OsmoHLR VTY Reference

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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 [with-flags]

Command

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

Parameters

list

    Print command list

[with-flags]

    Also print the VTY attribute flags

1.1.5 show running-config

Command

```
show running-config
```

Parameters

show

> Show running system information

running-config

> running configuration

1.1.6 show vty-attributes

Command

```
show vty-attributes
```

Parameters

show

> Show running system information

vty-attributes

> List of VTY attributes

1.1.7 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

1.1.8 write

Command

```
write
```

Parameters

write

Write running configuration to memory, network, or terminal

1.1.9 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

1.1.10 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)

1.1.11 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 [expert-mode]

Command

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

Parameters

enable

Turn on privileged mode command

[expert-mode]

Enable the expert mode (show hidden commands)

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 level (main|db|auc|ss|mslookup|lu|dgsm|ctrl|lglobal|llapd|linp|lmux|lmi|...

Command

```
logging level (main|db|auc|ss|mslookup|lu|dgsm|ctrl|lglobal|llapd|linp|lmux|lmi|lmib| ←↩
    lsms|lctrl|lgtp|lstats|lgsup|loap|lss7|lsccp|lsua|lm3ua|lmgcp|ljibuf|lrspro|lns| ←↩
    lbssgp|lnsdata|lnssignal|liuup|lpfcp|lcsn1) (debug|info|notice|error|fatal)
```

Parameters

logging

> Configure logging

level

> Set the log level for a specified category

main

> Main Program

db

> Database Layer

auc

> Authentication Center

ss

> Supplementary Services

mslookup

> Mobile Subscriber Lookup

lu

> Location Updating

dgsm

> Distributed GSM: MS lookup and proxy

ctrl

> Osmocom CTRL interface

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

lbssgp

   GPRS BSSGP layer

lnsdata

   GPRS NS layer data PDU

lnssignal

   GPRS NS layer signal PDU

liuup

   Iu UP layer

lpfcp

   libosmo-pfcp Packet Forwarding Control Protocol

lcsn1

   libosmo-csn1 Concrete Syntax Notation 1 codec

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

1.2.7 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

1.2.8 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

1.2.9 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

1.2.10 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>')

1.2.11   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

1.2.12   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.

1.2.13   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

1.2.14   logging print thread-id (0|1)

Command

```
logging print thread-id (0|1)
```

Parameters

logging

    Configure logging

print

    Log output settings

thread-id

> Configure log message logging Thread ID

0

> Don't prefix each log message

1

> Prefix each log message with current Thread ID

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 logp (main|db|auc|ss|mslookup|lu|dgsm|ctrl|lglobal|llapd|linp|lmux|lmi|lmib|lsms...

Command

```
logp (main|db|auc|ss|mslookup|lu|dgsm|ctrl|lglobal|llapd|linp|lmux|lmi|lmib|lsms|lctrl| ←˒
    lgtp|lstats|lgsup|loap|lss7|lsccp|lsua|lm3ua|lmgcp|ljibuf|lrspro|lns|lbssgp|lnsdata ←˒
    |lnssignal|liuup|lpfcp|lcsn1) (debug|info|notice|error|fatal) .LOGMESSAGE
```

Parameters

logp

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

main

Main Program

db

Database Layer

auc

Authentication Center

ss

Supplementary Services

mslookup

Mobile Subscriber Lookup

lu

Location Updating

dgsm

Distributed GSM: MS lookup and proxy

ctrl

Osmocom CTRL interface

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

lbssgp

    GPRS BSSGP layer

lnsdata

    GPRS NS layer data PDU

lnssignal

    GPRS NS layer signal PDU

liuup

    Iu UP layer

lpfcp

    libosmo-pfcp Packet Forwarding Control Protocol

lcsn1

> libosmo-csn1 Concrete Syntax Notation 1 codec

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

1.2.18 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>'

1.2.19 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 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)

1.2.22 **show gsup-connections**

Command

```
show gsup-connections
```

Parameters

show
> Show running system information

gsup-connections
> GSUP Connections from VLRs, SGSNs, EUSEs

1.2.23 show history

Command

```
show history
```

Parameters

show
> Show running system information

history
> Display the session command history

1.2.24 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

1.2.25 show mslookup services

Command

```
show mslookup services
```

Parameters

show
> Show running system information

mslookup
> Distributed GSM / mslookup related information

services
> List configured service addresses as sent to remote mslookup requests

1.2.26 **show online-help**

Command

```
show online-help
```

Parameters

show

Show running system information

online-help

Online help

1.2.27 **show pid**

Command

```
show pid
```

Parameters

show

Show running system information

pid

Displays the process ID

1.2.28 **show rate-counters [skip-zero]**

Command

```
show rate-counters [skip-zero]
```

Parameters

show

Show running system information

rate-counters

Show all rate counters

[skip-zero]

Skip items with total count zero

1.2.29 show stats [skip-zero]

Command

```
show stats [skip-zero]
```

Parameters

show

Show running system information

stats

Show statistical values

[skip-zero]

Skip items with total count zero

1.2.30 show stats level (global|peer|subscriber) [skip-zero]

Command

```
show stats level (global|peer|subscriber) [skip-zero]
```

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

[skip-zero]

Skip items with total count zero

1.2.31 show subscriber (imsi|msisdn|id|imei) IDENT

Command

```
show subscriber (imsi|msisdn|id|imei) IDENT
```

Parameters

show

Show running system information

subscriber

Show subscriber information

imsi

Identify subscriber by IMSI

msisdn

Identify subscriber by MSISDN (phone number)

id

Identify subscriber by database ID

imei

Identify subscriber by IMEI

IDENT

IMSI/MSISDN/ID/IMEI of the subscriber

1.2.32 show subscribers (cs|ps) (on|off)

Command

```
show subscribers (cs|ps) (on|off)
```

Parameters

show

Show running system information

subscribers

Show subscriber information

cs

Filter Subscribers by CS Network Access Mode

ps

Filter Subscribers by PS Network Access Mode

on

Authorised

off

Not Authorised

1.2.33   show subscribers (imei|imsi|msisdn) FILTER

Command

```
show subscribers (imei|imsi|msisdn) FILTER
```

Parameters

show

   Show running system information

subscribers

   Show all subscribers (with filter possibility)

imei

   Filter Subscribers by IMEI

imsi

   Filter Subscribers by IMSI

msisdn

   Filter Subscribers by MSISDN

FILTER

   String to match in imei, imsi or msisdn

1.2.34   show subscribers all

Command

```
show subscribers all
```

Parameters

show

   Show running system information

subscribers

   Show all subscribers (with filter possibility)

all

   Show summary of all subscribers

1.2.35   show subscribers last-seen

Command

```
show subscribers last-seen
```

Parameters

show

    Show running system information

subscribers

    Show subscriber information

last-seen

    Show Subscribers Ordered by Last Seen Time

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

Command

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

Parameters

show

    Show running system information

talloc-context

    Show talloc memory hierarchy

application

    Application's context

global

    Global context (OTC_GLOBAL)

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

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

Command

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

Parameters

show

    Show running system information

talloc-context

    Show talloc memory hierarchy

application

    Application's context

global

    Global context (OTC_GLOBAL)

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

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

Command

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

Parameters

show

    Show running system information

talloc-context

    Show talloc memory hierarchy

application

    Application's context

global

    Global context (OTC_GLOBAL)

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)

1.2.39   show uptime

Command

```
show uptime
```

Parameters

show

    Show running system information

uptime

    Displays how long the program has been running

1.2.40   show version

Command

```
show version
```

Parameters

show

    Show running system information

version

    Displays program version

1.2.41   subscriber (imsi|msisdn|id|imei) IDENT show

Command

```
subscriber (imsi|msisdn|id|imei) IDENT show
```

Parameters

subscriber

    Subscriber management commands

imsi

    Identify subscriber by IMSI

msisdn

    Identify subscriber by MSISDN (phone number)

id

    Identify subscriber by database ID

imei

    Identify subscriber by IMEI

IDENT

    IMSI/MSISDN/ID/IMEI of the subscriber

show

    Show subscriber information

1.2.42   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)

1.2.43   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

1.2.44 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 configure terminal

Command

```
configure terminal
```

Parameters

configure

Configuration from vty interface

terminal

Configuration terminal

1.3.2 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)

1.3.3 disable

Command

```
disable
```

Parameters

disable
    Turn off privileged mode command

1.3.4 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

1.3.5 logging disable

Command

```
logging disable
```

Parameters

logging
    Configure logging

disable
    Disables logging to this vty

1.3.6 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

1.3.7 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

1.3.8 logging level (main|db|auc|ss|mslookup|lu|dgsm|ctrl|lglobal|llapd|linp|lmux|lmi|...

Command

```
logging level (main|db|auc|ss|mslookup|lu|dgsm|ctrl|lglobal|llapd|linp|lmux|lmi|lmib| ←
    lsms|lctrl|lgtp|lstats|lgsup|loap|lss7|lsccp|lsua|lm3ua|lmgcp|ljibuf|lrspro|lns| ←
    lbssgp|lnsdata|lnssignal|liuup|lpfcp|lcsn1) (debug|info|notice|error|fatal)
```

Parameters

logging

   Configure logging

level

   Set the log level for a specified category

main

   Main Program

db

   Database Layer

auc

   Authentication Center

ss

   Supplementary Services

mslookup

   Mobile Subscriber Lookup

lu

   Location Updating

dgsm

   Distributed GSM: MS lookup and proxy

ctrl

   Osmocom CTRL interface

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

lbssgp

    GPRS BSSGP layer

lnsdata

    GPRS NS layer data PDU

lnssignal

    GPRS NS layer signal PDU

liuup

    Iu UP layer

lpfcp

    libosmo-pfcp Packet Forwarding Control Protocol

lcsn1

    libosmo-csn1 Concrete Syntax Notation 1 codec

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

1.3.9 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

1.3.10 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

1.3.11   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

1.3.12   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>')

1.3.13 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

1.3.14 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.

1.3.15   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

1.3.16   logging print thread-id (0|1)

Command

```
logging print thread-id (0|1)
```


Parameters

logging

   Configure logging

print

   Log output settings

thread-id

Configure log message logging Thread ID

0

Don't prefix each log message

1

Prefix each log message with current Thread ID

1.3.17 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

1.3.18 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

1.3.19   logp (main|db|auc|ss|mslookup|lu|dgsm|ctrl|lglobal|llapd|linp|lmux|lmi|lmib|lsms...

Command

```
logp (main|db|auc|ss|mslookup|lu|dgsm|ctrl|lglobal|llapd|linp|lmux|lmi|lmib|lsms|lctrl| ←
    lgtp|lstats|lgsup|loap|lss7|lsccp|lsua|lm3ua|lmgcp|ljibuf|lrspro|lns|lbssgp|lnsdata ←
    |lnssignal|liuup|lpfcp|lcsn1) (debug|info|notice|error|fatal) .LOGMESSAGE
```

Parameters

logp

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

main

    Main Program

db

    Database Layer

auc

    Authentication Center

ss

    Supplementary Services

mslookup

    Mobile Subscriber Lookup

lu

    Location Updating

dgsm

    Distributed GSM: MS lookup and proxy

ctrl

    Osmocom CTRL interface

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

lbssgp

    GPRS BSSGP layer

lnsdata

    GPRS NS layer data PDU

lnssignal

    GPRS NS layer signal PDU

liuup

    Iu UP layer

lpfcp

    libosmo-pfcp Packet Forwarding Control Protocol

lcsn1

   libosmo-csn1 Concrete Syntax Notation 1 codec

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

1.3.20 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>'

1.3.21 show alarms

Command

```
show alarms
```

Parameters

show

   Show running system information

alarms

   Show current logging configuration

1.3.22   **show asciidoc counters**

Command

```
show asciidoc counters
```

Parameters

show

Show running system information

asciidoc

Asciidoc generation

counters

Generate table of all registered counters

1.3.23   **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)

1.3.24   **show gsup-connections**

Command

```
show gsup-connections
```

Parameters

show

Show running system information

gsup-connections

GSUP Connections from VLRs, SGSNs, EUSEs

1.3.25 show history

Command

```
show history
```

Parameters

show

Show running system information

history

Display the session command history

1.3.26 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

1.3.27 show mslookup services

Command

```
show mslookup services
```

Parameters

show

Show running system information

mslookup

Distributed GSM / mslookup related information

services

List configured service addresses as sent to remote mslookup requests

1.3.28 show online-help

Command

```
show online-help
```

Parameters

show

 Show running system information

online-help

 Online help

1.3.29 show rate-counters [skip-zero]

Command

```
show rate-counters [skip-zero]
```

Parameters

show

 Show running system information

rate-counters

 Show all rate counters

[skip-zero]

 Skip items with total count zero

1.3.30 show startup-config

Command

```
show startup-config
```

Parameters

show

 Show running system information

startup-config

 Contentes of startup configuration

1.3.31 show stats [skip-zero]

Command

```
show stats [skip-zero]
```

Parameters

show

Show running system information

stats

Show statistical values

[skip-zero]

Skip items with total count zero

1.3.32 show stats level (global|peer|subscriber) [skip-zero]

Command

```
show stats level (global|peer|subscriber) [skip-zero]
```

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

[skip-zero]

Skip items with total count zero

1.3.33 show subscriber (imsi|msisdn|id|imei) IDENT

Command

```
show subscriber (imsi|msisdn|id|imei) IDENT
```

Parameters

show

Show running system information

subscriber

Show subscriber information

imsi

Identify subscriber by IMSI

msisdn

Identify subscriber by MSISDN (phone number)

id

Identify subscriber by database ID

imei

Identify subscriber by IMEI

IDENT

IMSI/MSISDN/ID/IMEI of the subscriber

1.3.34 show subscribers (cs|ps) (on|off)

Command

```
show subscribers (cs|ps) (on|off)
```

Parameters

show

Show running system information

subscribers

Show subscriber information

cs

Filter Subscribers by CS Network Access Mode

ps

Filter Subscribers by PS Network Access Mode

on

Authorised

off

Not Authorised

1.3.35   show subscribers (imei|imsi|msisdn) FILTER

Command

```
show subscribers (imei|imsi|msisdn) FILTER
```

Parameters

show

   Show running system information

subscribers

   Show all subscribers (with filter possibility)

imei

   Filter Subscribers by IMEI

imsi

   Filter Subscribers by IMSI

msisdn

   Filter Subscribers by MSISDN

FILTER

   String to match in imei, imsi or msisdn

1.3.36   show subscribers all

Command

```
show subscribers all
```

Parameters

show

   Show running system information

subscribers

   Show all subscribers (with filter possibility)

all

   Show summary of all subscribers

1.3.37   show subscribers last-seen

Command

```
show subscribers last-seen
```

Parameters

show

    Show running system information

subscribers

    Show subscriber information

last-seen

    Show Subscribers Ordered by Last Seen Time

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

Command

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

Parameters

show

    Show running system information

talloc-context

    Show talloc memory hierarchy

application

    Application's context

global

    Global context (OTC_GLOBAL)

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

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

Command

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

Parameters

show

    Show running system information

talloc-context

    Show talloc memory hierarchy

application

    Application's context

global

    Global context (OTC_GLOBAL)

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

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

Command

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

Parameters

show

    Show running system information

talloc-context

    Show talloc memory hierarchy

application

    Application's context

global

    Global context (OTC_GLOBAL)

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)

1.3.41   show version

Command

```
show version
```

Parameters

show

>   Show running system information

version

>   Displays program version

1.3.42   shutdown

Command

```
shutdown
```

Parameters

shutdown

>   Request a shutdown of the program

1.3.43   stats report

Command

```
stats report
```

Parameters

stats

>   Stats related commands

report

>   Manurally trigger reporting of stats

1.3.44 stats reset

Command

```
stats reset
```

Parameters

stats

    Stats related commands

reset

    Reset all rate counter stats

1.3.45 subscriber (imsi|msisdn|id|imei) IDENT delete

Command

```
subscriber (imsi|msisdn|id|imei) IDENT delete
```

Parameters

subscriber

    Subscriber management commands

imsi

    Identify subscriber by IMSI

msisdn

    Identify subscriber by MSISDN (phone number)

id

    Identify subscriber by database ID

imei

    Identify subscriber by IMEI

IDENT

    IMSI/MSISDN/ID/IMEI of the subscriber

delete

    Delete subscriber from database

1.3.46 subscriber (imsi|msisdn|id|imei) IDENT show

Command

```
subscriber (imsi|msisdn|id|imei) IDENT show
```

Parameters

subscriber

   Subscriber management commands

imsi

   Identify subscriber by IMSI

msisdn

   Identify subscriber by MSISDN (phone number)

id

   Identify subscriber by database ID

imei

   Identify subscriber by IMEI

IDENT

   IMSI/MSISDN/ID/IMEI of the subscriber

show

   Show subscriber information

1.3.47   subscriber (imsi|msisdn|id|imei) IDENT update aud2g (comp128v1|comp128v2|comp128...

Command

```
subscriber (imsi|msisdn|id|imei) IDENT update aud2g (comp128v1|comp128v2|comp128v3|xor) ↩
    ki KI
```

Parameters

subscriber

   Subscriber management commands

imsi

   Identify subscriber by IMSI

msisdn

   Identify subscriber by MSISDN (phone number)

id

   Identify subscriber by database ID

imei

   Identify subscriber by IMEI

IDENT

   IMSI/MSISDN/ID/IMEI of the subscriber

update

   Set or update subscriber data

aud2g

   Set 2G authentication data

comp128v1

    Use COMP128v1 algorithm

comp128v2

    Use COMP128v2 algorithm

comp128v3

    Use COMP128v3 algorithm

xor

    Use XOR algorithm

ki

    Set Ki Encryption Key

KI

    Ki as 32 hexadecimal characters

1.3.48 subscriber (imsi|msisdn|id|imei) IDENT update aud2g none

Command

```
subscriber (imsi|msisdn|id|imei) IDENT update aud2g none
```

Parameters

subscriber

    Subscriber management commands

imsi

    Identify subscriber by IMSI

msisdn

    Identify subscriber by MSISDN (phone number)

id

    Identify subscriber by database ID

imei

    Identify subscriber by IMEI

IDENT

    IMSI/MSISDN/ID/IMEI of the subscriber

update

    Set or update subscriber data

aud2g

    Set 2G authentication data

    Delete 2G authentication data

1.3.49   subscriber (imsi|msisdn|id|imei) IDENT update aud3g milenage k K (op|opc) OP_C [...

Command

```
subscriber (imsi|msisdn|id|imei) IDENT update aud3g milenage k K (op|opc) OP_C [ind- ↩
    bitlen] [<0-28>]
```

Parameters

subscriber

    Subscriber management commands

imsi

    Identify subscriber by IMSI

msisdn

    Identify subscriber by MSISDN (phone number)

id

    Identify subscriber by database ID

imei

    Identify subscriber by IMEI

IDENT

    IMSI/MSISDN/ID/IMEI of the subscriber

update

    Set or update subscriber data

aud3g

    Set UMTS authentication data (3G, and 2G with UMTS AKA)

milenage

    Use Milenage algorithm

k

    Set Encryption Key K

K

    K as 32 hexadecimal characters

op

    Set OP key

opc

    Set OPC key

OP_C

    OP or OPC as 32 hexadecimal characters

[ind-bitlen]

    Set IND bit length

[<0-28>]

    IND bit length value (default: 5)

1.3.50 subscriber (imsi|msisdn|id|imei) IDENT update aud3g none

Command

```
subscriber (imsi|msisdn|id|imei) IDENT update aud3g none
```

Parameters

subscriber

Subscriber management commands

imsi

Identify subscriber by IMSI

msisdn

Identify subscriber by MSISDN (phone number)

id

Identify subscriber by database ID

imei

Identify subscriber by IMEI

IDENT

IMSI/MSISDN/ID/IMEI of the subscriber

update

Set or update subscriber data

aud3g

Set UMTS authentication data (3G, and 2G with UMTS AKA)

Delete 3G authentication data

1.3.51 subscriber (imsi|msisdn|id|imei) IDENT update aud3g xor k K [ind-bitlen] [<0-28>...

Command

```
subscriber (imsi|msisdn|id|imei) IDENT update aud3g xor k K [ind-bitlen] [<0-28>]
```

Parameters

subscriber

Subscriber management commands

imsi

Identify subscriber by IMSI

msisdn

Identify subscriber by MSISDN (phone number)

id

Identify subscriber by database ID

imei

    Identify subscriber by IMEI

IDENT

    IMSI/MSISDN/ID/IMEI of the subscriber

update

    Set or update subscriber data

aud3g

    Set UMTS authentication data (3G, and 2G with UMTS AKA)

xor

    Use XOR algorithm

k

    Set Encryption Key K

K

    K as 32 hexadecimal characters

[ind-bitlen]

    Set IND bit length

[<0-28>]

    IND bit length value (default: 5)

1.3.52 subscriber (imsi|msisdn|id|imei) IDENT update imei (none|IMEI)

Command

```
subscriber (imsi|msisdn|id|imei) IDENT update imei (none|IMEI)
```

Parameters

subscriber

    Subscriber management commands

imsi

    Identify subscriber by IMSI

msisdn

    Identify subscriber by MSISDN (phone number)

id

    Identify subscriber by database ID

imei

    Identify subscriber by IMEI

IDENT

    IMSI/MSISDN/ID/IMEI of the subscriber

update

    Set or update subscriber data

imei

Set IMEI of the subscriber (normally populated from MSC, no need to set this manually)

Forget IMEI

IMEI

Set IMEI (use for debug only!)

1.3.53 subscriber (imsi|msisdn|id|imei) IDENT update msisdn (none|MSISDN)

Command

```
subscriber (imsi|msisdn|id|imei) IDENT update msisdn (none|MSISDN)
```

Parameters

subscriber

Subscriber management commands

imsi

Identify subscriber by IMSI

msisdn

Identify subscriber by MSISDN (phone number)

id

Identify subscriber by database ID

imei

Identify subscriber by IMEI

IDENT

IMSI/MSISDN/ID/IMEI of the subscriber

update

Set or update subscriber data

msisdn

Set MSISDN (phone number) of the subscriber

Remove MSISDN (phone number)

MSISDN

New MSISDN (phone number)

1.3.54 subscriber (imsi|msisdn|id|imei) IDENT update network-access-mode (none|cs|ps|cs...

Command

```
subscriber (imsi|msisdn|id|imei) IDENT update network-access-mode (none|cs|ps|cs+ps)
```

Parameters

subscriber

Subscriber management commands

imsi

Identify subscriber by IMSI

msisdn

Identify subscriber by MSISDN (phone number)

id

Identify subscriber by database ID

imei

Identify subscriber by IMEI

IDENT

IMSI/MSISDN/ID/IMEI of the subscriber

update

Set or update subscriber data

network-access-mode

Set Network Access Mode (NAM) of the subscriber

Do not allow access to circuit switched or packet switched services

cs

Allow access to circuit switched services only

ps

Allow access to packet switched services only

cs+ps

Allow access to both circuit and packet switched services

1.3.55 subscriber imsi IDENT create

Command

```
subscriber imsi IDENT create
```

Parameters

subscriber

Subscriber management commands

imsi

Identify subscriber by IMSI

IDENT

IMSI/MSISDN/ID of the subscriber

create

Create subscriber by IMSI

1.3.56 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)

1.3.57 terminal monitor

Command

```
terminal monitor
```

Parameters

terminal

Set terminal line parameters

monitor

Copy debug output to the current terminal line

1.3.58 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

1.3.59 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

1.3.60 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 cpu-sched

Command

```
cpu-sched
```

Parameters

cpu-sched

    Configure CPU Scheduler related settings

1.4.4 ctrl

Command

```
ctrl
```

Parameters

ctrl

    Configure the Control Interface

1.4.5   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

1.4.6   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

1.4.7   hlr

Command

```
hlr
```

Parameters

hlr
> Configure the HLR

1.4.8 hostname WORD

Command

```
hostname WORD
```

Parameters

hostname

Set system's network name

WORD

This system's network name

1.4.9 line vty

Command

```
line vty
```

Parameters

line

Configure a terminal line

vty

Virtual terminal

1.4.10 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

1.4.11 log file FILENAME [blocking-io]

Command

```
log file FILENAME [blocking-io]
```

Parameters

log

Configure logging sub-system

file

Logging to text file

FILENAME

Filename

[blocking-io]

Use blocking, synchronous I/O

1.4.12 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)

1.4.13 log stderr [blocking-io]

Command

```
log stderr [blocking-io]
```

Parameters

log

Configure logging sub-system

stderr

Logging via STDERR of the process

[blocking-io]

Use blocking, synchronous I/O

1.4.14 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

1.4.15 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

1.4.16 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

1.4.17 mslookup

Command

```
mslookup
```

Parameters

mslookup

  Configure Distributed GSM mslookup

1.4.18 no banner motd

Command

```
no banner motd
```

Parameters

no

  Negate a command or set its defaults

banner

  Set banner string

motd

  Strings for motd

1.4.19   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

1.4.20   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

1.4.21   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

1.4.22 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

1.4.23 no log gsmtap [HOSTNAME]

Command

```
no log gsmtap [HOSTNAME]
```

Parameters

no

Negate a command or set its defaults

log

Configure logging sub-system

gsmtap

Logging via GSMTAP

[HOSTNAME]

Host name to send the GSMTAP logging to (UDP port 4729)

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 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

1.4.27   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

1.4.28   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)

1.4.29   no stats reporter log [NAME]

Command

```
no stats reporter log [NAME]
```

Parameters

no

Negate a command or set its defaults

stats

Configure stats sub-system

reporter

Configure a stats reporter

log

Report to the logger

[NAME]

Name of the reporter

1.4.30   no stats reporter statsd [NAME]

Command

```
no stats reporter statsd [NAME]
```

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

[NAME]

> Name of the reporter

1.4.31 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

1.4.32 password LINE

Command

```
password LINE
```

Parameters

password

> Assign the terminal connection password

LINE

> The UNENCRYPTED (cleartext) line password

1.4.33   service advanced-vty

Command

```
service advanced-vty
```

Parameters

service

Set up miscellaneous service

advanced-vty

Enable advanced mode vty interface

1.4.34   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)

1.4.35   show history

Command

```
show history
```

Parameters

show

Show running system information

history

Display the session command history

1.4.36   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)

1.4.37   stats reporter log [NAME]

Command

```
stats reporter log [NAME]
```

Parameters

stats

   Configure stats sub-system

reporter

   Configure a stats reporter

log

   Report to the logger

[NAME]

   Name of the reporter

1.4.38   stats reporter statsd [NAME]

Command

```
stats reporter statsd [NAME]
```

Parameters

stats

   Configure stats sub-system

reporter

   Configure a stats reporter

statsd

   Report to a STATSD server

[NAME]

   Name of the reporter

1.4.39 stats-tcp batch-size <1-65535>

Command

```
stats-tcp batch-size <1-65535>
```

Parameters

stats-tcp

Configure stats sub-system

batch-size

Set the number of tcp sockets that are processed per stats polling interval

<1-65535>

Number of sockets per interval

1.4.40 stats-tcp interval <0-65535>

Command

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

Parameters

stats-tcp

Configure stats sub-system

interval

Set the tcp socket stats polling interval

<0-65535>

Interval in seconds (0 disables the polling interval)

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 level (main|db|auc|ss|mslookup|lu|dgsm|ctrl|lglobal|llapd|linp|lmux|lmi|...

Command

```
logging level (main|db|auc|ss|mslookup|lu|dgsm|ctrl|lglobal|llapd|linp|lmux|lmi|lmib| ←
    lsms|lctrl|lgtp|lstats|lgsup|loap|lss7|lsccp|lsua|lm3ua|lmgcp|ljibuf|lrspro|lns| ←
    lbssgp|lnsdata|lnssignal|liuup|lpfcp|lcsn1) (debug|info|notice|error|fatal)
```

Parameters

logging

    Configure logging

level

    Set the log level for a specified category

main

    Main Program

db

    Database Layer

auc

    Authentication Center

ss

    Supplementary Services

mslookup

    Mobile Subscriber Lookup

lu

    Location Updating

dgsm

    Distributed GSM: MS lookup and proxy

ctrl

    Osmocom CTRL interface

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

lbssgp

GPRS BSSGP layer

lnsdata

GPRS NS layer data PDU

lnssignal

GPRS NS layer signal PDU

liuup

Iu UP layer

lpfcp

libosmo-pfcp Packet Forwarding Control Protocol

lcsn1

libosmo-csn1 Concrete Syntax Notation 1 codec

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

1.5.4 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

1.5.5 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

1.5.6 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

1.5.7 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>')

1.5.8 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

1.5.9 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.

1.5.10 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

1.5.11 logging print thread-id (0|1)

Command

```
logging print thread-id (0|1)
```

Parameters

logging

Configure logging

print

Log output settings

thread-id

Configure log message logging Thread ID

0

Don't prefix each log message

1

Prefix each log message with current Thread ID

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 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).

1.6.4 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

1.6.5 local-ip ADDR

Command

```
local-ip ADDR
```

Parameters

local-ip

Set the IP address to which we bind locally

ADDR

IP Address

1.6.6 mtu <100-65535>

Command

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

Parameters

mtu

Set the maximum packet size

<100-65535>

Size in byte

1.6.7 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

1.6.8 no mtu

Command

```
no mtu
```

Parameters

no

Negate a command or set its defaults

mtu

Set the maximum packet size

1.6.9 no prefix

Command

```
no prefix
```

Parameters

no

Negate a command or set its defaults

prefix

Set the item name prefix

1.6.10 prefix PREFIX

Command

```
prefix PREFIX
```

Parameters

prefix

Set the item name prefix

PREFIX

The prefix string

1.6.11 remote-ip ADDR

Command

```
remote-ip ADDR
```

Parameters

remote-ip

Set the remote IP address to which we connect

ADDR

IP Address

1.6.12 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 [<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

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-ctrl

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

Command

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

Parameters

bind

    Set bind address to listen for Control connections

A.B.C.D

    Local IP address (default 127.0.0.1)

[<0-65535>]

    Local TCP port number

1.9   config-cpu-sched

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

Command

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

Global attributes

Flag: !

    This command applies immediately

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

1.9.2 policy rr <1-32>

Command

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

Global attributes

Flag: !

This command applies immediately

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

1.10 config-hlr

1.10.1 database PATH

Command

```
database PATH
```

Parameters

database

Set the path to the HLR database file

PATH

Relative or absolute file system path to the database file (default is 'hlr.db')

1.10.2 euse NAME

Command

```
euse NAME
```

Parameters

euse

Configure a particular External USSD Entity

NAME

Alphanumeric name of the External USSD Entity

1.10.3 gsup

Command

```
gsup
```

Parameters

gsup

Configure GSUP options

1.10.4 ncss-guard-timeout <0-255>

Command

```
ncss-guard-timeout <0-255>
```

Parameters

ncss-guard-timeout

Set guard timer for NCSS (call independent SS) session activity

<0-255>

Guard timer value (sec.), or 0 to disable

1.10.5 no euse NAME

Command

```
no euse NAME
```

Parameters

no

Negate a command or set its defaults

euse

Remove a particular External USSD Entity

NAME

Alphanumeric name of the External USSD Entity

1.10.6 no store-imei

Command

```
no store-imei
```

Parameters

no

Do not save the IMEI in the database, when receiving Check IMEI requests.

store-imei

(null)

1.10.7 no subscriber-create-on-demand

Command

```
no subscriber-create-on-demand
```

Parameters

no

Do not make a new record when a subscriber is first seen.

subscriber-create-on-demand

(null)

1.10.8 no ussd default-route

Command

```
no ussd default-route
```

Parameters

no

Negate a command or set its defaults

ussd

USSD Configuration

default-route

Remove the default-route for all USSD to unknown destinations

1.10.9 no ussd route prefix PREFIX

Command

```
no ussd route prefix PREFIX
```

Parameters

no

Negate a command or set its defaults

ussd

USSD Configuration

route

Routing Configuration

prefix

Prefix-Matching Route

PREFIX

USSD Prefix

1.10.10   store-imei

Command

```
store-imei
```

Parameters

store-imei

> Save the IMEI in the database when receiving Check IMEI requests. Note that an MSC does not necessarily send Check IMEI requests (for OsmoMSC, you may want to set 'check-imei-rqd 1').

1.10.11   subscriber-create-on-demand (no-msisdn|<3-15>) (none|cs|ps|cs+ps)

Command

```
subscriber-create-on-demand (no-msisdn|<3-15>) (none|cs|ps|cs+ps)
```

Parameters

subscriber-create-on-demand

> Make a new record when a subscriber is first seen.

no-msisdn

> Do not automatically assign MSISDN.

<3-15>

> Length of an automatically assigned MSISDN.

> Do not allow any NAM (Network Access Mode) by default.

cs

> Allow access to circuit switched NAM by default.

ps

> Allow access to packet switched NAM by default.

cs+ps

> Allow access to circuit and packet switched NAM by default.

1.10.12   ussd default-route external EUSE

Command

```
ussd default-route external EUSE
```

Parameters

ussd

> USSD Configuration

default-route

    Configure default-route for all USSD to unknown destinations

external

    External USSD Handler

EUSE

    Name of External USSD Handler (IPA CCM ID)

1.10.13 ussd route prefix PREFIX external EUSE

Command

```
ussd route prefix PREFIX external EUSE
```

Parameters

ussd

    USSD Configuration

route

    Routing Configuration

prefix

    Prefix-Matching Route

PREFIX

    USSD Prefix

external

    External USSD Handler

EUSE

    Name of External USSD Handler (IPA CCM ID)

1.10.14 ussd route prefix PREFIX internal (own-msisdn|own-imsi|test-idle)

Command

```
ussd route prefix PREFIX internal (own-msisdn|own-imsi|test-idle)
```

Parameters

ussd

    USSD Configuration

route

    Routing Configuration

prefix

    Prefix-Matching Route

PREFIX

    USSD Prefix

internal

    Internal USSD Handler

own-msisdn

    Respond with subscribers' own MSISDN

own-imsi

    Respond with subscribers' own IMSI

test-idle

    Keep the session idle (useful for testing)

1.11 config-hlr-gsup

1.11.1 bind ip A.B.C.D

Command

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

Parameters

bind

    Listen/Bind related socket option

ip

    IP information

A.B.C.D

    IPv4 Address to bind the GSUP interface to

1.11.2 ipa-name NAME

Command

```
ipa-name NAME
```

Parameters

ipa-name

    Set the IPA name of this HLR, for proxying to remote HLRs

NAME

    A globally unique name for this HLR. For example: PLMN + redundancy server number: HLR-901-70-0. This name is used for GSUP routing and must be set if multiple HLRs interconnect (e.g. mslookup for Distributed GSM).

1.12 config-hlr-euse

1.13 config-mslookup

1.13.1 client

Command

```
client
```

Parameters

client

Enable and configure Distributed GSM mslookup client

1.13.2 mdns bind [IP] [<1-65535>]

Command

```
mdns bind [IP] [<1-65535>]
```

Parameters

mdns

Multicast DNS related configuration

bind

Convenience shortcut: enable and configure both server and client for mDNS mslookup

[IP]

multicast IPv4 address like 239.192.23.42 or IPv6 address like ff08::23:42

[<1-65535>]

mDNS UDP Port number

1.13.3 mdns domain-suffix DOMAIN_SUFFIX

Command

```
mdns domain-suffix DOMAIN_SUFFIX
```

Parameters

mdns

Multicast DNS related configuration

domain-suffix

mDNS domain suffix (default: mdns.osmocom.org). This is appended and stripped from mDNS packets during encoding/decoding, so we don't collide with top-level domains administrated by IANA

DOMAIN_SUFFIX

mDNS domain suffix (default: mdns.osmocom.org). This is appended and stripped from mDNS packets during encoding/decoding, so we don't collide with top-level domains administrated by IANA

1.13.4 no client

Command

```
no client
```

Parameters

no

Negate a command or set its defaults

client

Disable Distributed GSM mslookup client

1.13.5 no mdns bind

Command

```
no mdns bind
```

Parameters

no

Negate a command or set its defaults

mdns

Disable both server and client for mDNS mslookup

bind

(null)

1.13.6 no server

Command

```
no server
```

Parameters

no

Negate a command or set its defaults

server

Disable Distributed GSM mslookup server

1.13.7 server

Command

```
server
```

Parameters

server

Enable and configure Distributed GSM mslookup server

1.14 config-mslookup-server

1.14.1 mdns bind [IP] [<1-65535>]

Command

```
mdns bind [IP] [<1-65535>]
```

Parameters

mdns

Multicast DNS related configuration

bind

Configure where the mDNS server listens for mslookup requests

[IP]

multicast IPv4 address like 239.192.23.42 or IPv6 address like ff08::23:42

[<1-65535>]

mDNS UDP Port number

1.14.2 mdns domain-suffix DOMAIN_SUFFIX

Command

```
mdns domain-suffix DOMAIN_SUFFIX
```

Parameters

mdns

Multicast DNS related configuration

domain-suffix

mDNS domain suffix (default: mdns.osmocom.org). This is appended and stripped from mDNS packets during encoding/decoding, so we don't collide with top-level domains administrated by IANA

DOMAIN_SUFFIX

mDNS domain suffix (default: mdns.osmocom.org). This is appended and stripped from mDNS packets during encoding/decoding, so we don't collide with top-level domains administrated by IANA

1.14.3   msc ipa-name .IPA_NAME

Command

```
msc ipa-name .IPA_NAME
```

Parameters

msc

Configure services for individual local MSCs

ipa-name

Identify locally connected MSC by IPA Unit Name

.IPA_NAME

IPA Unit Name of the local MSC to configure

1.14.4   no mdns bind

Command

```
no mdns bind
```

Parameters

no

Negate a command or set its defaults

mdns

Disable server for mDNS mslookup (do not answer remote requests)

bind

(null)

1.14.5   no service NAME

Command

```
no service NAME
```

Parameters

no

Negate a command or set its defaults

service

Remove one or more service address entries

NAME

mslookup service name, e.g. sip.voice or smpp.sms

1.14.6   no service NAME at IP <1-65535>

Command

```
no service NAME at IP <1-65535>
```

Parameters

no

Negate a command or set its defaults

service

Remove one or more service address entries

NAME

mslookup service name, e.g. sip.voice or smpp.sms

at

at

IP

IPv4 address like 1.2.3.4 or IPv6 address like a:b:c:d::1

<1-65535>

Service-specific port number

1.14.7   service NAME at IP <1-65535>

Command

```
service NAME at IP <1-65535>
```

Parameters

service

Configure addresses of local services, as sent in replies to remote mslookup requests.

NAME

mslookup service name, e.g. sip.voice or smpp.sms

at

at

IP

IPv4 address like 1.2.3.4 or IPv6 address like a:b:c:d::1

<1-65535>

Service-specific port number

1.15 config-mslookup-server-msc

1.15.1 no service NAME

Command

```
no service NAME
```

Parameters

no

Negate a command or set its defaults

service

Remove one or more service address entries

NAME

mslookup service name, e.g. sip.voice or smpp.sms

1.15.2 no service NAME at IP <1-65535>

Command

```
no service NAME at IP <1-65535>
```

Parameters

no

Negate a command or set its defaults

service

Remove one or more service address entries

NAME

mslookup service name, e.g. sip.voice or smpp.sms

at

at

IP

IPv4 address like 1.2.3.4 or IPv6 address like a:b:c:d::1

<1-65535>

Service-specific port number

1.15.3 service NAME at IP <1-65535>

Command

```
service NAME at IP <1-65535>
```

Parameters

service

Configure addresses of local services, as sent in replies to remote mslookup requests.

NAME

mslookup service name, e.g. sip.voice or smpp.sms

at

at

IP

IPv4 address like 1.2.3.4 or IPv6 address like a:b:c:d::1

<1-65535>

Service-specific port number

1.16 config-mslookup-client

1.16.1 gateway-proxy IP [<1-65535>]

Command

```
gateway-proxy IP [<1-65535>]
```

Parameters

gateway-proxy

Configure a fixed IP address to send all GSUP requests for unknown IMSIs to, without invoking a lookup for IMSI

IP

IP address of the remote HLR

[<1-65535>]

GSUP port number (omit for default 4222)

1.16.2 mdns bind [IP] [<1-65535>]

Command

```
mdns bind [IP] [<1-65535>]
```

Parameters

mdns

> Multicast DNS related configuration

bind

> Enable mDNS client, and configure multicast address to send mDNS mslookup requests to

[IP]

> multicast IPv4 address like 239.192.23.42 or IPv6 address like ff08::23:42

[<1-65535>]

> mDNS UDP Port number

1.16.3 mdns domain-suffix DOMAIN_SUFFIX

Command

```
mdns domain-suffix DOMAIN_SUFFIX
```

Parameters

mdns

> Multicast DNS related configuration

domain-suffix

> mDNS domain suffix (default: mdns.osmocom.org). This is appended and stripped from mDNS packets during encoding/decoding, so we don't collide with top-level domains administrated by IANA

DOMAIN_SUFFIX

> mDNS domain suffix (default: mdns.osmocom.org). This is appended and stripped from mDNS packets during encoding/decoding, so we don't collide with top-level domains administrated by IANA

1.16.4 no gateway-proxy

Command

```
no gateway-proxy
```

Parameters

no

> Negate a command or set its defaults

gateway-proxy

> Disable gateway proxy for GSUP with unknown IMSIs

1.16.5   no mdns bind

Command

```
no mdns bind
```

Parameters

no

Negate a command or set its defaults

mdns

Disable mDNS client, do not query remote services by mDNS

bind

(null)

1.16.6   timeout <1-100000>

Command

```
timeout <1-100000>
```

Parameters

timeout

How long should the mslookup client wait for remote responses before evaluating received results

<1-100000>

timeout in milliseconds