Mediant™ 800 MSBG

Mediant™ 1000 MSBG

SIP Protocol

CLI Reference Guide

For System and VoIP Functionalities

Version 6.4

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AudioCodes

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Reader's Notes

Notice

This document describes the System and VoIP Command Line Interface (CLI) commands. of AudioCodes Mediant 800 MSBG and Mediant 1000 MSBG Voice-over-IP (VoIP) SIP media gateways.

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Abbreviations and Terminology

Each abbreviation, unless widely used, is spelled out in full when first used.

Related Documentation

Manual Name
SIP CPE Release Notes
Product Reference Manual for SIP Gateways and Media Servers
Mediant 800 MSBG Installation Manual
Mediant 800 MSBG SIP User's Manual
Mediant 1000 MSBG SIP Installation Manual
Mediant 1000 MSBG SIP User's Manual

Note: Throughout this manual, unless otherwise specified, the term *device* refers to the Mediant 800 MSBG and Mediant 1000 MSBG.

1 Introduction

This document provides a reference for the device's System and VoIP Command Line Interface (CLI) commands. It describes the syntax and use of all the CLI commands.

Reader's Notes

2 Getting Started

2.1 Connecting to the CLI

MSBG's CLI can be accessed via RS232 interface, Telnet or SSH protocols via the Ethernet interface.

2.1.1 RS-232

The MSBG can be accessed via RS-232 by connecting a VT100 terminal to the device or using a terminal emulation program with a PC. Most Windows® computers come with a program called HyperTerminal®, which is located under **Programs** > **Accessories** > **Communications**.

Once you have connected via a VT100 terminal and started the HyperTerminal program, set the program settings as follows:

- 115200 baud rate
- 8 data bits
- No parity
- 1 stop bit
- No flow control

If you are using HyperTerminal, name your new connection and then set up the new connection via the resulting dialog box. The box allows you to determine the type of connection you are using. Verify COM1 and select **OK**.

Another dialogue box appears for entering the COM1 properties. Enter the program settings in this box; select **APPLY** and then **OK**. You should then be presented with a terminal window in which you can interface with your device.

2.1.2 SSH

The MSBG can be accessed by SSH protocol using SSH client software.

One of the most popular and freeware SSH client software is Putty, which can be downloaded from the following URL:

http://www.chiark.greenend.org.uk/~sgtatham/putty/download.html

By default the SSH access is disabled. Enable SSH access via CLI (**configure system** > **cli-terminal** > **set ssh on** > **activate**), or set the '*SSHServerEnable'* ini parameter to '1'.

2.1.3 Telnet

The MSBG can be accessed by Telnet protocol using Telnet client software. Most Windows® computers come with a program called 'Telnet', which can be activated via the Windows command-line.

2.2 CLI Structure

2.2.1 Authentication

When the device is accessed, the user is prompted to enter the device administrator's Username and Password.

The device administrator's credentials are common to all AudioCodes management interfaces (e.g. Web).

The default username and password are 'Admin', 'Admin' respectively.

2.2.2 Understanding Configuration Modes

As you begin communication, you should understand the command modes. Each command mode enables the user to access more commands and to make more changes in thedevice's configuration.

The CLI has two command modes:

- Basic
- Enable

The two command modes are organized in a two-tiered hierarchy with Basic at the bottom and Enable at the top.

2.2.2.1 Basic Command Mode

Interaction with your device begins at the Basic Command Mode. The commands supported by this command tier are limited, as is interaction with the device itself. The Basic Mode is for users without access to the higher-tiered commands, to keep them from changing the preferred configurations of the device.

The Basic Mode is accessed by beginning a CLI session (after successful authentication) and it enables the user to display system information and activate several debugging facilities.

The Basic Mode prompt is '>'.

2.2.2.2 Enable Command Mode

Enable Command Mode is the high-level tier in the command hierarchy, basically one step up from the Basic Mode. A password ('Admin' by default) is required to access the Enable Mode.

From the Enable Mode, you can access the configurations of your product as well as handle how your device boots and runs, among other things.

The Enable Mode is accessed by entering `'enable'` while in the Basic Command Mode.

The Enable Mode prompt is '#'.

2.2.2.3 Understanding Configurations

Configurations are the means by which you set up your device and system according to your personal requirements and preferences.

All configurations are accessed through the Enable Command Mode. The configuration is divided into the following main configuration-sets:

- configure system
- configure voip

By typing "configure" at the Enable Mode prompt, you are ready to specify the configuration you want to access. Each configuration-set contains a different set of the command.

The "configure system" set contains the general and system oriented configuration command of the device - for example, Syslog configuration.

The "configure voip" set contains VoIP-oriented configuration commands - for example SIP, VoIP network interfaces and VoIP Media configurations.

The configuration command sets are broken down into categories of similar functions. For example, all commands dealing with configuring the Ethernet interface are grouped together, as are configuration commands dealing with hardware, virtual network, and so on.

2.2.3 Using CLI Shortcuts

The MSBG CLI provides several shortcuts to help you configure your MSBG product more easily. See the following table for descriptions.

Table 2-1: CLI Shortcuts

Shortcut	Description
Up arrow key	To re-display a previously entered command, use the **Up** arrow key. Continuing to press the **Up** arrow key cycles through all commands entered, starting with the most recent command.
<Tab> key	Pressing the **<Tab>** key after entering a partial (but unique) command completes the command, displays it on the command prompt line, and waits for further input. Pressing the **<Tab>** key after entering a partial and not unique command displays all completing options.

?	The MSBG CLI contains help to guide you through the configuration process. Using the question mark, do one of the following:
	Displays a list of all subcommands in the current mode. For example:
	`(config)# interface ?`
	`BVI bridge interface`
	`GigabitEthernet GigabitEthernet`
	`vlan Vlan interface`
	
	Displays a list of available commands beginning with certain letter(s). For example:
	`(config)# interface G?`
	`GigabitEthernet GigabitEthernet`
	
	Obtains syntax help for a specific command by entering the command, a space, and then a question mark (?). The MSBG CLI displays the range of values and a brief description of the next parameter expected for that particular command. For example:
	`(config)# interface vlan ?`
	`[1-3999] Vlan ID`
	
	In case there is a command that can be invoked (all its arguments are inserted), using the question mark at its end displays <cr>. For example:
	`(config)# logging host 10.1.1.1 ?`
	`<cr>`

<**Ctrl + A**>	Jump to the beginning of the displayed command line. This shortcut is helpful when using the **no** form of commands (when available).
<**Ctrl + E**>	Jump to the end of the displayed command line.
<**Ctrl + U**>	Clears the current displayed command line.
auto finish	You need only enter enough letters to identify a command as unique. For example, entering "`int G 0/0`" at the configuration prompt provides you access to the configuration parameters for the specified Gigabit-Ethernet interface. Entering "`interface GigabitEthernet 0/0`" would work as well, but is not necessary.

2.2.4 Common CLI Functions

The following table contains descriptions of common CLI commands.

Table 2-2: Common CLI Commands

Command	Description

do	Provides a way to execute commands in other command sets without taking the time to exit the current command set. The following example shows the **do** command, used to view the GigabitEthernet interface configuration while in the virtual-LAN interface command set:
	`(config)# interface vlan 1`
	`(conf-if-VLAN 1)# do show interfaces GigabitEthernet 0/0`

no	Undoes an issued command or disables a feature. Enter **no** before the command: `no debug log`
activate	Activates a command. When you enter a configuration command in the CLI, the command is not applied until you enter the **activate and exit** commands. **Note:** Offline configuration changes require a reset of the device. A reset can be performed at the end of the configuration changes. A required reset is indicated by an asterisk (*) before the command prompt.

exit	Leaves the current command-set and returns one level up. If issued on the top level, the session ends.
	For online parameters, if the configuration was changed and no **activate** command was entered, the **exit** command applies the **activate** command automatically. If issued on the top level, the session will end:
	`(config)# exit`
	`# exit`
	`(session closed)`

display	Shows the configuration of current configuration set.
help	Shows a short help how-to string.
history	Shows a list of previously run commands.
list	Shows the available command list of the current command-set.

| <filter>	Applied to a command output. The filter should be typed after the command with a pipe mark (|)
	Supported filters:
	include <word> – filter (print) lines which contain <word>
	exclude <word> – filter lines which does not contain <word>
	grep <options> - filter lines according to *grep* common Unix utility options
	egrep <options> - filter lines according to e*grep* common Unix utility options
	begin <word> – filter (print) lines which begins with <word>
	between <word1> <word2> – filter (print) lines which are placed between <word1> and <word2>
	count – show the output's line count
	Example:
	`# show version | grep Number`
	`;Serial Number: 2239835`
	`;Slot Number: 1`

2.2.5 Understanding CLI Error Messages

The following table lists and defines some of the more common error messages given in the CLI.

Table 2-3: CLI Error Messages

Message	Helpful Hints
Invalid command	The command may not be valid in the current command mode, or you may not have entered enough correct characters for the command to be recognized. Try using '?' to determine your error.
Incomplete command	You may not have entered all of the pertinent information required to make the command valid. Try using '?' to determine your error.

Notes:

- Optional arguments in commands are marked in square brackets **[ ]**.
- To ensure that all failed CLI commands' error/information messages are displayed in the CLI console, you can redirect these messages, received from the Syslog console, to the CLI console by running the **debug log** command. This command can be disabled by running the **no debug log** command.

3 General Commands

3.1 configure system

The following describes the System configuration commands. To access these commands, enter `configure system` at the Enabled mode prompt.

Syntax:

```
configure system
```

Defaults:

NA

Command Modes:

Enable

Examples::

The following switches to the system configuration command-set.

```
# configure system
(config-system)#
```

3.2 configure data

This command switches the user to the Data configuration command-set.

Syntax:

```
configure data
```

Defaults:

NA

Command Modes:

Enable

Examples::

The following command switches to the data configuration command-set

```
# configure data
(config-data)#
```

3.3 copy (auxiliary file)

This command copies an auxiliary file from a URL source to the device.

Syntax:

The syntax of this command can include the following variations:

```
copy <aux-file> from <URL>
```

The command's syntax format is described below:

Arguments	Description
<aux-file>	The auxiliary file type can be one of the following: **call_progress_tones** - Call progress call file **cas_table** – CAS table file **coder_table** – Coder table file **dial_plan** – Dial plan file **tls_cert** – TLS certificate file **tls_private_key** – TLS private key file **tls_root_cert** – TLS trusted root certificate file **voice_prompts** – Voice prompt file **user_info** – User info file **web_logo** – Web logo file **voice_xml** – Voice xml file **prerecorded_tones** - Prerecorded tones file
from	Copy the auxiliary file from URL.
<URL>	File source URL. Can be one of the following: http,https, tftp or nfs

Defaults:

NA

Notes:

1. CAS table auxiliary file copy is supported only on MSBG products.
2. A copied file must be burned (via the 'write' command) in order to stay persistent.
3. Please refer to the user manual in order to learn about AudioCodes Auxiliary Files format and roles.

Command Modes:

Enable

Related Commands:

erase, dir, write

Examples:

The following example copies a voice prompt auxiliary file (*voice_prompt.dat*) to the device from *www.exmaple.com*.

```
# copy voice_prompts from http://www.exmaple.com/voice_prompt.dat
```

3.4 copy (configuration file)

This command copies a configuration file from a URL source to the device and from the device to a destination URL or CLI console.

Syntax:

The syntax of this command can include the following variations:

```
copy <configuration-file> from <URL>
copy <configuration-file> to <URL>
copy <configuration-file> to console
```

The command syntax format is described below:

Arguments	Description
< configuration-file >	The configuration file type can be one of the following: **data_configuration** – data (router's) configuration file **voice_configuration** – voice configuration file (i.e. *ini* file)
<URL>	When copying **from** a URL, the file source URL can be one of the following: *http, https, tftp, nfs*. When copying **to** a URL, the file destination URL can be one of the following: *http, https*.
from	Copy the configuration file from URL file source.
to	Copy the current running configuration (file) to a destination.
console	Copy the configuration file to the CLI console.

Defaults:

NA

Notes:

1. When copying the configuration file to a URL destination, the device uses the PUT HTTP command in order to transfer the file.
2. Please refer to the User Manual in order to learn about AudioCodes data and voice configuration files format and roles

Command Modes:

Enable

Related Commands:

copy firmware

Examples:

The following example copies the date configuration file to the CLI console.

```
# copy data_configuration to console
```

3.5 copy cli-script

This command copies a cli-script file from a URL source to the device.

Syntax:

The syntax of this command can include the following variations:

```
copy cli-script from <URL>
```

The command syntax format is described below:

Arguments	Description
<URL>	When copying **from** a URL, the file source URL is tftp only.
from	Copy the cli-script file from URL file source.

Defaults:

NA

Notes:

1. This command loads a show-run output file into the board (via **TFTP only**) and applies it.
2. The script is activated immediately. The user does not need to do any additional action besides loading it.

Command Modes:

Enable

Related Commands:

copy cli-script

Examples:

The following example copies the date configuration from tftp server.

```
# copy cli-script from tftp://192.168.0.3/script1.txt
```

3.6 copy firmware

This command upgrades the device's firmware.

Syntax:

The syntax of this command can include the following variations:

```
copy firmware from <URL>
```

The command's syntax format is described below:

Arguments	Description
from	Copy the firmware file from URL file source
<URL>	File source URL. Can be one of: http, https, tftp or nfs.

Defaults:

NA

Notes:

Upon invoking this command:

1. The new firmware is copied and burned to the non-volatile (NV) memory of the device.
2. The current running configuration (voice and data) is saved on the NV memory as well.
3. The device automatically reloads with the new firmware.

Command Modes:

Enable

Related Commands:

copy (configuration)

Examples:

The following example upgrades the device's firmware from a source URL file.

```
# copy firmware from http://www.exmaple.com/MSBG_firmware.cmp
```

3.7 Debug Commands

3.7.1 debug log

This command displays debugging messages to the CLI session.

Syntax:

The syntax of this command can include the following variations:

```
debug log
no debug log
no debug log all
```

Defaults:

NA

Notes:

1. Activating the debug log facility will redirect the device error messages (e.g. Syslog messages) to the CLI console as well as their original destination.
2. A 'no' command is supported for this command (*no debug log*), which disables the logging facility.
3. When working via telnet/SSH, "debug log" affects only the current CLI session.
4. To cancel log display to **all** CLI sessions, use "*no debug log all*".

Command Modes:

Enable

Related Commands:

NA

Examples:

The following example upgrades and activates the logging facility redirection.

```
# debug log
```

3.7.2 debug speedtest

This command performs a network speed test against a provisioned file server.

Syntax:

The syntax of this command can include the following variations:

```
debug speedtest set download <down-url>
debug speedtest set upload <up-url>
debug speedtest set upsize <up-filesize>
debug speedtest run
debug speedtest show
```

The command's syntax format is described below:

Arguments	Description
<down-url>	Defines the URL of the test file on remote server. Supported protocols are HTTP and FTP.
<up-url>	Defines the URL of the test location on the remote server where data can be uploaded. Supported protocols are HTTP and FTP.
<up-filesize>	Defines the length of upload test file, in bytes.

Defaults:

By default, testing URLs are not defined and the upload test size is set to 500000 bytes.

Notes:

1. Set the download URL to point to a large file (e.g. more than 2MB) on a testing server.
2. To perform just the download speed test, do not configure an upload URL.
3. Once the download and/or upload URLs are configured, run the test using the "*debug speedtest run*" command.
4. The test runs in the background, its status may be checked using the "*debug speedtest show*" command. Enter the *show* command repeatedly until the test is complete.
5. DNS must be configured correctly for speed test URLs.

Command Modes:

Enable

Related Commands:

NA

Examples:

The following example performs a network speed test.

```
# debug speedtest set download
http://speedtest.bezeq.co.il/speedtest/random1000x1000.jpg
```

```
# debug speedtest set upload
http://speedtest.bezeq.co.il/speedtest/speedtest/upload.aspx
# debug speedtest run
# debug speedtest show
```

3.7.3 debug capture data physical

This command records all traffic on the device's interfaces, saving the result in a PCAP-format file (suitable for Wireshark) on a TFTP server.

Syntax:

The syntax of this command can include the following variations:

```
debug capture data physical <interface>
debug capture data physical start
debug capture data physical insert-pad
debug capture data physical show
debug capture data physical stop <server-ip>
```

The command's syntax format is described below:

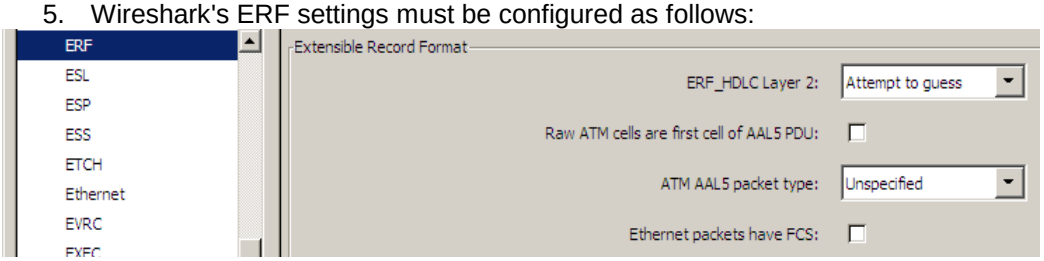
Arguments	Description
<interface>	Use one of the following: **eth-lan, eth-wan, cellular-wan, shdsl-wan, t1-wan, xdsl-wan** – depending on the hardware capabilities of the device. This command may be issued multiple times to capture data from several interfaces at once.
<server-ip>	Defines the IP address of a TFTP server on the network, where the resulting PCAP file will be saved.

Defaults:

By default, capture is inactive.

Notes:

1. Once the *start* command is issued, recording is performed to an in-memory buffer. If the buffer becomes full, recording stops.
2. Use the *insert-pad* command to make a manual mark in the captured file.
3. The *stop* command creates a file named debug-capture-data-<timestamp>.pcap and sends it to the TFTP server. The TFTP server must be configured to allow file uploads.
4. The generated PCAP file is in the Extensible Record Format (ERF); recent versions of Wireshark (1.5.0 or newer) are recommended for proper dissection.
5. Wireshark's ERF settings must be configured as follows:



Command Modes:

Enable

Related Commands:

NA

Examples

The following example performs a network capture of both LAN and ADSL.

```
# debug capture data physical eth-lan
# debug capture data physical xdsl-wan
# debug capture data physical start
# debug capture data physical stop 192.168.1.75
```

3.8 dir

This command displays the device's current auxiliary files directory information.

Syntax:

The syntax of this command can include the following:

```
dir
```

Defaults:

NA

Notes:

NA

Command Modes:

Enable

Related Commands:

erase, copy (auxiliary file), write

Examples:

The following example displays the device's current auxiliary files directory information.

```
# dir
```

3.9 disable

This command switches the device back to Basic mode from Enable mode.

Syntax:

The syntax of this command includes the following:

```
disable
```

Defaults:

NA

Notes:

NA

Command Modes:

Enable

Related Commands:

enable, enable password

Examples:

The following example command switches the device back to Basic mode.

```
# disable
```

3.10 enable

This command switches the device to Enable Mode from Basic mode.

Syntax:

The syntax of this command includes the following:

```
enable
```

Defaults:

The default password for switching to Enable Mode is ‘Admin’.

Notes:

1. When switching to Enable Mode, the user will be prompted to enter the Enable Mode password.
2. This password can be changed via the *enable password* command.

Command Modes:

Basic

Related Commands:

disable, enable password

Examples:

The following example command switches the device to Enable mode.

```
> enable
```

3.11 enable password

This command sets the Enable Mode password for switching to Enable Mode from Basic mode.

Syntax:

The syntax of this command can include the following variations:

```
enable password <password>
```

The command's syntax format is described below:

Arguments	Description
<password>	Enter the new password.

Defaults:

NA

Notes:

NA

Command Modes:

Enable

Related Commands:

disable, enable

Examples:

The following example command sets the Enable Mode password. To 'Admin'

```
# enable password Admin
```

3.12 erase

This command erases a device's auxiliary file.

Syntax:

The syntax of this command can include the following variations:

```
erase <file>
```

The command's syntax format is described below:

Arguments	Description
<file>	Defines the file name to be erased.

Defaults:

NA

Notes:

1. The file name should be copied from the 'dir' command output.
2. The file is being erased from RAM (and from the current device's run usage). In order to erase the file completely from the NV memory, a 'write' command should also be issued.

Command Modes:

Enable

Related Commands:

dir, copy (auxiliary file), write

Examples:

The following example prints the directory listing of the device and then erases one of the files.

```
# erase voice_prompts
```

3.13 reload

This command reloads the device, with or without data configuration burn.

Syntax:

The syntax of this command can include the following variations:

```
reload without-saving
reload without-saving in <minutes>
no reload without-saving in <minutes>
```

The command's syntax format is described below:

Arguments	Description
without-saving	Performs a restart without writing the configuration.
<minutes>	Specifies a number of minutes after which the device will restart. Use this command before making changes to sensitive settings; if your changes cause the device to lose connectivity, just wait for the device to restart with the previous working configuration. To cancel the timed restart, use the "no" form of this command.

Defaults:

Burns the configuration upon reload.

Notes:

1. By default, when the device is reloaded, the configuration and the auxiliary files are burned to NV memory.
2. Activating the 'reload' command is equivalent to activating the 'write' command followed by the 'reload without-saving' command.

Command Modes:

Enable

Related Commands:

Write

Examples:

The following example performs a restart without writing the configuration.

```
# reload without-saving
```

3.14 telnet

This command invokes a Telnet session towards a remote host.

Syntax:

The syntax of this command can include the following variations:

```
telnet <remote-host> <remote-port>
```

The command's syntax format is described below:

Arguments	Description
< remote-host >	Defines the remote host IP address.
< remote-port >	Defines the remote host port number. This argument is not mandatory.

Defaults:

Default remote port is 23 (if not entered otherwise by the user).

Notes:

1. The **telnet** command is used mainly for remote management proposes.
2. A remote administrator can access the MSBG device' CLI from the WAN leg while performing the full authentication process.
3. The user can then invoke Telnet sessions towards other devices in the LAN in order to manage them. That way, no special pin-holes or forwarding rules should be declared in order to manage the LAN devices.

Command Modes:

Enable

Related Commands:

NA

Examples:

The following example invokes a Telnet session.

```
# telnet 10.4.4.25
```

3.15 username administrator

This command configures the device's administrator credentials.

Syntax:

The syntax of this command can include the following variations:

```
username administrator name <name>
username administrator password <password>
```

The command's syntax format is described below:

Arguments	Description
name	Sets the administrator's name.
<name>	Sets the new value for the administrator's name.
password	Sets the administrator's password.
<password>	Sets the new value for the administrator's password.

Defaults:

NA

Notes:

The administrator's credentials are device wide. i.e., setting the administrator's credentials will take effect in the Web as well as the CLI authentication and vice-versa.

Command Modes:

Enable

Related Commands:

NA

Examples:

The following example sets the administrator's name to 'James'.

```
# username administrator name James
```

3.16 write

This command writes the current configuration set and auxiliary files to the NV memory.

Syntax:

The syntax of this command can include the following variations:

```
write
```

Defaults:

NA

Notes:

This command should be invoked in the following scenarios in order to save the configuration set and auxiliary files to the NV memory:

- After completing a configuration set (i.e. after invoking one or more of the commands in the *'**config**'* mode command-set)
- After copying a new auxiliary file ('copy' command)
- After copying a new configuration file ('copy' command)
- After erasing an auxiliary file ('erase' command)

Command Modes:

Enable

Related Commands:

reload, copy, erase, write factory

Examples:

The following example writes configuration and auxiliary files to NV memory.

```
# write
```

3.17 write factory

This command restores the factory settings of the device.

Syntax:

The syntax of this command can include the following variations:

```
write factory
```

Defaults:

NA

Notes:

1. When this command is invoked, current configuration will be lost. Auxiliary files will also be erased. The device will then reload with its factory setting configuration.
2. Please refer to the user manual in order to learn about AudioCodes Factory Settings.

Command Modes:

Enable

Related Commands:

write

Examples:

The following example restores the factory settings of the device.

```
# write factory
```

4 System Commands

The following describes the System configuration commands. To access these commands, enter "configure system" at the Enabled mode prompt.

4.1 NTP

This command configures the Network Time Protocol (NTP) of the system.

Syntax:

The syntax of this command includes the following variations:

```
set primary-server <IP address>
set secondary-server <IP address>
set update-interval <seconds>
set utc-offset <utc-offset>
```

The command syntax format is described below:

Arguments	Description
utc-offset	-43200 – 43200 seconds

4.2 cli-terminal

This command configures the CLI management interface.

Syntax:

This configuration set includes the following sub-commands:

```
set ssh <on | off>
set ssh-acl <acl-name>
set ssh-port <port-num>
set ssh-admin-key <rsa-key>
set wan-ssh-allow <on | off>
set telnet <enable | disable | ssl>
set telnet-acl <acl-name>
set telnet-port <port-num>
set wan-telnet-allow <on | off>
set idle-timeout <timeout-minutes>
set password-obscurity <on | off>
```

Arguments	Description
ssh	Enables or disables SSH access.
ssh-acl	Selects an access-list permitting clients to connect to the SSH interface. The access-list is defined under "configure data".
ssh-port	Selects the TCP port number on which SSH is active.
ssh-admin-key	Sets the RSA key (entered as hexadecimal digits) of the SSH client. See the Product Reference Manual for further information on SSH access using an RSA key.
wan-ssh-allow	Allows access to SSH from the WAN interface.
telnet	Enables or disables Telnet access.
telnet-acl	Selects an access-list permitting clients to connect to the Telnet interface. The access-list is defined under "configure data".
telnet-port	Selects the TCP port number on which Telnet is active.
wan-telnet-allow	Allows access to Telnet from the WAN interface.
idle-timeout	Configures how long a CLI session may remain idle, before being disconnected by the device.
password-obscurity	Hides PPP passwords in the output of "show running-config".

Command Modes

Enable

Examples:

This example configures SSH.

```
(config-system)# cli-terminal
(cli-terminal)# set ssh on
```

4.3 clock

This command configures the date and time of the system.

Syntax:

The syntax of this command includes the following variations:

```
set date <date>
set time <time>
```

The command syntax format is described below:

Arguments	Description
date	Date format: d:m:yyyy
time	Time format: h:m:s

4.3.1 summer-time

This command configures the daylight saving time (summer time) settings.

Syntax:

The syntax of this command includes the following variations:

```
set start <start date and time>
set end <end date and time>
set offset <offset time>
set summer-time <on/off>
```

The command syntax format is described below:

Arguments	Description
start date and time	Format: mo:dd:hh:mm
end date and time	Format: mo:dd:hh:mm
offset time	0 – 120 minutes

4.4 logging

This command configures logging settings.

Syntax:

The syntax of this command includes the following variations:

```
set syslog <on/off>
set syslog-ip <IP address>
set syslog-port <port>
```

The command syntax format is described below:

Arguments	Description
port	0 - 65535

4.5 mgmt-access-list

This command adds a new IP address authorized to connect to the device's Web and Telnet interfaces or delete all rows to allow access from any IP address.

Syntax:

The syntax of this command includes the following variations:

```
mgmt-access-list <index>
set <parameter> <value>
```

Arguments	Description
<index>	Defines the table row index.
<parameter> <value>	Sets the following parameters: ▪ defaults ▪ ip-address For a description of these parameters, refer to the *User's Manual*.

Defaults

NA

Command Modes

Enable

Examples:

This example displays all mgmt-access-list configurations.

```
(config-system)# mgmt-access-list display

---- mgmt-access-list-0 ----
  ip-address (10.4.2.2)

---- mgmt-access-list-1 ----
  ip-address (10.4.2.3)

---- mgmt-access-list-2 ----
  ip-address (0.0.0.0)

---- mgmt-access-list-3 ----
  ip-address (0.0.0.0)

---- mgmt-access-list-4 ----
  ip-address (0.0.0.0)
```

```
---- mgmt-access-list-5 ----
  ip-address (0.0.0.0)

---- mgmt-access-list-6 ----
  ip-address (0.0.0.0)

---- mgmt-access-list-7 ----
  ip-address (0.0.0.0)

---- mgmt-access-list-8 ----
  ip-address (0.0.0.0)

---- mgmt-access-list-9 ----
  ip-address (0.0.0.0)
```

The following example configures mgmt-access-list index 0 with an IP address 10.4.2.2

```
(config-system)# mgmt-access-list 0
(mgmt-access-list 0)# set ip-address 10.4.2.2
```

4.6 radius

This command enables and defines the RADIUS server.

Syntax:

The syntax of this command includes the following variations:

```
radius
set <parameter> <value>
```

Arguments	Description
<parameter> <value>	Sets the following parameters: ▪ auth-server-ip ▪ auth-server-port ▪ default-access-level ▪ double-decode-url ▪ enable ▪ enable-mgmt-login ▪ local-cache-mode ▪ local-cache-timeout ▪ shared-secret ▪ timeout-behavior ▪ vsa-access-level ▪ vsa-vendor-id For a description of these parameters, refer to the *User's Manual*.

Defaults

NA

Command Modes

Enable

Examples:

This example defines the default access level for the device.

```
(config-system)# radius
(radius)# set default-access-level 1
```

4.7 web

This command enables and defines the Web server.

Syntax:

The syntax of this command includes the following variations:

```
web
set <parameter> <value>
```

Arguments	Description
<parameter> <value>	Sets the following parameters: ▪ set control-pass-via-snmp ▪ set http-auth-mode ▪ set http-port ▪ set https-cipher-string ▪ set https-port ▪ set req-client-cert ▪ set secured-connection ▪ set wan-http-allow ▪ set wan-https-allow ▪ set web-acl For a description of these parameters, refer to the *User's Manual*.

Defaults

NA

Command Modes

Enable

Examples:

This example enables the use of client certificates for HTTPS connection.

```
(config-system)# web
(web)# set req-client-cert on
```

4.8 snmp

This command enables and defines the SNMP server.

Syntax:

The syntax of this command includes the following variations:

```
snmp
set <parameter> <value>
```

Arguments	Description
<parameter> <value>	Sets the following parameters: ▪ defaults ▪ disable ▪ engine-id ▪ port ▪ ro-community-string ▪ rw-community-string ▪ snmp-acl ▪ sys-contact ▪ sys-location ▪ sys-name ▪ sys-oid ▪ trusted-managers ▪ wan-snmp-allow For a description of these parameters, refer to the *User's Manual*.

Defaults

NA

Command Modes

Enable

Examples:

This example defines the sysName as descibed in MIB-2.

```
(config-system)# snmp
(snmp)# set sys-name ABCD_X1
```

4.9 snmp trap

This command configures SNMP trap managers.

Syntax:

```
snmp trap
set <parameter> <value>
```

Arguments	Description
<parameter> <value>	Sets the following parameters: ▪ auto-send-keep-alive ▪ community-string ▪ defaults ▪ manager-host-name For a description of these parameters, refer to the *User's Manual*.

Defaults

NA

Command Modes

Enable

Examples:

This example defines the community string used in traps.

```
(config-system)# snmp trap
(snmp-trap)# set community-string comm_string_A
```

4.10 snmp trap destination

This command configures SNMP trap destinations.

Syntax:

The syntax of this command includes the following variations:

```
snmp trap destination <index>
set <parameter> <value>
```

Arguments	Description
<index>	Defines the table row index.
<parameter> <value>	Sets the following table parameters: ▪ set ip-address ▪ set port ▪ set send-trap For a description of these parameters, refer to the *User's Manual*.

Command Modes

Enable

Examples:

This example defines the community string used in traps.

```
(config-system)# snmp traps destination 1
(trap-destination 1)# set ip address
```

4.11 snmp v3-users

This command configures SNMP v3 users.

Syntax:

The syntax of this command includes the following variations:

```
snmp v3-users <index>
set <parameter> <value>
```

Arguments	Description
<index>	Defines the table row index.
<parameter> <value>	Sets the following table parameters: ▪ auth-key ▪ auth-protocol ▪ defaults ▪ group ▪ priv-key ▪ priv-protocol ▪ username For a description of these parameters, refer to the *User's Manual*.

Command Modes

Enable

Examples:

This example configures read only snmp v3 user with no authentication or privacy.

```
(config-system)# snmp v3-users 1
(v3-users-1)# set username j_brown
(v3-users-1)# set group read-only
(v3-users-1)# set auth-protocol none
(v3-users-1)# set auth-protocol none
```

4.12 tls

This command configures Transport Layer Security (TLS).

Syntax:

This configuration set includes the following sub-commands:

```
analyze
set pkey-size <512 | 768 | 1024 | 2048>
generate <subject-name>
signing-request subject <subject-name>
signing-request interactive
set pkey-passphrase <passphrase>
set require-strict-cert <on | off>
set version <SSL2.0-3.0_and_TLS1.0 | TLS1.0_only>
set client-cipher-string <cipher-string>
set aupd-verify-cert <on | off>
```

Command	Description
analyze	Displays information about the currently-loaded certificate and private key. These files may be replaced using the "copy" command at the Enabled mode prompt.
pkey-size	Controls the size (in bits) of the RSA key created by the "generate" subcommand.
generate	Erases the old private key and certificate; generates a new random private key and creates a new self-signed certificate.
signing-request	Creates a Certificate Signing Request (CSR) for use by an organizational PKI. The "interactive" variant of this command enters a question-and-answer dialogue for the various fields of the CSR. In contrast, the "subject" variant of this command allows specifying just the Common Name (CN) of the certificate subject.
pkey-passphrase	Configures a short pass-phrase used for decoding loaded private keys (via the "copy" command).
require-strict-cert	Enables strict validation of peer certificates received in the TLS handshake. Strict validation includes the keyUsage attribute and the authority's allowed depth.
version	Selects which TLS versions are allowed.
client-cipher-string	Selects cipher-suites used by the Automatic Update facility. See the Product Reference Manual for further information.
aupd-verify-cert	Enables certificate validation when connecting to remote HTTPS sites using the Automatic Update facility.

Command Modes

Enable

Examples:

This example displays the current certificate status.

```
(config-system)# tls
(tls)# analyze
```

5 VoIP Commands

5.1 interface

5.1.1 E1/T1, bri

This command enters a specific PSTN interface (E1/T1 or BRI) configuration.

Syntax:

The syntax of this command includes the following variations:

```
interface bri <slot/port>
interface e1-t1 <slot/port>
set <parameter> <value>
```

Arguments	Description
<parameter> <value>	Sets the following table parameters: ▪ b-ch-negotiation ▪ call-re-rte-mode ▪ defaults ▪ isdn-bits-cc-behavior ▪ isdn-bits-incoming-calls-behavior ▪ isdn-bits-ns-behavior ▪ isdn-bits-ns-extension-behavior ▪ isdn-bits-outgoing-calls-behavior ▪ isdn-layer2-mode ▪ isdn-termination-side ▪ isdn-xfer-cab ▪ local-isdn-rbt-src ▪ oos-behavior ▪ ovrlp-rcving-type ▪ pi-in-rx-disc-msg ▪ pi-to-isdn ▪ play-rbt-to-trk ▪ protocol ▪ pstn-alrt-timeout ▪ rmv-calling-name ▪ trk-xfer-mode-type For a description of these parameters, refer to the *User's Manual*.

Command Modes

Enable

Examples:

This example sets the PSTN protocol to be used for this trunk.

```
(config-system)# interface bri 2/4
(bri 2/4)# set protocol 1
```

5.1.2 fxs-fxo

This command enters a specific analog interface (FXS or FXO) configuration.

Syntax:

The syntax of this command includes the following variations:

```
interface fxs-fxo <slot/port>
set <parameter> <value>
```

The command syntax format is described below:

Arguments	Description
<parameter> <value>	Sets the following table parameters: ▪ bellcore-callerid-type-one-sub-standard ▪ bellcore-vmwi-type-one-standard ▪ caller-ID-type ▪ caller-id-timing-mode ▪ current-disconnect-duration ▪ default-linepolarity-state ▪ defaults ▪ disable-analog-auto-calibration ▪ enable-analog-dc-remover ▪ enable-fxo-current-limit ▪ etsi-callerid-type-one-sub-standard ▪ etsi-vmwi-type-one-standard ▪ far-end-disconnect-type ▪ flash-hook-period ▪ fxo-country-coefficients ▪ fxo-dc-termination ▪ fxs-country-coefficients ▪ fxs-rx-gain-control ▪ fxs-tx-gain-control ▪ metering-on-time ▪ metering-type ▪ min-flash-hook-time ▪ mwi-indication-type ▪ polarity-reversal-type ▪ rx-gain-control ▪ time-to-sample-analog-line-voltage ▪ trk-xfer-mode-type For a description of these parameters, refer to the *User's Manual*.

Command Modes

Enable

Related Commands:

```
show voip interface fxs-fxo
```

The above commands give the user the interface status, main PM parameters and main configuration parameters.

Examples:

This example sets the metering method for charging pulses.

```
(config-system)# interface fxs-fxo
(fxs-fxo)# set metering-type 12-kHz-sinusoidal-bursts
```

The following example enters a specific analog interface configuration.

```
# show voip interface fxs-fxo
Module in slot 1, Ports type is FXS
Port 1 status:
        Chip Revision: 2
        Hook state(1- off hook, 0- onhook): 0
        Message Waiting Indication: 0
        Ring:0
        Reversal Polarity:0
        Tx Gain Control: 0db
        Rx Gain Control: 0db
Port configuration:
Various timing parameters:
        WinkTime 200 ms
        CurrentDisconnectDuration 900 ms
        FlashHookPeriod 700 ms
        MinFlashHookTime 300 ms
Caller ID and MWI parameters:
        Primary Caller ID and MWI type is 0
        AnalogCallerIDTimingMode is CallerID transferred between
first and second rings
        BellcoreCallerIDTypeOneSubStandard is 0
        ETSICallerIDTypeOneSubStandard is 0
        ETSIVMWITypeOneStandard is 0
        BellcoreVMWITypeOneStandard is 0
Various signal indications parameters:
        PolarityReversalType is 0
        MeteringType is 0
        LifeLineType is acLifeLineType_Hardware_Only
Country Coefficients is set to USA
```

5.1.4 enm

E and M (earth and magneto, or ear and mouth) is a type of supervisory line signaling that uses DC signals on separate leads, called the "E" lead and "M" lead, traditionally used in the telecommunications industry between telephone switches.

Conventions

E and M Interface Supervision Signal Description

E (Ear or Earth) - Signal wire from trunking (CO) side to signaling side.

M (Mouth or Magnet) - Signal wire from signaling side to trunking (CO) side.

SG (Signal Ground) - Used on E & M Types II, III, IV.

SB (Signal Battery) - Used on E & M Types II, III, IV.

T/R (Tip/Ring) - T / R leads carry audio between the signaling unit and the trunking circuit. On a two-wire audio operation circuit, this pair carries the full-duplex audio path.

T1/R1 (Tip-1/Ring-1) - Used on four-wire audio operation circuits only. The four-wire implementation provides separate paths to receive and send audio signals.

E & M signaling defines a trunk circuit side and a signaling unit side for each connection similar to the data circuit-terminating equipment (DCE) and data terminal equipment (DTE) reference type. Usually the PBX is the trunk circuit side and the Telco, CO, channel-bank. The AudioCodes analog E and M interface functions both as the signaling or trunking unit circuit.

Hook Events Detection and Generation - AudioCodes support only the LMR type for hook signaling.

Syntax:

The syntax of this command includes the following variations:

```
interface enm
set <parameter> <value>
```

Arguments	Description
<parameter> <value>	Sets the following table parameters: ▪ country_coefficients - Sets port physical line impedance ▪ defaults - Sets all parameters to default values ▪ hook_debounce - Sets hook state debounce timer, to protect from false hook events. ▪ hook_glare_enable - Returns busy while PTT hook is off and user would like to force off hook towards the PTT itself. ▪ port_rx_gain - Sets E and M port external RX gain (not supported in this version) ▪ port_tx_gain - Sets E and M port external TX gain (not supported in this version) ▪ signaling_type - Configures the E and M signaling interface. ▪ system_interface - Configures the E and M system interface ▪ voice_type - Configures the E and M voice interface For a description of these parameters, refer to the *User's Manual*.

Command Modes

Enable

Examples:

This example configures the E and M voice interface to two wire.

```
(config-system)# interface enm
(enm)# set voice_type 0
```

5.1.5 debug capture voip

This command captures network traffic on one of the voip sub-system network interfaces

Syntax:

The syntax of this command includes the following variations:

```
debug capture voip interface vlan <vlanID> proto <protocol filter>
host <host filter>
debug capture voip interface vlan <vlanID> proto <protocol> host
<host filter> port <port filter>
debug capture voip interface vlan <vlanID> proto <protocol> host
<host filter> port <port filter> tftp-server <tftp server ip
address>
```

The command syntax format is described below:

Arguments	Description
<vlanID>	Defines the VLAN ID of the network interface on which to start the debug capture process
<protocol filter>	Captures a specific protocol, or all protocols. Available options are: *all*, *ip*, *tcp*, *udp*, *arp*, *icmp*
<host filter>	Captures traffic from/to a specific host (IP address), or *any*.
<port filter>	Captures traffic from/to a specific port. Valid ports are 1-65535, or the keyword *any*. When using *arp* or *icmp* as protocol filter, port filter cannot be used, and the only valid value is *any*. This argument is optional.
<tftp server ip address>	When this argument is omitted, captured traffic is printed to the CLI console. When using this argument, the captured traffic is saved to a file in pcap format, and when the capture is stopped (using ctrl-c), the capture file is uploaded, via TFTP, to the TFTP server specified in this argument. Note that the TFTP server IP address specified in this argument must be accessible from one of the voip sub-system network interfaces, so that the capture file will be uploaded to the server successfully. Use *ping* test to make sure this TFTP server is accessible. This argument is optional.

Command Modes

Enable

Related Commands:

debug capture data

Examples:

The following example starts a debug capture on the network interface vlan 12, with a protocol filter (ip), no host filter, and no port filter. The captured traffic will be printed to the CLI session:

```
debug capture voip interface vlan 12 proto all host any
```

The following example starts a debug capture on the network interface vlan 1, with a protocol filter (ip), no host filter, and a port filter (514). The captured traffic will be saved to a temporary file, and will be sent, when *ctrl-c* is used, to the TFTP server at address 171.18.1.21. This server is accessible via network interface vlan 2014:

```
debug capture voip interface vlan 1 proto ip host any port 514
tftp-server 171.18.1.21
```

5.2 Network Interface Configuration

5.2.1 interface network-if

This command displays and configures the network interface table.

Syntax:

The syntax of this command includes the following variations:

```
interface network-if <index>
set <parameter> <value>
```

The command syntax format is described below:

Arguments	Description	Options
Sets the following table parameters:		
<parameter> <value>	Application-type	control maintenance media media-control oamp oamp-control oamp-media oamp-media-control
	defaults	
	gateway	
	Ip-address	
	mode	ipv4-manual ipv6-manual ipv6-manual-prefix
	name	
	prefix-length	
	primary-dns	
	secondary-dns	
	underlying-if	
	vlan-id	
For a description of these parameters, refer to the *User's Manual*.		

Command Modes

Enable

Examples:

The following example sets the application-type to 'control'.

```
(config-voip)# interface network-if 1
(network-if-1)# set application-type control
```

5.2.2 interface vlan

This command selects a data-like configuration syntax for VoIP interface configuration.

Syntax:

The syntax of this command includes the following variations:

```
interface vlan <vlan id>
```

The command syntax format is described below:

Arguments	Description
<vlan id>	Specifies a valid VLAN interface ID in the range of 1 and 255.

Command Modes

Enable

Examples:

The following example selects VLAN 1 as the interface to configure.

```
(config-voip)# interface vlan 1
```

5.2.3 application_type

This command defines the application type on the specified Layer 3 interface.

Syntax:

```
application_type <type>
```

The command's syntax format is described below:

Arguments	Description
<type>	Specifies the application type - Control, Media or OAMP

Defaults

NA

Command Modes

Enable

Examples:

The following example configures the control application type for interface VLAN 3.

```
(config-voip)# interface vlan 3
(conf-if-vlan 3)# application_type control
```

5.2.4 ip address

This command defines the primary IP address on the specified Layer 3 interface.

Syntax:

```
ip address <ip address> <subnet mask>
```

The command's syntax format is described below:

Arguments	Description
<ip address>	Specifies a valid IPv4 address. IP addresses should be expressed in dotted decimal notation (for example, 10.1.2.3).
<subnet mask>	Specifies the subnet mask that corresponds to a range of IP addresses. Subnet masks should be expressed in dotted decimal notation (e.g., 255.255.255.0).

Defaults

NA

Command Modes

Enable

Examples:

The following example configures the IP address of 10.4.2.3 255.255.0.0 for interface VLAN 3.

```
(config-voip)# interface vlan 3
(conf-if-vlan 3)# ip address 10.5.0.1 255.255.0.0
```

5.2.5 ip gateway

This command defines the gateway IP address on the specified Layer 3 interface.

Syntax:

```
ip gateway <ip address>
```

The command's syntax format is described below:

Arguments	Description
<ip address>	Specifies a valid IPv4 address. IP addresses should be expressed in dotted decimal notation (for example, 10.1.2.3).

Defaults

NA

Command Modes

Enable

Examples:

The following example configures the gateway IP address 10.4.0.1 for interface VLAN 3.

```
(config-voip)# interface vlan 3
(conf-if-vlan 3)# ip gateway 10.4.0.1
```

5.2.6 ip name-server

This command defines the DNS relay (remote) server's address on the interface.

Syntax:

```
ip name-server <first ip address> [second ip address]
```

The command's syntax format is described below:

Arguments	Description
<first ip address>	Specifies the primary DNS server address. Specifies a valid IPv4 address. IP addresses should be expressed in dotted decimal notation (e.g., 10.1.2.3).
<second ip address>	Specifies the secondary DNS server address. This field is not required when specifying a single IP address. Specifies a valid IPv4 address. IP addresses should be expressed in dotted decimal notation (e.g., 10.1.2.3).

Defaults

NA

Command Modes

Enable

Examples:

The following example defines DNS relay servers 10.4.1.1 and 10.4.1.2 on interface VLAN 1.

```
(config-voip)# interface vlan 3
(conf-if-vlan 3)# ip name-server 10.4.1.1 10.4.1.2
```

5.2.7 desc

This command sets the description on the specified interface.

Syntax:

```
desc <string>
```

The command's syntax format is described below:

Arguments	Description
<string>	Specifies the interface description\name using an alphanumerical string (up to 16 characters).

Defaults

NA

Functional notes

Use inverted commas when using the space character as part of the description.
The string is limited to 16 characters.

Command Modes

Enable

Examples:

The following example sets the description on VLAN 3.

```
(config-voip)# interface vlan 3
(conf-if-vlan 3)# desc Media3
```

5.2.8 show mode

This command displays VoIP interface table details.

Syntax:

The syntax of this command includes the following variations:

```
show voip interface network <vlan id>
show voip interface network description
```

The command syntax format is described below:

Arguments	Description
<vlan id>	Specifies a valid VLAN interface ID in the range of 1 and 255.

Command Modes

Enable

Examples:

The following example displays interface VLAN 2 details:

```
# sh voip interface network 2
Name: M_12
Application Type: CONTROL
IP address: 10.12.60.66
PrefixLength: 16
Gateway: 0.0.0.0
Vlan ID: 3
Primary DNS: 0.0.0.0
Secondary DNS: 0.0.0.0
Uptime:  69:54:48
rx_packets   0                tx_packets   6
rx_bytes     0                tx_bytes     462
```

The following example displays brief descriptions for all interfaces.

```
# sh voip interface network description

Index Application Type    IP Address          Prefix Gateway
VlanID Interface Name
0     O+M+C               10.4.60.62          16     10.4.0.1
1      O+M+C
2     CONTROL             10.12.60.66         16     0.0.0.0
3      M_12
3     MEDIA               10.13.60.66         16     10.13.0.1
2      M_13
```

5.3 routing static

This command displays and configures the static routing table.

Syntax:

The syntax of this command includes the following variations:

```
routing static <index>
set <parameter> <value>
```

The command syntax format is described below:

Arguments	Description
<parameter> <value>	Sets the following table parameters: ▪ defaults ▪ description ▪ destination ▪ gateway ▪ interface-name ▪ prefix-length For a description of these parameters, refer to the *User's Manual*.

Command Modes

Enable

Examples:

The following example configures a static route for subnet 1.1.0.0/16 default gateway 10.4.0.1 for an interface named MEDIA.

```
(config-voip)# routing static 3
(static-3)# set interface-name MEDIA
(static-3)# set destination 1.1.0.0
(static-3)# set prefix-length 16
(static-3)# set gateway 10.4.0.1
(static-3)# set interface-name MEDIA
```

5.4 qos vlan-mapping

This command displays and configures Quality of Service vlan mapping.

Syntax:

The syntax of this command includes the following variations:

```
qos vlan-mapping <index>
set <parameter> <value>
```

The command syntax format is described below:

Arguments	Description
<parameter> <value>	Sets the following table parameters: ▪ defaults ▪ diff-serv ▪ vlan-priority For a description of these parameters, refer to the *User's Manual*.

Examples:

The following example maps the DiffServ value of 46 to vlan priority 5.

```
(config-voip)# qos vlan-mapping 3
(vlan-mapping-3)# set diff-serv 46
(vlan-mapping-3)# set vlan-priority 5
```

5.5 qos application mapping

This command sets the differentiated services application mapping.

Syntax:

The syntax of this command includes the following variations:

```
qos application-mapping
set <parameter> <value>
```

The command syntax format is described below:

Arguments	Description
<parameter> <value>	Sets the following table parameters: ▪ bronze-qos ▪ control-qos ▪ defaults ▪ gold-qos ▪ media-qos For a description of these parameters, refer to the *User's Manual*.

Examples:

The following example sets the DiffServ value for the Bronze service class content (OAM&P).

```
(config-voip)# qos application-mapping
(app-map)# set bronze-qos 46
```

5.6 coders-and-profiles coders-group

This command defines the Coders Group table.

Syntax:

The syntax of this command includes the following variations:

```
coders-and-profiles coders-group-<0-4> <index>
set <parameter> <value>
```

The command syntax format is described below:

Arguments	Description
<parameter> <value>	Sets the following table parameters: ▪ Name ▪ PayloadType ▪ Sce ▪ defaults ▪ pTime ▪ rate For a description of these parameters, refer to the *User's Manual*.

Defaults

NA

Command Modes

Enable

Examples:

The following example defines the Coders Group table and sets the name.

```
(config-voip)# coders-and-profiles coders-group-0 1
(coders-group-0-1)# set name tjones
```

5.7 coders-and-profiles ip-profile

This command defines the IP Profile table.

Syntax:

The syntax of this command includes the following variations:

```
coders-and-profiles ip-profile <index>
set <parameter> <value>
```

Arguments	Description
<parameter> <value>	Sets the following table parameters: ▪ AMDMaxGreetingTime ▪ AMDMaxPostSilenceGreetingTime ▪ AMDSensitivityLevel ▪ AMDSensitivityParameterSuit ▪ AddIEInSetup ▪ CNGmode ▪ CallLimit ▪ CodersGroupID ▪ CopyDest2RedirectNumber ▪ DisconnectOnBrokenConnection ▪ EnableEarlyMedia ▪ EnableHold ▪ EnableQSIGTunneling ▪ FirstTxDtmfOption ▪ IPDiffServ ▪ InputGain ▪ IpPreference ▪ IsDTMFUsed ▪ IsFaxUsed ▪ JitterBufMinDelay ▪ JitterBufOptFactor ▪ MediaIPVersionPreference ▪ MediaSecurityBehaviour ▪ NSEMode ▪ PlayRBTone2IP ▪ ProfileName ▪ ProgressIndicator2IP ▪ RTPRedundancyDepth ▪ RemoteBaseUDPPort ▪ RxDTMFOption ▪ SBCAllowedCodersGroupID ▪ SBCAllowedCodersMode ▪ SBCAlternativeDTMFMethod ▪ SBCAssertIdentity ▪ SBCDiversionMode ▪ SBCExtensionCodersGroupID ▪ SBCFaxAnswerMode

Arguments	Description
	▪ SBCFaxBehavior ▪ SBCFaxCodersGroupID ▪ SBCFaxOfferMode ▪ SBCHistoryInfoMode ▪ SBCMediaSecurityBehaviour ▪ SBCRFC2833Behavior ▪ SCE ▪ SecondTxDtmfOption ▪ SigIPDiffServ ▪ TranscodingMode ▪ VoiceVolume ▪ VxxTransportType ▪ defaults ▪ echo-canceller For a description of these parameters, refer to the *User's Manual*.

Defaults

NA

Command Modes

Enable

Examples:

The following example defines enables the echo canceller.

```
(config-voip)# coders-and-profiles ip-profile 1
(ip-profile-1)# set echo-canceller enable
```

5.8 coders-and-profiles tel-profile

This command defines the Tel Profile table.

Syntax:

```
coders-and-profiles tel-profile <index>
set <parameter> <value>
```

Arguments	Description
<parameter> <value>	Sets the following table parameters: ▪ CodersGroupID ▪ DtmfVolume ▪ EnableCurrentDisconnect ▪ EnableDigitDelivery ▪ EnableEC ▪ EnableEarlyMedia ▪ EnableReversePolarity ▪ FlashHookPeriod ▪ IPDiffServ ▪ InputGain ▪ IsFaxUsed ▪ JitterBufMinDelay ▪ JitterBufOptFactor ▪ MWIAnalog ▪ MWIDisplay ▪ ProfileName ▪ ProgressIndicator2IP ▪ SigIPDiffServ ▪ TelPreference ▪ TimeForReorderTone ▪ VoiceVolume ▪ defaults ▪ dial-plan-index ▪ digital-cut-through ▪ disconnect-on-busy-tone ▪ ec-nlp-mode ▪ enable-911-psap ▪ enable-agc ▪ enable-did-wink ▪ enable-fxo-double-answer ▪ enable-voice-mail-delay ▪ is-two-stage-dial ▪ swap-teltoip-phone-numbers For a description of these parameters, refer to the *User's Manual*.

Defaults

NA

Command Modes

Enable

Examples:

The following example sets the DTMF volume.

```
(config-voip)# coders-and-profiles tel-profile 1
(tel-profile-1)# set DtmfVolume 10
```

5.9 control-network

The following commands define the SIP control-network.

5.9.1 NATTranslation

This command sets the NAT Translation table.

Syntax:

```
control-network NATTranslation <index>
set <parameter> <value>
```

Arguments	Description
<index>	Defines the table row index.
<parameter> <value>	Sets the following table parameters: ▪ SourceIPInterfaceName ▪ TargetIPAddress ▪ SourceStartPort ▪ SourceEndPort ▪ TargetStartPort ▪ TargetEndPort ▪ TargetIPAddress For a description of these parameters, refer to the *User's Manual*.

Defaults

NA

Command Modes

Enable

Examples:

This example configures a NAT rule to translate IP address 10.13.4.70 to the public IP 100.222.4.5:

```
(config-voip)# control-network NATTranslation 0
(NATTranslation-0)# set SourceIPInterfaceName VOIP
(NATTranslation-0)# set TargetIPAddress 10.13.4.70
(NATTranslation-0)# set …. .
(NATTranslation-0)# set …. .
```

5.9.2 dns Dns2Ip

This command defines the control-network Dns2Ip table.

Syntax:

```
control-network dns Dns2Ip <index>
set <parameter> <value>
```

The command's syntax format is described below:

Arguments	Description
<index>	Defines the table row index.
<parameter> <value>	Sets the following table parameters: ▪ DomainName ▪ FirstIpAddress ▪ FourthIpAddress ▪ SecondIpAddress ▪ ThirdIpAddress ▪ defaults For a description of these parameters, refer to the *User's Manual*.

Defaults

NA

Command Modes

Enable

Examples:

The following example defines the First IP address.

```
(config-voip)# control-network dns Dns2Ip 1
(Dns2Ip-1)# set FirstIpAddress 10.12.3.105
(Dns2Ip-1)# set ….
```

5.9.3 dns Srv2Ip

This command defines the control-network Srv2Ip table.

Syntax:

```
control-network dns Srv2Ip <index>
set <parameter> <value>
```

The command's syntax format is described below:

Arguments	Description
<index>	Defines the table row index.
<parameter> <value>	Sets the following table parameters: ▪ Dns1 ▪ Dns2 ▪ Dns3 ▪ InternalDomain ▪ Port1 ▪ Port2 ▪ Port3 ▪ Priority1 ▪ Priority2 ▪ Priority3 ▪ TransportType ▪ Weight1 ▪ Weight2 ▪ Weight3 ▪ defaults For a description of these parameters, refer to the *User's Manual*.

Defaults

NA

Command Modes

Enable

Examples:

The following example defines the First IP address.

```
(config-voip)# control-network dns Srv2Ip 5
(Srv2Ip-5)# set Port1 10
(Srv2Ip-5)# set ….
```

5.9.4 ip-group

This command defines the ip-group table.

Syntax:

```
control-network ip-group <index>
set <parameter> <value>
```

The command's syntax format is described below:

Arguments	Description
<index>	Defines the table row index.
<parameter> <value>	Sets the following table parameters: ▪ AlwaysUseRouteTable ▪ AuthenticationMode ▪ ClassifyByProxySet ▪ ContactName ▪ ContactUser ▪ Description ▪ EnableSurvivability ▪ InboundManSet ▪ MaxNumOfRegUsers ▪ MediaRealm ▪ MethodList ▪ OutboundManSet ▪ ProfileId ▪ ProxySetId ▪ RegistrationMode ▪ RoutingMode ▪ SIPGroupName ▪ SRD ▪ ServingIPGroup ▪ SipReRoutingMode ▪ Type ▪ defaults For a description of these parameters, refer to the *User's Manual*.

Defaults

NA

Command Modes

Enable

Examples:

The following example defines the ip-group table.

```
(config-voip)# control-network ip-group 1
(ip-group-1)# set contactname john_brown
```

5.9.5 proxy-ip

This command defines the proxy-ip table.

Syntax:

```
control-network proxy-ip <index>
set <parameter> <value>
```

The command's syntax format is described below:

Arguments	Description
<index>	Defines the table row index.
<parameter> <value>	Sets the following table parameters: ▪ IpAddress ▪ ProxySetId ▪ TransportType ▪ defaults For a description of these parameters, refer to the *User's Manual*.

Defaults

NA

Command Modes

Enable

Examples:

The following example sets the IP address in the proxy-ip table.

```
(config-voip)# control-network proxy-ip 5
(proxy-ip-5)# set IpAddress 1.5.20.103
(proxy-ip-5)# set ….
```

5.9.6 proxy-set

This command defines the proxy-set table.

Syntax:

```
control-network proxy-set <index>
set <parameter> <value>
```

The command's syntax format is described below:

Arguments	Description
<index>	Defines the table row index.
<parameter> <value>	Sets the following table parameters: ▪ ClassificationInput ▪ EnableProxyKeepAlive ▪ IsProxyHotSwap ▪ ProxyKeepAliveTime ▪ ProxyLoadBalancingMethod ▪ ProxyRedundancyMode ▪ SRD ▪ defaults For a description of these parameters, refer to the *User's Manual*.

Defaults

NA

Command Modes

Enable

Examples:

The following example defines the proxy-set table.

```
(config-voip)# control-network proxy-set 1
(proxy-set-1)# set ClassificationInput IPnPortnTransport
(proxy-set-1)# set …. .
(proxy-set-1)# set …. .
```

5.9.7 sip-interface

This command defines the SIP Interface table.

Syntax:

```
control-network sip-interface <index>
set <parameter> <value>
```

The command's syntax format is described below:

Arguments	Description
<index>	Defines the table row index.
<parameter> <value>	Sets the following table parameters: ▪ ApplicationType ▪ MessagePolicy ▪ NetworkInterface ▪ SRD ▪ TCPPort ▪ TLSPort ▪ UDPPort ▪ defaults For a description of these parameters, refer to the *User's Manual*.

Defaults

NA

Note

Network Interface shuold be taken from: *interface network-if (name)*

Command Modes

Enable

Examples:

The following example defines the SIP interface table.

```
(config-voip)# control-network sip-interface 1
(sip-interface-1)# set srd 1
(sip-interface-1)# set ….
(sip-interface-1)# set ….
```

5.9.8 srd

This command defines the SRD table.

Syntax:

```
control-network srd <index>
set <parameter> <value>
```

The command's syntax format is described below:

Arguments	Description
<index>	Defines the table row index.
<parameter> <value>	Sets the following table parameters: ▪ BlockUnRegUsers ▪ EnableUnAuthenticatedRegistrations ▪ IntraSRDMediaAnchoring ▪ MaxNumOfRegUsers ▪ MediaRealm ▪ Name ▪ defaults For a description of these parameters, refer to the *User's Manual*.

Defaults

NA

Command Modes

Enable

Examples:

The following example defines the SRD table.

```
(config-voip)# control-network srd 5
(srd-5)# set name bob
(srd-5)# set ….
```

5.10 ip-media ip-media-settings

This command defines IP Media / IP-Media-Settings mode.

Syntax:

```
ip-media ip-media-settings <index>
set <parameter> <value>
```

The command's syntax format is described below:

Arguments	Description
<index>	Defines the table row index.
<parameter> <value>	Sets the following table parameters: ▪ NetAnn-Annc-ID ▪ Transcoding-ID ▪ beep-on-conf ▪ conf-dtmf-clamping ▪ conf-dtmf-reporting ▪ conf-id ▪ defaults ▪ mscml-id For a description of these parameters, refer to the *User's Manual*.

Defaults

NA

Command Modes

Enable

Examples:

The following example defines defines IP Media / IP-Media-Settings mode.

```
(config-voip)# ip-media ip-media-settings
(sip-ip-media-setting)# set beep-on-conf on
(sip-ip-media-setting)# set ….
```

5.11 ldap

This command defines the LDAP server table.

Syntax:

```
ldap
set <parameter> <value>
```

The command's syntax format is described below:

Arguments	Description
<index>	Defines the table row index.
<parameter> <value>	Sets the following table parameters: ▪ LDAPSERVERIP ▪ bind-dn ▪ defaults ▪ enable ▪ password ▪ search-dn ▪ server-domain-name ▪ server-max-respond-time ▪ server-port For a description of these parameters, refer to the *User's Manual*.

Defaults

NA

Command Modes

Enable

Examples:

The following example sets LDAP server IP address.

```
(config-voip)# ldap
(ldap)# set ldapserverip 10.5.5.12
```

5.12 SAS

The following command define SAS.

5.12.1 stand-alone-survivability

This command enables the Stand Alone Survivability feature.

Syntax:

```
sas stand-alone-survivability
set <parameter> <value>
```

The command's syntax format is described below:

Arguments	Description
<index>	Defines the table row index.
<parameter> <value>	Sets the following table parameters: ▪ set defaults ▪ enable-enum ▪ rdcy-sas-proxy-set ▪ record-route ▪ sas-block-unreg-usrs ▪ sas-connection-reuse ▪ sas-contact-replace ▪ sas-default-gw-ip ▪ sas-emerg-nb ▪ sas-emerg-prefix ▪ sas-inb-manipul-md ▪ sas-local-sip-tcp-port ▪ sas-local-sip-tls-port ▪ sas-local-sip-udp-port ▪ sas-proxy-set ▪ sas-registration-time ▪ sas-subscribe-resp ▪ sas-survivability ▪ sasbindingmode For a description of these parameters, refer to the *User's Manual*.

Defaults

NA

Command Modes

Enable

Examples:

The following example sets the survivability mode.

```
(config-voip) # sas stand-alone-survivability
(sip-sas-setting)# set sas-survivability
```

5.13 sip-definition

The following commands define SIP Definition.

5.13.1 account

This command defines the Account table.

Syntax:

```
# sip-definition account <index>
# set <parameter> <value>
```

The command's syntax format is described below:

Arguments	Description
<index>	Defines the table row index.
<parameter> <value>	Sets the following table parameters: ▪ ApplicationType ▪ ContactUser ▪ HostName ▪ Password ▪ Register ▪ ServedIPGroup ▪ ServedTrunkGroup ▪ ServingIPGroup ▪ Username ▪ defaults For a description of these parameters, refer to the *User's Manual*.

Defaults

NA

Command Modes

Enable

Examples:

The following example defines the username in the Account table.

```
(config-voip)# sip-definition account 1
(account-1)# set username jsmith
```

5.13.2 account setting

This command defines the SIP Definitions account settings.

Syntax:

```
sip-definition account-setting
set <parameter> <value>
```

The command's syntax format is described below:

Arguments	Description
<parameter> <value>	Sets the following table parameters: ▪ set aaa-indications ▪ accounting-port ▪ accounting-server-ip ▪ defaults ▪ enable ▪ radius-accounting For a description of these parameters, refer to the *User's Manual*.

Defaults

NA

Command Modes

Enable

Examples:

The following example defines the username in the Account table.

```
(config-voip)# sip-definition account-setting
(sip-def-account-setting)# set enable on
```

5.13.3 advanced settings

This command defines advanced SIP settings.

Syntax:

```
sip-definition advanced-settings
set <parameter> <value>
```

The command's syntax format is described below:

Arguments	Description
<parameter> <value>	Sets the following table parameters: ▪ set 1st-call-rbt-id ▪ FarEndDisconnectSilenceMethod ▪ FarEndDisconnectSilencePeriod ▪ QOSStatistics ▪ amd-beep-detection ▪ broken-connection-event-timeout ▪ busy-out ▪ call-pickup-key ▪ calls-cut-through ▪ cdr-report-level ▪ cdr-srvr-ip-adrr ▪ current-disc ▪ debug-level ▪ defaults ▪ delay-after-reset ▪ delay-b4-did-wink ▪ delayed-offer ▪ dflt-release-cse ▪ did-wink-enbl ▪ digit-delivery-2ip ▪ digit-delivery-2tel ▪ digit-pttrn-on-conn ▪ disc-broken-conn ▪ disc-on-silence-det ▪ e911-callback-timeout ▪ e911-gateway ▪ emerg-calls-regrt-t-out ▪ fax-re-routing ▪ filter-calls-to-ip ▪ graceful-bsy-out-t-out ▪ ip-security ▪ ip2ip-transfer-mode ▪ max-nb-of-act-calls ▪ media-cdr-rprt-level ▪ microsoft-ext ▪ mx-call-duration ▪ network-isdn-xfer

Arguments	Description
	▪ oos-behavior ▪ polarity-rvrsl ▪ prog-ind-2ip ▪ pstn-alert-timeout ▪ reanswer-time ▪ reliable-conn-persistent ▪ replace-nb-sign-w-esc ▪ sas-emerg-nb ▪ single-dsp-transcoding ▪ src-hdr-4-called-nb ▪ t38-fax-mx-buff ▪ tel2ip-call-forking-mode ▪ user-inf-usage ▪ x-channel-header For a description of these parameters, refer to the *User's Manual*.

Defaults

NA

Command Modes

Enable

Examples:

The following example enables the usage of the User Info file.

```
(config-voip)# sip-definition advanced-settings
(sip-def-adv-setting)# set user-inf-usage on
```

5.13.4 general settings

This command defines the SIP Definitions general settings.

Syntax:

```
sip-definition general-settings
set <parameter> <value>
```

The command's syntax format is described below:

Arguments	Description
<parameter> <value>	Sets the following table parameters: ▪ 183-msg-behavior ▪ 3xx-behavior ▪ ShouldRegister ▪ anonymous-mode ▪ app-sip-transport-type ▪ asserted-identity-m ▪ ch-select-mode ▪ comfort-tone ▪ contact-restriction ▪ defaults ▪ det-fax-on-ans-tone ▪ disp-name-as-src-nb ▪ early-media ▪ enable-gruu ▪ enable-sips ▪ fax-sig-method ▪ forking-handling ▪ hist-info-hdr ▪ min-session-expires ▪ mult-ptime-format ▪ nat-ip-addr ▪ np-n-type-to-rpi-hdr ▪ p-associated-uri-hdr ▪ p-charging-vector ▪ phone-in-from-hdr ▪ play-bsy-tone-2tel ▪ play-rbt-2ip ▪ play-rbt2tel ▪ prack-mode ▪ reason-header ▪ remote-party-id ▪ rtp-only-mode ▪ sdp-session-owner ▪ semi-att-transfer ▪ session-exp-method ▪ session-expires-time ▪ sip-dst-port

Arguments	Description
	▪ sip-max-rtx ▪ sip-tcp-local-port ▪ sip-tls-local-port ▪ sip-udp-local-port ▪ src-nb-as-disp-name ▪ src-nb-preference ▪ t1-re-tx-time ▪ t2-re-tx-time ▪ tcp-conn-reuse ▪ tcp-timeout ▪ tel2ip-no-ans-timeout ▪ uri-for-assert-id ▪ use-tgrp-inf ▪ user-agent-info ▪ user=phone-in-url ▪ usr-def-subject ▪ voicemail-uri For a description of these parameters, refer to the *User's Manual*.

Defaults

NA

Command Modes

Enable

Examples:

The following example disables the 'user=phone-in-url' parameter..

```
(config-voip)# sip-definition general-setting
(sip-def-gnrl-setting)# set user=phone-in-url disable
```

5.13.5 proxy and registration

This command defines proxy and registration settings.

Syntax:

```
sip-definition proxy-and-registration
set <parameter> <value>
```

The command's syntax format is described below:

Arguments	Description
<parameter> <value>	Sets the following table parameters: ▪ always-use-proxy ▪ authentication-mode ▪ challenge-caching ▪ cnonce-4-auth ▪ defaults ▪ dns-query ▪ enable-proxy ▪ enable-registration ▪ fallback-to-routing ▪ gw-name ▪ gw-registration-name ▪ ip-addrr-rgstrr ▪ mutual-authentication ▪ nb-of-rtx-b4-hot-swap ▪ password-4-auth ▪ prefer-routing-table ▪ proxy-dns-query ▪ proxy-ip-lst-rfrsh-time ▪ proxy-name ▪ re-registration-timing ▪ redundancy-mode ▪ redundant-routing-m ▪ reg-on-conn-failure ▪ reg-on-invite-fail ▪ registrar-name ▪ registrar-transport ▪ registration-retry-time ▪ registration-time ▪ registration-time-thres ▪ rte-tbl-4-host-names ▪ set-oos-on-reg-failure ▪ sip-rerouting-mode ▪ subscription-mode ▪ use-gw-name-for-opt ▪ user-name-4-auth For a description of these parameters, refer to the *User's Manual*.

Defaults

NA

Command Modes

Enable

Examples:

The following example set the gateway name to ‘gateway1’.

```
(config-voip)# sip-definition proxy-and-registration
(sip-def-proxy-and-reg)# set gw-name gateway1
```

5.14 sbc

5.14.1 allowed-coders-group

This command defines the allowed-coders-group.

Syntax:

```
sbc allowed-coders-group AllowedCodersGroup<0-4> <index>
set <parameter> <value>
```

The command's syntax format is described below:

Arguments	Description
<index>	Defines the table row index.
<parameter> <value>	Sets the following table parameters: ▪ Name ▪ defaults For a description of these parameters, refer to the *User's Manual*.

Defaults

NA

Command Modes

Enable

Examples:

The following example sets the name in the coder's group.

```
(config-voip)# sbc allowed-coders-group AllowedCodersGroup0 1
(AllowedCodersGroup0-1)# set name j_brown
```

5.14.2 general-setting

This command defines the general settings.

Syntax:

```
sbc general-setting
set <parameter> <value>
```

The command's syntax format is described below:

Arguments	Description
<parameter> <value>	Sets the following table parameters: ▪ auth-chlng-mthd ▪ auth-qop ▪ defaults ▪ lifetime-of-nonce ▪ media-channels ▪ min-session-expires ▪ sbc-gruu-mode ▪ sbc-no-arelt-timeout ▪ sbc-preferences ▪ sbc-rgstr-time ▪ transcoding-mode ▪ unclassified-calls For a description of these parameters, refer to the *User's Manual*.

Defaults

NA

Command Modes

Enable

Examples:

The following example sets the number of channels associated with media services (announcements, conferencing).

```
(config-voip)# sbc general-setting
(sbc-gnrl-setting)# set media-channels 10
```

5.14.3 manipulations ip-inbound-manipulation

This command defines the inbound manipulations table.

Syntax:

```
sbc manipulations ip-inbound-manipulation <index>
set <parameter> <value>
```

The command's syntax format is described below:

Arguments	Description
<index>	Defines the table row index.
<parameter> <value>	Sets the following table parameters: ▪ DestHost ▪ DestUsernamePrefix ▪ IsAdditionalManipulation ▪ LeaveFromRight ▪ ManipulatedURI ▪ Prefix2Add ▪ RemoveFromLeft ▪ RemoveFromRight ▪ RequestType ▪ SrcHost ▪ SrcIPGroupID ▪ SrcUsernamePrefix ▪ Suffix2Add ▪ defaults ▪ purpose For a description of these parameters, refer to the *User's Manual*.

Defaults

NA

Command Modes

Enable

Examples:

The following example sets the number of channels associated with media services (announcements, conferencing).

```
(config-voip)# sbc manipulations ip-inbound-manipulation 1
(ip-inbound-manipulation-1) # set media-channels 10
```

5.14.4 manipulations ip-outbound-manipulation

This command defines the outbound manipulations table.

Syntax:

```
sbc manipulations ip-outbound-manipulation <index>
set <parameter> <value>
```

The command's syntax format is described below:

Arguments	Description
<index>	Defines the table row index.
<parameter> <value>	Sets the following table parameters: ▪ DestHost ▪ DestIPGroupID ▪ DestUsernamePrefix ▪ IsAdditionalManipulation ▪ LeaveFromRight ▪ Prefix2Add ▪ PrivacyRestrictionMode ▪ RemoveFromLeft ▪ RemoveFromRight ▪ SrcHost ▪ SrcIPGroupID ▪ SrcUsernamePrefix ▪ Suffix2Add ▪ defaults ▪ manipulated-uri ▪ request-type For a description of these parameters, refer to the *User's Manual*.

Defaults

NA

Command Modes

Enable

Examples:

The following example sets the Request Type to 'all'.

```
(config-voip)# sbc manipulations ip-outbound-manipulation 1
(ip-outbound-manipulation-1)# set request-type all
```

5.15 routing

The following describes Routing.

5.15.1 classification

This command defines the classification table.

Syntax:

```
# sbc routing classification <index>
# set <parameter> <value>
```

The command's syntax format is described below:

Arguments	Description
<index>	Defines the table row index.
<parameter> <value>	Sets the following table parameters: ▪ ActionType ▪ DestHost ▪ DestUsernamePrefix ▪ MessageCondition ▪ SrcAddress ▪ SrcHost ▪ SrcIPGroupID ▪ SrcPort ▪ SrcSRDID ▪ SrcTransportType ▪ SrcUsernamePrefix ▪ defaults For a description of these parameters, refer to the *User's Manual*.

Defaults

NA

Command Modes

Enable

Examples:

The following example sets the Action Type to 'allow'.

```
(config-voip)# sbc routing classification 1
(classification-1)# set ActionType allow
```

5.15.2 condition-table

This command defines the condition table.

Syntax:

```
# sbc routing condition-table <index>
# set <parameter> <value>
```

The command's syntax format is described below:

Arguments	Description
<index>	Defines the table row index.
<parameter> <value>	Sets the following table parameters: ▪ condition ▪ description ▪ defaults For a description of these parameters, refer to the *User's Manual*.

Defaults

NA

Command Modes

Enable

Examples:

The following example sets the description for the routing condition.

```
(config-voip)# sbc routing condition-table 1
(condition-table-1)# set description Maintable 1
```

5.15.3 ip2ip-routing

This command defines the ip2ip-routing table.

Syntax:

```
sbc routing ip2ip-routing <index>
set <parameter> <value>
```

The command's syntax format is described below:

Arguments	Description
<index>	Defines the table row index.
<parameter> <value>	Sets the following table parameters: ▪ AltRouteOptions ▪ CostGroup ▪ DestAddress ▪ DestHost ▪ DestIPGroupID ▪ DestPort ▪ DestSRDID ▪ DestTransportType ▪ DestType ▪ DestUsernamePrefix ▪ MessageCondition ▪ SrcHost ▪ SrcIPGroupID ▪ SrcUsernamePrefix ▪ defaults ▪ request-type For a description of these parameters, refer to the *User's Manual*.

Defaults

NA

Command Modes

Enable

Examples:

The following example sets the Request Type to 'invite'.

```
(config-voip)# sbc routing ip2ip-routing 1
(ip2ip-routing-1)# set request-type invite
```

5.15.4 sbc-alternative-routing-reasons

This command defines the sbc-alternative-routing-reasons table.

Syntax:

```
sbc routing sbc-alternative-routing-reasons <index>
set <parameter> <value>
```

The command's syntax format is described below:

Arguments	Description
<index>	Defines the table row index.
<parameter> <value>	Sets the following table parameters: ▪ ReleaseCause ▪ defaults For a description of these parameters, refer to the *User's Manual*.

Defaults

NA

Command Modes

Enable

Examples:

The following example sets the Release Cause to '1'.

```
(config-voip)# sbc routing sbc-alternative-routing-reasons 1
(sbc-alternative-routing-reasons-1)# set ReleaseCause 1
```

5.16 gw

The following defines gw commands:

5.16.1 advance-application

This command defines the advance application settings.

Syntax:

```
# gw advance-application voice-mail-setting
# set <parameter> <value>
```

The command's syntax format is described below:

Arguments	Description
<parameter> <value>	Sets the following table parameters: ▪ defaults ▪ dig-to-ignore-dig-pattern ▪ disc-call-dig-ptrn ▪ enable-smdi ▪ ext-call-dig-ptrn ▪ fwd-bsy-dig-ptrn-ext ▪ fwd-bsy-dig-ptrn-int ▪ fwd-dnd-dig-ptrn-ext ▪ fwd-dnd-dig-ptrn-int ▪ fwd-no-ans-dig-ptrn-ext ▪ fwd-no-ans-dig-ptrn-int ▪ fwd-no-rsn-dig-ptrn-ext ▪ fwd-no-rsn-dig-ptrn-int ▪ int-call-dig-ptrn ▪ line-transfer-mode ▪ mwi-off-dig-ptrn ▪ mwi-on-dig-ptrn ▪ mwi-source-number ▪ mwi-suffix-pattern ▪ smdi-timeout-[msec] ▪ vm-interface For a description of these parameters, refer to the *User's Manual*.

Defaults

NA

Command Modes

Enable

Examples:

The following example enables the Simplified Message Desk Interface (SMDI) to Belcore.

```
(config-voip)# gw advance-application voice-mail-setting
(gw-adv-appli-vm)# set enable-smdi 1
```

5.16.2 analoggw

The following defines analoggw commands.

5.16.2.1 chargecode

This command defines the analog gateway chargecode settings.

Syntax:

```
# gw analoggw ChargeCode <index>
# set <parameter> <value>
```

The command's syntax format is described below:

Arguments	Description
<parameter> <value>	Sets the following table parameters: ▪ EndTime1 ▪ EndTime2 ▪ EndTime3 ▪ EndTime4 ▪ PulseInterval1 ▪ PulseInterval2 ▪ PulseInterval3 ▪ PulseInterval4 ▪ PulsesOnAnswer1 ▪ PulsesOnAnswer2 ▪ PulsesOnAnswer3 ▪ PulsesOnAnswer4 ▪ defaults For a description of these parameters, refer to the *User's Manual*.

Defaults

NA

Command Modes

Enable

Examples:

The following example sets the pulse inetrval.

```
(config-voip)# gw analoggw ChargeCode 1
(ChargeCode-1)*# set EndTime1 pulsinterval1 20
```

5.16.2.2 fxo-setting

This command defines the fxo settings.

Syntax:

```
# gw analoggw fxo-setting
# set <parameter> <value>
```

The command's syntax format is described below:

Arguments	Description
<parameter> <value>	Sets the following table parameters: ▪ answer-supervision ▪ defaults ▪ dialing-mode ▪ disc-on-bsy-tone-c ▪ disc-on-dial-tone ▪ fxo-autodial-play-bsytn ▪ fxo-dbl-ans ▪ guard-time-btwn-calls ▪ reorder-tone-duration ▪ ring-detection-tout ▪ rings-b4-det-callerid ▪ snd-mtr-msg-2ip ▪ time-wait-b4-dialing ▪ waiting-4-dial-tone For a description of these parameters, refer to the *User's Manual*.

Defaults

NA

Command Modes

Enable

Examples:

The following example enables the wait for dial tone before initiating an outgoing call to the PBX/PSTN (FXO one-stage dialing mode).

```
(config-voip)# gw analoggw fxo-setting
(gw-analogGW-fxo)# set waiting-4-dial-tone enable
```

5.16.2.3 keypad-features

This command defines the keypad features settings.

Syntax:

```
# gw analoggw keypad-features
# set <parameter> <value>
```

The command's syntax format is described below:

Arguments	Description
<parameter> <value>	Sets the following table parameters: ▪ KeyRejectAnonymousCall ▪ KeyRejectAnonymousCallDeact ▪ blind-transfer ▪ cw-act ▪ cw-deact ▪ defaults ▪ fwd-busy-or-no-ans ▪ fwd-deactivate ▪ fwd-dnd ▪ fwd-no-answer ▪ fwd-on-busy ▪ fwd-unconditional ▪ hotline-act ▪ hotline-deact ▪ id-restriction-act id-restriction-deact For a description of these parameters, refer to the *User's Manual*.

Defaults

NA

Command Modes

Enable

Examples:

The following example sets the Key pad pattern for rejecting anonymous calls.

```
(config-voip)# gw analoggw keypad-features
(gw-analgw-keypad) # set KeyRejectAnonymousCall 2345
```

5.16.2.4 metering-tones

This command defines the metering tones.

Syntax:

```
# gw analoggw metering-tones
# set <parameter> <value>
```

The command's syntax format is described below:

Arguments	Description
<parameter> <value>	Sets the following table parameters: ▪ defaults ▪ gen-mtr-tones ▪ metering-type For a description of these parameters, refer to the *User's Manual*.

Defaults

NA

Command Modes

Enable

Examples:

The following example sets the metering method for charging pulses.

```
(config-voip)# gw analoggw metering-tones
(gw-analgw-mtrtone)*# set metering-type 12-kHz-sinusoidal-bursts
```

5.16.3 digitalgw

The following defines digitalgq commands.

5.16.3.1 digital-gw-parameters

This command defines the digital gateway parameters.

Syntax:

```
gw digitalgw digital-gw-parameters
set <parameter> <value>
```

The command's syntax format is described below:

Arguments	Description
<parameter> <value>	Sets the following table parameters: ▪ PSTNReserved3 ▪ add-ie-in-setup ▪ add-pref-to-redir-nb ▪ b-ch-negotiation ▪ cp-dst-nb-2-redir-nb ▪ defaults ▪ dflt-call-prio ▪ dflt-cse-map-isdn2sip ▪ dig-oos-behavior ▪ disc-on-bsy-tone-c ▪ disc-on-bsy-tone-i ▪ dscp-4-mlpp-flsh ▪ dscp-4-mlpp-flsh-ov ▪ dscp-4-mlpp-flsh-ov-ov ▪ dscp-4-mlpp-immed ▪ dscp-4-mlpp-prio ▪ dscp-4-mlpp-rtn ▪ epn-as-cpn-ip2tel ▪ epn-as-cpn-tel2ip ▪ ignore-bri-los-alarm ▪ isdn-facility-trace ▪ isdn-tnl-ip2tel ▪ isdn-tnl-tel2ip ▪ isdn-trsfr-on-conn ▪ mfcr2-category ▪ mlpp-dflt-namespace ▪ mlpp-dflt-srv-domain ▪ mlpp-norm-ser-dmn ▪ ni2-cpc ▪ np-n-ton-2-redirnb ▪ play-l-rbt-isdn-trsfr ▪ preemp-tone-dur ▪ qsig-tunneling

Arguments	Description
	▪ rmv-calling-name ▪ rmv-cli-when-restr ▪ send-screen-to-ip ▪ send-screen-to-isdn ▪ swap-rdr-n-called-nb ▪ tdm-tunneling ▪ trkgrps-to-snd-ie ▪ usr2usr-hdr-frmt ▪ uui-ie-for-ip2tel ▪ uui-ie-for-tel2ip For a description of these parameters, refer to the *User's Manual*.

Defaults

NA

Command Modes

Enable

Examples:

The following example enables the gateway to maintain a permanent RTP connection.

```
(config-voip)# gw digitalgw digital-gw-parameters
(gw-digitalGW-params)*# set tdm-tunneling on
```

5.16.4 dtmf-and-suppl dtmf-and-dialing

This command defines the dtmf and supplementary parameters.

Syntax:

```
gw dtmf-and-suppl dtmf-and-dialing
set <parameter> <value>
```

The command's syntax format is described below:

Arguments	Description
<parameter> <value>	Sets the following table parameters: ▪ defaults ▪ dflt-dest-nb ▪ dial-plan-index ▪ digitmapping ▪ dt-duration ▪ hook-flash-option ▪ hotline-dt-dur ▪ isdn-tx-overlap ▪ min-dg-b4-routing ▪ mxdig-b4-dialing ▪ rfc-2833-in-sdp ▪ special-digit-rep ▪ special-digits ▪ telephony-events-payload-type-tx ▪ time-btwn-dial-digs For a description of these parameters, refer to the *User's Manual*.

Defaults

NA

Command Modes

Enable

Examples:

The following example enables ISDN Overlap IP to Tel Dialing.

```
(config-voip)# gw dtmf-and-suppl dtmf-and-dialing
(gw-dtmf-and-dial)# set isdn-tx-overlap on
```

5.16.5 dtmf-and-suppl supplementary-services

This command defines the dtmf and supplementary parameters.

Syntax:

```
gw dtmf-and-suppl supplementary-services
set <parameter> <value>
```

The command's syntax format is described below:

Arguments	Description
<parameter> <value>	Sets the following table parameters: ▪ 3w-conf-mode ▪ 3w-conf-nonalloc-prts ▪ as-subs-ipgroupid ▪ blind-transfer ▪ call-forward ▪ call-hold-remnd-rng ▪ call-prio-mode ▪ call-waiting ▪ caller-ID-type ▪ cfe-ring-tone-id ▪ conf-id ▪ defaults ▪ dis-reminder-ring ▪ enable-3w-conf ▪ enable-caller-id ▪ enable-mwi ▪ enable-transfer ▪ flash-key-seq-style ▪ flash-key-seq-tmout ▪ eld-timeout ▪ hold ▪ hold-format ▪ hold-to-isdn ▪ hook-flash-code ▪ mlpp-diffserv ▪ music-on-hold ▪ mwi-analog-lamp ▪ mwi-display ▪ mwi-srvr-ip-addr ▪ mwi-srvr-transp-type ▪ mwi-subs-expr-time ▪ mwi-subs-ipgrpid ▪ mwi-subs-rtry-time ▪ mx-3w-conf-onboard ▪ nb-of-cw-ind ▪ nrt-sub-retry-time ▪ nrt-subscription

Arguments	Description
	▪ precedence-ringing ▪ should-subscribe ▪ sttr-tone-duration ▪ subscribe-to-mwi ▪ time-b4-cw-ind ▪ time-between-cw ▪ transfer-prefix ▪ waiting-beep-dur For a description of these parameters, refer to the *User's Manual*.

Defaults

NA

Command Modes

Enable

Examples:

The following example enables the Call Waiting tone beep length (msec).

```
(config-voip)# gw dtmf-and-suppl supplementary-services
(gw-suppl-serv)# set waiting-beep-dur 180
```

5.16.6 hunt-or-trunk-group

This command defines the hunt or trunk group parameters.

Syntax:

```
gw hunt TrunkGroup <index>
set <parameter> <value>
```

The command's syntax format is described below:

Arguments	Description
<index>	Defines the table row index.
<parameter> <value>	Sets the following table parameters: ▪ FirstBChannel ▪ FirstPhoneNumber ▪ FirstTrunkId ▪ LastBChannel ▪ LastTrunkId ▪ Module ▪ ProfileId ▪ TrunkGroupNum ▪ defaults For a description of these parameters, refer to the *User's Manual*.

Defaults

NA

Command Modes

Enable

Examples:

The following example enables the Profile iD.

```
(config-voip)# gw hunt TrunkGroup 4
(TrunkGroup-4)# set ProfileId 5
```

5.16.7 hunt trunk-group-setting

This command defines the trunk group settings.

Syntax:

```
gw hunt trunk-group-setting <index>
set <parameter> <value>
```

The command's syntax format is described below:

Arguments	Description
<index>	Defines the table row index.
<parameter> <value>	Sets the following table parameters: ▪ ChannelSelectMode ▪ ContactUser ▪ GatewayName ▪ MWIInterrogationType ▪ RegistrationMode ▪ ServingIPGroup ▪ TrunkGroupId ▪ defaults For a description of these parameters, refer to the *User's Manual*.

Defaults

NA

Command Modes

Enable

Examples:

The following example enables the Profile iD.

```
(config-voip)# gw hunt trunk-group-setting 18
(trunk-group-setting-18) # set gatewayname gateway1
```

5.16.8 manipulations

The following commands define manipulations.

5.16.8.1 CauseMapIsdn2Sip

This command defines the CauseMapIsdn2Sip settings.

Syntax:

```
gw manipulations CauseMapIsdn2Sip <index>
set <parameter> <value>
```

The command's syntax format is described below:

Arguments	Description
<index>	Defines the table row index.
<parameter> <value>	Sets the following table parameters: ▪ IsdnReleaseCause ▪ SipResponse ▪ defaults For a description of these parameters, refer to the *User's Manual*.

Defaults

NA

Command Modes

Enable

Examples:

The following example enables the ISDN Release Cause.

```
(config-voip)# gw manipulations CauseMapIsdn2Sip 1
(CauseMapIsdn2Sip-1)# set IsdnReleaseCause 2
```

5.16.8.2 CauseMapSip2Isdn

This command defines the CauseMapSip2Isdn settings.

Syntax:

```
gw manipulations CauseMapSip2Isdn <index>
set <parameter> <value>
```

The command's syntax format is described below:

Arguments	Description
<index>	Defines the table row index.
<parameter> <value>	Sets the following table parameters: ▪ IsdnReleaseCause ▪ SipResponse ▪ defaults For a description of these parameters, refer to the *User's Manual*.

Defaults

NA

Command Modes

Enable

Examples:

The following example enables the ISIP response.

```
(config-voip)# gw manipulations CauseMapIsdn2Sip 1
(CauseMapSip2Isdn-1)# set sipresponse 2
```

5.16.8.3 NumberMapIp2Tel

This command defines the NumberMapIp2Tel settings.

Syntax:

```
gw manipulations NumberMapIp2Tel <index>
set <parameter> <value>
```

The command's syntax format is described below:

Arguments	Description
<index>	Defines the table row index.
<parameter> <value>	Sets the following table parameters: ▪ DestinationPrefix ▪ LeaveFromRight ▪ NumberPlan ▪ NumberType ▪ Prefix2Add ▪ RemoveFromLeft ▪ RemoveFromRight ▪ SourceAddress ▪ SourcePrefix ▪ Suffix2Add ▪ defaults For a description of these parameters, refer to the *User's Manual*.

Defaults

NA

Command Modes

Enable

Examples:

The following example enables the source IP address.

```
(config-voip)# gw manipulations NumberMapIp2Tel 2
(NumberMapIp2Tel-2)# set sourceaddress 12.10.4.120
```

5.16.8.4 NumberMapTel2Ip

This command defines the NumberMapTel2Ip settings.

Syntax:

```
gw manipulations NumberMapTel2Ip <index>
set <parameter> <value>
```

The command's syntax format is described below:

Arguments	Description
<index>	Defines the table row index.
<parameter> <value>	Sets the following table parameters: ▪ DestinationPrefix ▪ LeaveFromRight ▪ Prefix2Add ▪ RemoveFromLeft ▪ RemoveFromRight ▪ SourcePrefix ▪ SrcIPGroupID ▪ SrcTrunkGroupID ▪ Suffix2Add ▪ defaults For a description of these parameters, refer to the *User's Manual*.

Defaults

NA

Command Modes

Enable

Examples:

The following example enables the Destination Prefix.

```
(config-voip)# gw manipulations NumberMapTel2Ip 10
(NumberMapTel2Ip-10)# set DestinationPrefix 02
```

5.16.8.5 SourceNumberMapIp2Tel

This command defines the SourceNumberMapIp2Tel settings.

Syntax:

```
gw manipulations SourceNumberMapIp2Tel <index>
set <parameter> <value>
```

The command's syntax format is described below:

Arguments	Description
<index>	Defines the table row index.
<parameter> <value>	Sets the following table parameters: ▪ DestinationPrefix ▪ IsPresentationRestricted ▪ LeaveFromRight ▪ NumberPlan ▪ NumberType ▪ Prefix2Add ▪ RemoveFromLeft ▪ RemoveFromRight ▪ SourceAddress ▪ SourcePrefix ▪ Suffix2Add ▪ defaults For a description of these parameters, refer to the *User's Manual*.

Defaults

NA

Command Modes

Enable

Examples:

The following example enables the IsPresentationRestricted to 'Allowed'.

```
(config-voip)# gw manipulations SourceNumberMapIp2Tel 20
(SourceNumberMapIp2Tel-20)# set IsPresentationRestricted Allowed
```

5.16.8.6 SourceNumberMapTel2Ip

This command defines the SourceNumberMapTel2Ip settings.

Syntax:

```
# gw manipulations SourceNumberMapTel2Ip <index>
# set <parameter> <value>
```

The command's syntax format is described below:

Arguments	Description
<index>	Defines the table row index.
<parameter> <value>	Sets the following table parameters: ▪ DestinationPrefix ▪ IsPresentationRestricted ▪ LeaveFromRight ▪ Prefix2Add ▪ RemoveFromLeft ▪ RemoveFromRight ▪ SourcePrefix ▪ SrcIPGroupID ▪ SrcTrunkGroupID ▪ Suffix2Add ▪ defaults For a description of these parameters, refer to the *User's Manual*.

Defaults

NA

Command Modes

Enable

Examples:

The following example enables the Stripped Digits From Left to be '5'.

```
(config-voip)# gw manipulations SourceNumberMapTel2Ip 18
(SourceNumberMapTel2Ip-18)# set removefromleft 5
```

5.16.8.7 calling-name-map-ip2tel

This command defines the calling-name-map-ip2tel settings.

Syntax:

```
# gw manipulations calling-name-map-ip2tel <index>
# set <parameter> <value>
```

The command's syntax format is described below:

Arguments	Description
<index>	Defines the table row index.
<parameter> <value>	Sets the following table parameters: ▪ CallingNamePrefix ▪ DestinationPrefix ▪ LeaveFromRight ▪ Prefix2Add ▪ RemoveFromLeft ▪ RemoveFromRight ▪ SourceAddress ▪ SourcePrefix ▪ Suffix2Add ▪ defaults For a description of these parameters, refer to the *User's Manual*.

Defaults

NA

Command Modes

Enable

Examples:

The following example enables the suffix to add.

```
(config-voip)# gw manipulations calling-name-map-ip2tel 5
(calling-name-map-ip2tel-8)# set Suffix2Add xxyy
```

5.16.8.8 calling-name-map-tel2ip

This command defines the calling-name-map-tel2ip settings.

Syntax:

```
# gw manipulations calling-name-map-tel2ip <index>
# set <parameter> <value>
```

The command's syntax format is described below:

Arguments	Description
<index>	Defines the table row index.
<parameter> <value>	Sets the following table parameters: ▪ CallingNamePrefix ▪ DestinationPrefix ▪ LeaveFromRight ▪ Prefix2Add ▪ RemoveFromLeft ▪ RemoveFromRight ▪ SourceAddress ▪ SourcePrefix ▪ Suffix2Add ▪ Defaults For a description of these parameters, refer to the *User's Manual*.

Defaults

NA

Command Modes

Enable

Examples:

The following example enables the source prefix to be 'abcd'.

```
(config-voip)# gw manipulations calling-name-map-tel2ip 5
(calling-name-map-tel2ip-5)# set sourceprefix abcd
```

5.16.8.9 general-setting

This command defines the general settings.

Syntax:

```
# gw manipulations general-setting
# set <parameter> <value>
```

The command's syntax format is described below:

Arguments	Description
<parameter> <value>	Sets the following table parameters: ▪ add-ph-cntxt-as-pref ▪ defaults ▪ ip2tel-redir-reason ▪ tel2ip-redir-reason For a description of these parameters, refer to the *User's Manual*.

Defaults

NA

Command Modes

Enable

Examples:

The following example enables the parameter to add the phone context to src/dest phone number as a prefix.

```
(config-voip)# gw manipulations general-setting
(gw-manipul-gnrl-setting)# set add-ph-cntxt-as-pref on
```

5.16.8.10 phone-context-table

This command defines the phone context table.

Syntax:

```
gw manipulations phone-context-table <index>
set <parameter> <value>
```

The command's syntax format is described below:

Arguments	Description
<index>	Defines the table row index.
<parameter> <value>	Sets the following table parameters: ▪ Context ▪ No ▪ defaults ▪ TON For a description of these parameters, refer to the *User's Manual*.

Defaults

NA

Command Modes

Enable

Examples:

The following example sets the context.

```
(config-voip)# gw manipulations phone-context-table 1
(phone-context-table-1)# set context abcd
```

5.16.8.11 redirect-number-map-ip2tel

This command defines the redirect-number-map-ip2tel table.

Syntax:

```
gw manipulations redirect-number-map-ip2tel <index>
set <parameter> <value>
```

The command's syntax format is described below:

Arguments	Description
<index>	Defines the table row index.
<parameter> <value>	Sets the following table parameters: ▪ DestinationPrefix ▪ IsPresentationRestricted ▪ LeaveFromRight ▪ NumberPlan ▪ Prefix2Add ▪ RedirectPrefix ▪ RemoveFromLeft ▪ RemoveFromRight ▪ SourceAddress ▪ Suffix2Add ▪ TON ▪ defaults For a description of these parameters, refer to the *User's Manual*.

Defaults

NA

Command Modes

Enable

Examples:

The following example sets the number of digits to leave.

```
(config-voip)# gw manipulations redirect-number-map-ip2tel 1
(redirect-number-map-ip2tel-1)# set LeaveFromRight 5
```

5.16.8.12 redirect-number-map-tel2ip

This command defines the redirect-number-map-tel2ip table.

Syntax:

```
gw manipulations redirect-number-map-tel2ip <index>
set <parameter> <value>
```

The command's syntax format is described below:

Arguments	Description
<index>	Defines the table row index.
<parameter> <value>	Sets the following table parameters: ▪ DestinationPrefix ▪ IsPresentationRestricted ▪ LeaveFromRight ▪ Prefix2Add ▪ RedirectPrefix ▪ RemoveFromLeft ▪ RemoveFromRight ▪ SrcIPGroupID ▪ SrcTrunkGroupID ▪ Suffix2Add ▪ defaults For a description of these parameters, refer to the *User's Manual*.

Defaults

NA

Command Modes

Enable

Examples:

The following example sets the destination prefix.

```
(config-voip)# gw manipulations redirect-number-map-tel2ip 8
(redirect-number-map-tel2ip-8)# set DestinationPrefix abcd
```

5.17 Configuring Voice Settings

The following defines how to configure Voice settings.

5.17.1 media voice-processing

This command enables the media voice-processing parameters.

Syntax:

```
media voice-processing <index>
set <parameter> <value>
```

The command's syntax format is described below:

Arguments	Description
<index>	Defines the table row index.
<parameter> <value>	Sets the following table parameters: ▪ AGC-disable-fast-adaptation ▪ AGC-enable ▪ AGC-gain-slope ▪ AGC-max-gain ▪ AGC-min-gain ▪ AGC-redirection ▪ AGC-target-energy ▪ defaults ▪ echo-canceller-NLP-mode ▪ echo-canceller-aggressive-NLP ▪ echo-canceller-enable ▪ echo-canceller-freeze ▪ echo-canceller-hybrid-loss ▪ high-pass-filter-enable ▪ idle-pcm-pattern ▪ input-gain ▪ jitter-buffer-minimum-delay ▪ jitter-buffer-optimization-factor ▪ max-echo-canceller-length ▪ silence-compression-mode ▪ voice-volume For a description of these parameters, refer to the *User's Manual*.

Defaults

NA

Command Modes

Enable

Examples:

The following example activates the AGC (Automatic Gain Control).

```
(config-voip)# media voice-processing 1
(media-voice-processing)# set AGC-enable on
```

5.18 Configuring Fax/Modem

The following defines how to configure Fax/Modem.

5.18.1 media fax-modem t38

This command configures media fax-modem t38 parameters.

Syntax:

```
# media fax-modem t38
# set <parameter> <value>
```

The command's syntax format is described below:

Arguments	Description
<parameter> <value>	Sets the following table parameters: ▪ ECM-mode ▪ defaults ▪ enhanced-redundancy-depth ▪ max-rate ▪ redundancy-depth ▪ version ▪ volume For a description of these parameters, refer to the *User's Manual*.

Defaults

NA

Command Modes

Enable

Examples:

The following example enables ECM (Error Correction Mode) during T.38 Fax Relay.

```
(config-voip)# (config-voip)# media fax-modem t38
(media-fax-modem-T38)# set ECM-mode on
```

5.18.2 media fax-modem V1501

This command configures the V1501 configuration.

Syntax:

```
# media fax-modem V1501
# set <parameter> <value>
```

The command's syntax format is described below:

Arguments	Description
<parameter> <value>	Sets the following table parameters: ▪ SPRT-transport-channel0-max-payload-size ▪ SPRT-transport-channel2-max-payload-size ▪ SPRT-transport-channel2-max-window-size ▪ SPRT-transport-channel3-max-payload-size ▪ SSE-redundancy-depth ▪ defaults For a description of these parameters, refer to the *User's Manual*.

Defaults

NA

Command Modes

Enable

Examples:

The following example sets the V.150.1 SPRT transport Channel 0 maximum payload size to 140.

```
(config-voip)# media fax-modem V1501
(media-fax-modem-V1501)# set SPRT-transport-channel0-max-payload-size 140
```

5.18.3 media fax-modem bypass

This command configures the bypass configuration.

Syntax:

```
# media fax-modem bypass
# set <parameter> <value>
```

The command's syntax format is described below:

Arguments	Description
<parameter> <value>	Sets the following table parameters: ▪ NSE-mode ▪ basic-packet-interval ▪ coder ▪ defaults ▪ fax-bypass-output-gain ▪ jitter-buffer-minimum-delay ▪ modem-bypass-output-gain ▪ packing-factor For a description of these parameters, refer to the *User's Manual*.

Defaults

NA

Command Modes

Enable

Examples:

The following example sets the Fax/Modem bypass coder.

```
(config-voip)# media fax-modem bypass
(media-fax-modem-bypass)# set coder G711-alaw
```

5.19 Configuring RTP/RTCP Settings

The following defines how to configure RTP/RTCP settings.

5.19.1 media RTP-RTCP

This command configures the RTP RTCP configuration.

Syntax:

```
media RTP-RTCP
set <parameter> <value>
```

The command's syntax format is described below:

Arguments	Description
<parameter> <value>	Sets the following table parameters: ▪ CAS-transport-type ▪ RTP-redundancy-depth ▪ broken-connection-event-activation-mode ▪ broken-connection-event-timeout ▪ connection-establishment-notification-mode ▪ defaults ▪ disable-NAT-traversal ▪ disable-RTCP-randomization ▪ no-operation-enable ▪ no-operation-interval ▪ number-of-SID-coefficients For a description of these parameters, refer to the *User's Manual*.

Defaults

NA

Command Modes

Enable

Examples:

The following example sets the ABCD signaling transport type over IP.

```
(config-voip)# media RTP-RTCP
(media-RTP-RTCP)# set CAS-transport-type events-only
```

5.20 Configuring IPM-Detectors Settings

The following defines how to configure IPM-Detectors settings.

5.20.1 media IPM-detectors

This command configures the IP Media detectors configuration.

Syntax:

```
media IPM-detectors
set <parameter> <value>
```

The command's syntax format is described below:

Arguments	Description
<parameter> <value>	Sets the following table parameters: ▪ IPM-detectors-enable ▪ answer-detector-activativity-delay ▪ answer-detector-enable ▪ answer-detector-redirection ▪ answer-detector-sensitivity ▪ answer-detector-silence-time ▪ defaults ▪ energy-detector-enable ▪ energy-detector-redirection ▪ energy-detector-sensitivity ▪ energy-detector-threshold For a description of these parameters, refer to the *User's Manual*.

Defaults

NA

Command Modes

Enable

Examples:

The following example enables the DSP IP Media Detectors.

```
(config-voip)# media IPM-detectors
(media-IPM-detectors)# set IPM-detectors-enable enable
```

5.21 Configuring General Media Settings:

The following defines how to configure general Media settings.

5.21.1 media general

This command sets general media capabilities.

Syntax:

```
media general
set <parameter> <value>
```

The command's syntax format is described below:

Arguments	Description
<parameter> <value>	Sets the following table parameters: ▪ DSP-version-template-number ▪ defaults ▪ media-channels For a description of these parameters, refer to the *User's Manual*.

Defaults

NA

Command Modes

Enable

Examples:

The following example enables the DSP IP Media Detectors.

```
(config-voip)# media general
(media-IPM-detectors)# set IPM-detectors-enable enable
```

5.22 Configuring Media Realm Settings

The following defines how to configure Media Realm settings.

5.22.1 media realm

This command sets the Media Realm parameters.

Syntax:

```
media realm <index>
set <parameter> <value>
```

The command's syntax format is described below:

Arguments	Description
<index>	Defines the table row index.
<parameter> <value>	Sets the following table parameters: ▪ defaults ▪ ipv4if ▪ ipv6if ▪ is-default ▪ media-realm-transrate-ratio ▪ name ▪ port-range-end ▪ port-range-start ▪ session-leg For a description of these parameters, refer to the *User's Manual*.

Defaults

NA

Command Modes

Enable

Examples:

The following example sets the number of media sessions associated with the range of ports.

```
(config-voip)# media realm 1
(realm-1)# set session-leg 10
```

5.23 Configuring Media Security Settings

The following defines how to configure Media Security settings.

5.23.1 media security

This command sets the Media Security parameters.

Syntax:

```
media security
set <parameter> <value>
```

The command's syntax format is described below:

Arguments	Description
<parameter> <value>	Sets the following table parameters: ▪ ARIA-protocol-support ▪ RTCP-encryption-disable-tx ▪ RTP-authentication-disable-tx ▪ RTP-encryption-disable-tx ▪ SRTP-tx-packet-MKI-size ▪ defaults ▪ inbound-media-latch-mode ▪ media-sec-bhvior ▪ media-security-enable ▪ offer-srtp-cipher ▪ symmetric-mki For a description of these parameters, refer to the *User's Manual*.

Defaults

NA

Command Modes

Enable

Examples:

The following example determines the way of handling incoming media packets from a non-expected address/port.

```
(config-voip)# media security
(media-security)# set inbound-media-latch-mode dynamic
```

5.24 Configuring RTP Payload Types Settings

The following defines how to configure RTP Payload Types settings.

5.24.1 media RTP-payload-types

This command sets the RTP default payload types.

Syntax:

```
media RTP-payload-types
set <parameter> <value>
```

The command's syntax format is described below:

Arguments	Description
<parameter> <value>	Sets the following table parameters: ▪ NSE-payload-type ▪ RTP-redundancy-payload-type ▪ V1501-SPRT-payload-type-rx ▪ V1501-SPRT-payload-type-tx ▪ V1501-SSE-payload-type-rx ▪ V1501-SSE-payload-type-tx ▪ defaults ▪ fax-bypass-payload-type ▪ modem-bypass-payload-type ▪ no-operation-payload-type ▪ telephony-events-payload-type-rx ▪ telephony-events-payload-type-tx For a description of these parameters, refer to the *User's Manual*.

Defaults

NA

Command Modes

Enable

Examples:

The following example defines the transmitted No Operation packets RTP Payload type.

```
(config-voip)# media RTP-payload-types
(media-RTP-payload-types)# set no-operation-payload-type 96
```

5.25 Configuring QoE Settings

The following defines how to configure Quality of Experience (QoE) settings.

5.25.1 media QoE

This command sets (QoE) media parameters.

Syntax:

```
media QoE
set <parameter> <value>
```

The command's syntax format is described below:

Arguments	Description
<parameter> <value>	Sets the following table parameters: ▪ defaults ▪ voice-quality-monitoring-enable For a description of these parameters, refer to the *User's Manual*.

Defaults

NA

Command Modes

Enable

Examples:

The following example defines the **voice-quality-monitoring-enable** parameter.

```
(config-voip)# media QoE
(media-QoE)# set voice-quality-monitoring-enable full
```

5.26 Configuring In-band Signaling Settings

The following defines how to configure In-band Signaling settings.

5.26.1 media in-band-signaling

This command configures the media in-band-signaling table.

Syntax:

The syntax of this command includes the following variations:

```
media in-band-signaling
set <parameter> <value>
```

The command syntax format is described below:

Arguments	Description
<parameter> <value>	Sets the following table parameters: ▪ COT-detector-enable ▪ CPT-detector-frequency-deviation ▪ DTMF-detector-enable ▪ DTMF-generation-twist ▪ DTMF-transport-type ▪ DTMF-volume ▪ IBS-detection-redirection ▪ MF-transport-type ▪ MFR1-detector-enable ▪ MFR2-backward-detector-enable ▪ MFR2-forward-detector-enable ▪ NTT-DID-signaling-form ▪ SIT-detector-enable ▪ UDT-detector-frequency-deviation ▪ call-progress-detector-enable ▪ caller-ID-transport-type ▪ caller-ID-type ▪ defaults ▪ digit-hangover-time-rx ▪ digit-hangover-time-tx ▪ telephony-events-max-duration ▪ user-defined-tones-detector-enable For a description of these parameters, refer to the *User's Manual*.

Command Modes

Enable

Examples:

The following example enables COT (Continuity Tones) detection and generation.

```
(config-voip)# media in-band-signaling
(media-in-band-signaling)# set COT-detector-enable on
```

6 Show Commands

6.1 show system

The following commands define the **show system** commands.

6.1.1 show system version

This command shows the current running software and hardware version.

Syntax:

The syntax of this command can include the following variations:

```
show system version
```

Defaults

NA

Notes:

NA

Command Modes:

Basic

Related Commands:

NA

6.1.2 show system power

This command displays the system PoE information.

Syntax:

The syntax of this command can include the following variations:

```
show system power
```

Defaults

NA

Command Modes:

Enable

Example

This example displays the system PoE information,

```
show system power
```

6.1.3 show system active-alarms

This command displays the system active alarms.

Syntax:

The syntax of this command includes the following variations:

```
show system active-alarms
```

Command Modes

Enable

Examples:

```
# show system active-alarms
1. Board#1                          14 major      Network element
operational state change alarm. Operational state is disabled.
 2. Board#1/WanLink#1                78 major      WAN link alarm.
FE interface 1 is down.
 3. Board#1/EthernetLink#2           9 minor       Ethernet link
alarm. LAN port number 2 is down.
 4. Board#1/EthernetLink#3           9 minor       Ethernet link
alarm. LAN port number 3 is down.
 5. Board#1/EthernetLink#4           9 minor       Ethernet link
alarm. LAN port number 4 is down.
 6. Board#1/EthernetLink#5           9 minor       Ethernet link
alarm. LAN port number 5 is down.
 7. Board#1/EthernetLink#6           9 minor       Ethernet link
alarm. LAN port number 6 is down.
 8. Board#1/EthernetLink#7           9 minor       Ethernet link
alarm. LAN port number 7 is down.
 9. Board#1/EthernetLink#8           9 minor       Ethernet link
alarm. LAN port number 8 is down.
10. Board#1/EthernetLink#9           9 minor       Ethernet link
alarm. LAN port number 9 is down.
11. Board#1/EthernetLink#10          9 minor       Ethernet link
alarm. LAN port number 10 is down.
12. Board#1/EthernetLink#11          9 minor       Ethernet link
alarm. LAN port number 11 is down.
13. Board#1/EthernetLink#12          9 minor       Ethernet link
alarm. LAN port number 12 is down.
```

6.1.4 show system alarms-history

This command displays the system alarms history.

Syntax:

The syntax of this command includes the following variations:

```
show system alarms-history
```

Command Modes

Enable

Examples:

```
# show system alarms-history
  1. Board#1                          14 major      Network element
operational state change alarm. Operational state is disabled.
  2. Board#1/WanLink#1                78 major      WAN link alarm.
FE interface 1 is down.
  3. Board#1/EthernetLink#2            9 minor      Ethernet link
alarm. LAN port number 2 is down.
  4. Board#1/EthernetLink#3            9 minor      Ethernet link
alarm. LAN port number 3 is down.
  5. Board#1/EthernetLink#4            9 minor      Ethernet link
alarm. LAN port number 4 is down.
  6. Board#1/EthernetLink#5            9 minor      Ethernet link
alarm. LAN port number 5 is down.
  7. Board#1/EthernetLink#6            9 minor      Ethernet link
alarm. LAN port number 6 is down.
  8. Board#1/EthernetLink#7            9 minor      Ethernet link
alarm. LAN port number 7 is down.
  9. Board#1/EthernetLink#8            9 minor      Ethernet link
alarm. LAN port number 8 is down.
 10. Board#1/EthernetLink#9            9 minor      Ethernet link
alarm. LAN port number 9 is down.
 11. Board#1/EthernetLink#10           9 minor      Ethernet link
alarm. LAN port number 10 is down.
 12. Board#1/EthernetLink#11           9 minor      Ethernet link
alarm. LAN port number 11 is down.
 13. Board#1/EthernetLink#12           9 minor      Ethernet link
alarm. LAN port number 12 is down. 2. Board#1/WanLink#1
78 major      WAN link alarm. FE interface 1 is down.
 3. Board#1/EthernetLink#2            9 minor      Ethernet link
alarm. LAN port number 2 is down.
 4. Board#1/EthernetLink#3            9 minor      Ethernet link
alarm. LAN port number 3 is down.
 5. Board#1/EthernetLink#4            9 minor      Ethernet link
alarm. LAN port number 4 is down.
 6. Board#1/EthernetLink#5            9 minor      Ethernet link
alarm. LAN port number 5 is down.
 7. Board#1/EthernetLink#6            9 minor      Ethernet link
alarm. LAN port number 6 is down.
```

```
 8. Board#1/EthernetLink#7          9 minor      Ethernet link
alarm. LAN port number 7 is down.
 9. Board#1/EthernetLink#8          9 minor      Ethernet link
alarm. LAN port number 8 is down.
10. Board#1/EthernetLink#9          9 minor      Ethernet link
alarm. LAN port number 9 is down.
11. Board#1/EthernetLink#10         9 minor      Ethernet link
alarm. LAN port number 10 is down.
12. Board#1/EthernetLink#11         9 minor      Ethernet link
alarm. LAN port number 11 is down.
13. Board#1/EthernetLink#12         9 minor      Ethernet link
alarm. LAN port number 12 is down.
```

6.1.5 show system assembly

This command displays system information.

Syntax:

The syntax of this command includes the following variations:

```
show system assembly
```

Command Modes

Enable

Examples:

```
# show system assembly
 Board Assembly Info:

| Slot No.| Module Type | Num of Ports |
| 0       | CPU         | 0            |
| 1       | FXS         | 4            |
| 2       | FXO         | 4            |
| 3       | Empty       | 0            |
| 4       | GB-ETH      | 4            |
| 5       | FAST-ETH    | 8            |
```

6.2 show voip interface

The following commands define the **show voip** commands.

6.2.1 E1/T1, BRI

This command displays the current status, main PM parameters and main configuration parameters to a specific PSTN interface (E1/T1 or BRI).

Syntax:

The syntax of this command includes the following variations:

```
show voip interface e1-t1 <slot/port>
show voip interface bri <slot/port>
```

The command syntax format is described below:

Arguments	Description
slot	Defines the module slot index as shown on the front panel.
port	Defines the port index within the selected module.

Related Commands:

```
interface e1-t1 <slot/port>
interface bri <slot/port>
```

The above commands enter a specific PSTN interface (E1/T1 or BRI) configuration.

Notes

The displayed parameters depend on the protocol type.

Examples:

The following example displays the current status, main PM parameters and main configuration parameters.

```
show voip interface e1-t1 1/1
show voip interface bri 1/2
```

```
    Mediant 800 - MSBG# show voip interface bri 1/2

    show voip interface bri 1\2
    ----------------------------
    module/port:       1\2
    trunk number:      1
    protocol:          bri_euro_isdn
    state:             active
    alarm status:      LOS 0,  LOF 0
    d-channel status:  not established
    loopback status:   no loop

    main performance monitoring counters collected in the last 330
    seconds:
    Slips:          25              Slip seconds:           1
```

```
Code violations: 0              Code violation seconds:  0
HDLC CRC errors: 2              LOF seconds:             1

basic configuration:
isdn-layer2-mode: BRI_L2_MODE_P2MP
isdn configuration:
isdn-termination-side:             USER_TERMINATION_SIDE
isdn-bits-cc-behavior:             0
isdn-bits-incoming-calls-behavior: 0
isdn-bits-outgoing-calls-behavior: 0
isdn-bits-ns-behavior:             0
isdn-bits-ns-extension-behavior:   0
```

6.2.2 FXS/FXO

This command displays the current status, main PM parameters and main configuration parameters to a specific analog interface (FXSor FXO).

Syntax:

The syntax of this command includes the following variations:

```
show voip interface fxs-fxo <slot/port>
```

The command syntax format is described below:

Arguments	Description
slot	Defines the module slot index as shown on the front panel.
port	Defines the port index within the selected module.

Related Commands:

```
interface fxs-fxo <slot/port>
```

Examples:

The following example displays the current status, main PM parameters and main configuration parameters.

```
show voip interface fxs-fxo
```

6.2.3 enm

This command displays detailed information regarding the E and M port.

Syntax:

The syntax of this command includes the following variations:

```
show voip interface enm
```

Examples:

The following example displays detailed information regarding the E and M port.

```
show voip interface enm

Module in slot 2, Ports type is E_M

Port 1 Hook indication status:
        Detected off Hook State
        Generated off Hook State

Port 2 Hook indication status:
        Detected off Hook State
        Generated on Hook State

Module Configuration:
        Signaling Type 0
        System Type - signaling
        Voice Type - two wires
        Line Impedance USA 600 Ohm
        Country Coefficients - USA
        Hook Debounce Timer - 75
        Off Hook Glare Disable
```

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