OsmoMGW VTY Reference

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COLLABORATORS

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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

Common Commands

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

end

Command

```
end
```

Parameters

end
: End current mode and change to enable mode.

exit

Command

```
exit
```

Parameters

exit
: Exit current mode and down to previous mode

help

Command

```
help
```

Parameters

help
: Description of the interactive help system

list [with-flags]

Command

```
list [with-flags]
```

Parameters

list
: Print command list

[with-flags]
: Also print the VTY attribute flags

show running-config

Command

```
show running-config
```

Parameters

show
: Show running system information

running-config
: running configuration

show vty-attributes

Command

```
show vty-attributes
```

Parameters

show
: Show running system information

vty-attributes
: List of VTY attributes

show vty-attributes (application|library|global)

Command

```
show vty-attributes (application|library|global)
```

Parameters

show
: Show running system information

vty-attributes
: List of VTY attributes

application
: Application specific attributes only

library
: Library specific attributes only

global
: Global attributes only

write

Command

```
write
```

Parameters

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

write file [PATH]

Command

```
write file [PATH]
```

Parameters

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

file
: Write to configuration file

[PATH]
: Set file path to store the config, or replace if already exists

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)

write terminal

Command

```
write terminal
```

Parameters

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

terminal
: Write to terminal

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.

enable [expert-mode]

Command

```
enable [expert-mode]
```

Parameters

enable
: Turn on privileged mode command

[expert-mode]
: Enable the expert mode (show hidden commands)

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

logging disable

Command

```
logging disable
```

Parameters

logging
: Configure logging

disable
: Disables logging to this vty

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

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

logging level (rtp|e1|lglobal|llapd|linp|lmux|lmi|lmib|lsms|lctrl|lgtp|lstats|lg...

Command

```
logging level (rtp|e1|lglobal|llapd|linp|lmux|lmi|lmib|lsms|lctrl|lgtp|lstats|lgsup| ↩
    loap|lss7|lsccp|lsua|lm3ua|lmgcp|ljibuf|lrspro|lns) (debug|info|notice|error|fatal)
```

Parameters

logging
: Configure logging

level
: Set the log level for a specified category

rtp
: RTP stream handling

e1
: E1 line handling

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

lrspro
: Remote SIM protocol

lns
: GPRS NS layer

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

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

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

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

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>’)

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

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.

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

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

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

logp (rtp|e1|lglobal|llapd|linp|lmux|lmi|lmib|lsms|lctrl|lgtp|lstats|lgsup|loap|...

Command

```
logp (rtp|e1|lglobal|llapd|linp|lmux|lmi|lmib|lsms|lctrl|lgtp|lstats|lgsup|loap|lss7| ↩
    lsccp|lsua|lm3ua|lmgcp|ljibuf|lrspro|lns) (debug|info|notice|error|fatal) . ↩
    LOGMESSAGE
```

Parameters

logp
: Print a message on all log outputs; useful for placing markers in test logs

rtp
: RTP stream handling

e1
: E1 line handling

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

lrspro
: Remote SIM protocol

lns
: GPRS NS layer

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

.LOGMESSAGE
: Arbitrary message to log on given category and log level

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>'

show alarms

Command

```
show alarms
```

Parameters

show
: Show running system information

alarms
: Show current logging configuration

show asciidoc counters

Command

```
show asciidoc counters
```

Parameters

show
: Show running system information

asciidoc
: Asciidoc generation

counters
: Generate table of all registered counters

show cpu-sched threads

Command

```
show cpu-sched threads
```

Parameters

show
: Show running system information

cpu-sched
: Show Sched section information

threads
: Show information about running threads)

show e1_driver

Command

```
show e1_driver
```

Parameters

show
: Show running system information

e1_driver
: Display information about available E1 drivers

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

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

show history

Command

```
show history
```

Parameters

show
: Show running system information

history
: Display the session command history

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

show mgcp [stats]

Command

```
show mgcp [stats]
```

Parameters

show
: Show running system information

mgcp
: Display information about the MGCP Media Gateway

[stats]
: Include Statistics

show mgcp endpoint NAME

Command

```
show mgcp endpoint NAME
```

Parameters

show
: Show running system information

mgcp
: Display information about the MGCP Media Gateway

endpoint
: Display information about an endpoint

NAME
: The name of the endpoint

show mgcp trunk <0-64> endpoint NAME

Command

```
show mgcp trunk <0-64> endpoint NAME
```

Parameters

show
: Show running system information

mgcp
: Display information about the MGCP Media Gateway

trunk
: Display information about a trunk

<0-64>
: Trunk number

endpoint
: Display information about an endpoint

NAME
: The name of the endpoint

show online-help

Command

```
show online-help
```

Parameters

show
: Show running system information

online-help
: Online help

show rate-counters

Command

```
show rate-counters
```

Parameters

show
: Show running system information

rate-counters
: Show all rate counters

show stats

Command

```
show stats
```

Parameters

show
: Show running system information

stats
: Show statistical values

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

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

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

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)

show version

Command

```
show version
```

Parameters

show
: Show running system information

version
: Displays program version

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)

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

who

Command

```
who
```

Parameters

who
: Display who is on vty

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.

configure terminal

Command

```
configure terminal
```

Parameters

configure
: Configuration from vty interface

terminal
: Configuration terminal

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)

disable

Command

```
disable
```

Parameters

disable
: Turn off privileged mode command

free-endpoint <0-64> NUMBER

Command

```
free-endpoint <0-64> NUMBER
```

Parameters

free-endpoint
: Free the given endpoint

<0-64>
: Trunk number

NUMBER
: Endpoint number in hex.

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

logging disable

Command

```
logging disable
```

Parameters

logging
: Configure logging

disable
: Disables logging to this vty

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

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

logging level (rtp|e1|lglobal|llapd|linp|lmux|lmi|lmib|lsms|lctrl|lgtp|lstats|lg...

Command

```
logging level (rtp|e1|lglobal|llapd|linp|lmux|lmi|lmib|lsms|lctrl|lgtp|lstats|lgsup| ↩
    loap|lss7|lsccp|lsua|lm3ua|lmgcp|ljibuf|lrspro|lns) (debug|info|notice|error|fatal)
```

Parameters

logging
: Configure logging

level
: Set the log level for a specified category

rtp
: RTP stream handling

e1
: E1 line handling

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

lrspro
: Remote SIM protocol

lns
: GPRS NS layer

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

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

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

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

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>’)

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

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.

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

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

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

logp (rtp|e1|lglobal|llapd|linp|lmux|lmi|lmib|lsms|lctrl|lgtp|lstats|lgsup|loap|...

Command

```
logp (rtp|e1|lglobal|llapd|linp|lmux|lmi|lmib|lsms|lctrl|lgtp|lstats|lgsup|loap|lss7| ↩
    lsccp|lsua|lm3ua|lmgcp|ljibuf|lrspro|lns) (debug|info|notice|error|fatal) . ↩
    LOGMESSAGE
```

Parameters

logp
: Print a message on all log outputs; useful for placing markers in test logs

rtp
: RTP stream handling

e1
: E1 line handling

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

lrspro
: Remote SIM protocol

lns
: GPRS NS layer

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

.LOGMESSAGE
: Arbitrary message to log on given category and log level

loop-endpoint <0-64> NAME (0|1)

Command

```
loop-endpoint <0-64> NAME (0|1)
```

Parameters

loop-endpoint
: Loop a given endpoint

<0-64>
: Trunk number

NAME
: The name in hex of the endpoint

0
: Disable the loop

1
: Enable the loop

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>'

reset-all-endpoints

Command

```
reset-all-endpoints
```

Parameters

reset-all-endpoints
: Reset all endpoints

reset-endpoint <0-64> NUMBER

Command

```
reset-endpoint <0-64> NUMBER
```

Parameters

reset-endpoint
: Reset the given endpoint

<0-64>
: Trunk number

NUMBER
: Endpoint number in hex.

show alarms

Command

```
show alarms
```

Parameters

show
: Show running system information

alarms
: Show current logging configuration

show asciidoc counters

Command

```
show asciidoc counters
```

Parameters

show
: Show running system information

asciidoc
: Asciidoc generation

counters
: Generate table of all registered counters

show cpu-sched threads

Command

```
show cpu-sched threads
```

Parameters

show
: Show running system information

cpu-sched
: Show Sched section information

threads
: Show information about running threads)

show e1_driver

Command

```
show e1_driver
```

Parameters

show
: Show running system information

e1_driver
: Display information about available E1 drivers

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

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

show history

Command

```
show history
```

Parameters

show
: Show running system information

history
: Display the session command history

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

show mgcp [stats]

Command

```
show mgcp [stats]
```

Parameters

show
: Show running system information

mgcp
: Display information about the MGCP Media Gateway

[stats]
: Include Statistics

show mgcp endpoint NAME

Command

```
show mgcp endpoint NAME
```

Parameters

show
: Show running system information

mgcp
: Display information about the MGCP Media Gateway

endpoint
: Display information about an endpoint

NAME
: The name of the endpoint

show mgcp trunk <0-64> endpoint NAME

Command

```
show mgcp trunk <0-64> endpoint NAME
```

Parameters

show
: Show running system information

mgcp
: Display information about the MGCP Media Gateway

trunk
: Display information about a trunk

<0-64>
: Trunk number

endpoint
: Display information about an endpoint

NAME
: The name of the endpoint

show online-help

Command

```
show online-help
```

Parameters

show
: Show running system information

online-help
: Online help

show rate-counters

Command

```
show rate-counters
```

Parameters

show
: Show running system information

rate-counters
: Show all rate counters

show startup-config

Command

```
show startup-config
```

Parameters

show
: Show running system information

startup-config
: Contentes of startup configuration

show stats

Command

```
show stats
```

Parameters

show
: Show running system information

stats
: Show statistical values

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

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

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

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)

show version

Command

```
show version
```

Parameters

show
: Show running system information

version
: Displays program version

stats report

Command

```
stats report
```

Parameters

stats
: Stats related commands

report
: Manurally trigger reporting of stats

stats reset

Command

```
stats reset
```

Parameters

stats
: Stats related commands

reset
: Reset all stats

tap-rtp <0-64> ENDPOINT CONN (in|out) (A.B.C.D|X:X::X:X) <0-65534>

Command

```
tap-rtp <0-64> ENDPOINT CONN (in|out) (A.B.C.D|X:X::X:X) <0-65534>
```

Parameters

tap-rtp
: Forward data on endpoint to a different system

<0-64>
: Trunk number

ENDPOINT
: The endpoint in hex

CONN
: The connection id in hex

in
: Forward incoming data

out
: Forward leaving data

A.B.C.D
: Destination IPv4 of the data

X:X::X:X
: Destination IPv6 of the data

<0-65534>
: Destination port

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)

terminal monitor

Command

```
terminal monitor
```

Parameters

terminal
: Set terminal line parameters

monitor
: Copy debug output to the current terminal line

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

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

who

Command

```
who
```

Parameters

who
: Display who is on vty

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.

banner motd default

Command

```
banner motd default
```

Parameters

banner
: Set banner string

motd
: Strings for motd

default
: Default string

banner motd file [FILE]

Command

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

Parameters

banner
: Set banner

motd
: Banner for motd

file
: Banner from a file

[FILE]
: Filename

cpu-sched

Command

```
cpu-sched
```

Parameters

cpu-sched
: Configure CPU Scheduler related settings

ctrl

Command

```
ctrl
```

Parameters

ctrl
: Configure the Control Interface

e1_input

Command

```
e1_input
```

Global attributes

Flag: !
: This command applies immediately

Parameters

e1_input
: Configure E1/T1/J1 TDM input

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

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

hostname WORD

Command

```
hostname WORD
```

Parameters

hostname
: Set system's network name

WORD
: This system's network name

line vty

Command

```
line vty
```

Parameters

line
: Configure a terminal line

vty
: Virtual terminal

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

log file .FILENAME

Command

```
log file .FILENAME
```

Parameters

log
: Configure logging sub-system

file
: Logging to text file

.FILENAME
: Filename

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)

log stderr

Command

```
log stderr
```

Parameters

log
: Configure logging sub-system

stderr
: Logging via STDERR of the process

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

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

log systemd-journal [raw]

Command

```
log systemd-journal [raw]
```

Parameters

log
: Configure logging sub-system

systemd-journal
: Logging to systemd-journal

[raw]
: Offload rendering of the meta information (location, category) to systemd

mgcp

Command

```
mgcp
```

Parameters

mgcp
: Configure the MGCP

no banner motd

Command

```
no banner motd
```

Parameters

no
: Negate a command or set its defaults

banner
: Set banner string

motd
: Strings for motd

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

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

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

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

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

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

no log systemd-journal

Command

```
no log systemd-journal
```

Parameters

no
: Negate a command or set its defaults

log
: Configure logging sub-system

systemd-journal
: Logging to systemd-journal

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

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)

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

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

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

password LINE

Command

```
password LINE
```

Parameters

password
: Assign the terminal connection password

LINE
: The UNENCRYPTED (cleartext) line password

service advanced-vty

Command

```
service advanced-vty
```

Parameters

service
: Set up miscellaneous service

advanced-vty
: Enable advanced mode vty interface

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)

show history

Command

```
show history
```

Parameters

show
: Show running system information

history
: Display the session command history

stats interval <0-65535>

Command

```
stats interval <0-65535>
```

Parameters

stats
: Configure stats sub-system

interval
: Set the reporting interval

<0-65535>
: Interval in seconds (0 disables the reporting interval)

stats reporter log

Command

```
stats reporter log
```

Parameters

stats
: Configure stats sub-system

reporter
: Configure a stats reporter

log
: Report to the logger

stats reporter statsd

Command

```
stats reporter statsd
```

Parameters

stats
: Configure stats sub-system

reporter
: Configure a stats reporter

statsd
: Report to a STATSD server

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.

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

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

logging level (rtp|e1|lglobal|llapd|linp|lmux|lmi|lmib|lsms|lctrl|lgtp|lstats|lg...

Command

```
logging level (rtp|e1|lglobal|llapd|linp|lmux|lmi|lmib|lsms|lctrl|lgtp|lstats|lgsup| ↩
    loap|lss7|lsccp|lsua|lm3ua|lmgcp|ljibuf|lrspro|lns) (debug|info|notice|error|fatal)
```

Parameters

logging
: Configure logging

level
: Set the log level for a specified category

rtp
: RTP stream handling

e1
: E1 line handling

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

lrspro
: Remote SIM protocol

lns
: GPRS NS layer

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

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

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

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

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>’)

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

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.

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

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

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>'

config-stats

disable

Command

```
disable
```

Parameters

disable
: Disable the reporter

enable

Command

```
enable
```

Parameters

enable
: Enable the reporter

flush-period <0-65535>

Command

```
flush-period <0-65535>
```

Parameters

flush-period
: Configure stats sub-system

<0-65535>
: Send all stats even if they have not changed (i.e. force the flush)every N-th reporting interval. Set to 0 to disable regular flush (default).

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

local-ip ADDR

Command

```
local-ip ADDR
```

Parameters

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

ADDR
: IP Address

mtu <100-65535>

Command

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

Parameters

mtu
: Set the maximum packet size

<100-65535>
: Size in byte

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

no mtu

Command

```
no mtu
```

Parameters

no
: Negate a command or set its defaults

mtu
: Set the maximum packet size

no prefix

Command

```
no prefix
```

Parameters

no
: Negate a command or set its defaults

prefix
: Set the item name prefix

prefix PREFIX

Command

```
prefix PREFIX
```

Parameters

prefix
: Set the item name prefix

PREFIX
: The prefix string

remote-ip ADDR

Command

```
remote-ip ADDR
```

Parameters

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

ADDR
: IP Address

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

config-line

bind A.B.C.D [<0-65535>]

Command

```
bind A.B.C.D [<0-65535>]
```

Parameters

bind
: Accept VTY telnet connections on local interface

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

[<0-65535>]
: Local TCP port number

login

Command

```
login
```

Parameters

login
: Enable password checking

no login

Command

```
no login
```

Parameters

no
: Negate a command or set its defaults

login
: Enable password checking

config-e1_input

e1_line <0-255> driver (misdn|misdn_lapd|dahdi|e1d|ipa|unixsocket)

Command

```
e1_line <0-255> driver (misdn|misdn_lapd|dahdi|e1d|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

e1d
: osmo-e1d supported E1 interface

ipa
: IPA TCP/IP input

unixsocket
: Unix socket input

e1_line <0-255> ipa-keepalive <1-300> <1-300>

Command

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

Global attributes

Flag: !
: This command applies immediately

Parameters

e1_line
: Configure E1/T1/J1 Line

<0-255>
Line Number

ipa-keepalive
Enable IPA PING/PONG keep-alive

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

<1-300>
Time to wait for PONG response

e1_line <0-255> keepalive

Command

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

Library specific attributes

Flag: I
This command applies on IPA link establishment

Parameters

e1_line
Configure E1/T1/J1 Line

<0-255>
Line Number

keepalive
Enable keep-alive probing

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

Command

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

Library specific attributes

Flag: I
This command applies on IPA link establishment

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

e1_line <0-255> name .LINE

Command

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

Global attributes

Flag: !
This command applies immediately

Parameters

e1_line
Configure E1/T1/J1 Line

<0-255>
Line Number

name
Set name for this line

.LINE
Human readable name

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

Command

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

Library specific attributes

Flag: L
This command applies on E1 line update

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

e1_line <0-255> socket .SOCKET

Command

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

Library specific attributes

Flag: L
: This command applies on E1 line update

Parameters

e1_line
: Configure E1/T1/J1 Line

<0-255>
: Line Number

socket
: Set socket path for unixsocket

.SOCKET
: socket path

ipa bind A.B.C.D

Command

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

Library specific attributes

Flag: L
: This command applies on E1 line update

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)

no e1_line <0-255> ipa-keepalive

Command

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

Global attributes

Flag: !
: This command applies immediately

Parameters

no
: Negate a command or set its defaults

e1_line
: Configure E1/T1/J1 Line

<0-255>
: Line Number

ipa-keepalive
: Enable IPA PING/PONG keep-alive

no e1_line <0-255> keepalive

Command

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

Library specific attributes

Flag: I
: This command applies on IPA link establishment

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

no pcap

Command

```
no pcap
```

Global attributes

Flag: !
This command applies immediately

Parameters

no
Negate a command or set its defaults

pcap
Disable pcap recording of all E1 traffic

pcap .FILE

Command

```
pcap .FILE
```

Global attributes

Flag: !
This command applies immediately

Parameters

pcap
Setup a pcap recording of all E1 traffic

.FILE
Filename to save the packets to

config-ctrl

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)

config-cpu-sched

cpu-affinity (self|all|<0-4294967295>|THREADNAME) CPUHEXMASK [delay]

Command

```
cpu-affinity (self|all|<0-4294967295>|THREADNAME) CPUHEXMASK [delay]
```

Parameters

cpu-affinity
: Set CPU affinity mask on a (group of) thread(s)

self
: Set CPU affinity mask on thread running the VTY

all
: Set CPU affinity mask on all process' threads

<0-4294967295>
: Set CPU affinity mask on a thread with specified PID

THREADNAME
: Set CPU affinity mask on a thread with specified thread name

CPUHEXMASK
: CPU affinity mask

[delay]
: If set, delay applying the affinity mask now and let the app handle it at a later point

policy rr <1-32>

Command

```
policy rr <1-32>
```

Parameters

policy
: Set the scheduling policy to use for the process

rr
: Use the SCHED_RR real-time scheduling algorithm

<1-32>
: Set the SCHED_RR real-time priority

config-mgcp

allow-transcoding

Command

```
allow-transcoding
```

Application specific attributes

Flag: n

This command applies when a new connection is created

Parameters

allow-transcoding

Allow transcoding

bind ip (A.B.C.D|X:X::X:X)

Command

```
bind ip (A.B.C.D|X:X::X:X)
```

Parameters

bind

Listen/Bind related socket option

ip

IP information

A.B.C.D

IPv4 Address to bind to

X:X::X:X

IPv6 Address to bind to

bind port <0-65534>

Command

```
bind port <0-65534>
```

Parameters

bind

Listen/Bind related socket option

port

Port information

<0-65534>

UDP port to listen for MGCP messages

call-agent ip (A.B.C.D|X:X::X:X)

Command

```
call-agent ip (A.B.C.D|X:X::X:X)
```

Parameters

call-agent
: Call agent information

ip
: IP information

A.B.C.D
: IPv4 Address of the call agent

X:X::X:X
: IPv6 Address of the call agent

conn-timeout <0-65534>

Command

```
conn-timeout <0-65534>
```

Parameters

conn-timeout
: Set a time after which inactive connections (CIs) are closed. Set to 0 to disable timeout. This can be used to work around interoperability problems causing connections to stay open forever, and slowly exhausting all available ports. Enable keep-alive packets in MGW clients when using this option together with LCLS (OsmoBSC, OsmoMSC: 'rtp keep-alive')!

<0-65534>
: Timeout value (sec.)

domain NAME

Command

```
domain NAME
```

Parameters

domain
: Set the domain part expected in MGCP messages' endpoint names

NAME
: Qualified domain name expected in MGCP endpoint names, or '*' to accept any domain

force-realloc (0|1)

Command

```
force-realloc (0|1)
```

Application specific attributes

Flag: n

This command applies when a new connection is created

Parameters

force-realloc

Force endpoint reallocation when the endpoint is still seized

0

Don’t force reallocation

1

force reallocation

local ip (A.B.C.D|X:X::X:X)

Command

```
local ip (A.B.C.D|X:X::X:X)
```

Application specific attributes

Flag: n

This command applies when a new connection is created

Parameters

local

Local options for the SDP record

ip

IP information

A.B.C.D

IPv4 Address to use in SDP record

X:X::X:X

IPv6 Address to use in SDP record

no allow-transcoding

Command

```
no allow-transcoding
```

Application specific attributes

Flag: n

This command applies when a new connection is created

Parameters

no

Negate a command or set its defaults

allow-transcoding

Allow transcoding

no rtcp-omit

Command

```
no rtcp-omit
```

Global attributes

Flag: !

This command applies immediately

Parameters

no

Negate a command or set its defaults

rtcp-omit

Drop RTCP packets in both directions

no rtp bind-ip

Command

```
no rtp bind-ip
```

Application specific attributes

Flag: n

This command applies when a new connection is created

Parameters

no
: Negate a command or set its defaults

rtp
: RTP configuration

bind-ip
: Bind endpoints facing the Network

no rtp bind-ip-v6

Command

```
no rtp bind-ip-v6
```

Application specific attributes

Flag: n
: This command applies when a new connection is created

Parameters

no
: Negate a command or set its defaults

rtp
: RTP configuration

bind-ip-v6
: Bind endpoints facing the Network

no rtp force-ptime

Command

```
no rtp force-ptime
```

Application specific attributes

Flag: n
: This command applies when a new connection is created

Parameters

no
: Negate a command or set its defaults

rtp
: RTP configuration

force-ptime
: Force a fixed ptime for packets sent

no rtp ip-probing

Command

```
no rtp ip-probing
```

Application specific attributes

Flag: n

This command applies when a new connection is created

Parameters

no

Negate a command or set its defaults

rtp

RTP configuration

ip-probing

no automatic rtp bind ip selection

no rtp keep-alive

Command

```
no rtp keep-alive
```

Global attributes

Flag: !

This command applies immediately

Parameters

no

Negate a command or set its defaults

rtp

RTP configuration

keep-alive

Send dummy UDP packet to net RTP destination

no rtp-patch

Command

```
no rtp-patch
```

Application specific attributes

Flag: n

This command applies when a new connection is created

Parameters

no

Negate a command or set its defaults

rtp-patch

Modify RTP packet header in both directions

no rtp-patch rfc5993hr

Command

```
no rtp-patch rfc5993hr
```

Application specific attributes

Flag: n

This command applies when a new connection is created

Parameters

no

Negate a command or set its defaults

rtp-patch

Modify RTP packet header in both directions

rfc5993hr

Convert GSM-HR from TS101318 to RFC5993 and vice versa

no rtp-patch ssrc

Command

```
no rtp-patch ssrc
```

Application specific attributes

Flag: n

This command applies when a new connection is created

Parameters

no

Negate a command or set its defaults

rtp-patch

Modify RTP packet header in both directions

ssrc

Force a fixed SSRC

no rtp-patch timestamp

Command

```
no rtp-patch timestamp
```

Application specific attributes

Flag: n

This command applies when a new connection is created

Parameters

no

Negate a command or set its defaults

rtp-patch

Modify RTP packet header in both directions

timestamp

Adjust RTP timestamp

no sdp audio-payload send-name

Command

```
no sdp audio-payload send-name
```

Application specific attributes

Flag: n

This command applies when a new connection is created

Parameters

no
: Negate a command or set its defaults

sdp
: SDP File related options

audio-payload
: Audio payload options

send-name
: Send SDP rtpmap with the audio name

no sdp audio-payload send-ptime

Command

```
no sdp audio-payload send-ptime
```

Application specific attributes

Flag: n
: This command applies when a new connection is created

Parameters

no
: Negate a command or set its defaults

sdp
: SDP File related options

audio-payload
: Audio payload options

send-ptime
: Send SDP ptime (packet duration) attribute

number endpoints <1-65534>

Command

```
number endpoints <1-65534>
```

Parameters

number
: Number options

endpoints
: Endpoints available

<1-65534>
: Number endpoints

osmux (on|off|only)

Command

```
osmux (on|off|only)
```

Parameters

osmux
: RTP multiplexing

on
: Enable OSMUX

off
: Disable OSMUX

only
: Only use OSMUX

osmux batch-factor <1-8>

Command

```
osmux batch-factor <1-8>
```

Parameters

osmux
: RTP multiplexing

batch-factor
: Batching factor

<1-8>
: Number of messages in the batch

osmux batch-size <1-65535>

Command

```
osmux batch-size <1-65535>
```

Parameters

osmux
: RTP multiplexing

batch-size
: batch size

<1-65535>
: Batch size in bytes

osmux bind-ip (A.B.C.D|X:X::X:X)

Command

```
osmux bind-ip (A.B.C.D|X:X::X:X)
```

Parameters

osmux
: RTP multiplexing

bind-ip
: IP information

A.B.C.D
: IPv4 Address to bind to

X:X::X:X
: IPv6 Address to bind to

osmux dummy (on|off)

Command

```
osmux dummy (on|off)
```

Parameters

osmux
: RTP multiplexing

dummy
: Dummy padding

on
: Enable dummy padding

off
: Disable dummy padding

osmux port <1-65535>

Command

```
osmux port <1-65535>
```

Parameters

osmux
: RTP multiplexing

port
: port

<1-65535>
: UDP port

rtcp-omit

Command

```
rtcp-omit
```

Global attributes

Flag: !

This command applies immediately

Parameters

rtcp-omit

Drop RTCP packets in both directions

rtp bind-ip A.B.C.D

Command

```
rtp bind-ip A.B.C.D
```

Application specific attributes

Flag: n

This command applies when a new connection is created

Parameters

rtp

RTP configuration

bind-ip

Bind endpoints facing the Network

A.B.C.D

IPv4 Address to bind to

rtp bind-ip-v6 X:X::X:X

Command

```
rtp bind-ip-v6 X:X::X:X
```

Application specific attributes

Flag: n

This command applies when a new connection is created

Parameters

rtp
: RTP configuration

bind-ip-v6
: Bind endpoints facing the Network

X:X::X:X
: IPv6 Address to bind to

rtp force-ptime (10|20|40)

Command

```
rtp force-ptime (10|20|40)
```

Application specific attributes

Flag: n
: This command applies when a new connection is created

Parameters

rtp
: RTP configuration

force-ptime
: Force a fixed ptime for packets sentThe required ptime (packet duration) in ms

10
: 10 ms

20
: 20 ms

40
: 40 ms

rtp ip-dscp <0-255>

Command

```
rtp ip-dscp <0-255>
```

Application specific attributes

Flag: n
: This command applies when a new connection is created

Parameters

rtp
: RTP configuration

ip-dscp
: Apply IP_TOS to the audio stream (including Osmux)

<0-255>
: The DSCP value

rtp ip-probing

Command

```
rtp ip-probing
```

Application specific attributes

Flag: n
: This command applies when a new connection is created

Parameters

rtp
: RTP configuration

ip-probing
: automatic rtp bind ip selection

rtp keep-alive <1-120>

Command

```
rtp keep-alive <1-120>
```

Global attributes

Flag: !
: This command applies immediately

Parameters

rtp
: RTP configuration

keep-alive
: Send dummy UDP packet to net RTP destination

<1-120>
: Keep alive interval in secs

rtp keep-alive once

Command

```
rtp keep-alive once
```

Global attributes

Flag: !
: This command applies immediately

Parameters

rtp
: RTP configuration

keep-alive
: Send dummy UDP packet to net RTP destination

once
: Send dummy packet only once after CRCX/MDCX

rtp port-range <1024-65534> <1025-65535>

Command

```
rtp port-range <1024-65534> <1025-65535>
```

Parameters

rtp
: RTP configuration

port-range
: Range of ports to use for the NET side

<1024-65534>
: Start of the range of ports

<1025-65535>
: End of the range of ports

rtp-accept-all (0|1)

Command

```
rtp-accept-all (0|1)
```

Global attributes

Flag: !

This command applies immediately

Parameters

rtp-accept-all

Accept all RTP packets, even when the originating IP/Port does not match

0

enable filter

1

disable filter

rtp-patch rfc5993hr

Command

```
rtp-patch rfc5993hr
```

Application specific attributes

Flag: n

This command applies when a new connection is created

Parameters

rtp-patch

Modify RTP packet header in both directions

rfc5993hr

Convert GSM-HR from TS101318 to RFC5993 and vice versa

rtp-patch ssrc

Command

```
rtp-patch ssrc
```

Application specific attributes

Flag: n

This command applies when a new connection is created

Parameters

rtp-patch

Modify RTP packet header in both directions

ssrc

Force a fixed SSRC

rtp-patch timestamp

Command

```
rtp-patch timestamp
```

Application specific attributes

Flag: n

This command applies when a new connection is created

Parameters

rtp-patch

Modify RTP packet header in both directions

timestamp

Adjust RTP timestamp

sdp audio fmtp-extra .NAME

Command

```
sdp audio fmtp-extra .NAME
```

Application specific attributes

Flag: n

This command applies when a new connection is created

Parameters

sdp

Add extra fmtp for the SDP file

audio

Audio

fmtp-extra

Fmtp-extra

.NAME

Extra Information

sdp audio-payload send-name

Command

```
sdp audio-payload send-name
```

Application specific attributes

Flag: n

This command applies when a new connection is created

Parameters

sdp

SDP File related options

audio-payload

Audio payload options

send-name

Send SDP rtpmap with the audio name

sdp audio-payload send-ptime

Command

```
sdp audio-payload send-ptime
```

Application specific attributes

Flag: n

This command applies when a new connection is created

Parameters

sdp

SDP File related options

audio-payload

Audio payload options

send-ptime

Send SDP ptime (packet duration) attribute

trunk <0-64>

Command

```
trunk <0-64>
```

Parameters

trunk

Configure a SS7 trunk

<0-64>

Trunk Nr

config-mgcp-trunk

allow-transcoding

Command

```
allow-transcoding
```

Application specific attributes

Flag: n

This command applies when a new connection is created

Parameters

allow-transcoding

Allow transcoding

line <0-255>

Command

```
line <0-255>
```

Parameters

line

Configure trunk for given Line

<0-255>

E1/T1 Line Number

no allow-transcoding

Command

```
no allow-transcoding
```

Application specific attributes

Flag: n

This command applies when a new connection is created

Parameters

no

Negate a command or set its defaults

allow-transcoding

Allow transcoding

no rtcp-omit

Command

```
no rtcp-omit
```

Global attributes

Flag: !
: This command applies immediately

Parameters

no
: Negate a command or set its defaults

rtcp-omit
: Drop RTCP packets in both directions

no rtp keep-alive

Command

```
no rtp keep-alive
```

Global attributes

Flag: !
: This command applies immediately

Parameters

no
: Negate a command or set its defaults

rtp
: RTP configuration

keep-alive
: Send dummy UDP packet to net RTP destination

no rtp-patch

Command

```
no rtp-patch
```

Application specific attributes

Flag: n
This command applies when a new connection is created

Parameters

no
Negate a command or set its defaults

rtp-patch
Modify RTP packet header in both directions

no rtp-patch rfc5993hr

Command

```
no rtp-patch rfc5993hr
```

Application specific attributes

Flag: n
This command applies when a new connection is created

Parameters

no
Negate a command or set its defaults

rtp-patch
Modify RTP packet header in both directions

rfc5993hr
Convert GSM-HR from TS101318 to RFC5993 and vice versa

no rtp-patch ssrc

Command

```
no rtp-patch ssrc
```

Application specific attributes

Flag: n
This command applies when a new connection is created

Parameters

no
Negate a command or set its defaults

rtp-patch
Modify RTP packet header in both directions

ssrc
Force a fixed SSRC

no rtp-patch timestamp

Command

```
no rtp-patch timestamp
```

Application specific attributes

Flag: n

This command applies when a new connection is created

Parameters

no

Negate a command or set its defaults

rtp-patch

Modify RTP packet header in both directions

timestamp

Adjust RTP timestamp

no sdp audio-payload send-name

Command

```
no sdp audio-payload send-name
```

Application specific attributes

Flag: n

This command applies when a new connection is created

Parameters

no

Negate a command or set its defaults

sdp

SDP File related options

audio-payload

Audio payload options

send-name

Send SDP rtpmap with the audio name

no sdp audio-payload send-ptime

Command

```
no sdp audio-payload send-ptime
```

Application specific attributes

Flag: n

This command applies when a new connection is created

Parameters

no

Negate a command or set its defaults

sdp

SDP File related options

audio-payload

Audio payload options

send-ptime

Send SDP ptime (packet duration) attribute

rtcp-omit

Command

```
rtcp-omit
```

Global attributes

Flag: !

This command applies immediately

Parameters

rtcp-omit

Drop RTCP packets in both directions

rtp keep-alive <1-120>

Command

```
rtp keep-alive <1-120>
```

Global attributes

Flag: !

This command applies immediately

Parameters

rtp

RTP configuration

keep-alive

Send dummy UDP packet to net RTP destination

<1-120>

Keep-alive interval in secs

rtp keep-alive once

Command

```
rtp keep-alive once
```

Global attributes

Flag: !

This command applies immediately

Parameters

rtp

RTP configuration

keep-alive

Send dummy UDP packet to net RTP destination

once

Send dummy packet only once after CRCX/MDCX

rtp-patch rfc5993hr

Command

```
rtp-patch rfc5993hr
```

Application specific attributes

Flag: n

This command applies when a new connection is created

Parameters

rtp-patch

Modify RTP packet header in both directions

rfc5993hr

Convert GSM-HR from TS101318 to RFC5993 and vice versa

rtp-patch ssrc

Command

```
rtp-patch ssrc
```

Application specific attributes

Flag: n

This command applies when a new connection is created

Parameters

rtp-patch

Modify RTP packet header in both directions

ssrc

Force a fixed SSRC

rtp-patch timestamp

Command

```
rtp-patch timestamp
```

Application specific attributes

Flag: n

This command applies when a new connection is created

Parameters

rtp-patch

Modify RTP packet header in both directions

timestamp

Adjust RTP timestamp

sdp audio fmtp-extra .NAME

Command

```
sdp audio fmtp-extra .NAME
```

Application specific attributes

Flag: n

This command applies when a new connection is created

Parameters

sdp
: Add extra fmtp for the SDP file

audio
: Audio

fmtp-extra
: Fmtp-extra

.NAME
: Extra Information

sdp audio-payload send-name

Command

```
sdp audio-payload send-name
```

Application specific attributes

Flag: n
: This command applies when a new connection is created

Parameters

sdp
: SDP File related options

audio-payload
: Audio payload options

send-name
: Send SDP rtpmap with the audio name

sdp audio-payload send-ptime

Command

```
sdp audio-payload send-ptime
```

Application specific attributes

Flag: n
: This command applies when a new connection is created

Parameters

sdp
: SDP File related options

audio-payload
: Audio payload options

send-ptime
: Send SDP ptime (packet duration) attribute