these changes -- each category is set to the given level, period.

debug

Log debug messages and higher levels

info

Log informational messages and higher levels

notice

Log noticeable messages and higher levels

error

Log error messages and higher levels

fatal

Log only fatal messages

1.5.7 logging print category (0|1)

Command

```
logging print category (0|1)
```

Parameters

logging
: Configure logging

print
: Log output settings

category
: Configure log message

0
: Don't prefix each log message

1
: Prefix each log message with category/subsystem name

1.5.8 logging print category-hex (0|1)

Command

```
logging print category-hex (0|1)
```

Parameters

logging
: Configure logging

print
: Log output settings

category-hex
: Configure log message

0
: Don't prefix each log message

1
: Prefix each log message with category/subsystem nr in hex ('<000b>')

1.5.9 logging print extended-timestamp (0|1)

Command

```
logging print extended-timestamp (0|1)
```

Parameters

logging
: Configure logging

print
: Log output settings

extended-timestamp
: Configure log message timestamping

0
: Don't prefix each log message

1
: Prefix each log message with current timestamp with YYYYMMDDhhmmssnnn

1.5.10 logging print file (0|1|basename) [last]

Command

```
logging print file (0|1|basename) [last]
```

Parameters

logging
: Configure logging

print
: Log output settings

file
: Configure log message

0
: Don't prefix each log message

1
: Prefix each log message with the source file and line

basename
: Prefix each log message with the source file's basename (strip leading paths) and line

[last]
: Log source file info at the end of a log line. If omitted, log source file info just before the log text.

1.5.11 logging print level (0|1)

Command

```
logging print level (0|1)
```

Parameters

logging
: Configure logging

print
: Log output settings

level
: Configure log message

0
: Don't prefix each log message

1
: Prefix each log message with the log level name

1.5.12 logging timestamp (0|1)

Command

```
logging timestamp (0|1)
```

Parameters

logging
: Configure logging

timestamp
: Configure log message timestamping

0
: Don't prefix each log message

1
: Prefix each log message with current timestamp

1.5.13 no logging level force-all

Command

```
no logging level force-all
```

Parameters

no
: Negate a command or set its defaults

logging
: Configure logging

level
: Set the log level for a specified category

force-all
: Release any globally forced log level set with 'logging level force-all <level>'

1.6 config-stats

1.6.1 disable

Command

```
disable
```

Parameters

disable
: Disable the reporter

1.6.2 enable

Command

```
enable
```

Parameters

enable
: Enable the reporter

1.6.3 level (global|peer|subscriber)

Command

```
level (global|peer|subscriber)
```

Parameters

level
: Set the maximum group level

global
: Report global groups only

peer
: Report global and network peer related groups

subscriber
: Report global, peer, and subscriber groups

1.6.4 local-ip ADDR

Command

```
local-ip ADDR
```

Parameters

local-ip
: Set the IP address to which we bind locally

ADDR
: IP Address

1.6.5 mtu <100-65535>

Command

```
mtu <100-65535>
```

Parameters

mtu
: Set the maximum packet size

<100-65535>
: Size in byte

1.6.6 no local-ip

Command

```
no local-ip
```

Parameters

no
: Negate a command or set its defaults

local-ip
: Set the IP address to which we bind locally

1.6.7 no mtu

Command

```
no mtu
```

Parameters

no
: Negate a command or set its defaults

mtu
: Set the maximum packet size

1.6.8 no prefix

Command

```
no prefix
```

Parameters

no
: Negate a command or set its defaults

prefix
: Set the item name prefix

1.6.9 prefix PREFIX

Command

```
prefix PREFIX
```

Parameters

prefix
: Set the item name prefix

PREFIX
: The prefix string

1.6.10 remote-ip ADDR

Command

```
remote-ip ADDR
```

Parameters

remote-ip
: Set the remote IP address to which we connect

ADDR
: IP Address

1.6.11 remote-port <1-65535>

Command

```
remote-port <1-65535>
```

Parameters

remote-port
: Set the remote port to which we connect

<1-65535>
: Remote port number

1.7 config-line

1.7.1 bind A.B.C.D

Command

```
bind A.B.C.D
```

Parameters

bind
: Accept VTY telnet connections on local interface

A.B.C.D
: Local interface IP address (default: 127.0.0.1)

1.7.2 login

Command

```
login
```

Parameters

login
: Enable password checking

1.7.3 no login

Command

```
no login
```

Parameters

no
: Negate a command or set its defaults

login
: Enable password checking

1.8 config-e1_input

1.8.1 e1_line <0-255> driver (misdn|misdn_lapd|dahdi|ipa|unixsocket)

Command

```
e1_line <0-255> driver (misdn|misdn_lapd|dahdi|ipa|unixsocket)
```

Parameters

e1_line
: Configure E1/T1/J1 Line

<0-255>
: Line Number

driver
: Set driver for this line

misdn
: mISDN supported E1 Card (kernel LAPD)

misdn_lapd
: mISDN supported E1 Card (userspace LAPD)

dahdi
: DAHDI supported E1/T1/J1 Card

ipa
: IPA TCP/IP input

unixsocket
: HSL TCP/IP input

1.8.2 e1_line <0-255> keepalive

Command

```
e1_line <0-255> keepalive
```

Parameters

e1_line
: Configure E1/T1/J1 Line

<0-255>
: Line Number

keepalive
: Enable keep-alive probing

1.8.3 e1_line <0-255> keepalive <1-300> <1-20> <1-300>

Command

```
e1_line <0-255> keepalive <1-300> <1-20> <1-300>
```

Parameters

e1_line
: Configure E1/T1/J1 Line

<0-255>
: Line Number

keepalive
: Enable keep-alive probing

<1-300>
: Idle interval in seconds before probes are sent

<1-20>
: Number of probes to sent

<1-300>
: Delay between probe packets in seconds

1.8.4 e1_line <0-255> name .LINE

Command

```
e1_line <0-255> name .LINE
```

Parameters

e1_line
: Configure E1/T1/J1 Line

<0-255>
: Line Number

name
: Set name for this line

.LINE
: Human readable name

1.8.5 e1_line <0-255> port <0-255>

Command

```
e1_line <0-255> port <0-255>
```

Parameters

e1_line
: Configure E1/T1/J1 Line

<0-255>
: Line Number

port
: Set physical port/span/card number

<0-255>
: E1/T1 Port/Span/Card number

1.8.6 e1_line <0-255> socket .SOCKET

Command

```
e1_line <0-255> socket .SOCKET
```

Parameters

e1_line
: Configure E1/T1/J1 Line

<0-255>
: Line Number

socket
: Set socket path for unixsocket

.SOCKET
: socket path

1.8.7 ipa bind A.B.C.D

Command

```
ipa bind A.B.C.D
```

Parameters

ipa
: ipa driver config

bind
: Set ipa local bind address

A.B.C.D
: Listen on this IP address (default 0.0.0.0)

1.8.8 no e1_line <0-255> keepalive

Command

```
no e1_line <0-255> keepalive
```

Parameters

no
: Negate a command or set its defaults

e1_line
: Configure E1/T1/J1 Line

<0-255>
: Line Number

keepalive
: Enable keep-alive probing

1.9 config-ctrl

1.9.1 bind A.B.C.D

Command

```
bind A.B.C.D
```

Parameters

bind
: Set bind address to listen for Control connections

A.B.C.D
: Local IP address (default 127.0.0.1)

1.10 config-cs7

1.10.1 as NAME (sua|m3ua|ipa)

Command

```
as NAME (sua|m3ua|ipa)
```

Parameters

as
: Configure an Application Server

NAME
: Name of the Application Server

sua
: SCCP User Adaptation

m3ua
: MTP3 User Adaptation

ipa
: IPA Multiplex (SCCP Lite)

1.10.2 asp NAME <0-65535> <0-65535> (sua|m3ua|ipa)

Command

```
asp NAME <0-65535> <0-65535> (sua|m3ua|ipa)
```

Parameters

asp
: Configure Application Server Process

NAME
: Name of ASP

<0-65535>
: Remote SCTP port number

<0-65535>
: Local SCTP port number

sua
: SCCP User Adaptation

m3ua
: MTP3 User Adaptation

ipa
: IPA Multiplex (SCCP Lite)

1.10.3 description .TEXT

Command

```
description .TEXT
```

Parameters

description
: Save human-readable description of the object

.TEXT
: Text until the end of the line

1.10.4 network-indicator (international | national | reserved | spare)

Command

```
network-indicator (international | national | reserved | spare)
```

Parameters

network-indicator
: Configure the Network Indicator

international
: International Network

national
: National Network

reserved
: Reserved Network

spare
: Spare Network

1.10.5 no as NAME

Command

```
no as NAME
```

Parameters

no
: Negate a command or set its defaults

as
: Disable Application Server

NAME
: Name of AS

1.10.6 no asp NAME

Command

```
no asp NAME
```

Parameters

no
: Negate a command or set its defaults

asp
: Disable Application Server Process

NAME
: Name of ASP

1.10.7 no sccp-address NAME

Command

```
no sccp-address NAME
```

Parameters

no
: Negate a command or set its defaults

sccp-address
: Delete an SCCP addressbook entry

NAME
: Name of the SCCP Address

1.10.8 point-code POINT_CODE

Command

```
point-code POINT_CODE
```

Parameters

point-code
: Configure the local Point Code

POINT_CODE
: Point Code

1.10.9 point-code delimiter (default|dash)

Command

```
point-code delimiter (default|dash)
```

Parameters

point-code
: Point Code

delimiter
: Configure Point Code Delimiter

default
: Use dot as delimiter

dash
: User dash as delimiter

1.10.10 point-code format <1-24> [<1-23>] [<1-22>]

Command

```
point-code format <1-24> [<1-23>] [<1-22>]
```

Parameters

point-code
: Point Code

format
: Configure Point Code Format

<1-24>
: Length of first PC component

[<1-23>]
: Length of second PC component

[<1-22>]
: Length of third PC component

1.10.11 point-code format default

Command

```
point-code format default
```

Parameters

point-code
: Point Code

format
: Configure Point Code Format

default
: Default Point Code Format (3.8.3)

1.10.12 sccp-address NAME

Command

```
sccp-address NAME
```

Parameters

sccp-address
: Create/Modify an SCCP addressbook entry

NAME
: Name of the SCCP Address

1.10.13 sccp-timer (conn_est|ias|iar|rel|repeat_rel|int|guard|reset|reassembly) <1-99999...

Command

```
sccp-timer (conn_est|ias|iar|rel|repeat_rel|int|guard|reset|reassembly) <1-999999>
```

Parameters

sccp-timer

Configure SCCP timer values, see ITU-T Q.714

conn_est

Waiting for connection confirm message, 1 to 2 minutes (default: 60)

ias

Send keep-alive: on an idle connection, delay before sending an Idle Timer message, 5 to 10 minutes (default: 420)

iar

Receive keep-alive: on an idle connection, delay until considering a connection as stale, 11 to 21 minutes (default: 900)

rel

Waiting for release complete message, 10 to 20 seconds (default: 10)

repeat_rel

Waiting for release complete message; or to repeat sending released message after the initial expiry, 10 to 20 seconds (default: 10)

int

Waiting for release complete message; or to release connection resources, freeze the LRN and alert a maintenance function after the initial expiry, extending to 1 minute (default: 60)

guard

Waiting to resume normal procedure for temporary connection sections during the restart procedure, 23 to 25 minutes (default: 1380)

reset

Waiting to release temporary connection section or alert maintenance function after reset request message is sent, 10 to 20 seconds (default: 10)

reassembly

Waiting to receive all the segments of the remaining segments, single segmented message after receiving the first segment, 10 to 20 seconds (default: 10)

<1-999999>

Timer value, in seconds

1.10.14 xua rkm routing-key-allocation (static-only|dynamic-permitted)

Command

```
xua rkm routing-key-allocation (static-only|dynamic-permitted)
```

Parameters

xua
: SIGTRAN xxxUA related

rkm
: Routing Key Management

routing-key-allocation
: Routing Key Management Allocation Policy

static-only
: Only static (pre-confgured) Routing Keys permitted

dynamic-permitted
: Dynamically allocate Routing Keys for what ASPs request

1.11 config-cs7-as

1.11.1 asp NAME

Command

```
asp NAME
```

Parameters

asp
: Specify that a given ASP is part of this AS

NAME
: Name of ASP to be added to AS

1.11.2 description .TEXT

Command

```
description .TEXT
```

Parameters

description
: Save human-readable description of the object

.TEXT
: Text until the end of the line

1.11.3 no asp NAME

Command

```
no asp NAME
```

Parameters

no
: Negate a command or set its defaults

asp
: Specify ASP to be removed from this AS

NAME
: Name of ASP to be removed

1.11.4 point-code override dpc PC

Command

```
point-code override dpc PC
```

Parameters

point-code
: Point Code Specific Features

override
: Override (force) a point-code to hard-coded value

dpc
: Override Source Point Code

PC
: Override Destination Point Code

1.11.5 qos-class <0-255>

Command

```
qos-class <0-255>
```

Parameters

qos-class
: Specity QoS Class of AS

<0-255>
: QoS Class of AS

1.11.6 recovery-timeout <1-2000>

Command

```
recovery-timeout <1-2000>
```

Parameters

recovery-timeout
: Specifies the recovery timeout value in milliseconds

<1-2000>
: Recovery Timeout in Milliseconds

1.11.7 routing-key RCONTEXT DPC

Command

```
routing-key RCONTEXT DPC
```

Parameters

routing-key
: Define a routing key

RCONTEXT
: Routing context number

DPC
: Destination Point Code

1.11.8 routing-key RCONTEXT DPC si (aal2|bicc|b-isup|h248|isup|sat-isup|sccp|tup)

Command

```
routing-key RCONTEXT DPC si (aal2|bicc|b-isup|h248|isup|sat-isup|sccp|tup)
```

Parameters

routing-key
: Define a routing key

RCONTEXT
: Routing context number

DPC
: Destination Point Code

si
: Match on Service Indicator

aal2
: ATM Adaption Layer 2

bicc
: Bearer Independent Call Control

b-isup
: Broadband ISDN User Part

h248
: H.248

isup
: ISDN User Part

sat-isup
: Sattelite ISDN User Part

sccp
: Signalling Connection Control Part

tup
: Telephony User Part

1.11.9 routing-key RCONTEXT DPC si (aal2|bicc|b-isup|h248|isup|sat-isup|sccp|tup) ssn S...

Command

```
routing-key RCONTEXT DPC si (aal2|bicc|b-isup|h248|isup|sat-isup|sccp|tup) ssn SSN
```

Parameters

routing-key
: Define a routing key

RCONTEXT
: Routing context number

DPC
: Destination Point Code

si
: Match on Service Indicator

aal2
: ATM Adaption Layer 2

bicc
: Bearer Independent Call Control

b-isup
: Broadband ISDN User Part

h248
: H.248

isup
: ISDN User Part

sat-isup
: Sattelite ISDN User Part

sccp
: Signalling Connection Control Part

tup
: Telephony User Part

ssn
: Match on Sub-System Number

SSN
: Sub-System Number to match on

1.11.10 routing-key RCONTEXT DPC ssn SSN

Command

```
routing-key RCONTEXT DPC ssn SSN
```

Parameters

routing-key
: Define a routing key

RCONTEXT
: Routing context number

DPC
: Destination Point Code

ssn
: Match on Sub-System Number

SSN
: Sub-System Number to match on

1.11.11 traffic-mode (broadcast | loadshare | roundrobin | override)

Command

```
traffic-mode (broadcast | loadshare | roundrobin | override)
```

Parameters

traffic-mode
: Specifies traffic mode of operation of the ASP within the AS

broadcast
: Broadcast to all ASP within AS

loadshare
: Share Load among all ASP within AS

roundrobin
: Round-Robin between all ASP within AS

override
: Override

1.12 config-cs7-asp

1.12.1 block

Command

```
block
```

Parameters

block
: Allows a SCTP Association with ASP, but doesn't let it become active

1.12.2 description .TEXT

Command

```
description .TEXT
```

Parameters

description
: Save human-readable description of the object

.TEXT
: Text until the end of the line

1.12.3 local-ip A.B.C.D

Command

```
local-ip A.B.C.D
```

Parameters

local-ip
: Specify Local IP Address from which to contact ASP

A.B.C.D
: Local IP Address from which to contact of ASP

1.12.4 qos-class <0-255>

Command

```
qos-class <0-255>
```

Parameters

qos-class
: Specify QoS Class of ASP

<0-255>
: QoS Class of ASP

1.12.5 remote-ip A.B.C.D

Command

```
remote-ip A.B.C.D
```

Parameters

remote-ip
: Specify Remote IP Address of ASP

A.B.C.D
: Remote IP Address of ASP

1.12.6 shutdown

Command

```
shutdown
```

Parameters

shutdown
: Terminates SCTP association; New associations will be rejected

1.13 config-cs7-sccpaddr

1.13.1 global-title

Command

```
global-title
```

Parameters

global-title
: Add/Modify Global Title

1.13.2 no global-title

Command

```
no global-title
```

Parameters

no
: Negate a command or set its defaults

global-title
: Remove Global Title

1.13.3 no point-code

Command

```
no point-code
```

Parameters

no
: Negate a command or set its defaults

point-code
: Remove point-code Number

1.13.4 no subsystem-number

Command

```
no subsystem-number
```

Parameters

no
: Negate a command or set its defaults

subsystem-number
: Remove Subsystem Number

1.13.5 point-code POINT_CODE

Command

```
point-code POINT_CODE
```

Parameters

point-code
: Add point-code Number

POINT_CODE
: PC

1.13.6 routing-indicator (GT|PC|IP)

Command

```
routing-indicator (GT|PC|IP)
```

Parameters

routing-indicator
: Add Routing Indicator

GT
: by global-title

PC
: by point-code

IP
: by ip-address

1.13.7 subsystem-number <0-4294967295>

Command

```
subsystem-number <0-4294967295>
```

Parameters

subsystem-number
: Add Subsystem Number

<0-4294967295>
: SSN

1.14 config-cs7-sccpaddr-gt

1.14.1 digits DIGITS

Command

```
digits DIGITS
```

Parameters

digits
: Set Global Title Digits

DIGITS
: Number digits

1.14.2 global-title-indicator <0-15>

Command

```
global-title-indicator <0-15>
```

Parameters

global-title-indicator
Set Global Title Indicator

<0-15>
GTI

1.14.3 nature-of-address-indicator <0-127>

Command

```
nature-of-address-indicator <0-127>
```

Parameters

nature-of-address-indicator
Set Global Title Nature of Address Indicator

<0-127>
NAI

1.14.4 numbering-plan-indicator <0-15>

Command

```
numbering-plan-indicator <0-15>
```

Parameters

numbering-plan-indicator
Set Global Title Numbering Plan Indicator

<0-15>
NPI

1.14.5 translation-type <0-255>

Command

```
translation-type <0-255>
```

Parameters

translation-type
Set Global Title Translation Type

<0-255>
TT

1.15 config-net

1.15.1 bts <0-255>

Command

```
bts <0-255>
```

Parameters

bts
: Select a BTS to configure

<0-255>
: BTS Number

1.15.2 encryption a5 <0-3> [<0-3>] [<0-3>] [<0-3>]

Command

```
encryption a5 <0-3> [<0-3>] [<0-3>] [<0-3>]
```

Parameters

encryption
: Encryption options

a5
: GSM A5 Air Interface Encryption

<0-3>
: A5/n Algorithm Number

[<0-3>]
: A5/n Algorithm Number

[<0-3>]
: A5/n Algorithm Number

[<0-3>]
: A5/n Algorithm Number

1.15.3 handover (0|1|default)

Command

```
handover (0|1|default)
```

Parameters

handover
: Handover general config

0
: Disable in-call handover

1
: Enable in-call handover

default
: Enable/disable handover: Use default (0), remove explicit setting on this node

1.15.4 handover algorithm (1|2|default)

Command

```
handover algorithm (1|2|default)
```

Parameters

handover
: Handover general config

algorithm
: Choose algorithm for handover decision

1
: Algorithm 1: trigger handover based on comparing current cell and neighbor RxLev and RxQual, only.

2
: Algorithm 2: trigger handover on RxLev/RxQual, and also to balance the load across several cells. Consider available codecs. Prevent repeated handover by penalty timers.

default
: Use default (1), remove explicit setting on this node

1.15.5 handover1 maximum distance (<0-9999>|default)

Command

```
handover1 maximum distance (<0-9999>|default)
```

Parameters

handover1
: Handover options for handover decision algorithm 1

maximum
: Maximum Timing-Advance value (i.e. MS distance) before triggering HO

distance
: Maximum Timing-Advance value (i.e. MS distance) before triggering HO

<0-9999>
: Maximum Timing-Advance value (i.e. MS distance) before triggering HO

default
: Use default (9999), remove explicit setting on this node

1.15.6 handover1 power budget hysteresis (<0-999>|default)

Command

```
handover1 power budget hysteresis (<0-999>|default)
```

Parameters

handover1
: Handover options for handover decision algorithm 1

power
: Neighbor cell power triggering

budget
: Neighbor cell power triggering

hysteresis
: How many dB stronger must a neighbor be to become a HO candidate

<0-999>
: Neighbor's strength difference in dB

default
: Use default (3), remove explicit setting on this node

1.15.7 handover1 power budget interval (<1-99>|default)

Command

```
handover1 power budget interval (<1-99>|default)
```

Parameters

handover1
: Handover options for handover decision algorithm 1

power
: Neighbor cell power triggering

budget
: Neighbor cell power triggering

interval
: How often to check for a better cell (SACCH frames)

<1-99>
: Check for stronger neighbor every N number of SACCH frames

default
: Use default (6), remove explicit setting on this node

1.15.8 handover1 window rxlev averaging (<1-10>|default)

Command

```
handover1 window rxlev averaging (<1-10>|default)
```

Parameters

handover1
: Handover options for handover decision algorithm 1

window
: Measurement averaging settings

rxlev
: Received-Level averaging

averaging
: How many RxLev measurements are used for averaging

<1-10>
: RxLev averaging: Number of values to average over

default
: Use default (10), remove explicit setting on this node

1.15.9 handover1 window rxlev neighbor averaging (<1-10>|default)

Command

```
handover1 window rxlev neighbor averaging (<1-10>|default)
```

Parameters

handover1
: Handover options for handover decision algorithm 1

window
: Measurement averaging settings

rxlev
: Received-Level averaging

neighbor
: How many Neighbor RxLev measurements are used for averaging

averaging
: How many Neighbor RxLev measurements are used for averaging

<1-10>
: Neighbor RxLev averaging: Number of values to average over

default
: Use default (10), remove explicit setting on this node

1.15.10 handover1 window rxqual averaging (<1-10>|default)

Command

```
handover1 window rxqual averaging (<1-10>|default)
```

Parameters

handover1
: Handover options for handover decision algorithm 1

window
: Measurement averaging settings

rxqual
: Received-Quality averaging

averaging
: How many RxQual measurements are used for averaging

<1-10>
: RxQual averaging: Number of values to average over

default
: Use default (1), remove explicit setting on this node

1.15.11 handover2 afs-bias rxlev (<0-20>|default)

Command

```
handover2 afs-bias rxlev (<0-20>|default)
```

Parameters

handover2
: Handover options for handover decision algorithm 2

afs-bias
: Configure bias to prefer AFS (AMR on TCH/F) over other codecs

rxlev
: RxLev improvement bias for AFS over other codecs

<0-20>
: Virtual RxLev improvement (dB)

default
: Use default (0), remove explicit setting on this node

1.15.12 handover2 afs-bias rxqual (<0-7>|default)

Command

```
handover2 afs-bias rxqual (<0-7>|default)
```

Parameters

handover2
: Handover options for handover decision algorithm 2

afs-bias
: Configure bias to prefer AFS (AMR on TCH/F) over other codecs

rxqual
: RxQual improvement bias for AFS over other codecs

<0-7>
: Virtual RxQual improvement

default
: Use default (0), remove explicit setting on this node

1.15.13 handover2 assignment (0|1|default)

Command

```
handover2 assignment (0|1|default)
```

Parameters

handover2
: Handover options for handover decision algorithm 2

assignment
: Enable or disable in-call channel re-assignment

0
: Disable in-call assignment

1
: Enable in-call assignment

default
: Use default (0), remove explicit setting on this node

1.15.14 handover2 congestion-check (disabled|<1-999>|now)

Command

```
handover2 congestion-check (disabled|<1-999>|now)
```

Parameters

handover2
: Handover options for handover decision algorithm 2

congestion-check
: Configure congestion check interval

disabled
: Disable congestion checking, do not handover based on cell overload

<1-999>
: Congestion check interval in seconds (default 10)

now
: Manually trigger a congestion check to run right now

1.15.15 handover2 max-handovers (<1-9999>|default)

Command

```
handover2 max-handovers (<1-9999>|default)
```

Parameters

handover2
: Handover options for handover decision algorithm 2

max-handovers
: Maximum number of concurrent handovers allowed per cell

<1-9999>
: Number

default
: Use default (9999), remove explicit setting on this node

1.15.16 handover2 maximum distance (<0-9999>|default)

Command

```
handover2 maximum distance (<0-9999>|default)
```

Parameters

handover2
: Handover options for handover decision algorithm 2

maximum
: Maximum Timing-Advance value (i.e. MS distance) before triggering HO

distance
: Maximum Timing-Advance value (i.e. MS distance) before triggering HO

<0-9999>
: Maximum Timing-Advance value (i.e. MS distance) before triggering HO

default
: Use default (9999), remove explicit setting on this node

1.15.17 handover2 min rxlev (<-110--50>|default)

Command

```
handover2 min rxlev (<-110--50>|default)
```

Parameters

handover2
: Handover options for handover decision algorithm 2

min
: Minimum Level/Quality thresholds before triggering HO

rxlev
: How weak may RxLev of an MS become before triggering HO

<-110--50>
: minimum RxLev (dBm)

default
: Use default (-100), remove explicit setting on this node

1.15.18 handover2 min rxqual (<0-7>|default)

Command

```
handover2 min rxqual (<0-7>|default)
```

Parameters

handover2
: Handover options for handover decision algorithm 2

min
: Minimum Level/Quality thresholds before triggering HO

rxqual
: How bad may RxQual of an MS become before triggering HO

<0-7>
: minimum RxQual

default
: Use default (5), remove explicit setting on this node

1.15.19 handover2 min-free-slots tch/f (<0-9999>|default)

Command

```
handover2 min-free-slots tch/f (<0-9999>|default)
```

Parameters

handover2
: Handover options for handover decision algorithm 2

min-free-slots
: Minimum free TCH timeslots before cell is considered congested

tch/f
: Minimum free TCH/F timeslots before cell is considered congested

<0-9999>
: Number of TCH/F slots

default
: Use default (0), remove explicit setting on this node

1.15.20 handover2 min-free-slots tch/h (<0-9999>|default)

Command

```
handover2 min-free-slots tch/h (<0-9999>|default)
```

Parameters

handover2
: Handover options for handover decision algorithm 2

min-free-slots
: Minimum free TCH timeslots before cell is considered congested

tch/h
: Minimum free TCH/H timeslots before cell is considered congested

<0-9999>
: Number of TCH/H slots

default
: Use default (0), remove explicit setting on this node

1.15.21 handover2 penalty-time failed-assignment (<0-99999>|default)

Command

```
handover2 penalty-time failed-assignment (<0-99999>|default)
```

Parameters

handover2
: Handover options for handover decision algorithm 2

penalty-time
: Set penalty times to wait between repeated handovers

failed-assignment
: Time to suspend handovers after assignment failure in this cell

<0-99999>
: Seconds

default
: Use default (60), remove explicit setting on this node

1.15.22 handover2 penalty-time failed-ho (<0-99999>|default)

Command

```
handover2 penalty-time failed-ho (<0-99999>|default)
```

Parameters

handover2
: Handover options for handover decision algorithm 2

penalty-time
: Set penalty times to wait between repeated handovers

failed-ho
: Time to suspend handovers after handover failure to this cell

<0-99999>
: Seconds

default
: Use default (60), remove explicit setting on this node

1.15.23 handover2 penalty-time max-distance (<0-99999>|default)

Command

```
handover2 penalty-time max-distance (<0-99999>|default)
```

Parameters

handover2
: Handover options for handover decision algorithm 2

penalty-time
: Set penalty times to wait between repeated handovers

max-distance
: Time to suspend handovers after leaving this cell due to exceeding max distance

<0-99999>
: Seconds

default
: Use default (300), remove explicit setting on this node

1.15.24 handover2 power budget hysteresis (<0-999>|default)

Command

```
handover2 power budget hysteresis (<0-999>|default)
```

Parameters

handover2
: Handover options for handover decision algorithm 2

power
: Neighbor cell power triggering

budget
: Neighbor cell power triggering

hysteresis
: How many dB stronger must a neighbor be to become a HO candidate

<0-999>
: Neighbor’s strength difference in dB

default
: Use default (3), remove explicit setting on this node

1.15.25 handover2 power budget interval (<1-99>|default)

Command

```
handover2 power budget interval (<1-99>|default)
```

Parameters

handover2
: Handover options for handover decision algorithm 2

power
: Neighbor cell power triggering

budget
: Neighbor cell power triggering

interval
: How often to check for a better cell (SACCH frames)

<1-99>
: Check for stronger neighbor every N number of SACCH frames

default
: Use default (6), remove explicit setting on this node

1.15.26 handover2 retries (<0-9>|default)

Command

```
handover2 retries (<0-9>|default)
```

Parameters

handover2
: Handover options for handover decision algorithm 2

retries
: Immediately retry on handover/assignment failure

<0-9>
: Number of retries

default
: Use default (0), remove explicit setting on this node

1.15.27 handover2 tdma-measurement (full|subset|default)

Command

```
handover2 tdma-measurement (full|subset|default)
```

Parameters

handover2
: Handover options for handover decision algorithm 2

tdma-measurement
: Define measurement set of TDMA frames

full
: Full set of 102/104 TDMA frames

subset
: Sub set of 4 TDMA frames (SACCH)

default
: Use default (subset), remove explicit setting on this node

1.15.28 handover2 window rxlev averaging (<1-10>|default)

Command

```
handover2 window rxlev averaging (<1-10>|default)
```

Parameters

handover2
: Handover options for handover decision algorithm 2

window
: Measurement averaging settings

rxlev
: Received-Level averaging

averaging
: How many RxLev measurements are used for averaging

<1-10>
: RxLev averaging: Number of values to average over

default
: Use default (10), remove explicit setting on this node

1.15.29 handover2 window rxlev neighbor averaging (<1-10>|default)

Command

```
handover2 window rxlev neighbor averaging (<1-10>|default)
```

Parameters

handover2
: Handover options for handover decision algorithm 2

window
: Measurement averaging settings

rxlev
: Received-Level averaging

neighbor
: How many Neighbor RxLev measurements are used for averaging

averaging
: How many Neighbor RxLev measurements are used for averaging

<1-10>
: Neighbor RxLev averaging: Number of values to average over

default
: Use default (10), remove explicit setting on this node

1.15.30 handover2 window rxqual averaging (<1-10>|default)

Command

```
handover2 window rxqual averaging (<1-10>|default)
```

Parameters

handover2
: Handover options for handover decision algorithm 2

window
: Measurement averaging settings

rxqual
: Received-Quality averaging

averaging
: How many RxQual measurements are used for averaging

<1-10>
: RxQual averaging: Number of values to average over

default
: Use default (1), remove explicit setting on this node

1.15.31 meas-feed destination ADDR <0-65535>

Command

```
meas-feed destination ADDR <0-65535>
```

Parameters

meas-feed
: Measurement Report export

destination
: Where to forward Measurement Report feeds

ADDR
: address or hostname

<0-65535>
: port number

1.15.32 meas-feed scenario NAME

Command

```
meas-feed scenario NAME
```

Parameters

meas-feed
: Measurement Report export

scenario
: Set a name to include in the Measurement Report feeds

NAME
: Name string, up to 31 characters

1.15.33 mobile network code <0-999>

Command

```
mobile network code <0-999>
```

Parameters

mobile
: Set the GSM mobile network code

network
: Network Commands

code
: Code commands

<0-999>
: Mobile Network Code to use

1.15.34 neci (0|1)

Command

```
neci (0|1)
```

Parameters

neci
: New Establish Cause Indication

0
: Don't set the NECI bit

1
: Set the NECI bit

1.15.35 network country code <1-999>

Command

```
network country code <1-999>
```

Parameters

network
: Set the GSM network country code

country
: Country commands

code
: Code commands

<1-999>
: Network Country Code to use

1.15.36 no periodic location update

Command

```
no periodic location update
```

Parameters

no
: Negate a command or set its defaults

periodic
: Periodic Location Updating Interval

location
: Periodic Location Updating Interval

update
: Periodic Location Updating Interval

1.15.37 no timezone

Command

```
no timezone
```

Parameters

no
: Negate a command or set its defaults

timezone
: Disable network timezone override, use system tz

1.15.38 paging any use tch (0|1)

Command

```
paging any use tch (0|1)
```

Parameters

paging
: Assign a TCH when receiving a Paging Any request

any
: Any Channel

use
: Use

tch
: TCH

0
: Do not use TCH for Paging Request Any

1
: Do use TCH for Paging Request Any

1.15.39 periodic location update <6-1530>

Command

```
periodic location update <6-1530>
```

Parameters

periodic
: Periodic Location Updating Interval

location
: Periodic Location Updating Interval

update
: Periodic Location Updating Interval

<6-1530>
: Periodic Location Updating Interval in Minutes

1.15.40 timer TNNNN (default|<1-65535>)

Command

```
timer TNNNN (default|<1-65535>)
```

Parameters

timer
: Configure GSM Timers

TNNNN
: T-number, optionally preceded by ’t’ or ’T’.See also ’show timer’ for a list of available timers.

default
: Set to default timer value

<1-65535>
: Timer value

1.15.41 timezone <-19-19> (0|15|30|45)

Command

```
timezone <-19-19> (0|15|30|45)
```

Parameters

timezone
: Set the Timezone Offset of the network

<-19-19>
: Timezone offset (hours)

0
: Timezone offset (00 minutes)

15
: Timezone offset (15 minutes)

30
: Timezone offset (30 minutes)

45
: Timezone offset (45 minutes)

1.15.42 timezone <-19-19> (0|15|30|45) <0-2>

Command

```
timezone <-19-19> (0|15|30|45) <0-2>
```

Parameters

timezone
: Set the Timezone Offset of the network

<-19-19>
: Timezone offset (hours)

0
: Timezone offset (00 minutes)

15
: Timezone offset (15 minutes)

30
: Timezone offset (30 minutes)

45
: Timezone offset (45 minutes)

<0-2>
: DST offset (hours)

1.16 config-net-bts

1.16.1 abis-lower-transport (single-timeslot|super-channel)

Command

```
abis-lower-transport (single-timeslot|super-channel)
```

Parameters

abis-lower-transport
: Configure thee Abis Lower Transport

single-timeslot
: Single Timeslot (classic Abis)

super-channel
: SuperChannel (Packet Abis)

1.16.2 access-control-class-ramping

Command

```
access-control-class-ramping
```

Parameters

access-control-class-ramping
: Enable Access Control Class ramping

1.16.3 access-control-class-ramping-step-interval (<30-600>|dynamic)

Command

```
access-control-class-ramping-step-interval (<30-600>|dynamic)
```

Parameters

access-control-class-ramping-step-interval
: Configure Access Control Class ramping step interval

<30-600>
: Set a fixed step interval (in seconds)

dynamic
: Use dynamic step interval based on BTS channel load

1.16.4 access-control-class-ramping-step-size (<1-10>)

Command

```
access-control-class-ramping-step-size (<1-10>)
```

Parameters

access-control-class-ramping-step-size
: Configure Access Control Class ramping step size

<1-10>
: Set the number of Access Control Classes to enable per ramping step

1.16.5 amr tch-f hysteresis (ms|bts) <0-15>

Command

```
amr tch-f hysteresis (ms|bts) <0-15>
```

Parameters

amr
: Adaptive Multi Rate settings

tch-f
: Full Rate

hysteresis
: AMR hysteresis between codecs

ms
: MS side

bts
: BTS side

<0-15>
: Hysteresis between codec 1 and 2

1.16.6 amr tch-f hysteresis (ms|bts) <0-15> <0-15>

Command

```
amr tch-f hysteresis (ms|bts) <0-15> <0-15>
```

Parameters

amr
: Adaptive Multi Rate settings

tch-f
: Full Rate

hysteresis
: AMR hysteresis between codecs

ms
: MS side

bts
: BTS side

<0-15>
: Hysteresis between codec 1 and 2

<0-15>
: Hysteresis between codec 1 and 2

1.16.7 amr tch-f hysteresis (ms|bts) <0-15> <0-15> <0-15>

Command

```
amr tch-f hysteresis (ms|bts) <0-15> <0-15> <0-15>
```

Parameters

amr
: Adaptive Multi Rate settings

tch-f
: Full Rate

hysteresis
: AMR hysteresis between codecs

ms
: MS side

bts
: BTS side

<0-15>
: Hysteresis between codec 1 and 2

<0-15>
: Hysteresis between codec 1 and 2

<0-15>
: Hysteresis between codec 1 and 2

1.16.8 amr tch-f modes (0|1|2|3|4|5|6|7)

Command

```
amr tch-f modes (0|1|2|3|4|5|6|7)
```

Parameters

amr
: Adaptive Multi Rate settings

tch-f
: Full Rate

modes
: Codec modes to use with AMR codec

0
: 4,75k

1
: 5,15k

2
5,90k
3
6,70k
4
7,40k
5
7,95k
6
10,2k
7
12,2k

1.16.9 amr tch-f modes (0|1|2|3|4|5|6|7) (0|1|2|3|4|5|6|7)

Command

```
amr tch-f modes (0|1|2|3|4|5|6|7) (0|1|2|3|4|5|6|7)
```

Parameters

amr
Adaptive Multi Rate settings
tch-f
Full Rate
modes
Codec modes to use with AMR codec
0
4,75k
1
5,15k
2
5,90k
3
6,70k
4
7,40k
5
7,95k
6
10,2k

7
: 12,2k

0
: 4,75k

1
: 5,15k

2
: 5,90k

3
: 6,70k

4
: 7,40k

5
: 7,95k

6
: 10,2k

7
: 12,2k

1.16.10 amr tch-f modes (0|1|2|3|4|5|6|7) (0|1|2|3|4|5|6|7) (0|1|2|3|4|5|6|7)

Command

```
amr tch-f modes (0|1|2|3|4|5|6|7) (0|1|2|3|4|5|6|7) (0|1|2|3|4|5|6|7)
```

Parameters

amr
: Adaptive Multi Rate settings

tch-f
: Full Rate

modes
: Codec modes to use with AMR codec

0
: 4,75k

1
: 5,15k

2
: 5,90k

3
: 6,70k

4
7,40k
5
7,95k
6
10,2k
7
12,2k
0
4,75k
1
5,15k
2
5,90k
3
6,70k
4
7,40k
5
7,95k
6
10,2k
7
12,2k
0
4,75k
1
5,15k
2
5,90k
3
6,70k
4
7,40k
5
7,95k
6
10,2k
7
12,2k

1.16.11 amr tch-f modes (0|1|2|3|4|5|6|7) (0|1|2|3|4|5|6|7) (0|1|2|3|4|5|6|7) (0|1|2|3|4...

Command

```
amr tch-f modes (0|1|2|3|4|5|6|7) (0|1|2|3|4|5|6|7) (0|1|2|3|4|5|6|7) (0|1|2|3|4|5|6|7)
```

Parameters

amr
: Adaptive Multi Rate settings

tch-f
: Full Rate

modes
: Codec modes to use with AMR codec

0
: 4,75k

1
: 5,15k

2
: 5,90k

3
: 6,70k

4
: 7,40k

5
: 7,95k

6
: 10,2k

7
: 12,2k

0
: 4,75k

1
: 5,15k

2
: 5,90k

3
: 6,70k

4
: 7,40k

5
7,95k
6
10,2k
7
12,2k
0
4,75k
1
5,15k
2
5,90k
3
6,70k
4
7,40k
5
7,95k
6
10,2k
7
12,2k
0
4,75k
1
5,15k
2
5,90k
3
6,70k
4
7,40k
5
7,95k
6
10,2k
7
12,2k

1.16.12 amr tch-f start-mode (auto|1|2|3|4)

Command

```
amr tch-f start-mode (auto|1|2|3|4)
```

Parameters

amr
: Adaptive Multi Rate settings

tch-f
: Full Rate

start-mode
: Initial codec to use with AMR

auto
: Automatically

1
: First codec

2
: Second codec

3
: Third codec

4
: Fourth codec

1.16.13 amr tch-f threshold (ms|bts) <0-63>

Command

```
amr tch-f threshold (ms|bts) <0-63>
```

Parameters

amr
: Adaptive Multi Rate settings

tch-f
: Full Rate

threshold
: AMR threshold between codecs

ms
: MS side

bts
: BTS side

<0-63>
: Threshold between codec 1 and 2

1.16.14 amr tch-f threshold (ms|bts) <0-63> <0-63>

Command

```
amr tch-f threshold (ms|bts) <0-63> <0-63>
```

Parameters

amr
: Adaptive Multi Rate settings

tch-f
: Full Rate

threshold
: AMR threshold between codecs

ms
: MS side

bts
: BTS side

<0-63>
: Threshold between codec 1 and 2

<0-63>
: Threshold between codec 1 and 2

1.16.15 amr tch-f threshold (ms|bts) <0-63> <0-63> <0-63>

Command

```
amr tch-f threshold (ms|bts) <0-63> <0-63> <0-63>
```

Parameters

amr
: Adaptive Multi Rate settings

tch-f
: Full Rate

threshold
: AMR threshold between codecs

ms
: MS side

bts
: BTS side

<0-63>
: Threshold between codec 1 and 2

<0-63>
Threshold between codec 1 and 2

<0-63>
Threshold between codec 1 and 2

1.16.16 amr tch-h hysteresis (ms|bts) <0-15>

Command

```
amr tch-h hysteresis (ms|bts) <0-15>
```

Parameters

amr
Adaptive Multi Rate settings

tch-h
Half Rate

hysteresis
AMR hysteresis between codecs

ms
MS side

bts
BTS side

<0-15>
Hysteresis between codec 1 and 2

1.16.17 amr tch-h hysteresis (ms|bts) <0-15> <0-15>

Command

```
amr tch-h hysteresis (ms|bts) <0-15> <0-15>
```

Parameters

amr
Adaptive Multi Rate settings

tch-h
Half Rate

hysteresis
AMR hysteresis between codecs

ms
MS side

bts
: BTS side

<0-15>
: Hysteresis between codec 1 and 2

<0-15>
: Hysteresis between codec 1 and 2

1.16.18 amr tch-h hysteresis (ms|bts) <0-15> <0-15> <0-15>

Command

```
amr tch-h hysteresis (ms|bts) <0-15> <0-15> <0-15>
```

Parameters

amr
: Adaptive Multi Rate settings

tch-h
: Half Rate

hysteresis
: AMR hysteresis between codecs

ms
: MS side

bts
: BTS side

<0-15>
: Hysteresis between codec 1 and 2

<0-15>
: Hysteresis between codec 1 and 2

<0-15>
: Hysteresis between codec 1 and 2

1.16.19 amr tch-h modes (0|1|2|3|4|5)

Command

```
amr tch-h modes (0|1|2|3|4|5)
```

Parameters

amr
: Adaptive Multi Rate settings

tch-h
: Half Rate

modes
: Codec modes to use with AMR codec

0
: 4,75k

1
: 5,15k

2
: 5,90k

3
: 6,70k

4
: 7,40k

5
: 7,95k

1.16.20 amr tch-h modes (0|1|2|3|4|5) (0|1|2|3|4|5)

Command

```
amr tch-h modes (0|1|2|3|4|5) (0|1|2|3|4|5)
```

Parameters

amr
: Adaptive Multi Rate settings

tch-h
: Half Rate

modes
: Codec modes to use with AMR codec

0
: 4,75k

1
: 5,15k

2
: 5,90k

3
: 6,70k

4
: 7,40k

5
: 7,95k

0
: 4,75k

1
: 5,15k

2
: 5,90k

3
: 6,70k

4
: 7,40k

5
: 7,95k

1.16.21 amr tch-h modes (0|1|2|3|4|5) (0|1|2|3|4|5) (0|1|2|3|4|5)

Command

```
amr tch-h modes (0|1|2|3|4|5) (0|1|2|3|4|5) (0|1|2|3|4|5)
```

Parameters

amr
: Adaptive Multi Rate settings

tch-h
: Half Rate

modes
: Codec modes to use with AMR codec

0
: 4,75k

1
: 5,15k

2
: 5,90k

3
: 6,70k

4
: 7,40k

5
: 7,95k

0
: 4,75k

1
: 5,15k

2
: 5,90k

3
: 6,70k

4
: 7,40k

5
: 7,95k

0
: 4,75k

1
: 5,15k

2
: 5,90k

3
: 6,70k

4
: 7,40k

5
: 7,95k

1.16.22 amr tch-h modes (0|1|2|3|4|5) (0|1|2|3|4|5) (0|1|2|3|4|5) (0|1|2|3|4|5)

Command

```
amr tch-h modes (0|1|2|3|4|5) (0|1|2|3|4|5) (0|1|2|3|4|5) (0|1|2|3|4|5)
```

Parameters

amr
: Adaptive Multi Rate settings

tch-h
: Half Rate

modes
: Codec modes to use with AMR codec

0
: 4,75k

1
5,15k
2
5,90k
3
6,70k
4
7,40k
5
7,95k
0
4,75k
1
5,15k
2
5,90k
3
6,70k
4
7,40k
5
7,95k
0
4,75k
1
5,15k
2
5,90k
3
6,70k
4
7,40k
5
7,95k
0
4,75k
1
5,15k

2
: 5,90k

3
: 6,70k

4
: 7,40k

5
: 7,95k

1.16.23 amr tch-h start-mode (auto|1|2|3|4)

Command

```
amr tch-h start-mode (auto|1|2|3|4)
```

Parameters

amr
: Adaptive Multi Rate settings

tch-h
: Half Rate

start-mode
: Initial codec to use with AMR

auto
: Automatically

1
: First codec

2
: Second codec

3
: Third codec

4
: Fourth codec

1.16.24 amr tch-h threshold (ms|bts) <0-63>

Command

```
amr tch-h threshold (ms|bts) <0-63>
```

Parameters

amr
: Adaptive Multi Rate settings

tch-h
: Half Rate

threshold
: AMR threshold between codecs

ms
: MS side

bts
: BTS side

<0-63>
: Threshold between codec 1 and 2

1.16.25 amr tch-h threshold (ms|bts) <0-63> <0-63>

Command

```
amr tch-h threshold (ms|bts) <0-63> <0-63>
```

Parameters

amr
: Adaptive Multi Rate settings

tch-h
: Half Rate

threshold
: AMR threshold between codecs

ms
: MS side

bts
: BTS side

<0-63>
: Threshold between codec 1 and 2

<0-63>
: Threshold between codec 1 and 2

1.16.26 amr tch-h threshold (ms|bts) <0-63> <0-63> <0-63>

Command

```
amr tch-h threshold (ms|bts) <0-63> <0-63> <0-63>
```

Parameters

amr
: Adaptive Multi Rate settings

tch-h
: Half Rate

threshold
: AMR threshold between codecs

ms
: MS side

bts
: BTS side

<0-63>
: Threshold between codec 1 and 2

<0-63>
: Threshold between codec 1 and 2

<0-63>
: Threshold between codec 1 and 2

1.16.27 band BAND

Command

```
band BAND
```

Parameters

band
: Set the frequency band of this BTS

BAND
: Frequency band

1.16.28 base_station_id_code <0-63>

Command

```
base_station_id_code <0-63>
```

Parameters

base_station_id_code
: Set the Base Station Identity Code (BSIC) of this BTS

<0-63>
: BSIC of this BTS

1.16.29 cell bar qualify (0|1)

Command

```
cell bar qualify (0|1)
```

Parameters

cell
: Cell Parameters

bar
: Cell Bar Qualify

qualify
: Cell Bar Qualify

0
: Set CBQ to 0

1
: Set CBQ to 1

1.16.30 cell barred (0|1)

Command

```
cell barred (0|1)
```

Parameters

cell
: Should this cell be barred from access?

barred
: Should this cell be barred from access?

0
: Cell should NOT be barred

1
: Cell should be barred

1.16.31 cell reselection hysteresis <0-14>

Command

```
cell reselection hysteresis <0-14>
```

Parameters

cell
: Cell Parameters

reselection
: Cell re-selection parameters

hysteresis
: Cell Re-Selection Hysteresis in dB

<0-14>
: Cell Re-Selection Hysteresis in dB

1.16.32 cell reselection offset <0-126>

Command

```
cell reselection offset <0-126>
```

Parameters

cell
: Cell Parameters

reselection
: Cell Re-Selection Parameters

offset
: Cell Re-Selection Offset (CRO) in dB

<0-126>
: Cell Re-Selection Offset (CRO) in dB

1.16.33 cell_identity <0-65535>

Command

```
cell_identity <0-65535>
```

Parameters

cell_identity
: Set the Cell identity of this BTS

<0-65535>
: Cell Identity

1.16.34 channel allocator (ascending|descending)

Command

```
channel allocator (ascending|descending)
```

Parameters

channel
: Channnel Allocator

allocator
: Channel Allocator

ascending
: Allocate Timeslots and Transceivers in ascending order

descending
: Allocate Timeslots and Transceivers in descending order

1.16.35 channel-descrption attach (0|1)

Command

```
channel-descrption attach (0|1)
```

Parameters

channel-descrption
: Channel Description

attach
: Set if attachment is required

0
: Attachment is NOT required

1
: Attachment is required (standard)

1.16.36 channel-descrption bs-ag-blks-res <0-7>

Command

```
channel-descrption bs-ag-blks-res <0-7>
```

Parameters

channel-descrption
: Channel Description

bs-ag-blks-res
: Set number of blocks reserved for access grant

<0-7>
: Number of blocks reserved for access grant

1.16.37 channel-descrption bs-pa-mfrms <2-9>

Command

```
channel-descrption bs-pa-mfrms <2-9>
```

Parameters

channel-descrption
: Channel Description

bs-pa-mfrms
: Set number of multiframe periods for paging groups

<2-9>
: Number of multiframe periods for paging groups

1.16.38 codec-support fr

Command

```
codec-support fr
```

Parameters

codec-support
: Codec Support settings

fr
: Fullrate

1.16.39 codec-support fr (hr|efr|amr)

Command

```
codec-support fr (hr|efr|amr)
```

Parameters

codec-support
: Codec Support settings

fr
: Fullrate

hr
: Half Rate

efr
: Enhanced Full Rate

amr
: Adaptive Multirate

1.16.40 codec-support fr (hr|efr|amr) (hr|efr|amr)

Command

```
codec-support fr (hr|efr|amr) (hr|efr|amr)
```

Parameters

codec-support
: Codec Support settings

fr
: Fullrate

hr
: Half Rate

efr
: Enhanced Full Rate

amr
: Adaptive Multirate

hr
: Half Rate

efr
: Enhanced Full Rate

amr
: Adaptive Multirate

1.16.41 codec-support fr (hr|efr|amr) (hr|efr|amr) (hr|efr|amr)

Command

```
codec-support fr (hr|efr|amr) (hr|efr|amr) (hr|efr|amr)
```

Parameters

codec-support
: Codec Support settings

fr
: Fullrate

hr
: Half Rate

efr
: Enhanced Full Rate

amr
: Adaptive Multirate

hr
: Half Rate

efr
: Enhanced Full Rate

amr
: Adaptive Multirate

hr
: Half Rate

efr
: Enhanced Full Rate

amr
: Adaptive Multirate

1.16.42 codec-support fr (hr|efr|amr) (hr|efr|amr) (hr|efr|amr) (hr|efr|amr)

Command

```
codec-support fr (hr|efr|amr) (hr|efr|amr) (hr|efr|amr) (hr|efr|amr)
```

Parameters

codec-support
: Codec Support settings

fr
: Fullrate

hr
: Half Rate

efr
: Enhanced Full Rate

amr
: Adaptive Multirate

hr
: Half Rate

efr
: Enhanced Full Rate

amr
: Adaptive Multirate

hr
: Half Rate

efr
: Enhanced Full Rate

amr
: Adaptive Multirate

hr
: Half Rate

efr
: Enhanced Full Rate

amr
: Adaptive Multirate

1.16.43 con-connection-group <1-31>

Command

```
con-connection-group <1-31>
```

Parameters

con-connection-group
: Configure a CON (Concentrator) Connection Group

<1-31>
: CON Connection Group Number

1.16.44 del-connection-group <1-31>

Command

```
del-connection-group <1-31>
```

Parameters

del-connection-group
: Delete a CON (Concentrator) Connection Group

<1-31>
: CON Connection Group Number

1.16.45 depends-on-bts <0-255>

Command

```
depends-on-bts <0-255>
```

Parameters

depends-on-bts
: This BTS can only be started if another one is up

<0-255>
: BTS Number

1.16.46 depeneds-on-bts <0-255>

Command

```
depeneds-on-bts <0-255>
```

Parameters

depeneds-on-bts
: Negate a command or set its defaults

<0-255>
: This BTS can only be started if another one is up

1.16.47 description .TEXT

Command

```
description .TEXT
```

Parameters

description
: Save human-readable description of the object

.TEXT
: Text until the end of the line

1.16.48 dtx downlink

Command

```
dtx downlink
```

Parameters

dtx
: Configure discontinuous transmission

downlink
: Enable Downlink DTX for this BTS

1.16.49 dtx uplink [force]

Command

```
dtx uplink [force]
```

Parameters

dtx
: Configure discontinuous transmission

uplink
: Enable Uplink DTX for this BTS

[force]
: MS 'shall' use DTXu instead of 'may' use (might not be supported by older phones).

1.16.50 early-classmark-sending (allowed|forbidden)

Command

```
early-classmark-sending (allowed|forbidden)
```

Parameters

early-classmark-sending
: Early Classmark Sending

allowed
: Early Classmark Sending is allowed

forbidden
: Early Classmark Sending is forbidden

1.16.51 early-classmark-sending-3g (allowed|forbidden)

Command

```
early-classmark-sending-3g (allowed|forbidden)
```

Parameters

early-classmark-sending-3g
: 3G Early Classmark Sending

allowed
: 3G Early Classmark Sending is allowed

forbidden
: 3G Early Classmark Sending is forbidden

1.16.52 force-combined-si

Command

```
force-combined-si
```

Parameters

force-combined-si
: Force the generation of a single SI (no ter/bis)

1.16.53 gprs 11bit_rach_support_for_egprs (0|1)

Command

```
gprs 11bit_rach_support_for_egprs (0|1)
```

Parameters

gprs
: GPRS Packet Network

11bit_rach_support_for_egprs
: 11 bit RACH options

0
: Disable 11 bit RACH for EGPRS

1
: Enable 11 bit RACH for EGPRS

1.16.54 gprs cell bvci <2-65535>

Command

```
gprs cell bvci <2-65535>
```

Parameters

gprs
: GPRS Packet Network

cell
: GPRS Cell Settings

bvci
: GPRS BSSGP VC Identifier

<2-65535>
: GPRS BSSGP VC Identifier

1.16.55 gprs cell timer (blocking-timer|blocking-retries|unblocking-retries|reset-timer|...

Command

```
gprs cell timer (blocking-timer|blocking-retries|unblocking-retries|reset-timer|reset- ↩
    retries|suspend-timer|suspend-retries|resume-timer|resume-retries|capability-update ↩
    -timer|capability-update-retries) <0-255>
```

Parameters

gprs
: GPRS Packet Network

cell
: Cell / BSSGP

timer
: Cell/BSSGP Timer

blocking-timer
: Tbvc-block timeout

blocking-retries
: Tbvc-block retries

unblocking-retries
: Tbvc-unblock retries

reset-timer
: Tbvcc-reset timeout

reset-retries
: Tbvc-reset retries

suspend-timer
: Tbvc-suspend timeout

suspend-retries
: Tbvc-suspend retries

resume-timer
: Tbvc-resume timeout

resume-retries
: Tbvc-resume retries

capability-update-timer
: Tbvc-capa-update timeout

capability-update-retries
: Tbvc-capa-update retries

<0-255>
: Timer Value

1.16.56 gprs control-ack-type-rach

Command

```
gprs control-ack-type-rach
```

Parameters

gprs
: GPRS Packet Network

control-ack-type-rach
: Set GPRS Control Ack Type for PACKET CONTROL ACKNOWLEDGMENT message to four access bursts format instead of default RLC/MAC control block

1.16.57 gprs mode (none|gprs|egprs)

Command

```
gprs mode (none|gprs|egprs)
```

Parameters

gprs
: GPRS Packet Network

mode
: GPRS Mode for this BTS

none
: GPRS Disabled on this BTS

gprs
: GPRS Enabled on this BTS

egprs
: EGPRS (EDGE) Enabled on this BTS

1.16.58 gprs network-control-order (nc0|nc1|nc2)

Command

```
gprs network-control-order (nc0|nc1|nc2)
```

Parameters

gprs
: GPRS Packet Network

network-control-order
: GPRS Network Control Order

nc0
: MS controlled cell re-selection, no measurement reporting

nc1
: MS controlled cell re-selection, MS sends measurement reports

nc2
: Network controlled cell re-selection, MS sends measurement reports

1.16.59 gprs ns timer (tns-block|tns-block-retries|tns-reset|tns-reset-retries|tns-test|...

Command

```
gprs ns timer (tns-block|tns-block-retries|tns-reset|tns-reset-retries|tns-test|tns- ↩
    alive|tns-alive-retries) <0-255>
```

Parameters

gprs
: GPRS Packet Network

ns
: Network Service

timer
: Network Service Timer

tns-block
: (un)blocking Timer (Tns-block) timeout

tns-block-retries
: (un)blocking Timer (Tns-block) number of retries

tns-reset
: Reset Timer (Tns-reset) timeout

tns-reset-retries
: Reset Timer (Tns-reset) number of retries

tns-test
: Test Timer (Tns-test) timeout

tns-alive
: Alive Timer (Tns-alive) timeout

tns-alive-retries
: Alive Timer (Tns-alive) number of retries

<0-255>
: Timer Value

1.16.60 gprs nsei <0-65535>

Command

```
gprs nsei <0-65535>
```

Parameters

gprs
: GPRS Packet Network

nsei
: GPRS NS Entity Identifier

<0-65535>
: GPRS NS Entity Identifier

1.16.61 gprs nsvc <0-1> local udp port <0-65535>

Command

```
gprs nsvc <0-1> local udp port <0-65535>
```

Parameters

gprs
: GPRS Packet Network

nsvc
: Network Service Virtual Connection (NS-VC)

<0-1>
: NSVC Logical Number

local
: GPRS NS Local UDP Port

udp
: GPRS NS Local UDP Port

port
: GPRS NS Local UDP Port

<0-65535>
: GPRS NS Local UDP Port Number

1.16.62 gprs nsvc <0-1> nsvci <0-65535>

Command

```
gprs nsvc <0-1> nsvci <0-65535>
```

Parameters

gprs
: GPRS Packet Network

nsvc
: Network Service Virtual Connection (NS-VC)

<0-1>
: NSVC Logical Number

nsvci
: NS Virtual Connection Identifier

<0-65535>
: GPRS NS VC Identifier

1.16.63 gprs nsvc <0-1> remote ip A.B.C.D

Command

```
gprs nsvc <0-1> remote ip A.B.C.D
```

Parameters

gprs
: GPRS Packet Network

nsvc
: Network Service Virtual Connection (NS-VC)

<0-1>
: NSVC Logical Number

remote
: GPRS NS Remote IP Address

ip
: GPRS NS Remote IP Address

A.B.C.D
: GPRS NS Remote IP Address

1.16.64 gprs nsvc <0-1> remote udp port <0-65535>

Command

```
gprs nsvc <0-1> remote udp port <0-65535>
```

Parameters

gprs
: GPRS Packet Network

nsvc
: Network Service Virtual Connection (NS-VC)

<0-1>
: NSVC Logical Number

remote
: GPRS NS Remote UDP Port

udp
: GPRS NS Remote UDP Port

port
: GPRS NS Remote UDP Port

<0-65535>
: GPRS NS Remote UDP Port Number

1.16.65 gprs routing area <0-255>

Command

```
gprs routing area <0-255>
```

Parameters

gprs
: GPRS Packet Network

routing
: GPRS Routing Area Code

area
: GPRS Routing Area Code

<0-255>
: GPRS Routing Area Code

1.16.66 handover (0|1|default)

Command

```
handover (0|1|default)
```

Parameters

handover
: Handover general config

0
: Disable in-call handover

1
: Enable in-call handover

default
: Enable/disable handover: Use default (0), remove explicit setting on this node

1.16.67 handover algorithm (1|2|default)

Command

```
handover algorithm (1|2|default)
```

Parameters

handover
: Handover general config

algorithm
: Choose algorithm for handover decision

1
: Algorithm 1: trigger handover based on comparing current cell and neighbor RxLev and RxQual, only.

2
: Algorithm 2: trigger handover on RxLev/RxQual, and also to balance the load across several cells. Consider available codecs. Prevent repeated handover by penalty timers.

default
: Use default (1), remove explicit setting on this node

1.16.68 handover1 maximum distance (<0-9999>|default)

Command

```
handover1 maximum distance (<0-9999>|default)
```

Parameters

handover1
: Handover options for handover decision algorithm 1

maximum
: Maximum Timing-Advance value (i.e. MS distance) before triggering HO

distance
: Maximum Timing-Advance value (i.e. MS distance) before triggering HO

<0-9999>
: Maximum Timing-Advance value (i.e. MS distance) before triggering HO

default
: Use default (9999), remove explicit setting on this node

1.16.69 handover1 power budget hysteresis (<0-999>|default)

Command

```
handover1 power budget hysteresis (<0-999>|default)
```

Parameters

handover1
: Handover options for handover decision algorithm 1

power
: Neighbor cell power triggering

budget
: Neighbor cell power triggering

hysteresis
: How many dB stronger must a neighbor be to become a HO candidate

<0-999>
: Neighbor’s strength difference in dB

default
: Use default (3), remove explicit setting on this node

1.16.70 handover1 power budget interval (<1-99>|default)

Command

```
handover1 power budget interval (<1-99>|default)
```

Parameters

handover1
: Handover options for handover decision algorithm 1

power
: Neighbor cell power triggering

budget
: Neighbor cell power triggering

interval
: How often to check for a better cell (SACCH frames)

<1-99>
: Check for stronger neighbor every N number of SACCH frames

default
: Use default (6), remove explicit setting on this node

1.16.71 handover1 window rxlev averaging (<1-10>|default)

Command

```
handover1 window rxlev averaging (<1-10>|default)
```

Parameters

handover1
: Handover options for handover decision algorithm 1

window
: Measurement averaging settings

rxlev
: Received-Level averaging

averaging
: How many RxLev measurements are used for averaging

<1-10>
: RxLev averaging: Number of values to average over

default
: Use default (10), remove explicit setting on this node

1.16.72 handover1 window rxlev neighbor averaging (<1-10>|default)

Command

```
handover1 window rxlev neighbor averaging (<1-10>|default)
```

Parameters

handover1
: Handover options for handover decision algorithm 1

window
: Measurement averaging settings

rxlev
: Received-Level averaging

neighbor
: How many Neighbor RxLev measurements are used for averaging

averaging
: How many Neighbor RxLev measurements are used for averaging

<1-10>
: Neighbor RxLev averaging: Number of values to average over

default
: Use default (10), remove explicit setting on this node

1.16.73 handover1 window rxqual averaging (<1-10>|default)

Command

```
handover1 window rxqual averaging (<1-10>|default)
```

Parameters

handover1
: Handover options for handover decision algorithm 1

window
: Measurement averaging settings

rxqual
: Received-Quality averaging

averaging
: How many RxQual measurements are used for averaging

<1-10>
: RxQual averaging: Number of values to average over

default
: Use default (1), remove explicit setting on this node

1.16.74 handover2 afs-bias rxlev (<0-20>|default)

Command

```
handover2 afs-bias rxlev (<0-20>|default)
```

Parameters

handover2
: Handover options for handover decision algorithm 2

afs-bias
: Configure bias to prefer AFS (AMR on TCH/F) over other codecs

rxlev
: RxLev improvement bias for AFS over other codecs

<0-20>
: Virtual RxLev improvement (dB)

default
: Use default (0), remove explicit setting on this node

1.16.75 handover2 afs-bias rxqual (<0-7>|default)

Command

```
handover2 afs-bias rxqual (<0-7>|default)
```

Parameters

handover2
: Handover options for handover decision algorithm 2

afs-bias
: Configure bias to prefer AFS (AMR on TCH/F) over other codecs

rxqual
: RxQual improvement bias for AFS over other codecs

<0-7>
: Virtual RxQual improvement

default
: Use default (0), remove explicit setting on this node

1.16.76 handover2 assignment (0|1|default)

Command

```
handover2 assignment (0|1|default)
```

Parameters

handover2
: Handover options for handover decision algorithm 2

assignment
: Enable or disable in-call channel re-assignment

0
: Disable in-call assignment

1
: Enable in-call assignment

default
: Use default (0), remove explicit setting on this node

1.16.77 handover2 max-handovers (<1-9999>|default)

Command

```
handover2 max-handovers (<1-9999>|default)
```

Parameters

handover2
: Handover options for handover decision algorithm 2

max-handovers
: Maximum number of concurrent handovers allowed per cell

<1-9999>
: Number

default
: Use default (9999), remove explicit setting on this node

1.16.78 handover2 maximum distance (<0-9999>|default)

Command

```
handover2 maximum distance (<0-9999>|default)
```

Parameters

handover2
: Handover options for handover decision algorithm 2

maximum
: Maximum Timing-Advance value (i.e. MS distance) before triggering HO

distance
: Maximum Timing-Advance value (i.e. MS distance) before triggering HO

<0-9999>
: Maximum Timing-Advance value (i.e. MS distance) before triggering HO

default
: Use default (9999), remove explicit setting on this node

1.16.79 handover2 min rxlev (<-110--50>|default)

Command

```
handover2 min rxlev (<-110--50>|default)
```

Parameters

handover2
: Handover options for handover decision algorithm 2

min
: Minimum Level/Quality thresholds before triggering HO

rxlev
: How weak may RxLev of an MS become before triggering HO

<-110--50>
: minimum RxLev (dBm)

default
: Use default (-100), remove explicit setting on this node

1.16.80 handover2 min rxqual (<0-7>|default)

Command

```
handover2 min rxqual (<0-7>|default)
```

Parameters

handover2
: Handover options for handover decision algorithm 2

min
: Minimum Level/Quality thresholds before triggering HO

rxqual
: How bad may RxQual of an MS become before triggering HO

<0-7>
: minimum RxQual

default
: Use default (5), remove explicit setting on this node

1.16.81 handover2 min-free-slots tch/f (<0-9999>|default)

Command

```
handover2 min-free-slots tch/f (<0-9999>|default)
```

Parameters

handover2
: Handover options for handover decision algorithm 2

min-free-slots
: Minimum free TCH timeslots before cell is considered congested

tch/f
: Minimum free TCH/F timeslots before cell is considered congested

<0-9999>
: Number of TCH/F slots

default
: Use default (0), remove explicit setting on this node

1.16.82 handover2 min-free-slots tch/h (<0-9999>|default)

Command

```
handover2 min-free-slots tch/h (<0-9999>|default)
```

Parameters

handover2
: Handover options for handover decision algorithm 2

min-free-slots
: Minimum free TCH timeslots before cell is considered congested

tch/h
: Minimum free TCH/H timeslots before cell is considered congested

<0-9999>
: Number of TCH/H slots

default
: Use default (0), remove explicit setting on this node

1.16.83 handover2 penalty-time failed-assignment (<0-99999>|default)

Command

```
handover2 penalty-time failed-assignment (<0-99999>|default)
```

Parameters

handover2
: Handover options for handover decision algorithm 2

penalty-time
: Set penalty times to wait between repeated handovers

failed-assignment
: Time to suspend handovers after assignment failure in this cell

<0-99999>
: Seconds

default
: Use default (60), remove explicit setting on this node

1.16.84 handover2 penalty-time failed-ho (<0-99999>|default)

Command

```
handover2 penalty-time failed-ho (<0-99999>|default)
```

Parameters

handover2
: Handover options for handover decision algorithm 2

penalty-time
: Set penalty times to wait between repeated handovers

failed-ho
: Time to suspend handovers after handover failure to this cell

<0-99999>
: Seconds

default
: Use default (60), remove explicit setting on this node

1.16.85 handover2 penalty-time max-distance (<0-99999>|default)

Command

```
handover2 penalty-time max-distance (<0-99999>|default)
```

Parameters

handover2
: Handover options for handover decision algorithm 2

penalty-time
: Set penalty times to wait between repeated handovers

max-distance
: Time to suspend handovers after leaving this cell due to exceeding max distance

<0-99999>
: Seconds

default
: Use default (300), remove explicit setting on this node

1.16.86 handover2 power budget hysteresis (<0-999>|default)

Command

```
handover2 power budget hysteresis (<0-999>|default)
```

Parameters

handover2
: Handover options for handover decision algorithm 2

power
: Neighbor cell power triggering

budget
: Neighbor cell power triggering

hysteresis
: How many dB stronger must a neighbor be to become a HO candidate

<0-999>
: Neighbor’s strength difference in dB

default
: Use default (3), remove explicit setting on this node

1.16.87 handover2 power budget interval (<1-99>|default)

Command

```
handover2 power budget interval (<1-99>|default)
```

Parameters

handover2
: Handover options for handover decision algorithm 2

power
: Neighbor cell power triggering

budget
: Neighbor cell power triggering

interval
: How often to check for a better cell (SACCH frames)

<1-99>
: Check for stronger neighbor every N number of SACCH frames

default
: Use default (6), remove explicit setting on this node

1.16.88 handover2 retries (<0-9>|default)

Command

```
handover2 retries (<0-9>|default)
```

Parameters

handover2
: Handover options for handover decision algorithm 2

retries
: Immediately retry on handover/assignment failure

<0-9>
: Number of retries

default
: Use default (0), remove explicit setting on this node

1.16.89 handover2 tdma-measurement (full|subset|default)

Command

```
handover2 tdma-measurement (full|subset|default)
```

Parameters

handover2
: Handover options for handover decision algorithm 2

tdma-measurement
: Define measurement set of TDMA frames

full
: Full set of 102/104 TDMA frames

subset
: Sub set of 4 TDMA frames (SACCH)

default
: Use default (subset), remove explicit setting on this node

1.16.90 handover2 window rxlev averaging (<1-10>|default)

Command

```
handover2 window rxlev averaging (<1-10>|default)
```

Parameters

handover2
: Handover options for handover decision algorithm 2

window
: Measurement averaging settings

rxlev
: Received-Level averaging

averaging
: How many RxLev measurements are used for averaging

<1-10>
: RxLev averaging: Number of values to average over

default
: Use default (10), remove explicit setting on this node

1.16.91 handover2 window rxlev neighbor averaging (<1-10>|default)

Command

```
handover2 window rxlev neighbor averaging (<1-10>|default)
```

Parameters

handover2
: Handover options for handover decision algorithm 2

window
: Measurement averaging settings

rxlev
: Received-Level averaging

neighbor
: How many Neighbor RxLev measurements are used for averaging

averaging
: How many Neighbor RxLev measurements are used for averaging

<1-10>
: Neighbor RxLev averaging: Number of values to average over

default
: Use default (10), remove explicit setting on this node

1.16.92 handover2 window rxqual averaging (<1-10>|default)

Command

```
handover2 window rxqual averaging (<1-10>|default)
```

Parameters

handover2
: Handover options for handover decision algorithm 2

window
: Measurement averaging settings

rxqual
: Received-Quality averaging

averaging
: How many RxQual measurements are used for averaging

<1-10>
: RxQual averaging: Number of values to average over

default
: Use default (1), remove explicit setting on this node

1.16.93 ip.access rsl-ip A.B.C.D

Command

```
ip.access rsl-ip A.B.C.D
```

Parameters

ip.access
: Abis/IP specific options

rsl-ip
: Set the IPA RSL IP Address of the BSC

A.B.C.D
: Destination IP address for RSL connection

1.16.94 ip.access unit_id <0-65534> <0-255>

Command

```
ip.access unit_id <0-65534> <0-255>
```

Parameters

ip.access
: Abis/IP specific options

unit_id
: Set the IPA BTS Unit ID

<0-65534>
: Unit ID (Site)

<0-255>
: Unit ID (BTS)

1.16.95 is-connection-list (add|del) <0-2047> <0-2047> <0-255>

Command

```
is-connection-list (add|del) <0-2047> <0-2047> <0-255>
```

Parameters

is-connection-list
: Interface Switch Connection List

add
: Add to IS list

del
: Delete from IS list

<0-2047>
: ICP1

<0-2047>
: ICP2

<0-255>
: Contiguity Index

1.16.96 location_area_code <0-65535>

Command

```
location_area_code <0-65535>
```

Parameters

location_area_code
: Set the Location Area Code (LAC) of this BTS

<0-65535>
: LAC

1.16.97 ms max power <0-40>

Command

```
ms max power <0-40>
```

Parameters

ms
: MS Options

max
: Maximum transmit power of the MS

power
: Maximum transmit power of the MS

<0-40>
: Maximum transmit power of the MS in dBm

1.16.98 neighbor bts <0-255>

Command

```
neighbor bts <0-255>
```

Parameters

neighbor
: Manage local and remote-BSS neighbor cells

bts
: Add Neighbor cell by local BTS number

<0-255>
: BTS number

1.16.99 neighbor cgi <0-999> <0-999> <0-65535> <0-65535>

Command

```
neighbor cgi <0-999> <0-999> <0-65535> <0-65535>
```

Parameters

neighbor
: Manage local and remote-BSS neighbor cells

cgi
: Add Neighbor cell by cgi

<0-999>
: MCC

<0-999>
: MNC

<0-65535>
: LAC

<0-65535>
: CI

1.16.100 neighbor cgi <0-999> <0-999> <0-65535> <0-65535> arfcn <0-1023> bsic (<0-63>|any...

Command

```
neighbor cgi <0-999> <0-999> <0-65535> <0-65535> arfcn <0-1023> bsic (<0-63>|any)
```

Parameters

neighbor
: Manage local and remote-BSS neighbor cells

cgi
: Add Neighbor cell by cgi

<0-999>
: MCC

<0-999>
: MNC

<0-65535>
: LAC

<0-65535>
: CI

arfcn
: ARFCN of neighbor cell

<0-1023>
: ARFCN value

bsic
: BSIC of neighbor cell

<0-63>
: BSIC value

any
: for all BSICs / use any BSIC in this ARFCN

1.16.101 neighbor lac <0-65535>

Command

```
neighbor lac <0-65535>
```

Parameters

neighbor
: Manage local and remote-BSS neighbor cells

lac
: Add Neighbor cell by LAC

<0-65535>
: LAC

1.16.102 neighbor lac <0-65535> arfcn <0-1023> bsic (<0-63>|any)

Command

```
neighbor lac <0-65535> arfcn <0-1023> bsic (<0-63>|any)
```

Parameters

neighbor
: Manage local and remote-BSS neighbor cells

lac
: Add Neighbor cell by LAC

<0-65535>
: LAC

arfcn
: ARFCN of neighbor cell

<0-1023>
: ARFCN value

bsic
: BSIC of neighbor cell

<0-63>
: BSIC value

any
: for all BSICs / use any BSIC in this ARFCN

1.16.103 neighbor lac-ci <0-65535> <0-65535>

Command

```
neighbor lac-ci <0-65535> <0-65535>
```

Parameters

neighbor
: Manage local and remote-BSS neighbor cells

lac-ci
: Add Neighbor cell by LAC and CI

<0-65535>
: LAC

<0-65535>
: CI

1.16.104 neighbor lac-ci <0-65535> <0-65535> arfcn <0-1023> bsic (<0-63>|any)

Command

```
neighbor lac-ci <0-65535> <0-65535> arfcn <0-1023> bsic (<0-63>|any)
```

Parameters

neighbor
: Manage local and remote-BSS neighbor cells

lac-ci
: Add Neighbor cell by LAC and CI

<0-65535>
: LAC

<0-65535>
: CI

arfcn
: ARFCN of neighbor cell

<0-1023>
: ARFCN value

bsic
: BSIC of neighbor cell

<0-63>
: BSIC value

any
: for all BSICs / use any BSIC in this ARFCN

1.16.105 neighbor-list (add|del) arfcn <0-1023>

Command

```
neighbor-list (add|del) arfcn <0-1023>
```

Parameters

neighbor-list
: Neighbor List

add
: Add to manual neighbor list

del
: Delete from manual neighbor list

arfcn
: ARFCN of neighbor

<0-1023>
: ARFCN of neighbor

1.16.106 neighbor-list mode (automatic|manual|manual-si5)

Command

```
neighbor-list mode (automatic|manual|manual-si5)
```

Parameters

neighbor-list
: Neighbor List

mode
: Mode of Neighbor List generation

automatic
: Automatically from all BTS in this OpenBSC

manual
: Manual

manual-si5
: Manual with different lists for SI2 and SI5

1.16.107 no access-control-class-ramping

Command

```
no access-control-class-ramping
```

Parameters

no
: Negate a command or set its defaults

access-control-class-ramping
: Disable Access Control Class ramping

1.16.108 no description

Command

```
no description
```

Parameters

no
: Negate a command or set its defaults

description
: Remove description of the object

1.16.109 no dtx downlink

Command

```
no dtx downlink
```

Parameters

no
: Negate a command or set its defaults

dtx
: Configure discontinuous transmission

downlink
: Disable Downlink DTX for this BTS

1.16.110 no dtx uplink

Command

```
no dtx uplink
```

Parameters

no
: Negate a command or set its defaults

dtx
: Configure discontinuous transmission

uplink
: Disable Uplink DTX for this BTS

1.16.111 no force-combined-si

Command

```
no force-combined-si
```

Parameters

no
: Negate a command or set its defaults

force-combined-si
: Force the generation of a single SI (no ter/bis)

1.16.112 no gprs control-ack-type-rach

Command

```
no gprs control-ack-type-rach
```

Parameters

no
: Negate a command or set its defaults

gprs
: GPRS Packet Network

control-ack-type-rach
: Set GPRS Control Ack Type for PACKET CONTROL ACKNOWLEDGMENT message to four access bursts format instead of default RLC/MAC control block

1.16.113 no neighbor arfcn <0-1023> bsic (<0-63>|any)

Command

```
no neighbor arfcn <0-1023> bsic (<0-63>|any)
```

Parameters

no
: Negate a command or set its defaults

neighbor
: Remove local or remote-BSS neighbor cell

arfcn
: ARFCN of neighbor cell

<0-1023>
: ARFCN value

bsic
: BSIC of neighbor cell

<0-63>
: BSIC value

any
: for all BSICs / use any BSIC in this ARFCN

1.16.114 no neighbor bts <0-255>

Command

```
no neighbor bts <0-255>
```

Parameters

no
: Negate a command or set its defaults

neighbor
: Remove local or remote-BSS neighbor cell

bts
: Neighbor cell by local BTS number

<0-255>
: BTS number

1.16.115 no rf-lock-exclude

Command

```
no rf-lock-exclude
```

Parameters

no
: Negate a command or set its defaults

rf-lock-exclude
: Exclude this BTS from the global RF Lock

1.16.116 nokia_site bts-reset-timer <15-100>

Command

```
nokia_site bts-reset-timer  <15-100>
```

Parameters

nokia_site
: Nokia *Site related commands

bts-reset-timer
: The amount of time (in sec.) between BTS_RESET is sent,

<15-100>
: and the BTS is being bootstrapped.

1.16.117 nokia_site no-local-rel-conf (0|1)

Command

```
nokia_site no-local-rel-conf (0|1)
```

Parameters

nokia_site
: Nokia *Site related commands

no-local-rel-conf
: Do not wait for RELease CONFirm message when releasing channel locally

0
: Wait for RELease CONFirm

1
: Do not wait for RELease CONFirm

1.16.118 nokia_site skip-reset (0|1)

Command

```
nokia_site skip-reset (0|1)
```

Parameters

nokia_site
: Nokia *Site related commands

skip-reset
: Skip the reset step during bootstrap process of this BTS

0
: Do NOT skip the reset

1
: Skip the reset

1.16.119 oml e1 line E1_LINE timeslot <1-31> sub-slot (0|1|2|3|full)

Command

```
oml e1 line E1_LINE timeslot <1-31> sub-slot (0|1|2|3|full)
```

Parameters

oml
: Organization & Maintenance Link

e1
: OML E1/T1 Configuration

line
: E1/T1 line number to be used for OML

E1_LINE
: E1/T1 line number to be used for OML

timeslot
: E1/T1 timeslot to be used for OML

<1-31>
: E1/T1 timeslot to be used for OML

sub-slot
: E1/T1 sub-slot to be used for OML

0
: Use E1/T1 sub-slot 0

1
: Use E1/T1 sub-slot 1

2
: Use E1/T1 sub-slot 2

3
: Use E1/T1 sub-slot 3

full
: Use full E1 slot 3

1.16.120 oml e1 tei <0-63>

Command

```
oml e1 tei <0-63>
```

Parameters

oml
: Organization & Maintenance Link

e1
: OML E1/T1 Configuration

tei
: Set the TEI to be used for OML

<0-63>
: TEI Number

1.16.121 oml ip.access stream_id <0-255> line E1_LINE

Command

```
oml ip.access stream_id <0-255> line E1_LINE
```

Parameters

oml
: Organization & Maintenance Link

ip.access
: A-bis/IP Specific Options

stream_id
: Set the ip.access Stream ID of the OML link of this BTS

<0-255>
: Stream Identifier

line
: Virtual E1 Line Number

E1_LINE
: Virtual E1 Line Number

1.16.122 paging free <-1-1024>

Command

```
paging free <-1-1024>
```

Parameters

paging
: Paging options

free
: Only page when having a certain amount of free slots

<-1-1024>
: amount of required free paging slots. -1 to disable

1.16.123 pcu-socket PATH

Command

```
pcu-socket PATH
```

Parameters

pcu-socket
: PCU Socket Path for using OsmoPCU co-located with BSC (legacy BTS)

PATH
: Path in the file system for the unix-domain PCU socket

1.16.124 penalty time <20-620>

Command

```
penalty time <20-620>
```

Parameters

penalty
: Cell selection penalty time

time
: Cell selection penalty time

<20-620>
: Cell selection penalty time in seconds (by 20s increments)

1.16.125 penalty time reserved

Command

```
penalty time reserved
```

Parameters

penalty
: Cell selection penalty time

time
: Cell selection penalty time

reserved
: Set cell selection penalty time to reserved value 31, (indicate that CELL_RESELECT_OFFSET is subtracted from C2 and TEMPORARY_OFFSET is ignored)

1.16.126 rach access-control-class (0|1|2|3|4|5|6|7|8|9|11|12|13|14|15) (barred|allowed)

Command

```
rach access-control-class (0|1|2|3|4|5|6|7|8|9|11|12|13|14|15) (barred|allowed)
```

Parameters

rach
: Random Access Control Channel

access-control-class
: Set access control class

0
: Access control class 0

1
: Access control class 1

2
: Access control class 2

3
: Access control class 3

4
: Access control class 4

5
: Access control class 5

6
: Access control class 6

7
: Access control class 7

8
: Access control class 8

9
: Access control class 9

11
: Access control class 11 for PLMN use

12
: Access control class 12 for security services

13
: Access control class 13 for public utilities (e.g. water/gas suppliers)

14
: Access control class 14 for emergency services

15
: Access control class 15 for PLMN staff

barred
: barred to use access control class

allowed
: allowed to use access control class

1.16.127 rach emergency call allowed (0|1)

Command

```
rach emergency call allowed (0|1)
```

Parameters

rach
: Random Access Control Channel

emergency
: Should this cell allow emergency calls?

call
: Should this cell allow emergency calls?

allowed
: Should this cell allow emergency calls?

0
: Do NOT allow emergency calls

1
: Allow emergency calls

1.16.128 rach max transmission (1|2|4|7)

Command

```
rach max transmission (1|2|4|7)
```

Parameters

rach
: Random Access Control Channel

max
: Set the maximum number of RACH burst transmissions

transmission
: Set the maximum number of RACH burst transmissions

1
: Maximum number of 1 RACH burst transmissions

2
: Maximum number of 2 RACH burst transmissions

4
: Maximum number of 4 RACH burst transmissions

7
: Maximum number of 7 RACH burst transmissions

1.16.129 rach nm busy threshold <0-255>

Command

```
rach nm busy threshold <0-255>
```

Parameters

rach
: Random Access Control Channel

nm
: Network Management

busy
: Set the NM Busy Threshold

threshold
: Set the NM Busy Threshold

<0-255>
: NM Busy Threshold in dB

1.16.130 rach nm load average <0-65535>

Command

```
rach nm load average <0-65535>
```

Parameters

rach
: Random Access Control Channel

nm
: Network Management

load
: Set the NM Loadaverage Slots value

average
: Set the NM Loadaverage Slots value

<0-65535>
: NM Loadaverage Slots value

1.16.131 rach tx integer <0-15>

Command

```
rach tx integer <0-15>
```

Parameters

rach
: Random Access Control Channel

tx
: Set the raw tx integer value in RACH Control parameters IE

integer
: Set the raw tx integer value in RACH Control parameters IE

<0-15>
: Raw tx integer value in RACH Control parameters IE

1.16.132 radio-link-timeout <4-64>

Command

```
radio-link-timeout <4-64>
```

Parameters

radio-link-timeout
: Radio link timeout criterion (BTS side)

<4-64>
: Radio link timeout value (lost SACCH block)

1.16.133 radio-link-timeout infinite

Command

```
radio-link-timeout infinite
```

Parameters

radio-link-timeout
: Radio link timeout criterion (BTS side)

infinite
: Infinite Radio link timeout value (use only for BTS RF testing)

1.16.134 rf-lock-exclude

Command

```
rf-lock-exclude
```

Parameters

rf-lock-exclude
: Exclude this BTS from the global RF Lock

1.16.135 rxlev access min <0-63>

Command

```
rxlev access min <0-63>
```

Parameters

rxlev
: Minimum RxLev needed for cell access

access
: Minimum RxLev needed for cell access

min
: Minimum RxLev needed for cell access

<0-63>
: Minimum RxLev needed for cell access (better than -110dBm)

1.16.136 si2quater neighbor-list add earfcn <0-65535> thresh-hi <0-31> thresh-lo <0-32> p...

Command

```
si2quater neighbor-list add earfcn <0-65535> thresh-hi <0-31> thresh-lo <0-32> prio  ↩
    <0-8> qrxlv <0-32> meas <0-8>
```

Parameters

si2quater
: SI2quater Neighbor List

neighbor-list
: SI2quater Neighbor List

add
: Add to manual SI2quater neighbor list

earfcn
: EARFCN of neighbor

<0-65535>
EARFCN of neighbor

thresh-hi
threshold high bits

<0-31>
threshold high bits

thresh-lo
threshold low bits

<0-32>
threshold low bits (32 means NA)

prio
priority

<0-8>
priority (8 means NA)

qrxlv
QRXLEVMIN

<0-32>
QRXLEVMIN (32 means NA)

meas
measurement bandwidth

<0-8>
measurement bandwidth (8 means NA)

1.16.137 si2quater neighbor-list add uarfcn <0-16383> <0-511> <0-1>

Command

```
si2quater neighbor-list add uarfcn <0-16383> <0-511> <0-1>
```

Parameters

si2quater
SI2quater Neighbor List

neighbor-list
SI2quater Neighbor List

add
Add to manual SI2quater neighbor list

uarfcn
UARFCN of neighbor

<0-16383>
UARFCN of neighbor

<0-511>
scrambling code

<0-1>
diversity bit

1.16.138 si2quater neighbor-list del earfcn <0-65535>

Command

```
si2quater neighbor-list del earfcn <0-65535>
```

Parameters

si2quater
SI2quater Neighbor List

neighbor-list
SI2quater Neighbor List

del
Delete from SI2quater manual neighbor list

earfcn
EARFCN of neighbor

<0-65535>
EARFCN

1.16.139 si2quater neighbor-list del uarfcn <0-16383> <0-511>

Command

```
si2quater neighbor-list del uarfcn <0-16383> <0-511>
```

Parameters

si2quater
SI2quater Neighbor List

neighbor-list
SI2quater Neighbor List

del
Delete from SI2quater manual neighbor list

uarfcn
UARFCN of neighbor

<0-16383>
UARFCN

<0-511>
scrambling code

1.16.140 si5 neighbor-list (add|del) arfcn <0-1023>

Command

```
si5 neighbor-list (add|del) arfcn <0-1023>
```

Parameters

si5
: SI5 Neighbor List

neighbor-list
: SI5 Neighbor List

add
: Add to manual SI5 neighbor list

del
: Delete from SI5 manual neighbor list

arfcn
: ARFCN of neighbor

<0-1023>
: ARFCN of neighbor

1.16.141 system-information (1|2|3|4|5|6|7|8|9|10|13|16|17|18|19|20|2bis|2ter|2quater|5bi...

Command

```
system-information (1|2|3|4|5|6|7|8|9|10|13|16|17|18|19|20|2bis|2ter|2quater|5bis|5ter) ↩
     mode (static|computed)
```

Parameters

system-information
: System Information Messages

1
: System Information Type 1

2
: System Information Type 2

3
: System Information Type 3

4
: System Information Type 4

5
: System Information Type 5

6
: System Information Type 6

7
: System Information Type 7

8
: System Information Type 8

9
: System Information Type 9

10
: System Information Type 10

13
: System Information Type 13

16
: System Information Type 16

17
: System Information Type 17

18
: System Information Type 18

19
: System Information Type 19

20
: System Information Type 20

2bis
: System Information Type 2bis

2ter
: System Information Type 2ter

2quater
: System Information Type 2quater

5bis
: System Information Type 5bis

5ter
: System Information Type 5ter

mode
: System Information Mode

static
: Static user-specified

computed
: Dynamic, BSC-computed

1.16.142 system-information (1|2|3|4|5|6|7|8|9|10|13|16|17|18|19|20|2bis|2ter|2quater|5bi...

Command

```
system-information (1|2|3|4|5|6|7|8|9|10|13|16|17|18|19|20|2bis|2ter|2quater|5bis|5ter) ↩
    static HEXSTRING
```

Parameters

system-information
: System Information Messages

1
: System Information Type 1

2
: System Information Type 2

3
: System Information Type 3

4
: System Information Type 4

5
: System Information Type 5

6
: System Information Type 6

7
: System Information Type 7

8
: System Information Type 8

9
: System Information Type 9

10
: System Information Type 10

13
: System Information Type 13

16
: System Information Type 16

17
: System Information Type 17

18
: System Information Type 18

19
: System Information Type 19

20
: System Information Type 20

2bis
: System Information Type 2bis

2ter
: System Information Type 2ter

2quater
: System Information Type 2quater

5bis
: System Information Type 5bis

5ter
: System Information Type 5ter

static
: Static System Information filling

HEXSTRING
: Static user-specified SI content in HEX notation

1.16.143 temporary offset <0-60>

Command

```
temporary offset <0-60>
```

Parameters

temporary
: Cell selection temporary negative offset

offset
: Cell selection temporary negative offset

<0-60>
: Cell selection temporary negative offset in dB

1.16.144 temporary offset infinite

Command

```
temporary offset infinite
```

Parameters

temporary
: Cell selection temporary negative offset

offset
: Cell selection temporary negative offset

infinite
: Sets cell selection temporary negative offset to infinity

1.16.145 trx <0-255>

Command

```
trx <0-255>
```

Parameters

trx
: Radio Transceiver

<0-255>
: Select a TRX to configure

1.16.146 type (unknown|bs11|nanobts|rbs2000|nokia_site|sysmobts)

Command

```
type (unknown|bs11|nanobts|rbs2000|nokia_site|sysmobts)
```

Parameters

type
: BTS Vendor/Type

unknown
: Unknown BTS Type

bs11
: Siemens BTS (BS-11 or compatible)

nanobts
: ip.access nanoBTS or compatible

rbs2000
: Ericsson RBS2000 Series

nokia_site
: Nokia {Metro,Ultra,In}Site

sysmobts
: sysmocom sysmoBTS

1.17 config-net-bts-trx

1.17.1 arfcn <0-1023>

Command

```
arfcn <0-1023>
```

Parameters

arfcn
: Set the ARFCN for this TRX

<0-1023>
: Absolute Radio Frequency Channel Number

1.17.2 description .TEXT

Command

```
description .TEXT
```

Parameters

description
: Save human-readable description of the object

.TEXT
: Text until the end of the line

1.17.3 max_power_red <0-100>

Command

```
max_power_red <0-100>
```

Parameters

max_power_red
: Reduction of maximum BS RF Power (relative to nominal power)

<0-100>
: Reduction of maximum BS RF Power in dB

1.17.4 no description

Command

```
no description
```

Parameters

no
: Negate a command or set its defaults

description
: Remove description of the object

1.17.5 nominal power <0-100>

Command

```
nominal power <0-100>
```

Parameters

nominal
: Nominal TRX RF Power in dBm

power
: Nominal TRX RF Power in dBm

<0-100>
: Nominal TRX RF Power in dBm

1.17.6 rf_locked (0|1)

Command

```
rf_locked (0|1)
```

Parameters

rf_locked
: Set or unset the RF Locking (Turn off RF of the TRX)

0
: TRX is NOT RF locked (active)

1
: TRX is RF locked (turned off)

1.17.7 rsl e1 line E1_LINE timeslot <1-31> sub-slot (0|1|2|3|full)

Command

```
rsl e1 line E1_LINE timeslot <1-31> sub-slot (0|1|2|3|full)
```

Parameters

rsl
: RSL Parameters

e1
: E1/T1 interface to be used for RSL

line
: E1/T1 interface to be used for RSL

E1_LINE
: E1/T1 Line Number to be used for RSL

timeslot
: E1/T1 Timeslot to be used for RSL

<1-31>
: E1/T1 Timeslot to be used for RSL

sub-slot
: E1/T1 Sub-slot to be used for RSL

0
: E1/T1 Sub-slot 0 is to be used for RSL

1
: E1/T1 Sub-slot 1 is to be used for RSL

2
: E1/T1 Sub-slot 2 is to be used for RSL

3
: E1/T1 Sub-slot 3 is to be used for RSL

full
: E1/T1 full timeslot is to be used for RSL

1.17.8 rsl e1 tei <0-63>

Command

```
rsl e1 tei <0-63>
```

Parameters

rsl
: RSL Parameters

e1
: Set the TEI to be used for RSL

tei
: Set the TEI to be used for RSL

<0-63>
: TEI to be used for RSL

1.17.9 timeslot <0-7>

Command

```
timeslot <0-7>
```

Parameters

timeslot
: Select a Timeslot to configure

<0-7>
: Timeslot number

1.18 config-net-bts-trx-ts

1.18.1 e1 line E1_LINE timeslot <1-31> sub-slot (0|1|2|3|full)

Command

```
e1 line E1_LINE timeslot <1-31> sub-slot (0|1|2|3|full)
```

Parameters

e1
: E1/T1 channel connected to this on-air timeslot

line
: E1/T1 channel connected to this on-air timeslot

E1_LINE
: E1/T1 line connected to this on-air timeslot

timeslot
: E1/T1 timeslot connected to this on-air timeslot

<1-31>
: E1/T1 timeslot connected to this on-air timeslot

sub-slot
: E1/T1 sub-slot connected to this on-air timeslot

0
: E1/T1 sub-slot 0 connected to this on-air timeslot

1
: E1/T1 sub-slot 1 connected to this on-air timeslot

2
: E1/T1 sub-slot 2 connected to this on-air timeslot

3
: E1/T1 sub-slot 3 connected to this on-air timeslot

full
: Full E1/T1 timeslot connected to this on-air timeslot

1.18.2 hopping arfcn add <0-1023>

Command

```
hopping arfcn add <0-1023>
```

Parameters

hopping
: Configure frequency hopping

arfcn
: Configure hopping ARFCN list

add
: Add an entry to the hopping ARFCN list

<0-1023>
: ARFCN

1.18.3 hopping arfcn del <0-1023>

Command

```
hopping arfcn del <0-1023>
```

Parameters

hopping
: Configure frequency hopping

arfcn
: Configure hopping ARFCN list

del
: Delete an entry to the hopping ARFCN list

<0-1023>
: ARFCN

1.18.4 hopping enabled (0|1)

Command

```
hopping enabled (0|1)
```

Parameters

hopping
: Configure frequency hopping

enabled
: Enable or disable frequency hopping

0
: Disable frequency hopping

1
: Enable frequency hopping

1.18.5 hopping maio <0-63>

Command

```
hopping maio <0-63>
```

Parameters

hopping
: Configure frequency hopping

maio
: Which hopping MAIO to use for this channel

<0-63>
: Mobile Allocation Index Offset (MAIO)

1.18.6 hopping sequence-number <0-63>

Command

```
hopping sequence-number <0-63>
```

Parameters

hopping
: Configure frequency hopping

sequence-number
: Which hopping sequence to use for this channel

<0-63>
: Hopping Sequence Number (HSN)

1.18.7 phys_chan_config (none|ccch|ccch+sdcch4|tch/f|tch/h|sdcch8|pdch|tch/f_pdch|unkno...

Command

```
phys_chan_config (none|ccch|ccch+sdcch4|tch/f|tch/h|sdcch8|pdch|tch/f_pdch|unknown|ccch ↩
    +sdcch4+cbch|sdcch8+cbch|tch/f_tch/h_pdch)
```

Parameters

phys_chan_config
: Physical Channel Combination

none
: Physical Channel not configured

ccch
: FCCH + SCH + BCCH + CCCH (Comb. IV)

ccch+sdcch4
: FCCH + SCH + BCCH + CCCH + 4 SDCCH + 2 SACCH (Comb. V)

tch/f
: TCH/F + FACCH/F + SACCH (Comb. I)

tch/h
: 2 TCH/H + 2 FACCH/H + 2 SACCH (Comb. II)

sdcch8
: 8 SDCCH + 4 SACCH (Comb. VII)

pdch
: Packet Data Channel for GPRS/EDGE

tch/f_pdch
: Dynamic TCH/F or GPRS PDCH

unknown
: Unknown / Unsupported channel combination

ccch+sdcch4+cbch
: FCCH + SCH + BCCH + CCCH + CBCH + 3 SDCCH + 2 SACCH (Comb. V)

sdcch8+cbch
: 7 SDCCH + 4 SACCH + CBCH (Comb. VII)

tch/f_tch/h_pdch
: Dynamic TCH/F or TCH/H or GPRS PDCH

1.18.8 training_sequence_code <0-7>

Command

```
training_sequence_code <0-7>
```

Parameters

training_sequence_code
: Training Sequence Code of the Timeslot

<0-7>
: TSC

1.19 oml

1.19.1 change-adm-state (locked|unlocked|shutdown|null)

Command

```
change-adm-state (locked|unlocked|shutdown|null)
```

Parameters

change-adm-state
: Change the Administrative State

locked
: Locked

unlocked
: Unlocked

shutdown
: Shutdown

null
: NULL

1.19.2 opstart

Command

```
opstart
```

Parameters

opstart
: Send an OPSTART message to the object

1.20 config-msc

This node allows to configure the MSC connection related settings.

1.20.1 access-list-name NAME

Command

```
access-list-name NAME
```

Parameters

access-list-name
: Set the name of the access list to use.

NAME
: The name of the to be used access list.

1.20.2 allow-emergency (allow|deny)

Command

```
allow-emergency (allow|deny)
```

Parameters

allow-emergency
: Allow CM ServiceRequests with type emergency

allow
: Allow

deny
: Deny

1.20.3 amr-config 10_2k (allowed|forbidden)

Command

```
amr-config 10_2k (allowed|forbidden)
```

Parameters

amr-config
: AMR Multirate Configuration

10_2k
: Bitrate

allowed
: Allowed

forbidden
: Forbidden

1.20.4 amr-config 12_2k (allowed|forbidden)

Command

```
amr-config 12_2k (allowed|forbidden)
```

Parameters

amr-config
: AMR Multirate Configuration

12_2k
: Bitrate

allowed
: Allowed

forbidden
: Forbidden

1.20.5 amr-config 4_75k (allowed|forbidden)

Command

```
amr-config 4_75k (allowed|forbidden)
```

Parameters

amr-config
: AMR Multirate Configuration

4_75k
: Bitrate

allowed
: Allowed

forbidden
: Forbidden

1.20.6 amr-config 5_15k (allowed|forbidden)

Command

```
amr-config 5_15k (allowed|forbidden)
```

Parameters

amr-config
: AMR Multirate Configuration

5_15k
: Bitrate

allowed
: Allowed

forbidden
: Forbidden

1.20.7 amr-config 5_90k (allowed|forbidden)

Command

```
amr-config 5_90k (allowed|forbidden)
```

Parameters

amr-config
: AMR Multirate Configuration

5_90k
: Bitrate

allowed
: Allowed

forbidden
: Forbidden

1.20.8 amr-config 6_70k (allowed|forbidden)

Command

```
amr-config 6_70k (allowed|forbidden)
```

Parameters

amr-config
: AMR Multirate Configuration

6_70k
: Bitrate

allowed
: Allowed

forbidden
: Forbidden

1.20.9 amr-config 7_40k (allowed|forbidden)

Command

```
amr-config 7_40k (allowed|forbidden)
```

Parameters

amr-config
: AMR Multirate Configuration

7_40k
: Bitrate

allowed
: Allowed

forbidden
: Forbidden

1.20.10 amr-config 7_95k (allowed|forbidden)

Command

```
amr-config 7_95k (allowed|forbidden)
```

Parameters

amr-config
: AMR Multirate Configuration

7_95k
: Bitrate

allowed
: Allowed

forbidden
: Forbidden

1.20.11 asp-protocol (m3ua|sua|ipa)

Command

```
asp-protocol (m3ua|sua|ipa)
```

Parameters

asp-protocol
: A interface protocol to use for this MSC)

m3ua
: MTP3 User Adaptation

sua
: SCCP User Adaptation

ipa
: IPA Multiplex (SCCP Lite)

1.20.12 bsc-addr NAME

Command

```
bsc-addr NAME
```

Parameters

bsc-addr
: Calling Address (local address of this BSC)

NAME
: SCCP address name

1.20.13 bsc-grace-text .TEXT

Command

```
bsc-grace-text .TEXT
```

Parameters

bsc-grace-text
: Set the USSD notification to be sent when the MSC has entered the grace period

.TEXT
: Text to be sent

1.20.14 bsc-msc-lost-text .TEXT

Command

```
bsc-msc-lost-text .TEXT
```

Parameters

bsc-msc-lost-text
: Set the USSD notification to be sent on MSC connection loss

.TEXT
: Text to be sent

1.20.15 bsc-welcome-text .TEXT

Command

```
bsc-welcome-text .TEXT
```

Parameters

bsc-welcome-text
: Set the USSD notification to be sent

.TEXT
: Text to be sent

1.20.16 codec-list .LIST

Command

```
codec-list .LIST
```

Parameters

codec-list
: Set the allowed audio codecs

.LIST
: List of audio codecs, e.g. fr3 fr1 hr3

1.20.17 core-cell-identity <0-65535>

Command

```
core-cell-identity <0-65535>
```

Parameters

core-cell-identity
: Use this cell identity for the core network

<0-65535>
: CI value

1.20.18 core-location-area-code <0-65535>

Command

```
core-location-area-code <0-65535>
```

Parameters

core-location-area-code
: Use this location area code for the core network

<0-65535>
: LAC value

1.20.19 core-mobile-country-code <1-999>

Command

```
core-mobile-country-code <1-999>
```

Parameters

core-mobile-country-code
: Use this country code for the core network

<1-999>
: MCC value

1.20.20 core-mobile-network-code <1-999>

Command

```
core-mobile-network-code <1-999>
```

Parameters

core-mobile-network-code
: Use this network code for the core network

<1-999>
: MNC value

1.20.21 ip.access rtp-base <1-65000>

Command

```
ip.access rtp-base <1-65000>
```

Parameters

ip.access
: IP.ACCESS specific

rtp-base
: Set the rtp-base port for the RTP stream

<1-65000>
: Port number

1.20.22 lcls-codec-mismatch (allowed|forbidden)

Command

```
lcls-codec-mismatch (allowed|forbidden)
```

Parameters

lcls-codec-mismatch
: Allow 3GPP LCLS (Local Call, Local Switch) when call legs use different codec/rate

allowed
: Allow LCLS only only for calls that use the same codec/rate on both legs

forbidden
: Do not Allow LCLS for calls that use a different codec/rate on both legs

1.20.23 lcls-mode (disabled|mgw-loop)

Command

```
lcls-mode (disabled|mgw-loop)
```

Parameters

lcls-mode
: Configure 3GPP LCLS (Local Call, Local Switch)

disabled
: Disable LCLS for all calls of this MSC

mgw-loop
: Enable LCLS with loopping traffic in MGW

1.20.24 local-prefix REGEXP

Command

```
local-prefix REGEXP
```

Parameters

local-prefix
: Prefix for local numbers

REGEXP
: REGEXP used

1.20.25 mgw bts-base <0-65534>

Command

```
mgw bts-base <0-65534>
```

Parameters

mgw
: Configure MGCP connection to Media Gateway

bts-base
: First UDP port allocated for the BTS side

<0-65534>
: UDP Port number

1.20.26 mgw endpoint-range <1-65534> <1-65534>

Command

```
mgw endpoint-range <1-65534> <1-65534>
```

Parameters

mgw
: Configure MGCP connection to Media Gateway

endpoint-range
: usable range of endpoint identifiers

<1-65534>
: set first usable endpoint identifier

<1-65534>
: set last usable endpoint identifier

1.20.27 mgw local-ip A.B.C.D

Command

```
mgw local-ip A.B.C.D
```

Parameters

mgw
: Configure MGCP connection to Media Gateway

local-ip
: local bind to connect to MGW from

A.B.C.D
: local bind IP address

1.20.28 mgw local-port <0-65535>

Command

```
mgw local-port <0-65535>
```

Parameters

mgw
: Configure MGCP connection to Media Gateway

local-port
: local port to connect to MGW from

<0-65535>
: local bind port

1.20.29 mgw remote-ip A.B.C.D

Command

```
mgw remote-ip A.B.C.D
```

Parameters

mgw
: Configure MGCP connection to Media Gateway

remote-ip
: remote IP address to reach the MGW at

A.B.C.D
: remote IP address

1.20.30 mgw remote-port <0-65535>

Command

```
mgw remote-port <0-65535>
```

Parameters

mgw
: Configure MGCP connection to Media Gateway

remote-port
: remote port to reach the MGW at

<0-65535>
: remote port

1.20.31 mgw x-osmo-ign call-id

Command

```
mgw x-osmo-ign call-id
```

Parameters

mgw
: Configure MGCP connection to Media Gateway

x-osmo-ign
: Set a (non-standard) X-Osmo-IGN header in all CRCX messages for RTP streams associated with this MSC, useful for A/SCCPlite MSCs, since osmo-bsc cannot know the MSC's chosen CallID. This is enabled by default for A/SCCPlite connections, disabled by default for all others.

call-id
: Send 'X-Osmo-IGN: C' to ignore CallID mismatches. See OsmoMGW.

1.20.32 msc-addr NAME

Command

```
msc-addr NAME
```

Parameters

msc-addr
: Called Address (remote address of the MSC)

NAME
: SCCP address name

1.20.33 no access-list-name

Command

```
no access-list-name
```

Parameters

no
: Negate a command or set its defaults

access-list-name
: Remove the access list from the NAT.

1.20.34 no bsc-grace-text

Command

```
no bsc-grace-text
```

Parameters

no
: Negate a command or set its defaults

bsc-grace-text
: Clear the USSD notification to be sent when the MSC has entered the grace period

1.20.35 no bsc-msc-lost-text

Command

```
no bsc-msc-lost-text
```

Parameters

no
: Negate a command or set its defaults

bsc-msc-lost-text
: Clear the USSD notification to be sent on MSC connection loss

1.20.36 no bsc-welcome-text

Command

```
no bsc-welcome-text
```

Parameters

no
: Negate a command or set its defaults

bsc-welcome-text
: Clear the USSD notification to be sent

1.20.37 no mgw x-osmo-ign

Command

```
no mgw x-osmo-ign
```

Parameters

no
: Negate a command or set its defaults

mgw
: Configure MGCP connection to Media Gateway

x-osmo-ign
: Do not send X-Osmo-IGN MGCP header to this MSC

1.20.38 type (normal|local)

Command

```
type (normal|local)
```

Parameters

type
: Select the MSC type

normal
: Plain GSM MSC

local
: Special MSC for local call routing

1.21 om2k

1.21.1 capabilities-request

Command

```
capabilities-request
```

Parameters

capabilities-request
: Request MO capabilities

1.21.2 configuration-request

Command

```
configuration-request
```

Parameters

configuration-request
: Send the configuration request for current MO

1.21.3 connect-command

Command

```
connect-command
```

Parameters

connect-command
: Connect the MO

1.21.4 disable-request

Command

```
disable-request
```

Parameters

disable-request
: Disable the MO

1.21.5 disconnect-command

Command

```
disconnect-command
```

Parameters

disconnect-command
: Disconnect the MO

1.21.6 enable-request

Command

```
enable-request
```

Parameters

enable-request
: Enable the MO

1.21.7 operational-info <0-1>

Command

```
operational-info <0-1>
```

Parameters

operational-info
: Set operational information

<0-1>
: Set operational info to 0 or 1

1.21.8 reset-command

Command

```
reset-command
```

Parameters

reset-command
: Reset the MO

1.21.9 start-request

Command

```
start-request
```

Parameters

start-request
: Start the MO

1.21.10 status-request

Command

```
status-request
```

Parameters

status-request
: Get the MO Status

1.21.11 test-request

Command

```
test-request
```

Parameters

test-request
: Test the MO

1.22 om2k-con-group

1.22.1 con-path (add|del) <0-2047> <0-255> concentrated <1-16>

Command

```
con-path (add|del) <0-2047> <0-255> concentrated <1-16>
```

Parameters

con-path
: CON Path (In/Out)

add
: Add CON Path to Concentration Group

del
: Delete CON Path from Concentration Group

<0-2047>
: CON Conection Point

<0-255>
: Contiguity Index

concentrated
: Concentrated in/outlet

<1-16>
: Tag Number

1.22.2 con-path (add|del) <0-2047> <0-255> deconcentrated <0-63>

Command

```
con-path (add|del) <0-2047> <0-255> deconcentrated <0-63>
```

Parameters

con-path
: CON Path (In/Out)

add
: Add CON Path to Concentration Group

del
: Delete CON Path from Concentration Group

<0-2047>
: CON Conection Point

<0-255>
: Contiguity Index

deconcentrated
: De-concentrated in/outlet

<0-63>
: TEI Value

1.23 config-bsc

This node allows to configure the BSC connection related settings.

1.23.1 access-list NAME imsi-allow [REGEXP]

Command

```
access-list NAME imsi-allow [REGEXP]
```

Parameters

access-list
: Access list commands

NAME
: Name of the access list

imsi-allow
: Add allowed IMSI to the list

[REGEXP]
: Regexp for IMSIs

1.23.2 access-list NAME imsi-deny [REGEXP] (<0-256>) (<0-256>)

Command

```
access-list NAME imsi-deny [REGEXP] (<0-256>) (<0-256>)
```

Parameters

access-list
: Access list commands

NAME
: Name of the access list

imsi-deny
: Add denied IMSI to the list

[REGEXP]
: Regexp for IMSIs

<0-256>
: CM Service Reject reason

<0-256>
: LU Reject reason

1.23.3 access-list-name NAME

Command

```
access-list-name NAME
```

Parameters

access-list-name
: Set the name of the access list to use.

NAME
: The name of the to be used access list.

1.23.4 bsc-auto-rf-off <1-65000>

Command

```
bsc-auto-rf-off <1-65000>
```

Parameters

bsc-auto-rf-off
: Disable RF on MSC Connection

<1-65000>
: Timeout

1.23.5 bsc-rf-socket PATH

Command

```
bsc-rf-socket PATH
```

Parameters

bsc-rf-socket
: Set the filename for the RF control interface.

PATH
: RF Control path

1.23.6 mid-call-text .TEXT

Command

```
mid-call-text .TEXT
```

Parameters

mid-call-text
: Set the USSD notification sent to running calls when switching from Grace to Off.

.TEXT
: Text to be sent

1.23.7 mid-call-timeout NR

Command

```
mid-call-timeout NR
```

Parameters

mid-call-timeout
: Switch from Grace to Off in NR seconds.

NR
: Timeout in seconds

1.23.8 missing-msc-text .TEXT

Command

```
missing-msc-text .TEXT
```

Parameters

missing-msc-text
: Set the USSD notification to be send when a MSC has not been found.

.TEXT
: Text to be sent

1.23.9 no access-list NAME

Command

```
no access-list NAME
```

Parameters

no
: Negate a command or set its defaults

access-list
: Remove an access-list by name

NAME
: The access-list to remove

1.23.10 no access-list-name

Command

```
no access-list-name
```

Parameters

no
: Negate a command or set its defaults

access-list-name
: Remove the access list from the BSC

1.23.11 no bsc-auto-rf-off

Command

```
no bsc-auto-rf-off
```

Parameters

no
: Negate a command or set its defaults

bsc-auto-rf-off
: Disable RF on MSC Connection

1.23.12 no missing-msc-text

Command

```
no missing-msc-text
```

Parameters

no
: Negate a command or set its defaults

missing-msc-text
: Clear the USSD notification to be send when a MSC has not been found.