

# **OsmoPCU 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 sismocom 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

### 1.1.1 echo .MESSAGE

## Command

```
echo .MESSAGE
```

## Parameters

echo

Echo a message back to the vty

.MESSAGE

The message to echo

### 1.1.2 enable

## Command

```
enable
```

## Parameters

enable

Turn on privileged mode command

### 1.1.3 exit

## Command

```
exit
```

## Parameters

exit

Exit current mode and down to previous mode

### 1.1.4 help

## Command

```
help
```

## Parameters

help

Description of the interactive help system

---

### 1.1.5 list

#### Command

```
list
```

#### Parameters

list

Print command list

### 1.1.6 logging color (0|1)

#### Command

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

#### Parameters

logging

Configure log message to this terminal

color

Configure color-printing for log messages

0

Don't use color for printing messages

1

Use color for printing messages

### 1.1.7 logging disable

#### Command

```
logging disable
```

#### Parameters

logging

Configure log message to this terminal

disable

Disables logging to this vty

---

### 1.1.8 logging enable

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

#### Command

```
logging enable
```

#### Parameters

##### logging

Configure log message to this terminal

##### enable

Enables logging to this vty

### 1.1.9 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 log message to this terminal

##### 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

### 1.1.10 logging level (all|csn1|l1if|rlcmac|rlcmacdata|rlcmacd|rlcmacul|rlcmacsched|rlc...

#### Command

```
logging level (all|csn1|l1if|rlcmac|rlcmacdata|rlcmacd|rlcmacul|rlcmacsched|rlcmacmeas ↔  
|bssgp|pcu|lglobal|llapd|linp|lmux|lmi|lmib|lsms) (everything|debug|info|notice| ↔  
error|fatal)
```

---

## Parameters

### logging

Configure log message to this terminal

### level

Set the log level for a specified category

### all

Global setting for all subsystems

### csn1

Concrete Syntax Notation One (CSN1)

### l1if

GPRS PCU L1 interface (L1IF)

### rlcmac

GPRS RLC/MAC layer (RLCMAC)

### rlcmacdata

GPRS RLC/MAC layer Data (RLCMAC)

### rlcmacd1

GPRS RLC/MAC layer Downlink (RLCMAC)

### rlmacul

GPRS RLC/MAC layer Uplink (RLCMAC)

### rlmacsched

GPRS RLC/MAC layer Scheduling (RLCMAC)

### rlmacmeas

GPRS RLC/MAC layer Measurements (RLCMAC)

### bssgp

GPRS BSS Gateway Protocol (BSSGP)

### pcu

GPRS Packet Control Unit (PCU)

### lglobal

Library-internal global log family

### llapd

LAPD in libosmogsm

### linp

A-bis Input 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)

everything

Log simply everything

debug

Log debug messages and higher levels

info

Log informational messages and higher levels

notice

Log noticable messages and higher levels

error

Log error messages and higher levels

fatal

Log only fatal messages

### 1.1.11 logging set log mask MASK

Command

```
logging set log mask MASK
```

Parameters

logging

Configure log message to this terminal

set

Decide which categories to output.

log

Log commands

mask

Mask commands

MASK

The logmask to use

### 1.1.12 logging set-log-mask MASK

Command

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

Parameters

---

### logging

Configure log message to this terminal

### set-log-mask

Set the logmask of this logging target

### MASK

The logmask to use

## 1.1.13 logging timestamp (0|1)

### Command

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

### Parameters

#### logging

Configure log message to this terminal

#### timestamp

Configure log message timestamping

0

Don't prefix each log message

1

Prefix each log message with current timestamp

## 1.1.14 show alarms

### Command

```
show alarms
```

### Parameters

#### show

Show running system information

#### alarms

Show current logging configuration

### 1.1.15 show bts statistics

#### Command

```
show bts statistics
```

#### Parameters

##### show

Show running system information

##### bts

BTS related functionality

##### statistics

Statistics

### 1.1.16 show history

#### Command

```
show history
```

#### Parameters

##### show

Show running system information

##### history

Display the session command history

### 1.1.17 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

---



### 1.1.18 show online-help

#### Command

```
show online-help
```

#### Parameters

show

Show running system information

online-help

Online help

### 1.1.19 show tbf all

#### Command

```
show tbf all
```

#### Parameters

show

Show running system information

tbf

information about all current TBFs

all

(null)

### 1.1.20 show version

#### Command

```
show version
```

#### Parameters

show

Show running system information

version

Displays program version

### 1.1.21 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)

### 1.1.22 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

### 1.1.23 who

#### Command

```
who
```

#### Parameters

##### who

Display who is on vty

---

## 1.2

### 1.2.1 configure terminal

#### Command

```
configure terminal
```

#### Parameters

##### configure

Configuration from vty interface

##### terminal

Configuration terminal

### 1.2.2 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)

### 1.2.3 disable

#### Command

```
disable
```

#### Parameters

##### disable

Turn off privileged mode command

---

### 1.2.4 echo .MESSAGE

#### Command

```
echo .MESSAGE
```

#### Parameters

##### echo

Echo a message back to the vty

##### .MESSAGE

The message to echo

### 1.2.5 exit

#### Command

```
exit
```

#### Parameters

##### exit

Exit current mode and down to previous mode

### 1.2.6 help

#### Command

```
help
```

#### Parameters

##### help

Description of the interactive help system

### 1.2.7 list

#### Command

```
list
```

#### Parameters

##### list

Print command list

---

### 1.2.8 logging color (0|1)

#### Command

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

#### Parameters

##### logging

Configure log message to this terminal

##### color

Configure color-printing for log messages

0

Don't use color for printing messages

1

Use color for printing messages

### 1.2.9 logging disable

#### Command

```
logging disable
```

#### Parameters

##### logging

Configure log message to this terminal

##### disable

Disables logging to this vty

### 1.2.10 logging enable

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

#### Command

```
logging enable
```

#### Parameters

##### logging

Configure log message to this terminal

##### enable

Enables logging to this vty

### 1.2.11 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 log message to this terminal

##### 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

### 1.2.12 logging level (all|csn1|l1if|rlcmac|rlcmacdata|rlcmacd|rlcmacul|rlcmacsched|rlc...

#### Command

```
logging level (all|csn1|l1if|rlcmac|rlcmacdata|rlcmacd|rlcmacul|rlcmacsched|rlcmacmeas ↔  
|bssgp|pcu|lglobal|llapd|linp|lmux|lmi|lmib|lsms) (everything|debug|info|notice| ↔  
error|fatal)
```

#### Parameters

##### logging

Configure log message to this terminal

##### level

Set the log level for a specified category

##### all

Global setting for all subsystems

##### csn1

Concrete Syntax Notation One (CSN1)

##### l1if

GPRS PCU L1 interface (L1IF)

---

rlcmac  
GPRS RLC/MAC layer (RLCMAC)

rlmacdata  
GPRS RLC/MAC layer Data (RLCMAC)

rlmacdl  
GPRS RLC/MAC layer Downlink (RLCMAC)

rlmacul  
GPRS RLC/MAC layer Uplink (RLCMAC)

rlmacsched  
GPRS RLC/MAC layer Scheduling (RLCMAC)

rlmacmeas  
GPRS RLC/MAC layer Measurements (RLCMAC)

bssgp  
GPRS BSS Gateway Protocol (BSSGP)

pcu  
GPRS Packet Control Unit (PCU)

lglobal  
Library-internal global log family

llapd  
LAPD in libosmogsm

linp  
A-bis Input 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)

everything  
Log simply everything

debug  
Log debug messages and higher levels

info  
Log informational messages and higher levels

notice  
Log noticable messages and higher levels

---

error

Log error messages and higher levels

fatal

Log only fatal messages

### 1.2.13 logging set log mask MASK

Command

```
logging set log mask MASK
```

Parameters

logging

Configure log message to this terminal

set

Decide which categories to output.

log

Log commands

mask

Mask commands

MASK

The logmask to use

### 1.2.14 logging set-log-mask MASK

Command

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

Parameters

logging

Configure log message to this terminal

set-log-mask

Set the logmask of this logging target

MASK

The logmask to use



### 1.2.15 logging timestamp (0|1)

#### Command

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

#### Parameters

##### logging

Configure log message to this terminal

##### timestamp

Configure log message timestamping

0

Don't prefix each log message

1

Prefix each log message with current timestamp

### 1.2.16 show alarms

#### Command

```
show alarms
```

#### Parameters

##### show

Show running system information

##### alarms

Show current logging configuration

### 1.2.17 show bts statistics

#### Command

```
show bts statistics
```

#### Parameters

##### show

Show running system information

##### bts

BTS related functionality

##### statistics

Statistics

---

### 1.2.18 show history

#### Command

```
show history
```

#### Parameters

##### show

Show running system information

##### history

Display the session command history

### 1.2.19 show logging vty

#### Command

```
show logging vty
```

#### Parameters

##### show

Show running system information

##### logging

Show current logging configuration

##### vtty

Show current logging configuration for this vty

### 1.2.20 show online-help

#### Command

```
show online-help
```

#### Parameters

##### show

Show running system information

##### online-help

Online help

---

### 1.2.21 show running-config

#### Command

```
show running-config
```

#### Parameters

show

Show running system information

running-config

running configuration

### 1.2.22 show startup-config

#### Command

```
show startup-config
```

#### Parameters

show

Show running system information

startup-config

Contentes of startup configuration

### 1.2.23 show tbf all

#### Command

```
show tbf all
```

#### Parameters

show

Show running system information

tbf

information about all current TBFs

all

(null)

---

### 1.2.24 show version

#### Command

```
show version
```

#### Parameters

##### show

Show running system information

##### version

Displays program version

### 1.2.25 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)

### 1.2.26 terminal monitor

#### Command

```
terminal monitor
```

#### Parameters

##### terminal

Set terminal line parameters

##### monitor

Copy debug output to the current terminal line

---

### 1.2.27 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

### 1.2.28 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

### 1.2.29 who

#### Command

```
who
```

#### Parameters

##### who

Display who is on vty

---

### 1.2.30 write

#### Command

```
write
```

#### Parameters

write

Write running configuration to memory, network, or terminal

### 1.2.31 write file

#### Command

```
write file
```

#### Parameters

write

Write running configuration to memory, network, or terminal

file

Write to configuration file

### 1.2.32 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)

### 1.2.33 write terminal

#### Command

```
write terminal
```

#### Parameters

write

Write running configuration to memory, network, or terminal

terminal

Write to terminal

---

## 1.3

### 1.3.1 banner motd default

#### Command

```
banner motd default
```

#### Parameters

##### banner

Set banner string

##### motd

Strings for motd

##### default

Default string

### 1.3.2 banner motd file [FILE]

#### Command

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

#### Parameters

##### banner

Set banner

##### motd

Banner for motd

##### file

Banner from a file

##### [FILE]

Filename

### 1.3.3 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

### 1.3.4 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

### 1.3.5 end

Command

```
end
```

Parameters

end

End current mode and change to enable mode.

### 1.3.6 exit

Command

```
exit
```

Parameters

exit

Exit current mode and down to previous mode

---



### 1.3.7 help

#### Command

```
help
```

#### Parameters

help

Description of the interactive help system

### 1.3.8 hostname WORD

#### Command

```
hostname WORD
```

#### Parameters

hostname

Set system's network name

WORD

This system's network name

### 1.3.9 line vty

#### Command

```
line vty
```

#### Parameters

line

Configure a terminal line

vty

Virtual terminal

### 1.3.10 list

#### Command

```
list
```

#### Parameters

list

Print command list

### 1.3.11 log alarms <2-32700>

#### Command

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

#### Parameters

log

Configure logging sub-system

alarms

Logging alarms to osmo\_strrb

<2-32700>

Maximum number of messages to log

### 1.3.12 log file .FILENAME

#### Command

```
log file .FILENAME
```

#### Parameters

log

Configure logging sub-system

file

Logging to text file

.FILENAME

Filename

### 1.3.13 log stderr

#### Command

```
log stderr
```

#### Parameters

log

Configure logging sub-system

stderr

Logging via STDERR of the process

### 1.3.14 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

### 1.3.15 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

### 1.3.16 no banner motd

Command

```
no banner motd
```

Parameters

no

Negate a command or set its defaults

banner

Set banner string

motd

Strings for motd

### 1.3.17 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

### 1.3.18 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

### 1.3.19 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

### 1.3.20 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

### 1.3.21 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

### 1.3.22 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

### 1.3.23 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

### 1.3.24 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)

---

### 1.3.25 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

### 1.3.26 password LINE

#### Command

```
password LINE
```

#### Parameters

##### password

Assign the terminal connection password

##### LINE

The UNENCRYPTED (cleartext) line password

### 1.3.27 pcu

#### Command

```
pcu
```

#### Parameters

##### pcu

BTS specific configure

### 1.3.28 service advanced-vty

#### Command

```
service advanced-vty
```

#### Parameters

##### service

Set up miscellaneous service

##### advanced-vty

Enable advanced mode vty interface

### 1.3.29 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)

### 1.3.30 show history

#### Command

```
show history
```

#### Parameters

##### show

Show running system information

##### history

Display the session command history



### 1.3.31 show running-config

#### Command

```
show running-config
```

#### Parameters

##### show

Show running system information

##### running-config

running configuration

### 1.3.32 write

#### Command

```
write
```

#### Parameters

##### write

Write running configuration to memory, network, or terminal

### 1.3.33 write file

#### Command

```
write file
```

#### Parameters

##### write

Write running configuration to memory, network, or terminal

##### file

Write to configuration file

### 1.3.34 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)

---

### 1.3.35 write terminal

Command

```
write terminal
```

Parameters

write

Write running configuration to memory, network, or terminal

terminal

Write to terminal

## 1.4

### 1.4.1 end

Command

```
end
```

Parameters

end

End current mode and change to enable mode.

### 1.4.2 exit

Command

```
exit
```

Parameters

exit

Exit current mode and down to previous mode

### 1.4.3 help

Command

```
help
```

Parameters

help

Description of the interactive help system

---

### 1.4.4 list

#### Command

```
list
```

#### Parameters

list

Print command list

### 1.4.5 logging color (0|1)

#### Command

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

#### Parameters

logging

Configure log message to this terminal

color

Configure color-printing for log messages

0

Don't use color for printing messages

1

Use color for printing messages

### 1.4.6 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 log message to this terminal

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

#### 1.4.7 logging level (all|csn1|l1if|rlcmac|rlcmacdata|rlcmacdl|rlcmacul|rlcmacsched|rlc...

Command

```
logging level (all|csn1|l1if|rlcmac|rlcmacdata|rlcmacdl|rlcmacul|rlcmacsched|rlcmacmeas ↔
|bssgp|pcu|lglobal|llapd|linp|lmux|lmi|lmib|lms) (everything|debug|info|notice| ↔
error|fatal)
```

Parameters

logging

Configure log message to this terminal

level

Set the log level for a specified category

all

Global setting for all subsystems

csn1

Concrete Syntax Notation One (CSN1)

l1if

GPRS PCU L1 interface (L1IF)

rlcmac

GPRS RLC/MAC layer (RLCMAC)

rlcmacdata

GPRS RLC/MAC layer Data (RLCMAC)

rlcmacdl

GPRS RLC/MAC layer Downlink (RLCMAC)

rlcmacul

GPRS RLC/MAC layer Uplink (RLCMAC)

rlcmacsched

GPRS RLC/MAC layer Scheduling (RLCMAC)

rlcmacmeas

GPRS RLC/MAC layer Measurements (RLCMAC)

bssgp

GPRS BSS Gateway Protocol (BSSGP)

pcu  
GPRS Packet Control Unit (PCU)

lglobal  
Library-internal global log family

llapd  
LAPD in libosmogsm

linp  
A-bis Input 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)

everything  
Log simply everything

debug  
Log debug messages and higher levels

info  
Log informational messages and higher levels

notice  
Log noticable messages and higher levels

error  
Log error messages and higher levels

fatal  
Log only fatal messages

#### 1.4.8 logging timestamp (0|1)

Command

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

Parameters

logging

Configure log message to this terminal

timestamp

Configure log message timestamping

0

Don't prefix each log message

1

Prefix each log message with current timestamp

### 1.4.9 show running-config

Command

```
show running-config
```

Parameters

show

Show running system information

running-config

running configuration

### 1.4.10 write

Command

```
write
```

Parameters

write

Write running configuration to memory, network, or terminal

### 1.4.11 write file

Command

```
write file
```

Parameters

write

Write running configuration to memory, network, or terminal

file

Write to configuration file

---

### 1.4.12 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)

### 1.4.13 write terminal

#### Command

```
write terminal
```

#### Parameters

##### write

Write running configuration to memory, network, or terminal

##### terminal

Write to terminal

## 1.5 PCU Configuration Node

The main PCU configuration including the timeslot assignment algorithm and other parameters.

### 1.5.1 alloc-algorithm (a|b)

#### Command

```
alloc-algorithm (a|b)
```

#### Parameters

##### alloc-algorithm

Select slot allocation algorithm to use when assigning timeslots on PACCH

##### a

Single slot is assigned only

##### b

Multiple slots are assigned for semi-duplex operation

---

### 1.5.2 alpha <0-10>

#### Command

```
alpha <0-10>
```

#### Parameters

##### alpha

Alpha parameter for MS power control in units of 0.1 (see TS 05.08) NOTE: Be sure to set Alpha value at System information 13 too.

##### <0-10>

Alpha in units of 0.1

### 1.5.3 cs <1-4> [<1-4>]

#### Command

```
cs <1-4> [<1-4>]
```

#### Parameters

##### cs

Set the Coding Scheme to be used, (overrides BTS config)

##### <1-4>

Initial CS used

##### [<1-4>]

Alternative uplink CS

### 1.5.4 end

#### Command

```
end
```

#### Parameters

##### end

End current mode and change to enable mode

### 1.5.5 flow-control-interval <1-10>

#### Command

```
flow-control-interval <1-10>
```

#### Parameters

##### flow-control-interval

Interval between sending subsequent Flow Control PDUs

##### <1-10>

Interval time in seconds

---



### 1.5.6 gamma <0-62>

#### Command

```
gamma <0-62>
```

#### Parameters

gamma

Gamma parameter for MS power control in units of dB (see TS 05.08)

<0-62>

Gamma in even unit of dBs

### 1.5.7 help

#### Command

```
help
```

#### Parameters

help

Description of the interactive help system

### 1.5.8 list

#### Command

```
list
```

#### Parameters

list

Print command list

### 1.5.9 no cs

#### Command

```
no cs
```

#### Parameters

no

Negate a command or set its defaults

cs

Don't force given Coding Scheme, (use BTS config)

---

### 1.5.10 no queue lifetime

#### Command

```
no queue lifetime
```

#### Parameters

no

Negate a command or set its defaults

queue

Packet queue options

lifetime

Disable lifetime limit of LLC frame (use value given by SGSN)

### 1.5.11 no two-phase-access

#### Command

```
no two-phase-access
```

#### Parameters

no

Negate a command or set its defaults

two-phase-access

Only use two phase access when requested my MS

### 1.5.12 queue lifetime <1-65534>

#### Command

```
queue lifetime <1-65534>
```

#### Parameters

queue

Packet queue options

lifetime

Set lifetime limit of LLC frame in centi-seconds (overrides the value given by SGSN)

<1-65534>

Lifetime in centi-seconds

---

### 1.5.13 queue lifetime infinite

#### Command

```
queue lifetime infinite
```

#### Parameters

##### queue

Packet queue options

##### lifetime

Set lifetime limit of LLC frame in centi-seconds (overrides the value given by SGSN)

##### infinite

Infinite lifetime

### 1.5.14 show running-config

#### Command

```
show running-config
```

#### Parameters

##### show

Show running system information

##### running-config

running configuration

### 1.5.15 two-phase-access

#### Command

```
two-phase-access
```

#### Parameters

##### two-phase-access

Force two phase access when MS requests single phase access

### 1.5.16 write

#### Command

```
write
```

#### Parameters

##### write

Write running configuration to memory, network, or terminal

---

### 1.5.17 write file

#### Command

```
write file
```

#### Parameters

##### write

Write running configuration to memory, network, or terminal

##### file

Write to configuration file

### 1.5.18 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)

### 1.5.19 write terminal

#### Command

```
write terminal
```

#### Parameters

##### write

Write running configuration to memory, network, or terminal

##### terminal

Write to terminal