LifeSize® Automation Command Line Interface

For LifeSize Video Communications Systems*

****LifeSize Room, LifeSize Team, and LifeSize Express Series Models***

Software Release v4.5

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About this Manual

This manual applies to the following LifeSize video communications systems:

- LifeSize Room series
- LifeSize Team series

  Note: LifeSize Team in the LifeSize Team series is not supported with software release v4.5. References to LifeSize Team are removed from this publication in this release.

- LifeSize Express series

For information about the LifeSize Automation Command Line Interface (CLI) for LifeSize Passport, refer to the document *LifeSize Passport Automation Command Line Interface*.

Revisions in this Release

Software release v4.5 for LifeSize video communications systems includes new, revised, and deprecated targets and arguments in the CLI.

New Objects and Targets

The following table identifies new objects and targets available in software release v4.5 for LifeSize video communications systems. For more information, including a list of arguments and examples, refer to the object and target descriptions in the applicable command verb chapter. Numbers that appear in parentheses following a description are for internal tracking purposes only.

New Objects and Targets

Applicable Verbs	Object	Target	Description
get set	system	do-not-disturb	New target that shows or controls whether the system accepts incoming calls. (END-11836)
get set	video	digital-zoom-enable	New target that shows or controls whether digital zoom is enabled for the camera. (END-13406)

New Objects and Targets (Continued)

Applicable Verbs	Object	Target	Description
get set	call	termination-time	New target that shows or controls the number of seconds a LifeSize system waits before terminating a call to a busy or invalid number. (END-12247)

Enhancements to Existing Objects or Targets

The following table identifies enhancements to existing objects or targets in this release. For more information, refer to the object and target descriptions in the applicable verb chapter. Numbers that appear in parentheses following a description are for internal tracking purposes only.

Enhancements to Existing Objects or Targets

Command	Description
control call add-part control call dial set call max-speed set directory local	Updated bandwidth arguments to reflect new 7000 kb/s and 8000 kb/s choices for LifeSize Room 220 and added LifeSize Team 220, and LifeSize Express 220 to the descriptions of the arguments where applicable. (END-13492)
control remote control remote1	The default for the `-d` argument is changed in this release to `250` ms regardless of the number of button presses. In previous releases, the default was 250 ms for a single button press and 0 ms for a sequence. (END-13204)
set camera active	The `o` argument for selecting a non-active camera is deprecated on LifeSize Team MP and LifeSize Express 200 and is not available on LifeSize Express 220.

Enhancements to Existing Objects or Targets (Continued)

Command	Description
set camera brightness set camera lock get/set camera position get/set camera preset get/set camera white-balance	The `o` option for selecting a non-active camera when specifying the camera with the `-N` argument is deprecated on LifeSize Team MP and LifeSize Express 200 and is not available on LifeSize Express 220.
set locale language	The list of supported languages that appear as arguments for this command is revised to include the Polish language. (END-13686)
set locale timezone	The new `abuja` argument adds Abuja, Nigeria as a time zone setting. (END-13536)
set timer sleep	Additions to the set argument include `60`, `120`, `180`, and `240` minutes. (END-13537)
set video primary-background-color set video secondary-background-color	Three new arguments for specifying a custom background color for a connected display are available in this release: `[-H #FFFFFF]` Specifies a custom color in hexadecimal. `[-I "{0..255} {0..255} {0..255}"]` Specifies a custom color based on a number between 0 and 255 for each primary color. `[-N "`*`color_name`*`"]` Specifies a name for the customer color. You can use `-N` with `-H` and `-I`. (END-10979)
set video primary-input-default ***auto***	Adds a device connected to the component input on LifeSize Room 200 and LifeSize Room 220 to the prioritized list of input devices that are automatically selected when *`auto`* is specified in this command and revises the priority order to correct an error in the documentation. For more information, refer to the description of the arguments for this command. (END-12119)

Documentation Enhancements

This release adds support for LifeSize Room 220, LifeSize Team 220, and LifeSize Express 220. The following table identifies the commands for which the descriptions or arguments are updated to reference these models. For more information, refer to the object and target descriptions in the applicable verb chapter.

Commands Updated for New Models

Object	Commands
audio	get/set audio active-mic get/set audio active-mic-to-display2 get/set audio linein-1-avmap get/set audio linein-2-avmap get/set audio linein-near-mute
call	get/set call dial-mode get/set call max-speed
camera	get/set camera active get/set camera brightness get/set camera lock get/set camera position get/set camera preset get/set camera autoexposure-method get/set camera serial-control
conference	get/set conference presence-mode
directory	get/set directory local
serial	get/set serial port1
system	get/set system mcu get/set system screen-saver

Commands Updated for New Models (Continued)

Object	Commands
video	get/set video hdmi1-mode get/set video hdmi2-mode get/set video input-names get/set video primary-display get/set video primary-input get/set video primary-input-default get/set video secondary-background get/set video secondary-background-color get/set video secondary-display get/set video secondary-display-override get/set video secondary-input get/set video secondary-input-default get/set video secondary-layout
volume	get/set volume line-in get/set volume line-in1 get/set volume line-in2
control	control call add-part control call dial Updated description of far camera control and video capabilities messages.

Documentation Enhancements

The following table identifies enhancements to this document in this release.

Documentation Enhancements in this Release

Command	Description
control call dial	Added an example for joining an existing call by dialing the MCU and conference ID.
get network set network *target value*	Added an explanation that network commands do not take effect until you either issue a `set network commit` command or reboot the system. Includes a note listing the targets that cause a reboot after they are committed by the `set network commit` command. Clarified that `get network` is deprecated and superseded by `get network ipv4` and `get network ipv6`.
set network *`target`*	Added the `set network commit` command to the set examples for set network targets.
sip	Added an explanation to the description of the `sip` object that sip commands do not take effect until you either issue a `set sip commit` command or reboot. Includes a note listing the targets that cause a reboot after they are committed by the `set sip commit` command.
set sip *`target`*	Added `set sip commit` command to the set examples for set sip targets.
set ssh keys	Clarified that this target can accept 64 keys.
set video primary-input-default	Revised the text to describe the order in which the system selects an input when *`auto`* is specified as the argument. The text for previous releases was incorrect.

The following table identifies updates to this manual that were previously documented only in the Release Notes for software release v4.2

Additions and Enhancements in Software Release v4.2

Applicable Verbs	Object	Target	Description
get	system	voltages	This command was deprecated in v4.2 and is removed from this document. (END-11619)
get	system	temperatures	This command was deprecated in v4.2 and is removed from this document. The `get system thermal-state` command replaces it. (END-11619)
get set	system	fips	New target added in v4.2 that shows or controls whether the FIPS 140-2 security protocol is enabled.
get	system	thermal-state	New target that replaces `get system temperatures`.
get set	network	reserved-ports	The lowest value of the TCP and UDP reserved port range for each argument was modified in v4.2 to reflect the value 2048. Previously, the command usage and documentation stated that the lower value was 1025.

Introduction

LifeSize Automation Command Line Interface (CLI) provides a command line-based entry point for automating access and control of LifeSize video communications systems. The CLI allows you to:

- Retrieve configuration information about your LifeSize system. For example, you can get the system version number or the camera's brightness setting.
- Apply new preferences to the system configuration. For example, you can set the speaker volume or the fadeout timer.
- Show the status of calls in the system. For example, you can show active calls or statistics for previous calls.
- Control aspects of the system. For example, you can add participants to an active call or emulate remote control functionality.

This document contains information about using the CLI commands, their output, and generated return codes.

Notational Conventions

The following conventions are used in this document.

Convention	Description
`monotype` font	Monotype font reflects commands and the resulting output. Constant input appears in **`Bold`**, for example: **`get system uptime`** Variable input appears in ***`Bold Italic`***, for example: **`set audio mics`** ***`off`*** Constant output appears in plain `monotype`, for example: `ok,00` Variable output appears in `monotype` *`Italic`*, for example: **`get audio video-output`** *`phone`*
angle brackets `<>`	Required parameters are enclosed in angle brackets, for example: `<parameter>`

square brackets `[]`	Optional parameters are enclosed in square brackets, for example:
	`[parameter]`
	Similarly, optional options are enclosed in square brackets, for example:
	`[-p]`

Convention	Description

curly brackets { }	Parameters whose values are restricted are enclosed in curly brackets with discrete values separated by a pipe (|) symbol. The following example restricts the values to val1, val2, or val3:
	`<{val1|val2|val3}>`
	Parameters whose values are restricted to a range of values are enclosed in curly brackets and separated by a pair of periods (..). The following example restricts values to integers between 0 and 100, inclusive:
	`[{0..100}]`
	The following example restricts values to integers between -30 and 30, inclusive:
	`[-p {-30..30}]`
	The following example restricts values to floating point numbers between -30.0 and 30.0 inclusive:
	`[-p {-30.0..30.0}]`

Fundamentals of the Command Line Interface

This chapter describes the fundamental concepts of the CLI, such as accessing the CLI, help and default output modes, command line syntax, and standard output format.

Accessing the Command Line Interface

The CLI is available through an ssh or telnet connection to your LifeSize video communications system as the ***auto*** user (default password ***lifesize***). For LifeSize Room and LifeSize Room 200, you can also access the command line interface through an RS-232 serial port on the back panel of the codec if the serial port is configured for this shell. LifeSize Room and LifeSize Room 200 require use of a standard null modem cable for interaction through the serial connection. Refer to “Serial Cable Pin Assignment” on page 13.

Connecting through Serial Ports

To connect through the rear panel serial ports on LifeSize Room or LifeSize Room 200, follow these steps:

1. Depending on the model you are accessing, do one of the following:
   - If you are using LifeSize Room, plug one end of the null modem cable into either of the LifeSize Room serial ports, taking note of which port you choose.

     Note: If you are connecting through the serial port for the first time, LifeSize recommends that you use port 2 on the LifeSize Room codec. By default, port 2 is configured to connect at 9600 b/s and start the command line interface; port 1 is not configured. If you connect through port 1, you must perform additional steps to configure the port.
   - If you are using LifeSize Room 200, plug one end of the null modem cable into the RS-232 serial port.
2. Plug the other end of the cable into your PC serial port, taking note of which port you choose.
3. If you are connecting through port 2 on LifeSize Room, skip to step 4. If you are connecting through port 1 on the LifeSize Room codec for the first time or to the RS-232 serial port on LifeSize Room 200, do the following.

   a. ssh into the system as user ***auto***, default password ***lifesize***.

      Note: On Windows, you may need to download an ssh application, such as putty.

b. Once connected, enter the following command to configure port 1 on LifeSize Room:

`set serial port1 -s auto -b speed`

where *speed* is a speed available with the **`-b`** argument for this command. Refer to the arguments for **`set serial portN`** command on page 151.

c. To terminate an ssh session, enter the **`exit`** verb or press **Control-D**.

4. Depending on your operating system, do one of the following:

- On Windows, start HyperTerminal (**Start>All Programs>Accessories> Communications>HyperTerminal**) and configure it for the serial port you selected on the PC. If you are connecting to port 2 on the LifeSize Room codec, set the speed to 9600 b/s, no parity, 8 data bits, 1 stop bit, no flow control. If you are connecting to port 1 on LifeSize Room or to the RS-2323 serial port on LifeSize Room 200, set the speed to the speed you specified in step 3. Press **Return** in HyperTerminal until you receive the `ok,00` message.
- On Linux, start Minicom and configure it for the serial port you selected on the PC. If you are connecting to port 2 on the LifeSize Room codec, set the speed to 9600, no parity, 8 data bits, 1 stop bit, no flow control. If you are connecting to port 1 on LifeSize Room or to the RS-2323 serial port on LifeSize Room 200, set the speed to the speed you specified in step 3. Press **Return** in Minicom until you receive the `ok,00` message.

For more information about configuring the serial ports in LifeSize Room and LifeSize Room 200, see “serial” on page 151.

Serial Cable Pin Assignment

Following is the cable pinout for connecting the LifeSize Room and LifeSize Room 200 serial port to another DTE device using a null modem serial cable. Refer to “Connecting through Serial Ports” on page 12 for more information.

LifeSize Codec		Other DTE Device	
Signal	**D-sub 9 pin**	**D-sub 9 pin**	**Signal**
Receive Data	2	3	Transmit Data
Transmit Data	3	2	Receive Data
System Ground	5	5	System Ground

Help Mode

The CLI has two modes of operation: normal mode and help mode. By default, the CLI starts in help mode.

In help mode, full command help is available, as is abbreviation support. The help mode setting exists only for the duration of the current instance. It is not shared between multiple instances. Help mode is enabled by default, but can be controlled through the **`set help-mode`** command. Because help mode also enables command abbreviations, LifeSize recommends that you run automated scripts or programs with the help mode set to **`off`** to prevent using abbreviations in these types of situations. Refer to “help-mode” on page 112 for details about using this command.

All commands provide basic usage information when you specify the **`-h`** option to the command at any point in the argument list. **`Help`** followed by a verb produces the list of targets for that verb. Additionally, the argument **`errors`** returns a list of error message codes and their meanings. In normal mode, entering help produces an unsupported verb error.

Examples:

```
help

error,09

set help-mode on

ok,00

help
Possible verbs:
control
get
history
set
status

ok,00
```

```
help set
Possible completions:
set admin password
set audio line-in
set audio mics
set audio video-output
set call auto-answer
set volume dtmf
set volume ring-tone

ok,00
```

Note: Note: The previous examples show only a subset of all possible completions.

```
help errors -V
Code    Description
00      Success
01      No Memory
02      File Error
03      Invalid Instance
04      Invalid Parameter
05      Argument is not repeatable
06      Invalid Selection Parameter Value
07      Missing Argument
08      Extra Arguments on Command Line
09      Invalid Command
0a      Ambiguous Command
0b      Conflicting Parameter
0c      Operational Error
0d      No Data Available
0e      Not In Call
0f      Interrupted
10      Ambiguous Selection
11      No Matching Entries
12      Not Supported


ok,00
```

Default Output Mode

The CLI supports a default output mode option. Like help mode, it exists only for the duration of the CLI instance and is not shared between instances. By default, terse output mode is enabled. You can change this mode using the **`set verbose-mode on`** command. This is equivalent to specifying the **`-V`** option to each command entered.

> ***Note:*** Asynchronous status messages are always printed in terse mode using the default delimiter, regardless of the current state of verbose mode or any delimiter option used on the command that caused the asynchronous message to occur.

Command Line Arguments

You can invoke a single command by specifying that command on the command line, for example:

```
ssh auto@lifesize get camera position
```

In this example, the return code of the ssh command is the result code from the single command executed.

Command Line History and Recall

The CLI also supports command line history, editing, and recall through the editline library. These features operate in a similar manner to the GNU bash shell, including support for **`!n`**, **`!!`** and Emacs editing modes. History is limited to the last 100 commands.

Here Documents

The CLI supports a scripting feature known as a here document. When used in the CLI, a here document is a block of data that can be fed to certain commands that accept several lines of input (for example, uploading images or files to the system). Descriptions and examples in this manual indicate support for here documents when available for a command. Following is the syntax for specifying a here document in a CLI command:

`command` << ***`TOKEN`***

`input_associated_with_command`

`TOKEN`

where the here document consists of all text between the ***`TOKEN`*** document start symbol and the ***`TOKEN`*** document end symbol. The start symbol and end symbol must be identical. The input does not include the new line after the start symbol, but does include the new line

immediately before the end symbol. The end symbol must start in the first column of a new line to be recognized. Here documents are generally used for sending scripts to the CLI through an SSH session. For example:

Manually enter an ssh key using a here document:

```
set ssh keys -i << EOF
ssh-rsa key_string user@lifesize.com
ssh-rsa key2_string user2@lifesize.com
EOF
```

Upload a background image using a here document:

```
set video background image << EOF
<base 64 encoded data stream>
EOF
```

Command Syntax

In general, the syntax is relatively rigid to ensure consistency across all commands that the CLI supports.

The general syntax of a command is <*verb*> <*object*> <*target*> [*options*] where:

<*verb*> defines the operation to perform.

<*object*> defines the subsystem on which the operation should be performed.

<*target*> identifies the specific parameter within the object.

[options] specifies arguments that may be passed in the command.

Note: Unless otherwise indicated, when specifying an argument that includes a text string with a space in the string, enclose the text in double quotes (for example, “QRB Meeting”).

Command Verbs

The CLI verbs are **`get`**, **`set`**, **`control, history, status`**, **`exit`** and **`help`**.

If help mode is enabled, help is available for the verbs, objects, and targets. In this context, a complete command is defined as a verb followed by an object and complete target specification. (For two word targets, you must specify both to complete the command). If you specify an incomplete command, all possible completions for that command root are displayed in alphabetical order. Additionally, the command processor allows abbreviations of command targets and verbs to simplify usage and to allow for more descriptive targets.

LifeSize recommends you do not use abbreviations in shell scripts, because future releases may make the abbreviation ambiguous. To prevent such use, abbreviations are disabled when help mode is off.

Command Verb	Description
`get`	The **`get`** verb retrieves preference configuration information from the system (for example, displaying the current IP configuration).
`set`	The **`set`** verb applies new preferences to the system configuration (for example, changing the camera position).
`control`	The **`control`** verb initiates an action on the system (for example, placing a call).
`status`	The **`status`** verb retrieves system status information (for example, call information).
`exit`	The **`exit`** verb exits the shell prior to the end of input. The exit verb has no arguments. *Example*: **`exit`** `ok,00` You can also exit the shell by entering the end-of-file character (generally **^D**).
`help`	The **`help`** verb is available only in help mode. It lists the verbs available in the shell (but does not list the individual targets for those verbs). **`Help`** followed by a verb produces the list of targets for that verb (as if just the verb had been entered on the command line).
`history`	The **`history`** verb lists the saved history of commands up to 100 lines. Blank and commented lines are not included. To limit the number of lines displayed to fewer than 100, type the verb followed by the number of lines to display. To execute a command from the history list, type ***`!x`***, where ***`x`*** is the number of the command. For example, if the **`history`** verb displayed the following history of commands: **`history`** *`1,control remote back back`* *`2,get camera position`* *`3,control call dial redial:1`* `ok,00` then, **`!2`** would execute command 2 (**`get camera position`**). The history is persistent across shell invocations.

Standard Options

All of the command verbs support a small set of standard command line options to provide a basic level of consistency.

Provide Help: -h

All commands provide basic usage information for interactive users. Specify the **-h** option in the command at any point in the argument list. When you specify **-h** at any level other than that of a completed command, a list of all possible completions appears (**-h** is ignored in this case). Command help is available only when help mode is enabled. For example:

```
get system model -h
Usage: get system model [-?] [-D c] [-V] [-h]
-?          Display the column headers, even in terse mode
-D c        Specify an alternate delimiter character in
            terse mode (default is ',')
-V          Enable verbose output mode
-h          Produce this message

ok,00
```

Enable Verbose Output: -V

By default, command output appears in terse format suitable for processing by scripts. If you specify **-V**, output appears in a tabular format with headers describing each column. A minimum of two spaces separate each column value. This format is suitable for human parsing and for use during prototyping. The order of the columns presented in verbose and terse modes is the same, so you can rely on the output in verbose mode to guide column selection in terse mode. To enable verbose permanently, set verbose-mode to **on**.

Set the Terse Mode Column Delimiter: -D <c>

The default column delimiter in terse mode is the comma (',') character. Use the **-D** option to change the delimiter to any single character other than space (ASCII 0x20) or newline (ASCII 0x0a). The first character of the argument to **-D** is the new delimiter character. When outputting data in terse mode, any occurrence of the delimiter character in the output is replaced with the space character. The **-D** option and the **-V** option (or enabling verbose mode as a default) are mutually exclusive. In the event both are specified, **-D** is ignored. For example:

```
get system model -D |
LifeSize|Room

ok|00
```

Standard Output Format

All of the internal commands produce output in a specific format, based on the default output mode or the presence of the **-V** option.

Terse Mode Output

Terse mode is the default output mode. It is designed to be easily parsed by shell scripts and automated programs. The general format of the output is rows of comma-separated text. To change the separation character, specify the **-D** option. The completion code for the command is also sent to the output stream. For example:

```
get network ipv4
static,10.10.100.5,255.255.255.0,10.10.100.1,00:13:fa:00:24:a1,
   jsmith-ls

ok,00

get unknown-target

error,09
```

To allow differentiation between command output and the completion code output, a single newline is always inserted between the last line of command output and the completion code. Command output is not allowed to contain any blank lines. The completion code is printed as <*status*>,<*code*> where status is either *ok* or *error* and code is a two digit hexadecimal number. A code value of 00 indicates success of the command. Any other value indicates an error condition.

Verbose Mode Output

Verbose mode is enabled by specifying the **-V** option to a command. It may also be enabled globally by setting verbose mode to **on**. Verbose mode is designed for human parsing and is formatted in a tabular style. Verbose mode is not intended to be parsed by automated scripts. For example:

```
get network ipv4 -V
Type    IP Address   Network Mask   Gateway       MAC Address
static  10.10.100.5  255.255.255.0  10.10.100.1   00:13:fa:00:24:a1

ok

get unknown-target

error 09 Target not recognized
```

Show Column Headings in Terse Mode: -?

To show column headings from verbose mode while in terse mode, specify the **-?** option to a command. In this mode, the column headings from verbose mode appear on the first line of output separated by commas, followed by terse mode output on the next line. For example:

```
get system model -?
OEM,Model
LifeSize,Room

ok,00
```

Standard Return Codes

All CLI commands return a standard error code on completion. You can access the following table of return codes using the **`help errors`** command.

Return Code		Mnemonic	Description
Dec	**Hex**		
0	00	Ok	The command completed successfully.
1	01	NoMemory	The command failed due to a loss of memory.
2	02	IOError	The command failed due to a file read/write/open error.
3	03	InvalidInstance	The command failed due to data corruption.
4	04	InvalidParameter	An incorrect option or argument was specified on the command line.
5	05	Repeated	A non-repeatable option or argument was repeated.
6	06	NotInList	The specified option or argument value was not in the selection list.
7	07	Missing	A required option or argument was not specified.
8	08	TooMany	Too many arguments were specified.
9	09	InvalidCommand	The command entered was not found.
10	0a	AmbiguousCommand	The command entered is ambiguous.
11	0b	ParameterConflict	Two or more mutually exclusive options were specified.
12	0c	OperationalError	The command failed for unspecified reasons.
13	0d	NoData	No data is available for this operation (no active calls) or the command timed out.
14	0e	NotInCall	The command requires an active call for operation.
15	0f	Interrupted	The command was interrupted.
16	10	Ambiguous	The directory selection is ambiguous (matches multiple entries).
17	11	NoMatch	The directory selection does not match any entries.
18	12	NotSupported	The far end of the call does not support presentations.

Generating the Command Listing

To generate a complete list of the commands available in the CLI shell, execute the following:

```
% set help-mode on

ok,00
% help
control
get
exit
help
history
set
status

ok,00
% control
<control command list>

ok,00
% get
<get command list>
...
```

The result is a list of the supported commands available in the CLI with the exception of the help, history, and exit top level commands.

get and set Verbs: Objects and Targets

This chapter identifies objects and targets that are applicable to the **`get`** and **`set`** verbs. Most of the objects and targets apply to both verbs. Where only one of the verbs applies, the description and examples specify the verb.

admin

The **`admin`** object controls configuration of administrator functions in the interface. This object applies to the **`set`** verb. The following targets apply to the **`admin`** object.

password

The **`password`** target sets the password for access to the administrator preferences. This target applies to the **`set`** verb.

Arguments:

`<value>`	The new administrator password. The password can be an empty string, the numbers 0-9 and/or the symbols * and #. The password is silently truncated to 16 characters.

Examples:

```
set admin password 12345*#

ok,00

set admin password -V abcdef

error  04  Invalid Parameter
```

audio

The following targets are applicable to the **`audio`** object.

active-mic

When used with the **`get`** verb, the **`active-mic`** target shows the input option chosen as the active microphone for audio input during calls. This shows the option selected rather than the status of the input. To view the status of the input, use the **`get audio current-mic`** command.

When used with the **`set`** verb, this target specifies the input option to use as the active microphone for audio input during calls.

get Arguments:

None

get Examples:

```
get audio active-mic
phone

ok,00

get audio active-mic -V
Active
phone

ok
```

set Arguments:

`<{auto|phone|micin|micin_noaec|linein|linein_noaec|linein1|linein1_noaec|linein2|linein2_noaec|cam|hd0|hd1}>`	Specify the active microphone. The `phone` argument specifies the LifeSize Phone connected to the system. The `micin` and `micin_noaec` arguments specify a microphone connected to the microphone input on the codec. Use `micin_noaec` when the microphone has its own acoustic echo canceller. The `micin` and `micin_noaec` arguments are available only on codecs that have a microphone input on the codec. The `linein` and `linein_noaec` arguments specify a microphone connected to the line input on LifeSize Room, LifeSize Team MP, LifeSize Express, LifeSize Express 200 and LifeSize Express 220. Use `linein_noaec` when the microphone has its own acoustic echo canceller. The `linein1`, `linein1_noaec`, `linein2`, and `linein2_noaec` specify a microphone connected to the line in 1 and line in 2 inputs respectively on LifeSize Room 200, LifeSize Room 220, LifeSize Team 200, and LifeSize Team 220. Use `linein1_noaec or linein2_noaec` when the microphone on the corresponding line input has its own acoustic echo canceller. Specify `cam`, `hd0`, or `hd1` when using LifeSize Focus as the active microphone. The `cam` argument specifies the active camera connected to a LifeSize Room codec. The `hd0` and `hd1` arguments specify camera 1 or camera 2 respectively. The `cam` and `hd1` arguments are available on LifeSize Room only. The `auto` argument specifies a default order of selection based on the inputs available on the system: Phone, Microphone In, Active Camera, Inactive Camera, Camera 1. The system does not automatically choose line in.

set Examples:

```
set audio active-mic auto

ok,00
```

active-mic-to-display2

When used with the **`get`** verb, the `active-mic-to-display2` target shows whether the audio signal from the active microphone is sent to the secondary display (*`enabled`*) or not (*`disabled`*). When used with **`set`** verb, this target controls whether the audio signal from the active microphone is sent to the secondary display or not. This target is available on LifeSize Room 200, LifeSize Room 220, LifeSize Team 200, and LifeSize Team 220 only.

get Arguments:

None

get Examples:

```
get audio active-mic-to-display2
disabled

ok,00

get audio active-mic-to-display2 -V
State
disabled

ok
```

set Arguments:

`<{enabled|disabled}>`	Specify `enabled` to send the audio signal from the active microphone to the secondary display.

set Examples:

```
set audio active-mic-to-display2 enabled

ok,00
```

audio-output

When used with the **`get`** verb, the audio-output target shows the output destination that is set for audio output when placing a voice call. When used with the **`set`** verb, this target specifies the output destination for audio from a voice call: either to an attached LifeSize Phone, or to the line out or HD out on the codec. If a LifeSize Phone is not attached, this setting is ignored and audio is always directed to the line out or HD output port.

get Arguments:

None

get Examples:

```
get audio audio-output
phone

ok,00

get audio audio-output -V
Destination
room

ok
```

set Arguments:

`<{phone|room}>`	Specify the output port for voice call audio. Choose `room` to send the audio to the line out port. Choose `phone` to send the audio to an attached LifeSize Phone.

set Examples:

```
set audio audio-output room

ok,00
```

codecs

When used with the **`get`** verb, the **`codecs`** target retrieves the codec priority list. This list determines the order in which the audio codecs are used when connecting to other systems. When used with the **`set`** verb, this target changes the order in which the audio codecs are used when negotiating with a remote system. The list you specify is in highest priority to lowest priority order. For greatest compatibility, list all available codecs. Each codec may be listed only once.

get Arguments:

None

get Examples:

```
get audio codecs
aac-lc g.722.1c.48 g.722.1c.32 g.722.1c.24 g.722 g.729 g.728
   g.711.u g.711.a

ok,00

get audio codecs -V
Codec Order
aac-lc g.722.1c.48 g.722.1c.32 g.722.1c.24 g.722 g.729 g.728
   g.711.u g.711.a

ok
```

Following are the available codecs:

Codec	CLI Name
AAC Low Complexity	aac-lc
Polycom® Siren14™ (48 kb/s)	g.722.1c.48
Polycom® Siren14™ (32 kb/s)	g.722.1c.32
Polycom® Siren14™ (24 kb/s)	g.722.1c.24
G.722	g.722
G.729	g.729
G.728	g.728
G.711 μ-Law	g.711.u
G.711 A-Law	g.711.a

set Arguments:

<{aac-lc| g.722.1c.24| g.722.1c.32| g.722.1c.48| g.722|g.728| g.729| g.711.u| g.711.a}>	Specify the order of the audio codecs to use. List each codec only once. LifeSize recommends that you list each codec on the command line for greatest compatibility.

set Examples:

```
set audio codecs aac-lc g.722 g.722.1c.48 g.722.1c.32 g.722.1c.24
   g.711.a g.711.u g.728 g.729

ok,00
```

current-mic

The **`current-mic`** target shows the input currently used as the active microphone for audio input during calls. This information appears in the System Information page in the user interface as the value of the **Active Microphone** field. This target applies to the **`get`** verb.

Arguments:

None

Examples:

```
get audio current-mic
phone

ok,00
get audio current-mic -V
Value
phone

ok
```

eq

When used with the get verb, the **`eq`** target retrieves the bass and treble equalization settings. When used with the set verb, this target sets the bass and treble equalization parameters.

get Arguments:

None

get Examples:

```
get audio eq
0,-3

ok,00

get audio eq -V
Bass     Treble
4        -5

ok
```

set Arguments:

`[-b {-10..10}]`	Specify the bass equalization value.
`[-t {-10..10}]`	Specify the treble equalization value.

set Examples:

```
set audio eq -b -5 -t 6

ok,00
```

gain

When used with the **`get`** verb, the gain target, retrieves the current setting for the active microphone volume. When used with the **`set`** verb, this target specifies the setting for the active microphone volume on a scale of 0 to 20.

get Arguments:

None

get Examples:

```
get audio gain
5

ok,00

get audio gain -V
Gain
5

ok
```

set Arguments:

`<{0..20}>`	Specify the gain factor for the microphone input. Use larger numbers for more gain.

set Examples:

```
set audio gain 8

ok,00
```

levels

The **`levels`** target retrieves the volume levels for audio inputs that have audio meters (active microphone, line in, and on LifeSize Room auxiliary audio inputs) and any connected calls. This target applies to the **`get`** verb. The values that return include the following:

- Session—the name of the audio input or, in an active call, the call handle. The input names that appear in the output are the same as the arguments for the **`set audio active-mic`** command with the following exceptions:
  - The arguments `auto` and `cam` do not appear in the output.
  - Arguments that include `noaec` as part of the argument name (for example, `linein_noaec, micin_noaec`, `linein1_noaec`, and `linein2_noaec`) appear without `_noaec` in the output.
  - For a LifeSize Room system only, the auxiliary audio inputs `aux-in-right` and `aux-in-left` also appear in the output.
- CurrentMic—identifies whether or not the input is currently used as the active microphone for audio input during calls. This information also appears in the System Information page in the user interface as the value of the **Active Microphone** field and as the output of the **`get audio current-mic`** command.
- Power--the volume expressed as decibels (dB) below digital full scale with 0 as the maximum value (-140 to 0)
- PowerAvg—the Power averaged over 750 milliseconds and expressed as dB below full digital scale (-140 to 0)
- PowerPCT—the Power averaged over 500 milliseconds and converted to a range (0 to 100)

get Arguments:

None

get Examples:

LifeSize Express with LifeSize MicPod as the active microphone:

```
get audio levels
linein,no,-84,-84,0
micin,yes,-57,-56,0

ok,00
```

```
get audio levels -V
Session         CurrentMic   Power      PowerAvg     PowerPCT
linein          no           -84        -84          0
micin           yes          -56        -56          0

ok
```

LifeSize Team 200 with LifeSize Phone as the active microphone:

```
get audio levels
phone,yes,-59,-56,0
linein1,no,0,0,0
linein2,no,0,0,0

ok,00

get audio levels -V
Session         CurrentMic   Power      PowerAvg     PowerPCT
phone           yes          -59        -56          0
linein1         no           0          0            0
linein2         no           0          0            0

ok
```

LifeSize Room with LifeSize Phone as the active microphone and in an active call:

```
get audio levels
phone,yes,-64,-56,0
call-1,no,-138,-138,0
linein,no,-87,-87,0
aux-in-right,no,-138,-138,0
aux-in-left,no,-138,-138,0

ok,00
```

```
get audio levels -V
Session         CurrentMic   Power      PowerAvg     PowerPCT
phone           yes          -64        -56          0
call-1          no           -138       -138         0
linein          no           -87        -87          0
aux-in-right    no           -138       -138         0
aux-in-left     no           -138       -138         0

ok
```

linein-1-avmap

When used with the **`get`** verb, the **`linein-1-avmap`** target shows the video input associated with the line in 1 input. When used with the **`set`** verb, this target specifies the video input to associate with the line in 1 input. This target applies to LifeSize Room 200, LifeSize Room 220, LifeSize Team 200, and LifeSize Team 220 only.

get Arguments:

None

get Examples:

```
get audio linein-1-avmap
any

ok,00

get audio linein-1-avmap -V
Line In 1 Association
any

ok
```

set Arguments:

`<{any|comp0|dvi0|hdmi0|hdmi1}>`	Specify the video input to associate with the line in 1 input. Specify `any` to always hear the audio input. Specify `comp0` for a device connected to the auxiliary inputs. Specify `dvi0` for a device connected to the DVI-I input. Specify `hdmi0` for a device connected to HD input 1. Specify `hdmi1` for a device connected to HD input 2.

set Examples:

```
set audio linein-1-avmap comp0

ok,00
```

linein-2-avmap

When used with the **`get`** verb, the **`linein-2-avmap`** target shows the video input associated with the line in 2 input. When used with the **`set`** verb, this target specifies the video input to associate with the line in 2 input. This target applies to LifeSize Room 200, LifeSize Room 220, LifeSize Team 200, and LifeSize Team 220 only.

get Arguments:

None

get Examples:

```
get audio linein-2-avmap
any

ok,00

get audio linein-2-avmap -V
Line In 2 Association
any

ok
```

set Arguments:

`<{any|comp0| dvi0|hdmi0| hdmi1}>`	Specify the video input to associate with the line in 1 input. Specify any to always hear the audio input. Specify `comp0` for a device connected to the auxiliary inputs. Specify `dvi0` for a device connected to the DVI-I input. Specify `hdmi0` for a device connected to HD input 1. Specify `hdmi1` for a device connected to HD input 2.

set Examples:

```
set audio linein-1-avmap comp0

ok,00
```

linein-near-mute

When used with the **`get`** verb, the **`linein-near-mute`** target shows whether audio input on line in is muted at the near-end speakers (*`enabled`*) or not (*`disabled`*) when line in is not the active microphone. When used with the **`set`** verb, this target controls whether audio input on line in is muted at the near-end speakers or not. This target is available on LifeSize Room 200, LifeSize Room 220, LifeSize Team 200, and LifeSize Team 220.

get Arguments:

None

get Examples:

```
get audio linein-near-mute
Disabled

ok,00

get audio linein-near-mute -V
State
Disabled

ok
```

set Arguments:

`<{enabled|disabled}>`	Enables or disables muting line in audio at the near end speakers when line in is not the active microphone. The default is `disabled`.

set Examples:

```
set audio linein-near-mute enabled

ok,00
```

mapping

When used with the **`get`** verb, the **`mapping`** target shows the video sources that are used with the auxiliary audio input. When used with the **`set`** verb, this target changes the mapping of video sources to auxiliary audio input. This target is only valid on LifeSize Room.

get Arguments:

None

get Examples:

```
get audio mapping
vga0

ok,00

get audio mapping -V
Association
any

ok
```

set Arguments:

`<{any|sd0|sd1|vga0}>`	Associate the auxiliary audio input with the specified video input. Choose `any` to have the auxiliary audio input delivered when any of sd0 (document camera), sd1 (VCR or DVD) or vga0 (VGA input) is displayed.

set Examples:

```
set audio mapping sd0

ok,00
```

mute

When used with the **`get`** verb, the **`mute`** target retrieves the current setting of the local audio mute function. When used with **`set`** verb, this target controls whether or not the local audio inputs are muted.

get Arguments:

None

get Examples:

```
get audio mute
off

ok,00

get audio mute -V
State
on

ok
```

set Arguments:

`<{on|off}>`	Mute or unmute the local audio inputs.

set Examples:

```
set audio mute on

ok,00
```

mute-device

When used with the **`get`** verb, the **`mute-device`** target shows which local audio input devices, either all or the active microphone, are muted when the system is muted. When used with **`set`** verb, this target controls which local audio input devices, either all or the active microphone, are muted when the system is muted.

get Arguments:

None

get Examples:

```
get audio mute-device
all

ok,00

get audio mute-device -V
Mute Device
all

ok
```

set Arguments:

`<{all|active_mic}>`	Specify `all` to indicate that all local audio input devices are to be muted when the system is muted. Specify `active_mic` to indicate that only the active microphone is to be muted when the system is muted.

set Examples:

```
set audio mute-device active_mic

ok,00
```

test-tone

The **`test-tone`** target sends a test tone to the various audio output ports on the codec. Use this target to verify that the speakers and other audio output devices are connected correctly when installing the system. The **`test-tone`** target applies to the **`set`** verb.

Arguments:

`[-c]`	Send the test tone to the center channel speaker output (if equipped)
`[-l]`	Send the test tone to the left channel speaker output
`[-r]`	Send the test tone to the right channel speaker output
`[-L]`	Send the test tone to the left auxiliary output (if equipped)
`[-R]`	Send the test tone to the right auxiliary output (if equipped)
`[-o]`	Turn off the test tone
`[-s n]`	Send the test tone to the left, center, right, left aux and right aux outputs in that order for 5 seconds per output making n complete cycles. On systems without center or auxiliary outputs, those outputs will be skipped. Note that the command does not return output until the cycle completes.

Note: Only one option can be specified at a time.

Examples:

`set audio test-tone -r`

`ok,00`

`set audio test-tone -o`

`ok,00`

When everything is configured, verify with:

`set audio test-tone -s` ***`1`***

`ok,00`

video-output

When used with the **`get`** verb, the **`video-output`** target retrieves the current output destination for audio received during a video call. When used with the **`set`** verb, this target controls whether the video call audio output is line out for the phone or the room.

get Arguments:

None

get Examples:

```
get audio video-output
phone

ok,00

get audio video-output -V
Destination
room

ok
```

set Arguments:

`<{room|phone}>`	Choose line out (`room`) or LifeSize Phone (`phone`) as the audio output device for video calls.

set Examples:

```
set audio video-output phone

ok,00
```

call

The following targets are applicable to the **`call`** properties object.

auto-answer

When used with the **`get`** verb, the **`auto-answer`** target retrieves the current value of the auto answer setting for the first call. When used with the **`set`** verb, this target controls whether or not the system automatically answers the first incoming call.

get Arguments:

None

get Examples:

```
get call auto-answer
on

ok,00

get call auto-answer -V
State
off

ok
```

set Arguments:

`<{on|off}>`	Enable or disable auto answer for the first incoming call.

set Examples:

```
set call auto-answer on

ok,00
```

auto-bandwidth

When used with the **`get`** verb, the **`auto-bandwidth`** target retrieves the current setting for automatic bandwidth negotiation when placing or receiving calls. When used with the **`set`** verb, this target enables or disables automatic bandwidth negotiation when placing and answering calls.

get Arguments:

None

get Examples:

```
get call auto-bandwidth
on

ok,00

get call auto-bandwidth -V
Bandwidth Negotiation
off

ok
```

set Arguments:

<{on|off}>	Enable or disable automatic bandwidth negotiation.

set Examples:

```
set call auto-bandwidth on

ok,00
```

auto-multiway

When used with the **`get`** verb, the **`auto-multiway`** target retrieves the current value of the auto answer multiway call preference. When used with the **`set`** verb, the **`auto-multiway`** target controls whether or not the system automatically answers incoming multi-way calls after the first call has connected.

get Arguments:

None

get Examples:

```
get call auto-multiway
on

ok,00

get call auto-multiway -V
State
off

ok
```

set Arguments:

`<{on|off}>`	Enable or disable auto answer of multiway calls.

set Examples:

```
set call auto-multiway off

ok,00
```

auto-mute

When used with the **`get`** verb, the **`auto-mute`** target retrieves the current value of the auto answer mute preference which indicates whether or not the audio input devices are muted when the system automatically answers the first call. When used with the **`set`** verb, this target controls whether or not the system automatically mutes the microphone inputs when it automatically answers the first incoming call.

get Arguments:

None

get Examples:

```
get call auto-mute
on

ok,00

get call auto-mute -V
State
off

ok
```

set Arguments:

`<{on|off}>`	Enable or disable muting of the microphones audio inputs when answering a call.

set Examples:

```
set call auto-mute off

ok,00
```

dial-mode

When used with the **`get`** verb, the **`dial-mode`** target retrieves the current settings for the voice and video dialing preferences. When used with the **`set`** verb, this target configures the default audio and video dialing modes.

get Arguments:

None

get Examples:

```
get call dial-mode
isdn,ip

ok,00

get call dial-mode -V
Video Dial Mode      Audio Dial Mode
ip                   tone

ok
```

set Arguments:

`[-a {voip|tone|pulse|isdn}]`	Set the default voice call dialing mode to VoIP, touch tone, pulse dialing, or ISDN. Only VoIP and ISDN are available on LifeSize Express, LifeSize Express 200, and LifeSize Express 220. Pulse dialing is not available on LifeSize Room 200, LifeSize Room 220, LifeSize Team 200, and LifeSize Team 220.
`[-v {auto|ip|isdn}]`	Set the default video call dialing mode to auto, IP or ISDN. Auto attempts to determine the correct dialing mode from the dialed digits.

set Examples:

```
set call dial-mode -a voip -v ip

ok,00
```

LifeSize Express:

```
set call dial-mode -v auto

ok
```

do-not-disturb

When used with the get verb, the **`do-not-disturb`** target retrieves the status of whether incoming calls are prevented from interrupting a call in progress (**`on`**) or not (`off`). When a call is not in progress, the status is always `off`. When used with the set verb, this target controls whether or not incoming calls are prevented from interrupting a call in progress.

Note: This target is intended for use only during an active call. Setting it to on when a call is not in progress has no effect and the CLI does not return an error message. To prevent incoming calls when the system is not in a call, refer to the **`set system do-not-disturb`** command.

get Arguments:

None

get Examples:

```
get call do-not-disturb
off

ok,00

get call do-not-disturb -V
State
off

ok,00
```

set Arguments:

`<{on|off}>`	Specify `on` during a call in progress to prevent incoming calls from interrupting the call. Callers hear a busy signal. When the call terminates, the system automatically sets the status to `off`.

set Examples:

```
set call do-not-disturb on

ok,00
```

max-redial-entries

When used with the **`get`** verb, the **`max-redial-entries`** target retrieves the value of the setting for the maximum number of redial entries that may be stored in the directory. When used with the **`set`** verb, this target controls the number of redial entries that may be stored in the redial list.

get Arguments:

None

get Examples:

```
get call max-redial-entries
11

ok,00

get call max-redial-entries -V
Number
9

ok
```

set Arguments:

`<{0..15}>`	Specify the maximum number of entries in the redial list.

set Examples:

```
set call max-redial-entries 11

ok,00
```

max-speed

When used with the **`get`** verb, the **`max-speed`** target retrieves the current setting for the maximum incoming and outgoing bandwidth usable by a call. Speed is reported in kilobits per second. When used with the **`set`** verb, this target controls the current settings for the maximum incoming and outgoing bandwidth usable by a call.

get Arguments:

None

get Examples:

```
get call max-speed
1024,768

ok,00

get call max-speed -V
Incoming            Outgoing
512                 1024

ok
```

set Arguments:

`[-i {auto|128|192|256|320|384|512|640|768|896|1024|1152|1280|1472|1728|1920|2000|2500|3000|4000|5000|6000|7000|8000}]`	Specify the maximum incoming bandwidth in kb/s. LifeSize Room 220 supports bandwidths up to 8000 kb/s. LifeSize Room, LifeSize Room 200, and LifeSize Team 220 support bandwidths up to 6000 kb/s. LifeSize Express 220, LifeSize Team 200, and LifeSize Team MP support bandwidths up to 4000 kb/s. LifeSize Express and LifeSize Express 200 support bandwidths up to 2000 kb/s.
`[-o {auto|128|192|256|320|384|512|640|768|896|1024|1152|1280|1472|1728|1920|2000|2500|3000|4000|5000|6000|7000|8000}]`	Specify the maximum outgoing bandwidth in kb/s. LifeSize Room 220 supports bandwidths up to 8000 kb/s. LifeSize Room, LifeSize Room 200, and LifeSize Team 220 support bandwidths up to 6000 kb/s. LifeSize Express 220, LifeSize Team 200, and LifeSize Team MP support bandwidths up to 4000 kb/s. LifeSize Express and LifeSize Express 200 support bandwidths up to 2000 kb/s.

set Examples:

```
set call max-speed -i 512 -o auto

ok,00
```

max-time

When used with the **`get`** verb, the **`max-time`** target retrieves the maximum time that a call can be active. When used with the **`set`** verb, this target controls the maximum time that a call can be active.

get Arguments:

None

get Examples:

```
get call max-time
unlimited

ok,00

get call max-time -V
Time In Hours
4

ok
```

set Arguments:

<{30-minutes |1|2|4|6|8|10|12 |14|16|18|20|22|24 |unlimited}>	Specify the maximum time in hours that a call can be active.

set Examples:

```
set call max-time unlimited

ok, 00

set call max-time 4

ok,00
```

pres-start

When used with the **`get`** verb, the **`pres-start`** target shows whether the system starts a presentation automatically when the user connects a video input device (other than LifeSize Camera or LifeSize Focus) to the codec or relies on the user to start the presentation manually using the remote control. When used with the **`set`** verb, this target controls whether presentations are started automatically when a video input device is connected to the codec or manually by the user.

get Arguments:

None

get Examples:

```
get call pres-start
auto

ok,00

get call pres-start -V
Mode
auto

ok
```

set Arguments:

`<{auto|manual}>`	Specify whether a presentation starts automatically (`auto`) when the user connects a video input device to the codec or only when the user starts the presentation using the remote control (`manual`).

set Examples:

```
set call pres-start manual

ok, 00
```

termination-time

When used with the **`get`** verb, the **`termination-time`** target shows the number of seconds a LifeSize system waits before terminating a call to a busy or invalid number. When used with the **`set`** verb, this target specifies the number of seconds the system waits before terminating a call to a busy or invalid number. The default is 30 seconds.

get Arguments:

None

get Examples:

```
get call termination-time
30

ok,00

get call termination-time -V
Seconds
30

ok
```

set Arguments:

`<{0..300}>`	Specify the number of seconds the system waits before terminating a call to a busy or invalid number.

set Examples:

```
set call termination-time 60

ok, 00
```

camera

The following targets are applicable to the **`camera`** object.

active

When used with the **`get`** verb, the **`active`** target retrieves the current active high definition camera. Only one HD camera can be the active camera at a time. The active camera is the camera selected as the primary input. If a camera is not selected as the primary input, then camera 1 is the active camera on all systems except LifeSize Room. If a camera is not selected as the primary input on LifeSize Room, the active camera is the last camera selected by the user as the active camera. This command always returns camera 1 on systems that support only one camera.

When used with the **`set`** verb, this target controls which of the high definition cameras is the active camera. Only one HD camera may be active at a time. The active HD camera may also be affected by the **`set video primary-input`** and **`set video secondary-input`** commands.

get Arguments:

None

get Examples:

```
get camera active
1

ok,00

get camera active -V
Active Camera
1

ok
```

set Arguments:

`<{1|2|3|4|6|o}>`	Specify the active camera. Camera `1` is the camera connected to the HD Camera 1 input and is available on all models except LifeSize Express 220. Camera `2` is available on LifeSize Room only. Camera `3` is the camera connected to the HD input 1 on LifeSize Room 200, LifeSize Room 220, LifeSize Team 220, LifeSize Team 200, LifeSize Express 220, and LifeSize Express. Camera `4` is available on LifeSize Room 200 and LifeSize Room 220 and is the camera connected to the HD input 2. Camera `6` is available on LifeSize Room 200 and LifeSize Room 220 only and is for a supported third-party VISCA controlled camera connected to the component input. Camera `o` (other) selects a non-active camera and is not available on the following models that support only one camera: LifeSize Team MP, LifeSize Express 200, and LifeSize Express 220.

set Examples:

```
set camera active 1

ok,00

set camera active o

ok,00
```

anti-flicker

When used with the **`get`** verb, the **`anti-flicker`** target retrieves the current anti-flicker setting for the cameras. When used with the **`set`** verb, this target controls the flicker avoidance setting of the cameras. If the local video image flickers, try the various arguments to see if the flicker goes away. Flicker is usually caused by florescent lighting.

get Arguments:

None

get Examples:

```
get camera anti-flicker
auto

ok,00

get camera anti-flicker -V
Mode
60Hz

ok
```

set Arguments:

`<{auto|50hz|60hz}>`	Specify the anti-flicker setting for the cameras.

set Examples:

```
set camera anti-flicker 50hz

ok,00
```

autoexposure

When used with the **`get`** verb, the autoexposure target shows whether automatic adjustment of the camera iris to achieve the specified camera brightness setting for LifeSize Camera or LifeSize Focus connected to the codec is enabled (the default) or disabled.

Note: To adjust exposure for LifeSize Camera 200, use the **`set camera autoexposure-method`** and **`set camera brightness`** commands.

When used with the **`set`** verb, this target disables or enables automatic adjustment of the camera iris. When autoexposure is set to ***`disable`***, you can adjust exposure manually with the **`autoexposure-gain`** and **`autoexposure-itime`** targets to control video image brightness. Manually adjusting exposure may be useful in video conference settings where participants are backlit or where lighting sources vary.

Note: Adjusting camera brightness with the **HD Camera Brightness** preference in the user or web administrator interfaces has no effect when **`autoexposure`** is set to *disable*.

get Arguments:

None

get Examples:

```
get camera autoexposure
enable

ok,00

get camera autoexposure -V
State
enable

ok
```

set Arguments:

`<{enable|disable}>`	Enables or disables automatic adjustment of the camera iris. The default is enable.

set Examples:

```
set camera autoexposure disable

ok,00
```

autoexposure-gain

When used with the **`get`** verb, the **`autoexposure-gain`** target shows the current exposure gain setting for LifeSize Camera and LifeSize Focus connected to the codec. The default is 15. The range is 0-30. When used with the **`set`** verb, this target controls the level of exposure gain when the **`autoexposure`** target is set to disable. Higher values for this target increase video image brightness; lower values decrease video image brightness.

Note: If **`autoexposure`** is set to enable, setting **`autoexposure-gain`** has no effect.

get Arguments:

None

get Examples:

```
get camera autoexposure-gain
15

ok,00

get camera autoexposure-gain -V
State
15

ok
```

set Arguments:

`<{0..30}>`	Specifies exposure gain for cameras connected to the codec. The default is 15. Higher values increase video image brightness; lower values decrease video image brightness.

set Examples:

```
set camera autoexposure-gain 20

ok,00
```

autoexposure-itime

When used with the **`get`** verb, the **`autoexposure-itime`** target shows the current setting of the exposure integration time for LifeSize Camera and LifeSize Focus connected to the codec. Exposure integration time controls the number of sensor rows in which to accumulate charge for a single pixel in the video image. The default value is 5. The range is 0-13. When used with the **`set`** verb, this target controls exposure integration time when the autoexposure target is set to ***`disable`***. Higher values increase video image brightness; lower values decrease video image brightness.

Caution: Changing the default for this setting may affect the frame rate of the video. Values 0-5 produce video at 30 frames per second (f/s); values 6-9 produce video at 15 f/s; and values 10-13 produce video at 7.5 f/s. Below 30 f/s, video motion may be choppy. LifeSize recommends that you set this target to a value equal to or less than 5.

Changing the value of **`autoexposure-itime`** may require that you change the value of **`autoexposure-gain`** to achieve an acceptable level of video image brightness.

Note: If the **`autoexposure`** target is set to ***`enable`***, setting **`autoexposure-itime`** has no effect.

get Arguments:

None

get Examples:

```
get camera autoexposure-itime
5

ok,00

get camera autoexposure-itime -V
State
5

ok
```

set Arguments:

`<{0..13}>`	Specifies exposure integration time for cameras connected to the codec. The default is `5`. Higher values increase video image brightness; lower values decrease video image brightness.

set Examples:

```
set camera autoexposure-itime 4

ok,00
```

autoexposure-method

When used with the **`get`** verb, the **`autoexposure-method`** target shows the method the system uses to control image exposure with LifeSize Camera 200. When used with the **`set`** verb, this target specifies the method the system uses to control image exposure with LifeSize Camera 200. This target is available only on LifeSize systems that support LifeSize Camera 200.

get Arguments:

None

get Examples:

LifeSize Room 200:

```
get camera autoexposure-method
full-frame,full-frame

ok,00

get camera autoexposure-method -V
Camera 3            Camera 4
full-frame          full-frame

ok
```

set Arguments:

`-N <{3|4}>`	Specify the camera. Camera `3` corresponds to LifeSize Camera 200 connected to the HD 1 input on LifeSize Room 200, LifeSize Room 220, LifeSize Team 200, LifeSize Team 220, and the HD input on LifeSize Express and LifeSize Express 220. Camera `4` corresponds to LifeSize Camera 200 connected to the HD 2 input on LifeSize Room 200 and LifeSize Room 220.
`<{full-frame| center-weighted| spot|manual}>`	Specify the exposure method to use with the camera. The `full-frame` argument adjusts exposure based on the average brightness of a full frame of video. The `center-weighted` argument adjusts exposure based on the average brightness of a full frame of video, but with a higher weight assigned to the center area of the frame. The `spot` argument adjusts exposure based on the average brightness of a small area in the center of the frame. The `manual` option disables auto-exposure. Use the `set camera brightness` command to adjust exposure manually when the output for `get camera autoexposure-method` is `manual`.

set Examples:

`set camera autoexposure-method -N` ***`3 spot`***

```
ok,00
```

autofocus

When used with the **`get`** verb, the **`autofocus`** target shows whether automatic focus control is enabled (the default) or disabled for cameras connected to the codec. When used with the **`set`** verb, this target enables or disables automatic focus control. Disabling autofocus prevents the camera from automatically adjusting focus as participants move in the room or the camera position is changed. Ensure that you adjust the camera focus to the desired setting before setting this target to `disable`.

Note: Locking a camera automatically disables auto focus for that camera. Disabling auto focus in the command line interface with the autofocus target disables auto focus for all cameras connected to the codec.

get Arguments:

None

get Examples:

```
get camera autofocus
enable

ok,00

get camera autofocus -V
State
enable

ok
```

set Arguments:

`<{enable|disable}>`	Enables or disables autofocus for cameras connected to the codec. The default is `enable`.

set Examples:

```
set camera autofocus disable

ok,00
```

brightness

When used with the **`get`** verb, the **`brightness`** target retrieves the current brightness adjustment value for the camera. When used with the **`set`** verb, this target controls the brightness value for the camera's automatic iris function. Negative numbers decrease the overall brightness; positive numbers increase brightness.

Note: The **`set camera brightness`** command has no effect on LifeSize Camera and LifeSize Focus when **`get camera autoexposure`** is ***`disable`***. Use **`set camera autoexposure-gain`** and **`set camera autoexposure-itime`** to adjust the exposure in that case. To adjust exposure manually on LifeSize Camera 200, use the **`set camera autoexposure-method`** command to ***`manual`*** and then use the **`set camera brightness`** command to adjust the exposure manually. Using the set camera brightness command with LifeSize Camera 200 when get camera autoexposure-method is any value other than manual also affects exposure with the chosen autoexposure method.

get Arguments:

None

get Examples:

```
get camera brightness
-20

ok,00

get camera brightness -V
Camera 1
25

ok
```

set Arguments:

`-N <{1|2|3|4|6|a|o}>`	Specify the camera. Camera `a` (active) is available on all systems. Camera `1` is the camera connected to the HD Camera 1 input and is available on all models except LifeSize Express 220. Camera `2` is available on LifeSize Room only. Camera `3` is the camera connected to the HD input 1 on LifeSize Express, LifeSize Express 220, LifeSize Room 200, LifeSize Room 220, LifeSize Team 200 and LifeSize Team 220. Camera `4` is available on LifeSize Room 200 and LifeSize Room 220 and is the camera connected to the HD input 2. Camera `6` is available on LifeSize Room 200 and LifeSize Room 220 and is for a supported third-party VISCA controlled camera connected to the component input. Camera `o` (other) selects a non-active camera and is not available on LifeSize Express 200, LifeSize Express 220 and LifeSize Team MP, which support only one camera.
`<{-30..30}>`	Specify the brightness adjustment value. Negative numbers darken the image; positive numbers lighten it. If you specify a negative number, include the double dash option (`--`) before the negative number to prevent the CLI from interpreting the negative number as an option rather than an argument. Refer to the following examples.

set Examples:

```
set camera brightness 3

ok,00

set camera brightness -- -5

ok,00
```

far-control

When used with the **`get`** verb, the **`far-control`** target retrieves the current state of the far control of the near camera setting. When used with the **`set`** verb, this target enables or disables far control of the near camera function.

get Arguments:

None

get Examples:

```
get camera far-control
enabled

ok,00

get camera far-control -V
State
disabled

ok
```

set Arguments:

`<{enabled|disabled}>`	Specify whether far control of the near camera is enabled or disabled.

set Examples:

```
set camera far-control disabled

ok,00
```

far-set-preset

When used with the **`get`** verb, the **`far-set-preset`** target shows whether or not the far end of a call can set local presets. When used with the **`set`** verb, this target controls whether or not the far end of a call can set presets on the near camera.

get Arguments:

None

get Examples:

```
get camera far-set-preset
disabled

ok,00

get camera far-set-preset -V
State
enabled

ok
```

set Arguments:

`<{enabled|disabled}>`	Specify whether or not the far end can set presets on the near camera.

set Examples:

```
set camera far-set-preset enabled

ok,00
```

far-use-preset

When used with the **`get`** verb, the **`far-use-preset`** target shows whether or not the far end of a call can move the near camera to local presets. When used with the **`set`** verb, this target controls whether or not the far end of a call can move the near camera to local presets.

get Arguments:

None

get Examples:

```
get camera far-use-preset
disabled

ok,00

get camera far-use-preset -V
State
enabled

ok
```

set Arguments:

`<{enabled|disabled}>`	Specify whether far end can move to presets.

set Examples:

```
set camera far-use-preset disabled

ok,00
```

ir

When used with the **`get`** verb, the **`ir`** target shows whether the infra-red (IR) receiver on the camera (and on the front panel of the codec on a model that supports this feature) is on or off. When used with the **`set`** verb, this target controls whether the IR receiver is on or off. When set to ***`off`***, the system does not respond to commands from the LifeSize remote control.

get Arguments:

None

get Examples:

```
get camera ir
on

ok,00

get camera ir -V
State
on

ok,00
```

set Arguments:

<{on|off}>	Turn on or off the system IR receiver (all cameras and the front panel, if equipped).

set Examples:

```
set camera ir off

ok,00
```

lock

When used with the **`get`** verb, the **`lock`** target retrieves the current state of the camera lock mechanism which reveals whether the camera motors are locked in place (*`on`*) or not (*`off`*). When used with the **`set`** verb, this target enables or disables camera motor movement. You cannot move or zoom a camera that is locked.

get Arguments:

None

get Examples:

```
get camera lock
1,off
2,on

ok,00
```

```
get camera lock -V
Camera     Lock Mode
1          off
2          on

ok
```

set Arguments:

`[-N <{1|2|3|4|6|o}>]`	Specify the camera to lock. If not specified, all cameras are locked. Camera `1` is the camera connected to the HD Camera 1 input and is available on all models except LifeSize Express 220. Camera `2` is available on LifeSize Room only. Camera `3` is the camera connected to the HD input 1 on LifeSize Express, LifeSize Express 220, LifeSize Room 200, LifeSize Room 220, LifeSize Team 200 and LifeSize Team 220. Camera `4` is available on LifeSize Room 200 and LifeSize Room 220 and is the camera connected to the HD input 2. Camera `6` is available on LifeSize Room 200 and LifeSize Room 220 and is for a supported third-party VISCA controlled camera connected to the component input. Camera `o` (other) selects a non-active camera, and is not available on LifeSize Express 200, LifeSize Express 220 and LifeSize Team MP, which support only one camera.
`<{on|off}>`	Enable or disable the lock.

set Examples:

```
set camera lock on

ok,00

set camera lock -N 2 off

ok,00
```

lock-preset

When used with the **`get`** verb, the **`lock-preset`** target shows whether or not the camera presets are locked in memory. When used with the **`set`** verb, this target controls whether or not the presets are locked. When the presets are locked, they cannot be modified with the remote control or by the far end in a call. This does not affect setting presets with the **`set camera preset`** command.

get Arguments:

None

get Examples:

```
get camera lock-preset
on

ok,00

get camera lock-preset -V
Preset Lock
off

ok
```

set Arguments:

`<{on|off}>`	Specify whether the preset lock is on or off.

set Examples:

```
set camera lock-preset on

ok,00
```

pan-dir

When used with the **`get`** verb, the **`pan-dir`** target retrieves the current setting for the camera pan direction. This setting affects the direction the camera moves when using the left and right buttons on the remote control, but does not affect the **`-l`** and **`-r`** arguments of the **`set camera position`** command. When used with the **`set`** verb, this target determines whether the camera pans in the direction it is perceived by the user when the user is facing the camera, or in the reverse from the camera's point of view.

get Arguments:

None

get Examples:

```
get camera pan-dir
perceived

ok,00

get camera pan-dir -V
Mode
reversed

ok
```

set Arguments:

`<{perceived|reversed}>`	Specify the direction of pan.

set Examples:

```
set camera pan-dir perceived

ok,00
```

position

When used with the **`get`** verb, the **`position`** target retrieves the position of the specified camera, 1, 2, or other (inactive). The default retrieves the position of the active camera. When used with the **`set`** verb, this target controls the current position of the near camera. Using the absolute position commands, you can recall a preset position. Using the motion commands, remote control of the camera is possible through press and release button mappings.

get Arguments:

`[-N {1|2|3|4|6|o}]`	Retrieves the position of the specified camera. The default is the active camera if no camera is specified. Camera `1` is the camera connected to the HD Camera 1 input and is available on all models except LifeSize Express 220. Camera `2` is available on LifeSize Room only. Camera `3` is the camera connected to the HD input 1 on LifeSize Express, LifeSize Express 220, LifeSize Room 200, LifeSize Room 220, LifeSize Team 200 and LifeSize Team 220. Camera `4` is available on LifeSize Room 200 and LifeSize Room 220 and is the camera connected to the HD input 2. Camera `6` is available on LifeSize Room 200 and LifeSize Room 220 and is for a supported third-party VISCA controlled camera connected to the component input. Camera `o` (other) selects a non-active camera and is not available on LifeSize Express 200, LifeSize Express 220, and LifeSize Team MP, which support only one camera.
`[-e]`	Retrieve the position in exact coordinates using floating point representation.

get Examples:

```
get camera position
-30,5,15

ok,00

get camera position -D | -N 2
45|5|35

ok,00
```

```
get camera position -V
Pan      Tilt     Zoom
45       -5       30

ok

get camera position -e
44.39,-5.02,29.87

ok,00
```

The ranges of the pan, tilt, and zoom values are shown in the following table. The camera may not be able to reach the maximum and minimum values for each parameter (for example, sending a command to the camera to pan to -45 may return a value other than -45). This is normal. Due to sensor resolution limits, one of the camera position parameters may change slightly when another position is modified (for example, adjusting the tilt angle may slightly affect the pan position). The ranges allowed are designed for future compatibility; therefore, your camera may not reach the limits.

Camera	**Pan**	**Tilt**	**Zoom**
LifeSize PTZ	-45 to 45 degrees	-30 to 30 degrees	0 to 100
Sony PTZ (with the LifeSize SDI Adapter or connected through the component input on LifeSize Room 200)	-100 to 100 degrees	-25 to 25 degrees	0 to 100

set Arguments:

`[-p <{-180.0..180.0}>]`	Specify the absolute pan angle. The range is -180 to +180 and represents the degrees left (negative) or right (positive) of the center position from which the camera pans. Use floating point notation to increase the precision of movement. Cannot be used with -r, -l, -u, -d, -n, -f, -s, or -c.
`[-t <{-90.0..90.0}>]`	Specify the absolute tilt angle. The range is -90 to +90 and represents the degrees below (negative) or above (positive) horizontal from which the camera tilts. Use floating point notation to increase the precision of movement. Cannot be used with -r, -l, -u, -d, -n, -f, -s, or -c.

`[-z <{0.0..100.0}>]`	Specify the absolute zoom position. The range is 0 to 100 and represents the range of the zoom lens from widest angle (0) to narrowest angle (100). Use floating point notation to increase the precision of movement. Cannot be used with -r, -l, -u, -d, -n, -f, -s, or -c.
`[-l]`	Specify that the camera pans to the left. Cannot be used with any other argument except -c.
`[-r]`	Specify that the camera pans to the right. Cannot be used with any other argument except -c.
`[-d]`	Specify that the camera tilts down. Cannot be used with any other argument except -c.
`[-u]`	Specify that the camera tilts up. Cannot be used with any other argument except -c.
`[-n]`	Specify that the camera zooms in (telephoto). Cannot be used with any other argument except -c.
`[-f]`	Specify that the camera zooms out (widens). Cannot be used with any other argument except -c.
`[-s]`	Specify that the camera stop all movements. Cannot be used with any other argument except -c.
`[-c n]`	Specify that the camera control operation is applied to the far camera for the specified call. Cannot be used with -p, -t, or -z. The default controls the active near camera. Specifying the value 0 for the call controls the far end camera of the most recent dominant talker.

`[-N <{1|2|3|4|6|o}>]`	Specify a camera to apply the change. Cannot be used with -c. By default, the active camera is controlled. The continuous motion commands cannot be used because the inactive camera's video stream is not available. Camera `1` is the camera connected to the HD Camera 1 input and is available on all models except LifeSize Express 220. Camera `2` is available on LifeSize Room only. Camera `3` is the camera connected to the HD input 1 on LifeSize Express, LifeSize Express 220, LifeSize Room 200, LifeSize Room 220, LifeSize Team 200 and LifeSize Team 220. Camera `4` is available on LifeSize Room 200 and LifeSize Room 220 and is the camera connected to the HD input 2. Camera `6` is available on LifeSize Room 200 and LifeSize Room 220 and is for a supported third-party VISCA controlled camera connected to the component input. Camera `o` (other) selects a non-active camera and is not available on LifeSize Express 200, LifeSize Express 220 and LifeSize Team MP, which support only one camera.
`[-P <{0..19}>]`	Specify the preset to use. Can only be used with the -N option when the preset 0 is selected. This command moves the camera indicated by the preset to the position specified by the preset.

If you specify the camera's current position or a position that is not significantly different from the camera's current position, the camera motors do not move. For example, if the camera is set to position 0.5 on pan or tilt and you change the value to 0.6, the increment is not large enough to invoke a change. The **`set camera position`** command in this case returns `error, 02`. To work around this issue, enter a value for the current setting that is incrementally larger than the value you wish to enter. Then re-enter the value you wish to enter to invoke the change.

Note: The camera motors may not move when you specify a position with the **`set camera position`** command due to other conditions. For example, the camera may be locked or initializing.

set Examples:

Note: The double dash (--) in the following input is not required, because `-15` is an argument to the option `–t`.

```
set camera position -p 34 -t -15
```

```
ok,00
```

Start the camera panning left, then zoom in and stop all operations:

```
set camera position -l
```

```
ok,00
```

```
set camera position -n
```

```
ok,00
```

```
set camera position -s
```

```
ok,00
```

Start the far camera panning left in call 1:

```
set camera position –r –c 1
```

```
ok,00
```

Note: The command completes immediately and does not wait for the camera to complete the operation.

Move the inactive camera to a specific position:

```
set camera position –N o -p 17 -t 19 -z 30
```

```
ok,00
```

Move to a specific preset position:

```
set camera position –P 12
```

```
ok,00
```

Move to a specific position using floating point notation:

```
set camera position -p 15.32 -t -14.3 -z 32.24
```

```
ok,00
```

preset

When used with the **`get`** verb, the **`preset`** target retrieves the preset position information for the cameras. The output may be restricted to a specific camera or a specific preset or set of presets. The preset position stores the associated camera and its pan, tilt, and zoom location. When used with the **`set`** verb, this target stores the preset positions for the camera in the codec's memory. Up to 19 different positions can be stored. Positions 1-9 are recallable through the remote control (in addition to the special position 0) and positions 10-19 are only recallable using the CLI.

get Arguments:

`[-N {1|2|3|4|6|a|o}]`	Retrieves the position of the specified camera. The default retrieves all presets. Camera `a` (active camera) is available on all systems. Camera `1` is the camera connected to the HD Camera 1 input and is available on all models except LifeSize Express 220. Camera `2` is available on LifeSize Room only. Camera `3` is the camera connected to the HD input 1 on LifeSize Express, LifeSize Express 220, LifeSize Room 200, LifeSize Room 220, LifeSize Team 200 and LifeSize Team 220. Camera `4` is available on LifeSize Room 200 and LifeSize Room 220 and is the camera connected to the HD input 2. Camera `6` is available on LifeSize Room 200 and LifeSize Room 220 and is for a supported third-party VISCA controlled camera connected to the component input. Camera `o` (other) selects a non-active camera and is not available on LifeSize Express 200, LifeSize Express 220 and LifeSize Team MP, which support only one camera.
`[-P {0..19}]`	Retrieves a specific preset, which may be specified multiple times to retrieve several preset positions. Presets are listed in the same order as given on the command line.
`[-e]`	Retrieve the position using exact coordinates through floating point representation.

get Examples:

```
get camera preset
0,any,0,0,13
1,1,0,0,50
2,2,-20,10,35
3,1,10,-5,0

ok,00
```

```
get camera preset -V -P 3 -P 2 -P 0
Preset    Camera    Pan      Tilt     Zoom
3         1         10       -5       0
2         2         -20      10       35
0         any       0        0        13

ok
```

```
get camera preset -N a
0,any,0,0,13
1,1,0,0,50
3,1,10,-5,0

ok,00
```

```
get camera preset -e
0,any,0.00,0.00,13.75
1,1,0.00,0.00,50.01
2,2,-19.57,10.23,0.45
3,1,9.87,-4.93,0.45

ok,00
```

set Arguments:

`[-N <{1|2|3|4|6|a|o}>]`	Specify the camera to which the preset applies. Camera `a` (active camera) is available on all systems. Camera `1` is the camera connected to the HD Camera 1 input and is available on all models except LifeSize Express 220.Camera `2` is available on LifeSize Room only. Camera `3` is the camera connected to the HD input 1 on LifeSize Express, LifeSize Express 220, LifeSize Room 200, LifeSize Room 220, LifeSize Team 200 and LifeSize Team 220. Camera `4` is available on LifeSize Room 200 and LifeSize Room 220 and is the camera connected to the HD input 2. Camera `6` is available on LifeSize Room 200 and LifeSize Room 220 and is for a supported third-party VISCA controlled camera connected to the component input. Camera `o` (other) selects a non-active camera and is not available on LifeSize Express 200, LifeSize Express 220 and LifeSize Team MP, which support only one camera.
`-P <{1..19}>`	Specify the preset position to store.
`[-p <{-180.0..180.0}>]`	Specify the pan position of the preset. The default is the current position of the selected camera. Use floating point notation to increase the precision of the movement.
`[-t <{-90.0..90.0}>]`	Specify the tilt position of the preset. The default is the current position of the selected camera. Use floating point notation to increase the precision of the movement.
`[-z <{0.0..100.0}>]`	Specify the zoom position of the preset. The default is the current position of the selected camera. Use floating point notation to increase the precision of the movement.

set Examples:

Set preset 2 to the active camera's current position:

```
set camera preset -P 2
```

```
ok,00
```

Set preset 3 to the inactive camera's current position:

```
set camera preset -P 3 -N o
```

```
ok,00
```

Set preset 4 to a specific position for camera 1:

```
set camera preset -P 4 -N 1 -p 28 -t 4 -z 20
```

```
ok,00
```

Use floating point notation for more precision:

```
set camera preset -P 5 -N 1 -p 25.3 -t 14.9 -z 12.2
```

```
ok,00
```

serial-control

When used with the **`get`** verb, the **`serial-control`** target shows the current setting for the serial control mechanism for all camera ports. This setting is only used when a LifeSize SDI Adapter is connected to a camera port. When used with the **`set`** verb, this target controls whether a camera connected to a LifeSize SDI Adapter is controlled through the codec's serial port or the camera's remote control. If controlled by the serial port, the camera's pan/tilt/zoom function and various camera settings can be controlled directly from the LifeSize remote and user interface, instead of the camera's remote control.

get Arguments:

None

get Examples:

LifeSize Room:

```
get camera serial-control -V
Camera 1    Camera 2
none        on-board

ok
```

LifeSize Room 200 and LifeSize Room 220:

```
get camera serial-control -V
Camera 1
on-board

ok
```

LifeSize Team MP, LifeSize Team 200, LifeSize Team 220, LifeSize Express, LifeSize Express 200, and LifeSize Express 220:

```
get camera serial-control
none

ok,00
```

set Arguments:

`-N <{1|2}>`	Specify the camera to which the setting applies. Camera 2 is available on LifeSize Room only.
`<{on-board|none}>`	Specify the serial control option. The `on-board` option uses the corresponding serial port on the system (for example, serial port 1 for camera port 1) to control the camera. The `none` option disables the codec's control of the camera and prevents it from automatically changing the configuration of the associated serial port. If `none` is selected, you must use either the camera's remote control or a third-party controller (for example, a Crestron or AMX panel). On LifeSize Team MP, LifeSize Team 200, LifeSize Team 220, LifeSize Express, LifeSize Express 200 and LifeSize Express 220, the only valid value is `none`. This command is provided on those platforms for future expansion.

Note: Disabling serial control mode is normally used when there are more serial devices to connect to the codec than there are serial ports (for example, using two LifeSize SDI Adapters and a Crestron/AMX panel connected through the serial port). In this case, the camera corresponding to the serial port connected to the panel would be set to `none` through this command and then configured as desired for the panel.

set Examples:

```
set camera serial-control -N 2 none

ok,00
```

type

The **`type`** target shows the type of cameras connected to the system. This information appears on the **System Information** page in the user interface following status information about connected cameras as the value for the **Type** field. Possible values include:

- `none`
- `ptz`

  Pan, tilt, and zoom camera
- `fixed_focus`

  Fixed-focus camera with microphones
- `adapter`

  Camera connected through a LifeSize SDI Adapter

This target applies to the **`get`** verb.

Arguments:

None

Examples:

LifeSize Room:

```
get camera type
ptz,none

ok,00

get camera type -V
Camera 1  Camera 2
ptz       none

ok
```

LifeSize Room 200:

```
get camera type -V

Camera 1   Camera 3   Camera 4   Camera 6
none       ptz        none       none
```

LifeSize Team MP:

```
get camera type
ptz

ok,00

get camera type -V
Camera 1
ptz

ok
```

LifeSize Express 200 with LifeSize Focus:

```
get camera type
fixed_focus

ok,00

get camera type -V
Camera 1
fixed_focus

ok
```

white-balance

When used with the **`get`** verb, the **`white-balance`** target retrieves the current white balance setting for the cameras. When used with the **`set`** verb, this target sets the current white balance setting for the specified camera.

get Arguments:

None

get Examples:

LifeSize Room with two cameras:

```
get camera white-balance
auto,incan

ok,00
```

```
get camera white-balance -V
Camera 1     Camera 2
halogen      incan-3200k

ok
```

LifeSize Team MP and LifeSize Express 200:

```
get camera white-balance
auto

ok,00
```

set Arguments:

`[-N <{1|2|3|4|6|a|o}>]`	Specify the camera to adjust. The default is the active camera. Camera `a` (active camera) is available on all systems. Camera `1` is the camera connected to the HD Camera 1 input and is available on all models except LifeSize Express 220. Camera `2` is available on LifeSize Room only. Camera `3` is the camera connected to the HD input 1 on LifeSize Express, LifeSize Express 220, LifeSize Room 200, LifeSize Room 220, LifeSize Team 200 and LifeSize Team 220. Camera `4` is available on LifeSize Room 200 and LifeSize Room 220 and is the camera connected to the HD input 2. Camera `6` is available on LifeSize Room 200 and LifeSize Room 220 and is for a supported third-party VISCA controlled camera connected to the component input. Camera `o` (other) selects a non-active camera and is not available on LifeSize Express 200, LifeSize Express 220 and LifeSize Team MP, which support only one camera.
`<{auto|indoor1|indoor2|outdoor|incan|incan-3200k|halogen}>`	Set the white balance to the specified setting.

set Examples:

LifeSize Room 200:

```
set camera white-balance -N 3 halogen

ok,00
```

LifeSize Team MP, and LifeSize Express 200:

```
set camera white-balance indoor1

ok,00
```

conference

The following targets are applicable to the **`conference`** object.

presence-mode

When used with the **`get`** verb, the **`presence-mode`** target reports whether the display shows all conference participants or only the most recent speaker. When used with the **`set`** verb, this target changes how video from connected parties appears in the display during a conference call. The presence-mode target applies to LifeSize Room, LifeSize Room 200, and LifeSize Room 220 systems only.

get Arguments:

None

get Examples:

```
get conference presence-mode
continuous

ok,00

get conference presence-mode -V
Presence Mode
last-talker

ok
```

set Arguments:

`<{continuous|last-talker}>`	Specify ***continuous*** to show all parties in the conference. Specify ***last-talker*** to show the most recent speaker.

set Examples:

```
set conference presence-mode last-talker

ok,00
```

presentation

The **`presentation`** target reports whether or not the conference supports H.239 and is presentation capable. This target applies to the **`get`** verb.

Arguments:

<*conference*>	The number of the conference to check. This number is *1*.

Examples:

```
get conference presentation 1
off

ok,00

get conference presentation -V 1
Presentation Capability
on

ok
```

security

When used with the **`get`** verb, the **`security`** target reports whether or not encryption is required for conference calls. When used with the **`set`** verb, this target enables or disables the use of encryption for conference calls.

get Arguments:

None

get Examples:

```
get conference security
off

ok,00

get conference security -V
H.235 Encryption
strict

ok
```

set Arguments:

`<{off|on|strict}>`	Specify ***`off`*** to disable encryption. Specify ***`on`*** to allow encryption. Specify ***`strict`*** to require encryption.

set Examples:

```
set conference security strict

ok,00
```

config

When used with the **`get`** verb, the **`config`** target retrieves the current configuration for the system. This includes all saved parameters currently configurable by the CLI. The output is in the form of a script suitable for execution by the CLI. Before using the script with the **`set config`** command to restore the configuration of a system, you must edit the script as follows:

- Stored passwords are replaced by tokens surrounded by '###' characters (e.g., ###password###). Replace the these characters and tokens with the password.
- The system must be rebooted after the configuration is applied. Delete the trailing `ok,00` from the end of the script if it was captured. Append **`control reboot`** to the end of the script to effect a reboot.

When used with the **`set`** verb, this target allows reloading the system configuration from a script produced by **`get config`**. This is an alternate method to reading that script: it can also be fed directly to the CLI. The advantages are that the output of this command indicates the line numbers of failing commands in the script and the error codes of those commands and will exit with a return code indicating whether the entire script failed or succeeded. With the direct input method, the error messages for failing commands are mixed in with the output, and the exit code is that of the last command executed.

Note: When FIPS 140-2 security is enabled, **set config** cannot import license key data using *`set system licensekey -i`*. For more information about FIPS 140-2 security, refer to the *LifeSize Video Communications Systems Administrator Guide*.

get Arguments:

`[-P]`	Export the file with all passwords except the shell password and snmp passwords. If you use this argument, all other passwords are visible without the pound (#) symbols.

get Examples:

```
sh% ssh auto@ip get config > codec_confg.as
sh%
```

To restore the configuration to a system using the direct input method:

```
sh% ssh auto@otherip < codec_config.as
command 1

ok,00
....
```

The output of the restore using the direct input method lists the executed commands followed by the return status of the command. Any command failures are indicated in the normal way. The script execution does not stop due to intermediate failures and the exit status of the script is the status of the final command that is executed.

set Arguments:

`[-i]`	Ignore errors in the script and execute to the end. The default executes up to the first error and then stops.

set Examples:

```
unix% ssh auto@ip get config > script
unix% vi script  # fix up passwords
```

```
unix% ssh auto@otherip set config -i -V < script
Line    Error    Note    Command
23      09       FIX     set admin password ###password###
325     09               set video secondary-background "Image"

error,09
```

directory

The following targets are applicable to the **directory** object.

auto

When used with the **get** verb, the **auto** target retrieves the configuration for the auto discovery daemon. When used with the **set** verb, this target controls configuration of the auto discovery daemon.

get Arguments:

None

get Examples:

```
get directory auto
On,10.10.11.* 10.10.10.*,192.168.*

ok,00

get directory auto -V
State          Searched Subnets          Ignored Subnets
On             10.10.11.* 10.10.10.*     192.168.*

ok
```

set Arguments:

`[-a]`	Append `-i` and `-s` options to the appropriate lists instead of replacing the lists.
`[-i` *`ipaddr`*`]`	Specify a subnet to ignore during discovery. For example, 10.10.11.* ignores all devices with an IP address of 10.10.11.0 through 10.10.11.255.
`[-s` *`ipaddr`*`]`	Specify a subnet to search during discovery. For example, 10.10.* searches all devices with an IP address of 10.10.0.0 through 10.10.255.255.
`<{on|off}>`	Enable or disable the auto discovery daemon.

Note: By default, the auto discovery daemon searches only the subnet defined by its IP address and network mask.

set Examples:

Discover on 10.10.11 and 10.10.12, ignore 10.10.10:

```
set directory auto -s 10.10.11.* -s 10.10.12.* -i 10.10.10.* on
```

```
ok,00
```

Add discovery on 10.10.13:

```
set directory auto -s 10.10.13.* -a on
```

```
ok,00
```

Reset discovery to 10.10.13 only, clearing ignored subnets too:

```
set directory auto -s 10.10.13.* on
```

```
ok,00
```

Turn off discovery entirely:

```
set directory auto off
```

```
ok,00
```

corporate

The **`corporate`** target retrieves the corporate directory entries. These entries come from either the ldap server's directory if ldap is enabled, or through auto discovery if auto discovery is enabled. This target applies to the **`get`** verb.

Arguments:

[-1 *number*]	Restrict the listing to those entries whose Number column starts with the specified ISDN number.
[-2 x]	This argument is deprecated in software release v3.0. The column labeled `B2 Number` in the output in previous releases appears with the column label `X` and is unused.
[-B]	Send the data in a format suitable for processing by the **`set directory local -B`** command.
[-C]	Show only the number of entries matching the selection criteria.
[-H *hierarchy*]	Restrict the listing to those entries whose Hierarchy column starts with the specified hierarchy grouping.
[-a *isdn-ac*]	Restrict the listing to those entries whose AC column starts with the specified ISDN area code.
[-c *isdn-cc*]	Restrict the listing to those entries whose CC column starts with the specified ISDN country code.
[-i *ip-address*]	Restrict the listing to those entries whose IP Address column starts with the specified IP address.
[-n *count*]	Limit the output to count entries.
[-s *count*]	Skip the first count entries.
[-t *phone*]	Restrict the listing to those entries whose Voice column starts with the specified voice telephone number.
[-v *video*]	Restrict the listing to those entries whose Video column starts with the specified video number.
[*prefix*]	Restrict the listing to those entries starting with the specified prefix (case insensitive).

Examples:

get directory corporate

John Doe,,10.10.11.254,,,,,,,auto,auto
Mary Jane,,10.10.11.213,,,,,,,auto,auto
Noah James,,10.10.11.116,,,,,,,auto,auto
Steve Jones,,10.10.11.155,,,,,,,auto,auto
Test,,10.10.11.8,,,,,,,auto,auto

ok,00

get directory corporate –V

Name	Voice	Video	IP Address	CC	AC	Number	X	Hierarchy	IP BW	ISDN BW
John Doe		*10.10.11.254*							auto	auto
Mary Jane		*10.10.11.213*							auto	auto
Noah James		*10.10.11.116*							auto	auto
Steve Jones		*10.10.11.155*							auto	auto
Test		*10.10.11.8*							auto	auto

ok

get directory corporate *n*

Noah James,,10.10.11.116,,,,,,,auto,auto

ok,00

get directory corporate -B

John Doe||10.10.11.254|||||||auto|auto
Mary Jane||10.10.11.213|||||||auto|auto
Noah James||10.10.11.116|||||||auto|auto
Steve Jones||10.10.11.155|||||||auto|auto
Test||10.10.11.8|||||||auto|auto

ok,00

get dir corporate -C -V

Count
5

ok

Specification of multiple selection options results in output that is the logical and for all the conditions (each line must match all conditions specified). Regular expressions in and logical ordering of the selection criteria are not supported. The **-n** and **-s** arguments allow remote programs to page through the directory entries by limiting the range of entries shown.

ldap

When used with the **get** verb, the **ldap** target shows the configuration of the LDAP directory settings for the corporate directory. When used with the **set** verb, this target configures the LDAP directory server preferences.

get Arguments:

None

get Examples:

```
get directory ldap
Off,,,,,,never,unregistered

ok,00

get directory ldap -V
State  Server   Username  Base   Filter  Refresh  Status
Off                                               unregistered

ok
```

set Arguments:

`-d`	Disable LDAP
`-e`	Enable LDAP
`[-f filter]`	Specify the LDAP server search filter.
`[-p password]`	Specify the password used to access the LDAP server.
`[-r {1-minute|5-minutes| 10-minutes|20-minutes| 30-minutes|1-hour| 2-hours|3-hours| 6-hours|12-hours| 1-day|1-week|never}]`	Specify the time interval between LDAP server refreshes.
`[-s host-or-ip]`	Specify the hostname or IP address of the LDAP server.
`[-u username]`	Specify the user name used to access the LDAP server.
`[dc-value]`	Specify the values of the DC fields in the order of use. The OU field is hard coded as `EndPoints`.

set Examples:

`set directory ldap -e -u user -p password -s ldap-server LifeSize VideoCodec`

```
ok,00
```

`set directory ldap -r 1-hour`

```
ok,00
```

local

When used with the **`get`** verb, the **`local`** target retrieves the local directory entries. When used with the **`set`** verb, this target edits the local directory and supports the use of here documents to load the directory. For more information about here documents, refer to “Here Documents” on page 16.

get Arguments:

[-1 *number*]	Restrict the listing to those entries whose Number column starts with the specified ISDN number.
[-2 x]	This argument is deprecated in software release v3.0. The column labeled `B2 Number` in the output in previous releases appears with the column label `X` and is unused.
[-B]	Send the data in a format suitable for processing by the **`set directory local -B`** command.
[-C]	Show only the number of entries matching the selection criteria.
[-H *hierarchy*]	Restrict the listing to those entries whose Hierarchy column starts with the specified hierarchy grouping.
[-a *isdn-ac*]	Restrict the listing to those entries whose AC column starts with the specified ISDN area code.
[-c *isdn-cc*]	Restrict the listing to those entries whose CC column starts with the specified ISDN country code.
[-i *ip-addr*]	Restrict the listing to those entries whose IP Address column starts with the specified IP address.
[-n *count*]	Limit the output to count entries.
[-s *count*]	Skip the first count entries.
[-t *phone*]	Restrict the listing to those entries whose Voice column starts with the specified voice telephone number.
[-v *video*]	Restrict the listing to those entries whose Video column starts with the specified video number.
[*prefix*]	Restrict the listing to those entries starting with the specified prefix (case insensitive).

get Examples:

get directory local

John Doe,,,10.10.11.254,,,,Video,auto,auto
Mary Jane,,,10.10.11.213,,,,Video,auto,auto
Noah James,,,10.10.11.116,,,,Video,1024,auto
Steve Jones,,,10.10.11.155,,,,Video,auto,auto
Test,555.1212,10.10.11.8,1.2.3.4,52,215,5550199,,Audio,auto,128

ok,00

get directory local –V

Name	Voice	Video	IP Address	CC	AC	Number	X	Hierarchy	IP BW	ISDN BW
John Doe			*10.10.11.254*					Video	auto	auto
Mary Jane			*10.10.11.213*					Video	auto	auto
Noah James			*10.10.11.116*					Video	1024	auto
Steve Jones			*10.10.11.155*					Video	auto	auto
Test	*555.1212*	*10.10.11.8*	*1.2.3.4*	*52*	*215*	*5550199*		Audio	auto	128

ok

get directory local *n*

Noah James,,,10.10.11.116,,,,Video,1024,auto

ok,00

get directory local -B

John Doe|||10.10.11.254|||Video|auto|auto
Mary Jane|||10.10.11.213|||Video|auto|auto
Noah James|||10.10.11.116|||Video|1024|auto
Steve Jones|||10.10.11.155|||Video|auto|auto
Test|555.1212|10.10.11.8|1.2.3.4|52|215|5550199||Audio|auto|128

ok,00

get dir local -C -V

Count
5

ok

Specification of multiple selection options results in output that is the logical and for all the conditions (each line must match all conditions specified). Regular expressions in and logical ordering of the selection criteria are not supported. The **`-n`** and **`-s`** arguments allow remote programs to page through the directory entries by limiting the range of entries shown.

set Arguments:

`[-1 number]`	Set the ISDN number.
`[-2 x]`	This argument is deprecated in software release v3.0. In previous releases, this argument specified the ISDN B2 Number. The column labeled `B2 Number` in the output in previous releases appears with the column label `X` and is unused.
`[-B]`	Read data from standard input in batch mode. Accepts either the output of get local directory -B or the result of exporting the directory through the web administration interface. This argument cannot be used with any of the field set options.
`[-H hierarchy]`	Specify the hierarchy for the entry. Use commas to delimit the hierarchy levels.
`[-K {auto|128|192|256|320|384|512|640|768|896|1024|1152|1280|1472|1728|1920}]`	Set the bandwidth limit in kilobits per second (kb/s) for ISDN calls. The default is `auto`.
`[-a isdn-ac]`	Set the ISDN area code.
`[-c isdn-cc]`	Set the ISDN country code.
`[-d]`	Delete the specified entries. Only the name argument is used in single or batch mode. Matching entries are removed from the directory. Entries must match exactly (except for case).
`[-i ip-addr]`	Set the IP address for calls (used as backup if the video or telephone numbers are not specified.)

`[-k {auto|128|192|256|320|384|512|640|768|896|1024|1152|1280|1472|1728|1920|2000|2500|3000|4000|5000|6000|7000|8000}]`	Set the bandwidth limit in kilobits per second for video calls. The default is `auto`. LifeSize Room 220 supports bandwidths up to 8000 kb/s. LifeSize Room, LifeSize Room 200, and LifeSize Team 220 support bandwidths up to 6000 kb/s. LifeSize Express 220, LifeSize Team 200, and LifeSize Team MP support bandwidths up to 4000 kb/s. LifeSize Express and LifeSize Express 200 support bandwidths up to 2000 kb/s.
`[-o]`	Overwrite existing entries. The default leaves existing entries unchanged.
`[-t` *`phone`*`]`	Set the voice telephone number.
`[-u]`	Update existing entries by merging new data with old data. The default leaves existing entries unchanged.
`[-v` *`video`*`]`	Set the video telephone number.
`name`	Set the name of the entry. Case is preserved, but is not significant in locating a matching entry. Cannot be used in batch mode.

set Examples:

Copy the local directory from one system to another:

```
sh$ ssh auto@room1 get directory local -B > localdir.txt
sh$ ssh auto@room2 set directory local -o -B < localdir.txt
```

Add an entry for “Sunbob” to the local directory stored hierarchically under Sun and then bob:

```
set directory local -i 10.10.10.11 -H Sun,bob Sunbob

ok,00
```

Update the sunbob entry to include a voice number:

```
set directory local -t 5551212 -u sunbob

ok,00
```

Overwrite the sunbob entry removing the voice number:

```
set directory local -i 10.10.10.11 -H Sun,bob -o Sunbob
```

```
ok,00
```

Alternative:

```
set directory local -t "" -u Sunbob
```

```
ok,00
```

Delete the sunbob entry:

```
set directory local -d Sunbob
```

```
ok,00
```

meeting

When used with the **`get`** verb, the **`meeting`** target retrieves directory entries for the meetings directory. Because meetings contain multiple participants per entry, the output of the command is modal. By default, the output consists of the selected meetings with participant counts and meeting type. The -l argument lists the individual participants of a single specified meeting. When used with the **`set`** verb, this target enables you to create or edit meeting directory entries and supports the use of here documents to load the directory. For more information about here documents, refer to “Here Documents” on page 16.

get Arguments:

`[-B]`	Output directory in batch mode suitable for importing with the **`set directory meeting -B`** command.
`[-H` *`hierarchy`*`]`	Select meetings from within the specified hierarchy only. Use a comma to separate levels of the hierarchy.
`[-l]`	List meeting participants. Cannot be used with **`-n`** or **`-s`**. You must specify only one meeting with this argument.
`[-n` *`count`*`]`	Limit meeting display to at most count entries. Cannot be used with **`-l`**.
`[-s` *`count`*`]`	Skip the first count entries. Useful for paging when used with **`-n`**. Cannot be used with **`-l`**.
`[`*`meeting`*`]`	Select meetings based on the meeting string (case indifferent, string must match start of meeting name). When used with **`-l`**, specify only one meeting.

get Examples:

```
get directory meeting
BoD Meeting,2,John Smith  Big Room,B,Video
Sales Meeting,4,Jim  Bob  Jan  Joe,S,Audio

ok,00

get directory meeting -V
Meeting Name    Number   Participants         Hierarchy    Type
BoD Meeting     2        John Smith, Big Room B            Video
Sales Meeting   4        Jim, Bob, Jan, Joe   S            Audio

ok
```

```
get directory meeting -l BOD
John Smith,10.10.10.11,,,auto,Video
Big Room,10.10.10.12,,,auto,Video

ok,00

get directory meeting -V -l BO
Name          Video         Audio  IP Address  Bandwidth   Type
John Smith    10.10.10.11                      auto        Video
Big Room      10.10.10.12                      auto        Video

ok

get directory meeting -l

error,10,Ambiguous Selection

get directory meeting -H b
BoD Meeting,2,John Smith  Big Room,B,Video

ok,00

get directory meeting -B
BoD Meeting|2|John Smith, Big Room|B|Video|Meeting
John Smith|10.10.10.11|||auto|Video
Big Room|10.10.10.12|||auto|Video
Sales Meeting|4|Jim, Bob, Jan, Joe|S|Audio|Meeting
Big Room|10.10.10.12|||auto|Audio
Tokyo|209.154.11.13|||auto|Audio
London|145.223.231.33|||auto|Audio
Boston|111.222.33.44|||auto|Audio

ok,00
```

set Arguments:

[-B]	Read standard input and create meetings based on batch mode data from **`get directory meeting -B`**.
[-o]	Overwrite existing entries. The default leaves existing entries unchanged. This argument cannot be used with any option other than `-B`.
[-H *hierarchy*]	Specify the hierarchy for the meeting. Use a comma to separate levels.
[-r *party*]	Specify a party to remove from a meeting. This argument is only valid when editing an existing meeting or creating a meeting copy.
[-d]	Delete the named meeting. In batch mode, deletes the meetings listed in the input file.
[-m *name*]	Specify the name of the meeting to create or modify. If the meeting already exists, parties are added to it. If not, it is created. If used with the -d argument, the meeting must already exist or the command fails. This option is required unless using batch mode.
[-c *name*]	Copy the specified meeting into this new meeting entry. The copy meeting will replace any existing meeting by that name
[-a *party*]	Add the named party as a voice call. The party name can be any valid dial string. For examples, refer to **`control call dial`** in “dial” on page 303.
[-i *party*]	Add the named party as a video call using the ISDN number specified in the directory entry
[-v *party*]	Add the named party as a video call. The party name can be any valid dial string
[*party*]	Add the named party as a video or voice call based on the type specified in the directory or redial entry. If you do not specify the call type, the system automatically attempts to determine the type using the following order: video, voice, and isdn.

set Examples:

Create a new meeting ("QBR Meeting" does not exist):

```
set directory meeting -H Q,M -m "QBR Meeting" -v "local:Big Room"
   -v local:Bangalore
```

```
ok,00
```

Add a PSTN conference bridge to the meeting:

```
set directory meeting -m "QBR Meeting" -a 555-1212
```

```
ok,00
```

Make a copy of the "QBR Meeting" adding one more party:

```
set directory meeting -c "QBR Meeting" -H Y,M -m "YBR Meeting"
   corp:Investors
```

```
ok,00
```

Make a copy of the "YBR Meeting" removing "Big Room" and adding Cube:

```
set directory meeting -c "YBR Meeting" -m "India" -H I -r "Big
   Room" -i Cube
```

```
ok,00
```

Remove the Bangalore conference room from the meeting:

```
set directory meeting -m "QBR Meeting" -r Bangalore
```

```
ok,00
```

Delete the "QBR Meeting":

```
set directory meeting -d -m "QBR Meeting"
```

```
ok,00
```

h323

The following targets are applicable to the **`h323`** object.

alternate

When used with the **`get`** verb, the **`alternate`** target retrieves the current settings for the alternate H.323 gatekeeper. When used with the **`set`** verb, this target configures the settings for the alternate H.323 gatekeeper when in manual mode.

get Arguments:

None

get Examples:

```
get h323 alternate
10.10.11.12,1719

ok,00

get h323 alternate -V
IP Address      Port
10.10.11.110    12345

ok
```

set Arguments:

<ipaddr>	Specify the IP address for the gatekeeper in manual mode.
[*port*]	Optional: Specify the port for the gatekeeper. The default is 1719 or the current setting.

set Examples:

```
set h323 alternate 10.10.11.12

ok,00

set h323 alternate 10.10.11.12 1832

ok,00
```

extension

When used with the **`get`** verb, the **`extension`** target retrieves the H.323 extension associated with the endpoint. When used with the **`set`** verb, this target sets the extension to use when registering the device with the H.323 gatekeeper.

get Arguments:

None

get Examples:

```
get h323 extension
1188

ok,00

get h323 extension -V
Extension
1188

ok
```

set Arguments:

<extension>	Specify the extension to use when registering with the H.323 gatekeeper.

set Examples:

```
set h323 extension 1188

ok,00
```

h323

When used with the **`get`** verb, the **`h323`** target shows whether H.323 calls are enabled or disabled. When used with the **`set`** verb, this target controls whether H.323 calls are enabled or disabled.

get Arguments:

None

get Examples:

```
get h323 h323
enabled

ok,00

get h323 h323 -V
H323
enabled

ok
```

set Arguments:

`<{enabled|disabled}>`	Specify whether to enable or disable H.323 calls.

set Examples:

```
set h323 h323 disabled

ok,00
```

h460

When used with the **`get`** verb, the **`h460`** target shows whether support for H.460 with H.323 calls is enabled or disabled. When used with the **`set`** verb, this target controls whether support for H.460 with H.323 calls is enabled or disabled.

get Arguments:

None

get Examples:

```
get h323 h460
enabled

ok,00

get h323 h460 -V
H460
enabled

ok
```

set Arguments:

`<{enabled|disabled}>`	Specify whether to enable or disable H.460 support with H.323 calls.

set Examples:

```
set h323 h460 disabled

ok,00
```

id

When used with the **`get`** verb, the **`id`** target retrieves the H.323 gatekeeper ID. When used with the **`set`** verb, this target sets the H.323 gatekeeper ID.

get Arguments:

None

get Examples:

```
get h323 id
RADGK

ok,00

get h323 id -V
Gatekeeper ID
RADGK

ok
```

set Arguments:

<id>	Specify the gatekeeper ID.

set Examples:

```
set h323 id RADGK

ok,00
```

mode

When used with the **`get`** verb, the **`mode`** target retrieves the H.323 gatekeeper mode which indicates whether the gatekeeper is used at all or manually or automatically configured. When used with the **`set`** verb, this target configures the H.323 gatekeeper mode.

get Arguments:

None

get Examples:

```
get h323 mode
off

ok,00

get h323 mode -V
Mode
manual

ok
```

set Arguments:

`<{off|manual|auto}>`	Specify the gatekeeper mode. The `off` argument disables use of the H.323 gatekeeper; `manual` uses the primary and alternate settings; and `auto` determines the gatekeeper information automatically.

set Examples:

```
set h323 mode auto

ok,00

set h323 mode off

ok,00
```

name

When used with the **`get`** verb, the **`name`** target retrieves the currently configured H.323 name for the device. When used with the **`set`** verb, this target sets the H.323 name for the device.

get Arguments:

None

get Examples:

```
get h323 name
Conference Room950

ok,00

get h323 name -V
Name
Conference Room950

ok
```

set Arguments:

<name>	Specify the name to use for the device when registering with the H.323 gatekeeper.

set Examples:

```
set h323 name LifeSize

ok,00
```

primary

When used with the **`get`** verb, the **`primary`** target retrieves the configuration for the H.323 primary gatekeeper. When used with the **`set`** verb, this target configures the H.323 primary gatekeeper when the primary gatekeeper is in manual mode.

get Arguments:

None

get Examples:

```
get h323 primary
10.10.11.12,1719

ok,00

get h323 primary -V
IP Address      Port
10.10.11.110    12345

ok
```

set Arguments:

`<ipaddr>`	Specify the IP address for the gatekeeper in manual mode.
`[port]`	Optional: Specify the port for the gatekeeper. The default is 1719 or the current setting.

set Examples:

```
set h323 primary 10.10.11.12 1719

ok,00

set h323 primary 10.10.11.15

ok,00
```

register

When used with the **`get`** verb, the **`register`** target retrieves the current registration status of the H.323 gatekeeper. When used with the **`set`** verb, this target starts the registration process with the configured H.323 gatekeeper. Because registration may take an arbitrarily long time, the command returns immediately. Use the **`get h323 register`** command to check the status.

get Arguments:

None

get Examples:

```
get h323 register
registered

ok,00

get h323 register -V
Status
failed

ok
```

set Arguments:

None

set Examples:

```
set h323 register

ok,00
```

help-mode

When used with the **`get`** verb, the **`help-mode`** target retrieves the current setting for help mode. When used with the **`set`** verb, this target controls whether or not help is available. It also enables and disables the use of abbreviations for commands (abbreviating **`help-mode`** as just **`help`**). To avoid ambiguity in future software releases, LifeSize recommends that you do not use abbreviations in scripts.

get Arguments:

None

get Examples:

```
get help-mode
on

ok,00
```

set Arguments:

`<{on|off}>`	Enable or disable help and abbreviation mode.

set Examples:

```
set help-mode on

ok,00
```

http

When used with the **`get`** verb, the **`http`** target shows whether the web (http) service is enabled or disabled. When used with the **`set`** verb, this target controls whether the web (http) service is enabled or disabled.

get Arguments:

None

get Examples:

```
get http
on

ok,00

get http -V
Web (http) Service
off

ok
```

set Arguments:

`<{off|on}>`	Disable or enable the http service.

set Examples:

```
set http on

ok,00
```

locale

The **`locale`** object controls location-specific information for a device. The following targets apply to the **`locale`** object.

country

When used with the **`get`** verb, the **`country`** target shows the current country setting for the system. When used with the **`set`** verb, this target configures the country code used by the PSTN interface to define how the PSTN connection should work.

get Arguments:

None

get Examples:

```
get locale country
algeria

ok,00

get locale country -V
Country
uruguay

ok
```

set Arguments:

<{algeria|argentina|australia| austria|bahrain|belarus|belgium| brazil|brunei|bulgaria|canada| chile|china|columbia|croatia| cyprus|czech-republic|denmark| ecuador|egypt|estonia|finland| france|germany|ghana|greece| hong-kong|hungary|india| indonesia|ireland|israel|italy| cote-d-ivoire|japan| jordan|kazakhstan|latvia| lebanon|lesotho|lithuania| luxembourg|malaysia|malta| mexico|morocco|netherlands| new-zealand|norway|oman| pakistan|paraguay|peru| philippines|poland|portugal| puerto-rico|qatar|romania| russia|singapore|slovakia| slovenia|south-africa| south-korea|spain|sri-lanka| sweden|switzerland|taiwan| thailand|tunisia|turkey|ukraine| united-arab-emirates| united-kingdom|united-states| uruguay|venezuela|vietnam| zambia}>	Specify the country code to use.

set Examples:

```
set locale country algeria

ok,00
```

gmt-offset

The **`gmt-offset`** target retrieves the current Greenwich Mean Time (GMT) offset value for the time zone currently selected for the system. The format of the output for this command appears as +HHMM or -HHMM where HH is hours and MM is minutes. This target applies to the **`get`** verb.

get Arguments:

None

get Examples:

```
get locale gmt-offset
-0500

ok,00

get locale gmt-offset -V
GMT Offset
-0500

ok
```

language

When used with the **`get`** verb, the **`language`** target shows the current language used for user interface prompts and messages. When used with the **`set`** verb, this target sets the language used for user interface prompts and messages. This setting does not affect the input or output of the CLI.

get Arguments:

None

get Examples:

```
get locale language
german

ok,00

get locale language -V
GUI Language
traditional-chinese

ok
```

set Arguments:

`<{german|us-english|spanish|french|italian|japanese|korean|norwegian|brazilian-portuguese|russian|suomi-finnish|swedish|simplified-chinese|traditional-chinese|polish}>`	Select the user interface language.

set Examples:

```
set locale language brazilian-portuguese

ok,00
```

timezone

When used with the **`get`** verb, the **`timezone`** target shows the current system time zone. When used with the **`set`** verb, this target changes the current system time zone.

get Arguments:

None

get Examples:

```
get locale timezone
majuro

ok,00

get locale timezone -V
Time Zone
kirimati

ok
```

set Arguments:

<{majuro|midway|honolulu|anchorage| los-angeles|vancouver|denver| edmonton|phoenix|austin| guatemala-city|manuaga|mexico-city| san-salvador|tegucigalapa|winnipeg| bogota|havana|indianapolis|kingston| lima|montreal|nassau|new-york|asuncion| caracas|halifax|la-paz|santiago| santo-domingo|san-juan|st-johns| sao-paulo|buenos-aires|montevideo| mid-atlantic|ponta-delgada| greenwich-mean-time|dublin|lisbon| london|reykjavik|abuja|amsterdam|berlin| brussels|budapest|copenhagen|madrid| oslo|paris|prague|rome|stockholm| vienna|warsaw|zagreb|zurich|athens| beirut|cairo|helsinki|istanbul| jerusalem|johannesburg|kyiv|baghdad| kuwait-city|moscow|riyadh|tehran| abu-dhabi|kabul|almaty|karachi| new-delhi|kathmandu|dhaka|yangon| bangkok|jakarta|beijing| kuala-lumpur|manila|perth| singapore-city|taipei|seoul|tokyo| darwin|adelaide|brisbane|sydney| vladivostok|suva|kamchatka|wellington| chatham-island|kiritimati}>	Select the local timezone.

set Examples:

`set locale timezone` ***`greenwich-mean-time`***

```
ok,00
```

network

The **`network`** object controls the current network configuration. If you use the set verb with a command that contains the **`network`** object, you must issue the **`set network commit`** command to commit the change. The **`commit`** target commits the network settings. Network settings that are changed but not committed do not take effect until the next system reboot. Some network commands, when followed by the **`set network commit`** command, cause the system to reboot. For a list of these commands, refer to "commit" on page 129.

Note: The get network command has been deprecated and superseded by the **`get network ipv4`** and **`get network ipv6`** commands.

The following targets apply to the **`network`** object.

802.1x

LifeSize video communications systems support port-based mutual authentication based on the IEEE 802.1X standard using the EAP-TLS sub-protocol. The **`802.1x`** object controls the use of this feature. The IEEE 802.1X standard provides port-based authentication involving communications between a supplicant, an authenticator (an 802.1x-capable Ethernet switch in this application), and an authentication server. The LifeSize codec attached to an 802.1X-controlled port on the switch performs the supplicant role. A back-end authentication server (typically, a RADIUS server) attached to a non-802.1X port on the switch usually performs the authentication server role. EAP packets flow between the supplicant (the codec) and the authenticator (the switch), and RADIUS packets flow between the authenticator (switch) and the authentication server (RADIUS server). Initially, 802.1X ports allow only 802.1X traffic; all other packets are blocked at the data link layer until the device attached to the port is authenticated.

This implementation assumes that you have configured the authentication server. The authentication server must have the CA certificate, the server certificate, and the server certificate private key installed. The server software must be configured with the location of the certificate and private key files, and with the text of the server certificate private key passphrase.

The authenticator must be configured to allow one or more of its ports to provide 802.1X access control, and it must be configured to access the authentication server.

This implementation also assumes that a certificate authority has produced a CA certificate, a client certificate, a client key and a client key passphrase for the LifeSize system. Before you enable this feature by setting the **`state`** target to ***`enabled`***, you must first set the **`ca-cert`**, **`client-cert`**, **`client-key`** and **`client-key-passphrase`** targets.

ca-cert

When used with the **`get`** verb and the **`802.1x`** object, the **`ca-cert`** target returns either the CA certificate set for the LifeSize system or an error if no CA certificate has been set. When used with the **`set`** verb and the **`802.1x`** object, this target adds a CA certificate to the system.

get Arguments:

None

get Examples:

```
get network 802.1x ca-cert
<Certificate data>

ok,00

get network 802.1x ca-cert -V
CA Certificate
<certificate data>

ok
```

set Arguments:

None

set Examples:

Certificate data can be manually entered through a here document as in the following example.

```
set network 802.1x ca-cert << EOF
certificate data
EOF

ok,00
```

Certificate file data can be redirected to the command if executed from a remote host, as in the following example.

```
ssh auto@<ip address> set network 802.1x ca-cert < ca_cert.pem
```

client-cert

When used with the **`get`** verb and the **`802.1x`** object, the **`client-cert`** target returns either the client certificate set for the LifeSize system or an error if no client certificate has been set. When used with the **`set`** verb and the **`802.1x`** object, this target adds a client certificate to the system.

get Arguments:

None

get Examples:

```
get network 802.1x client-cert
<certificate data>

ok,00

get network 802.1x client-cert -V
Client Certificate
<certificate data>

ok
```

set Arguments:

None

set Examples:

Certificate data can be manually entered through a here document as in the following example.

```
set network 802.1x client-cert << EOF
certificate data
EOF

ok,00
```

Certificate file data can be redirected to the command if executed from a remote host, as in the following example.

```
ssh auto@<ip address> set network 802.1x client-cert <
   client_cert.pem
```

client-key

When used with the **`get`** verb and the **`802.1x`** object, the **`client-key`** target returns either the client key set for the LifeSize system or an error if no client key has been set. When used with the **`set`** verb and the **`802.1x`** object, this target adds a client key to the system.

get Arguments:

None

get Examples:

```
get network 802.1x client-key
<key data>

ok,00

get network 802.1x client-key -V
Client Private Key
<key data>

ok
```

set Arguments:

None

set Examples:

The client key can be manually entered through a here document as in the following example.

```
set network 802.1x client-key << EOF
<client key>
EOF

ok,00
```

Certificate file data can be redirected to the command if executed from a remote host, as in the following example.

```
ssh auto@<ip address> set network 802.1x client-key <
   client_key.pem
```

client-key-passphrase

This target is write only. When used with the **`set`** verb and the **`802.1x`** object, the **`client-key-passphrase`** target adds a client key passphrase to the system.

set Arguments:

None

set Examples:

```
set network 802.1x client-key-passphrase abcdef19!

ok,00
```

state

When used with the **`get`** verb and the **`802.1x`** object, the **`state`** target shows whether support for 802.1X authentication is *`enabled`* or *`disabled`* on the video communications system codec. When used with the **`set`** verb and the **`802.1x`** object, this target controls whether support for 802.1X authentication is *`enabled`* or *`disabled`* on the video communications system codec. The default is ***`disabled`***.

Note: Before you set **`state`** to ***`enabled`***, you must set the **`ca-cert`**, **`client-cert`**, **`client-key`** and **`client-key-passphrase`** targets. You can also enable and disable 802.1X support through the system's user or web administration interfaces, but only after setting the **`ca-cert`**, **`client-cert`**, **`client-key`** and **`client-key-passphrase`** targets.

get Arguments:

None

get Examples:

```
get network 802.1x state
disabled

ok,00

get network 802.1x state -V
State
disabled

ok
```

set Arguments:

`<{enabled|disabled}>`	Enable or disable the feature.

set Examples:

```
set network 802.1x state disabled

ok,00
```

Commit the change:

```
set network commit

ok,00
```

amx-enable

When used with the **`get`** verb, the **`amx-enable`** target shows whether support for AMX Device Discovery through IP connectivity is enabled (*`on`*) or disabled (*`off`*) on the codec. When used with the **`set`** verb, this target controls whether support for AMX Device Discovery through IP connectivity is enabled or disabled on the codec. The default is ***`off`***.

When support for AMX Device Discovery through IP connectivity is enabled, the codec transmits an IP beacon message as a UDP packet to the IP address 239.255.250.250 on port 9131 every 60 seconds. Information sent in the message includes the serial number, make, and model of the codec, the revision number of the AMX interface that supports the codec, and the class of the device as defined by AMX.

get Arguments:

None

get Examples:

```
get network amx-enable
off

ok,00

get network amx-enable -V
AMX Enabled
off

ok
```

set Arguments:

`<{on|off}>`	Enable or disable the feature.

set Examples:

```
set network amx-enable off

ok,00
```

Commit the change:

```
set network commit

ok,00
```

amx-make

The **`amx-make`** target retrieves the make of the device. The device includes this information in the IP beacon message that it transmits when **`amx-enable`** is set to ***`on`***. This target applies to the **`get`** verb.

get Arguments:

None

get Examples:

```
get network amx-make
LIFESIZE

ok,00

get network amx-make -V
AMX Beacon Make
LIFESIZE

ok
```

amx-master

When used with the **`get`** verb, the **`amx-master`** target retrieves the IP address to which the codec sends the IP beacon message when the **`amx-enable`** target is set to ***`on`***. The default is 239.255.250.250. When used with the **`set`** verb, this target sets the IP address to which the codec sends the IP beacon message when the **`amx-enable`** target is set to ***`on`***.

get Arguments:

None

get Examples:

```
get network amx-master
10.0.1.254

ok,00

get network amx-master -V
AMX Master IP Address
10.0.1.254

ok
```

set Arguments:

`<IP address>`	Specify the IP address to which the codec sends the IP beacon message when the **`amx-enable`** target is set to ***`on`***.

set Examples:

```
set network amx-master 10.0.1.254

ok,00
```

Commit the change:

```
set network commit

ok,00
```

amx-model

The **`amx-model`** target retrieves the device model that the device sends in the IP beacon when the **`amx-enable`** target is set to ***`on`***. This target applies to the **`get`** verb.

get Arguments:

None

get Examples:

```
get network amx-model
ROOM

ok,00

get network amx-model -V
AMX Beacon Model
ROOM

ok
```

amx-port

When used with get **`verb`**, the **`amx-port`** target retrieves the port number on which the codec sends the IP beacon when the **`amx-enable`** target is set to ***`on`***. When used with the **`set`** verb, this target sets the port number on which the device sends the IP beacon when the **`amx-enable`** target is set to ***`on`***. The default is 9131.

get Arguments:

None

get Examples:

```
get network amx-port
9131

ok,00

get network amx-port -V
AMX Master Port
9131

ok
```

set Arguments:

<port number>	Specify the port number on which the codec sends the IP beacon message when the **amx-enable** target is set to ***on***.

set Examples:

```
set network amx-port 9131

ok,00
```

Commit the change:

```
set network commit

ok,00
```

amx-revision

The **amx-revision** target retrieves the revision number of the AMX interface that supports the codec. This target applies to the **get** verb.

get Arguments:

None

get Examples:

```
get network amx-revision
1.0.0

ok,00

get network amx-revision -V
AMX Beacon Revision
1.0.0

ok
```

commit

The **`commit`** target commits the network settings. Network settings that are changed but not committed do not take effect until the next system reboot. This target applies to the **`set`** verb.

Note: If you change network settings using the following commands and then commit the changes with the **`set network commit`** command, the system reboots:

- **`set network ipv6 manual -i`** ***`address`***
- **`set network ipv6 auto`**
- **`set network vlan id`** ***`value`***
- **`set network reserved-ports -T`** ***`port`***

  Note: Only if the change impacts ports already in use will a change with this command result in a system reboot when you issue the **`set network commit`** command.

- **`set network reserved-ports -t`** ***`port`***

Arguments:

None

Examples:

```
set network commit

ok,00
```

dns

When used with the **`get`** verb, the **`dns`** target retrieves the current Directory Name Service settings. When used with the **`set`** verb, this target configures the Directory Name Service settings to allow the use of named hosts instead of IP addresses.

get Arguments:

None

get Examples:

```
get network dns
10.10.10.1,10.10.10.2,10.10.10.3,example.com

ok,00
```

```
get network dns -V
Primary DNS    Secondary DNS   Tertiary DNS   Domain Search List
10.10.10.1     10.10.10.2                     example.com

ok
```

set Arguments:

[-i *ipaddress*]	Specify an IP address for a DNS server. Up to 3 servers may be specified.
[-r]	Reset the DNS servers and search domains instead of appending additional servers/domains.
[-s *domain*]	Specify a search domain (used for unqualified hostname resolution).

set Examples:

```
set network dns -i 10.10.11.1 -i 10.10.11.2 -s ls.com -s cc.com

ok,00
```

Commit the change:

```
set network commit

ok,00
```

hostname

The **`hostname`** target sets the network hostname for the system. Use a name that is similar or the same as the system name to avoid confusion. If DHCP is used for the network configuration, the hostname will be published to the DHCP server allowing name based lookups for the system. This target applies to the **`set`** verb.

Arguments:

`<hostname>`	Specify the hostname for the system

Examples:

```
set network hostname lifesize-room

ok,00
```

Commit the change:

```
set network commit

ok,00
```

ipv4

When used with the **`get`** verb, the **`ipv4`** target retrieves the current Internet Protocol Version 4 network configuration.

When used with the **`set`** verb, this target uses the **`dhcp`** and **`static`** targets to configure Internet Protocol Version 4 network parameters. The **`dhcp`** target configures the network to use Dynamic Host Control Protocol for the network settings. The **`static`** target controls the configuration of the network interface when you specify a static IP address for the device.

get Arguments:

None

get Examples:

```
get network ipv4
dhcp,10.10.15.166,255.255.255.0,10.10.15.255,10.10.15.1,
   00:13:fa:00:24:a1,jsmith-ls

ok,00
```

```
get network ipv4 -V
Mode    IP Address    Network Mask   Broadcast IP  Gateway IP   MAC Address
dhcp    10.10.15.166  255.255.255.0  10.10.15.255  10.10.15.1   00:13:fa:00:24:a
                                                                 1


   Hostname
   jsmith-ls
ok
```

set Arguments (dhcp target):

None

set Examples (dhcp target):

```
set network ipv4 dhcp

ok,00
```

Commit the change:

```
set network commit

ok,00
```

***set Arguments (static target)*:**

[-i *ipaddr*]	Specify the IP address of the device.
[-n *netmask*]	Specify the network mask that defines the extent of the local network.
[-g gateway]	Specify the gateway address for routing traffic outside of the network defined by the IP address and network mask. The gateway device must be within the network.

set Examples (static target):

```
set network ipv4 static -i 10.10.11.12 -n 255.255.0.0 -g
   10.10.1.1

ok,00
```

Commit the change:

```
set network commit

ok,00
```

ipv6

When used with the **`get`** verb, the **`ipv6`** target retrieves the current Internet Protocol Version 6 network configuration.

When used with the **`set`** verb, this target uses the following targets to configure Internet Protocol Version 6 (IPv6) networking parameters:

- **`auto`**

  The **`auto`** target enables the system to determine the networking parameters from the network without further user intervention.

- **`manual`**

  The **`manual`** target enables you to enter the IPv6 addresses of the system and the router manually.

- **`off`**

  The **`off`** target disables IPv6 networking.

get Arguments:

None

get Examples:

```
get network ipv6
yes,auto,yes,ipv6Address,

ok,00
get network ipv6 -V
Enabled   Mode   Active   IP Address                          Router
yes       auto   yes      ipv6Address

ok
```

set Arguments (auto target):

None

set Examples (auto target):

```
set network ipv6 auto

ok,00
```

Commit the change (causes a system reboot):

```
set network commit
```

```
ok,00
```

set Arguments (manual target):

[-i *ipaddress*]	Specify the IPV6 address for the system.
[-r *routerip*]	Specify the IPV6 address of the router.

set Examples (manual target):

```
set network ipv6 manual -i address
```

```
ok,00
```

Commit the change (causes a system reboot):

```
set network commit
```

```
ok,00
```

set Arguments (off target):

None

set Examples (off target):

```
set network ipv6 off
```

```
ok,00
```

Commit the change:

```
set network commit
```

```
ok,00
```

nat

When used with the **`get`** verb, the **`nat`** target retrieves the Network Address Translation settings for the system.

When used with the **`set`** verb, this target uses the **`disabled`** and **`enabled`** targets to configure Network Address Translation. The **`disabled`** target disables the use of NAT traversal on the device. The **`enabled`** target enables the use of NAT traversal on the device.

get Arguments:

None

get Examples:

```
get network nat

disabled

ok,00

get network nat -V
Static NAT      Public IP
enabled         10.10.11.111

ok
```

set Arguments (disabled target):

None

set Examples (disabled target):

```
set network nat disabled

ok,00
```

Commit the change:

```
set network commit

ok,00
```

set Arguments (enabled target):

`<ipaddress>`	Specify the public IP address of the LifeSize device.

set Examples (enabled target):

```
set network nat enabled address

ok,00
```

Commit the change:

```
set network commit

ok,00
```

ntp-server

When used with the **`get`** verb, the **`ntp-server`** target retrieves the address of the current Network Time Protocol server. When used with the **`set`** verb, this target specifies the Network Time Protocol server to use to keep the system clock synchronized with a common time source.

get Arguments:

None

get Examples:

```
get network ntp-server
10.10.11.10

ok,00

get network ntp-server -V
NTP Server
10.10.11.10

ok
```

set Arguments:

<ntpserver>	Specify the IP address of the NTP server

set Examples:

```
set network ntp-server 10.10.11.10

ok,00
```

Commit the change:

```
set network commit

ok,00
```

qos

When used with the **get** verb, the **qos** target retrieves the configuration of the network Quality of Service options for the system.

When used with the **set** verb, this target uses the following targets to configure the Quality of Service (QoS) options for the system:

- **diffserv**

  The **diffserv** target configures the network QoS for DiffServ.

- **intserv**

  The **intserv** target configures the network QoS for IntServ (IP Precedence).

- **none**

  The **none** target disables network QoS.

get Arguments:

None

Examples:

```
get network qos
DiffServ,46,34,46,

ok,00
```

```
get network qos -V
QoS Mode  Audio Priority  Video Priority  Data Priority  Type Of Service
IntServ   5               4               5              Minimize Cost

ok
```

set Arguments (diffserv target):

`[-a {0..63}]`	Specify the audio packet priority.
`[-d {0..63}]`	Specify the data packet priority.
`[-v {0..63}]`	Specify the video packet priority.

set Examples (diffserv target):

```
set network qos diffserv -a 46 -d 46 -v 34

ok,00
```

Commit the change:

```
set network commit

ok,00
```

set Arguments (intserv target):

`[-a {0..7}]`	Specify the audio packet priority.
`[-d {0..7}]`	Specify the data packet priority.
`[-v {0..7}]`	Specify the video packet priority.
`[-t {none|min-delay|min-cost|max-rely|max-thru}]`	Specify the type of service used by your network: None, Minimize Delays, Minimize Cost, Maximize Reliability, or Maximize Throughput

set Examples (intserv target):

```
set network qos intserv -a 6 -d 4 -v 3 -t min-delay
```

```
ok,00
```

Commit the change:

```
set network commit
```

```
ok,00
```

set Arguments (none target):

None

set Examples (none target):

```
set network qos none
```

```
ok,00
```

Commit the change:

```
set network commit
```

```
ok,00
```

reserved-ports

When used with the **`get`** verb, the **`reserved-ports`** target retrieves the configuration of ports reserved for use by the device. When used with the **`set`** verb, this target specifies the upper and lower bounds for the ports reserved for use by the device.

get Arguments:

None

get Examples:

```
get network reserved-ports
64000,64999,64000,64999

ok,00

get network reserved-ports -V
UDP Low Port     UDP High Port    TCP Low Port    TCP High Port
64000            64999            64000           64999

ok
```

set Arguments:

`[-T {2048..65535}]`	Specify the upper bound for TCP reserved ports
`[-U {2048..65535}]`	Specify the upper bound for UDP reserved ports
`[-t {2048..65535}]`	Specify the lower bound for TCP reserved ports
`[-u {2048..65535}]`	Specify the lower bound for UDP reserved ports

set Examples:

```
set network reserved-ports -t 30000 -T 40000

ok,00
```

Commit the change:

Note: Committing the change causes a system reboot if the -t argument was used. If the -T argument was used, committing the change causes a system reboot only if the change impacts ports already in use.

```
set network commit

ok,00
```

speed

When used with the **`get`** verb, the **`speed`** target shows the actual speed of the network port. Possible values are `100-fd` (100Mbps, full duplex), `100-hd` (100Mbps, half duplex), `10-fd` (10Mbps, full duplex) and `10-hd` (10Mbps, half duplex). When used with the **`set`** verb, this target configures the network port default speed.

get Arguments:

None

get Examples:

```
get network speed
100-fd

ok,00

get network speed -V
Network Speed
10-hd

ok,00
```

set Arguments:

`<{auto|100-auto|100-fd|10-auto|10-fd}>`	Specify the network speed and duplex. `Auto` negotiates 10 or 100Mbps and full or half duplex. `100-auto` and `10-auto` negotiate only duplex. `100-fd` and `10-fd` do not negotiate at all. Set the speed to auto unless the remote networking equipment is incapable of auto negotiation.

set Examples:

```
set network speed auto

ok,00
```

Commit the change:

```
set network commit

ok,00
```

status

The **`status`** target shows the current status of the network connection. This target applies to the **`get`** verb. Possible values include:

- `connected`
- `binding` (attempting to retrieve IP configuration)
- `no dhcp response` (dhcp server timed out)
- `unconnected`

Arguments:

None

Examples:

```
get network status
connected

ok,00

get network status -V
Network State
binding

ok
```

transit

The **`transit`** object controls the LifeSize Transit parameters.

ice

When used with the **`get`** verb, the **`ice`** target retrieves the state of the Interactive Connectivity Establishment feature when placing calls with LifeSize Transit. When used with the **`set`** verb, this target enables or disables the Interactive Connectivity Establishment feature when placing calls with LifeSize Transit.

get Arguments:

None

get Examples:

```
get network transit ice
on

ok,00

get network transit ice -V
State
off

ok
```

set Arguments:

`<{on|off}>`	Enable or disable the feature.

set Examples:

```
set network transit ice on

ok,00
```

Commit the change:

```
set network commit

ok,00
```

server

When used with the **`get`** verb, the **`server`** target configures the LifeSize Transit or STUN/TURN server parameters. When used with the **`set`** verb, this target configures the LifeSize Transit or STUN/TURN server parameters.

get Arguments:

None

get Examples:

```
get network transit server
server1 server2,transitUser

ok,00

get network transit server -V
Hostname          Username
server1 server2   transitUser

ok
```

set Arguments:

`[-a]`	Append the -i parameters to the end of the existing list (default is to replace the list).
`[-i server]`	Specify the server hostname or IP to use (may be repeated).
`[-p password]`	Specify the password to use to log into the server.
`[-u username]`	Specify the user name to use to log into the server.

set Examples:

```
set network transit server -i server1 -i server2 -u user -p pass

ok,00
```

Commit the change:

```
set network commit

ok,00
```

service

When used with the **`get`** verb, the **`service`** target displays the state of the LifeSize Transit feature. When used with the **`set`** verb, this target enables or disables the LifeSize Transit feature.

get Arguments:

None

get Examples:

```
get network transit service
on

ok,00

get network transit service -V
State
off

ok
```

set Arguments:

`<{on|off}>`	Enable or disable the feature

set Examples:

```
set network transit service on

ok,00
```

Commit the change:

```
set network commit

ok,00
```

signaling

When used with the **`get`** verb, the **`signaling`** target retrieves the signaling mode for the LifeSize Transit feature. When used with the **`set`** verb, this target configures the signaling mode for the LifeSize Transit feature.

get Arguments:

None

get Examples:

```
get network transit signaling
udp-tcp

ok,00

get network transit signaling -V
Mode
tcp

ok
```

set Arguments:

`<{udp-tcp|tcp}>`	Automatically choose between UDP and TCP protocols, or force to use TCP only.

set Examples:

```
set network transit signaling udp-tcp

ok,00
```

Commit the change:

```
set network commit

ok,00
```

web

When used with the **`get`** verb, the **`web`** target retrieves the LifeSize Transit web proxy parameters. When used with the **`set`** verb, this target configures the LifeSize Transit web proxy parameters.

get Arguments:

None

get Examples:

```
get network transit web
http://webproxy.com/lifesize,transitUser

ok,00

get network transit web -V
Proxy URL                      Username
http://webproxy.com/lifesize   transitUser

ok
```

set Arguments:

[`-U` *`url`*]	Specify the URL of the web proxy service.
[`-p` *`password`*]	Specify the password to use to log into the server.
[`-u` *`username`*]	Specify the user name to use to log into the server.

set Examples:

```
set network transit web -U http://webproxy.com -u user -p pass

ok,00
```

Commit the change:

```
set network commit

ok,00
```

vlan

The **`vlan`** object controls VLAN configuration parameters.

id

When used with the **`get`** verb, the **`id`** target retrieves the current VLAN identifier of the static VLAN to which the system is assigned. When used with the **`set`** verb, this target specifies the VLAN identifier of the static VLAN to which the system is assigned. If you specify the **`vlan id`**, the LifeSize system applies a VLAN tag to outgoing packets and only accepts incoming tagged packets that have the same VLAN identifier.

get Arguments:

None

get Examples:

```
get network vlan id
10

ok,00

get network vlan id -V
ID
10
```

set Arguments:

`<{1..4094}>`	Specify the VLAN identifier of the static VLAN to which the system is assigned.

set Examples:

```
set network vlan id 15

ok,00
```

Commit the change (causes a system reboot):

```
set network commit

ok,00
```

password

The **`password`** target changes the user's password while running the CLI. This target applies to the **`set`** verb. When used with the optional arguments, **`password`** behaves like other CLI targets. However, using the arguments is insecure: the **`set password`** command may show up in the saved history for the CLI across login sessions, allowing disclosure of the new password. Also, checks for minimum length and complexity are not performed on the password in this mode. For security reasons, LifeSize recommends that you use the interactive version.

Note: The interactive mode of this command does not conform to the standard output specification, because it uses the standard passwd utility to perform the change.

Arguments:

[*old-password*]	Specify the current password for the CLI.
[*new-password*]	Specify the new password for the CLI.

Examples:

Interactive:

```
set password
Changing password for auto
Old password:
Enter the new password (minimum of 5, maximum of 127 characters)
Please use a combination of upper and lower case letters and num-
   bers.
New password:
Re-enter password:
Password changed.

ok,00
```

Non-interactive:

```
set password lifesize 123ABC!@#abc

ok,00
```

prompt

The **`prompt`** target changes the default prompt ($) to any user specified string. This target applies to the **`set`** verb.

Arguments:

`<string>`	Specify the new prompt string, use “” for an empty prompt.

Examples:

```
set prompt "% "

ok,00
% set prompt "-> "

ok,00
->
```

redial-list

The **`redial-list`** target retrieves the redial call list. This target applies to the **`get`** verb.

Arguments:

None

Examples:

```
get redial-list
1,Sunbob2,10.10.11.116,10.10.11.116,Video,Outgoing,Yes,auto,auto
2,10.10.11.186,10.10.11.186,10.10.11.186,Video,Manual,No,
   auto,512
3,Sunbob2,10.10.11.116,10.10.11.116,Audio,Incoming,Yes,h323,auto
4,10.10.11.186,10.10.11.186,10.10.11.186,Audio,
   Multiway,No,auto,auto
5,10.10.11.155,10.10.11.155,10.10.11.155,Audio,
   Outgoing,No,auto,auto

ok,00
```

```
get redial-list -V

Index  Name          Number        IP Address    Type   Origin    Locked  Protocol  Bandwidth
1      Sunbob2       10.10.11.116  10.10.11.116  Video  Outgoing  Yes     auto      auto
2      10.10.11.186  10.10.11.186  10.10.11.186  Video  Manual    No      auto      512
3      Sunbob2       10.10.11.116  10.10.11.116  Audio  Incoming  Yes     h323      auto
4      10.10.11.186  10.10.11.186  10.10.11.186  Audio  Multiway  No      auto      auto
5      10.10.11.155  10.10.11.155  10.10.11.155  Audio  Outgoing  No      auto      auto

ok
```

The valid values for the `Type` column are *Audio*, *Video*, *Multiway*, and *Unknown* and the values for the `Origin` column are *Manual*, *Outgoing*, *Incoming*, *Multiway*, and *Unknown* where `Origin` refers to how the entry was placed into the redial list. Entries that are locked cannot be removed from the redial list with new entries. The protocol values are the same as for the ***control call dial*** command's **-p** argument, and the bandwidths are the same as for the **-b** argument.

serial

The **serial** object allows configuration of the serial ports on LifeSize Room, LifeSize Room 200, and LifeSize Room 220.

port1 | port2

The **port1** and **port2** targets are identical in function except which port they affect. The **port1** target affects the serial port marked RS-232 1 on LifeSize Room, LifeSize Room 200, and LifeSize Room 220; the **port2** target affects the port marked RS-232 2 on LifeSize Room. By default, serial port 1 is set to 38400 b/s with no shell enabled. Serial port 2 is set to 9600 b/s with the CLI enabled.

When used with the **get** verb, the **port1** and **port2** targets retrieve the configuration settings for the specified serial port. When used with the **set** verb, these targets configure available settings for the specified serial port.

> ***Note:*** Serial port 1 is internal and unsupported on LifeSize Team MP, LifeSize Team 200, LifeSize Team 220, LifeSize Express, LifeSize Express 200, and LifeSize Express 220. Serial port 2 is present only on LifeSize Room.

get Arguments:

None

get Examples:

LifeSize Room:

```
get serial port1
38400,none,visca,backspace,adapter

ok,00

get serial port2 -V
 Speed   Flow Control    Shell   Erase Key     VISCA Input
 9600    none            auto    backspace

ok
```

LifeSize Room 200:

```
get serial port1 -V

 Speed   Flow Control   Shell   Erase Key     VISCA Input
 38400   none           visca   backspace     adapter
```

set Arguments:

`[-b {1200|2400|4800|9600|19200|38400|57600|115200}]`	Specify the speed of the serial port.
`[-e {backspace|delete}]`	Specify the erase character to use.
`[-f {hardware|software|none}]`	Specify the flow control method to use. Hardware uses the RTS/CTS signal pins and software uses XON/XOFF (Ctrl-S/Ctrl-Q). Hardware flow control does not function on LifeSize video communications systems. Set flow control to `software` or `none`. Choosing `hardware` is the same as choosing `none`.
`[-s {auto|visca|none}]`	Specify the shell to run on the serial port. The `auto` argument uses the shell you are currently running; `visca` allows VISCA camera control; and `none` disables the serial port.

`[-i {adapter|comp0}]`	Specify the input port to which the VISCA controlled camera is attached. This argument applies only if `-s` is set to `visca`. Specify `adapter` if you are using the LifeSize SDI Adapter; specify `comp0` if you are using the component input on LifeSize Room 200 or LifeSize Room 220. Specifying `-i` if `-s` is set to `auto` or `none` has no effect. The deprecated options `hd0` (LifeSize Room and LifeSize Room 200) and `hd1` (LifeSize Room) appear in the output when using the `-h` argument with the `set serial port`*N* command. If used, these options specify the adapter.

set Examples:

`set serial port1 -b` ***`115200`*** **`-e`** ***`backspace`*** **`-f`** ***`software`*** **`-s`** ***`auto`***

```
ok,00
```

`set serial port2 -b` ***`38400`***

```
ok,00
```

sip

The **`sip`** object controls Session Initiation Protocol (SIP) configuration settings. If you use the **`set`** verb with a command that contains the **`sip`** object, you must issue the **`set sip commit`** command to commit the change. The **`commit`** target commits the SIP settings. SIP settings that are changed but not committed do not take effect until the next system reboot.

Note: Some sip commands when followed by the **`set sip commit`** command cause the system to reboot. For a list of these commands, refer to "commit" on page 155.

The following targets are applicable to the **`sip`** object.

authorization

When used with the **`get`** verb, the **`authorization`** target retrieves the user name for authorization with the SIP registrar. For security reasons, the associated password is not displayed. When used with the **`set`** verb, this target configures the user name used for authorization with the SIP registrar.

get Arguments:

None

get Examples:

```
get sip authorization
sipuser

ok,00

get sip authorization -V
Username
sipuser

ok
```

set Arguments:

`username`	Specify the user name used for authorization.
`password`	Specify the password used for authorization.

set Examples:

```
set sip authorization sipuser sippassword

ok,00
```

Commit the change:

```
set sip commit

ok.00
```

commit

The **`commit`** target commits the SIP settings. Any SIP settings that are changed but not committed do not take effect until the next system reboot. This target applies to the **`set`** verb.

Note: If you change SIP settings using the following commands and then commit the changes with the **`set sip commit`** command, the system reboots:

- **`set sip tcp`**
- **`set sip tls`**
- **`set sip udp`**

Arguments:

None

Example:

```
set sip commit

ok.00
```

proxy

When used with the **`get`** verb, the **`proxy`** target retrieves the SIP proxy settings. When used with the **`set`** verb, this target sets the SIP proxy configuration.

get Arguments:

None

get Examples:

```
get sip proxy
disabled,proxy.example.com,5060

ok,00
```

```
get sip proxy -V
State           IP Address          Port
enabled         proxy.example.com   5060

ok
```

set Arguments:

{enabled|disabled}	Enables or disables the use of the SIP proxy.
[*ip*]	Set the IP address or hostname of the SIP proxy. Only valid when enabled is chosen.
[*port*]	Optional: Specify the port to use on the proxy. The default is `5060` or the previously set value. Only valid when `enabled` is chosen.

set Examples:

```
set sip proxy enabled proxy.example.com

ok,00

set sip proxy disabled

ok,00

set sip proxy enabled proxy.sip.com 6060

ok,00
```

Commit the change:

```
set sip commit

ok.00
```

register

When used with the **`get`** verb, the **`register`** target shows the current registration status for SIP. When used with the **`set`** verb, this target registers the device with the configured SIP server or proxy. Use this command only after completing all other SIP configuration tasks. Since registration may take an arbitrarily long time, this command returns immediately. Use the **`get sip register`** command to retrieve the registration status.

get Arguments:

None

get Examples:

```
get sip register
unregistered

ok,00

get sip register -V
Status
registered

ok
```

set Arguments:

None

set Examples:

```
set sip register

ok,00
```

Commit the change:

```
set sip commit

ok.00
```

registrar

When used with the **`get`** verb, the **`registrar`** target retrieves the current SIP registrar settings. When used with the **`set`** verb, this target configures the SIP registrar settings.

get Arguments:

None

get Examples:

```
get sip registrar
disabled,sip.example.com,5060

ok,00

get sip registrar -V
State    IP Address        Port
enabled  sip.example.com   5060

ok
```

set Arguments:

{enabled|disabled}	Enables or disables the use of the SIP registrar.
[*ip*]	Set the IP address or hostname of the SIP registrar. Only valid when `enabled` is chosen.
[*port*]	Optional: Specify the port to use on the registrar. The default is 5060 or the previously set value. Only valid when `enabled` is chosen.

set Examples:

```
set sip registrar enabled sip.example.com

ok,00

set sip registrar disabled

ok,00

set sip registrar enabled registrar.sip.com 6060

ok,00
```

Commit the change:

```
set sip commit

ok.00
```

server-type

When used with the **`get`** verb, the **`server-type`** target shows the type of SIP server used with SIP calls. When used with the **`set`** verb, this target specifies the type of SIP server to use with SIP calls.

get Arguments:

None

get Examples:

```
get sip server-type
generic

ok,00

get sip server-type -V
server type
generic

ok
```

set Arguments:

`<{generic|ocs}>`	Specify `ocs` if you are using Microsoft Office Communications Server.

set Examples:

```
set sip server-type ocs

ok,00
```

Commit the change:

```
set sip commit

ok.00
```

sip

When used with the **`get`** verb, the **`sip`** target shows whether SIP calls are enabled or disabled. When used with the **`set`** verb, this target controls whether SIP calls are enabled or disabled.

get Arguments:

None

get Examples:

```
get sip sip
enabled

ok,00

get sip sip -V
Sip
enabled

ok
```

set Arguments:

`<{enabled|disabled}>`	Specify whether to enable or disable SIP calls.

set Examples:

```
set sip sip disabled

ok,00
```

Commit the change:

```
set sip commit

ok.00
```

tcp

When used with the **`get`** verb, the **`tcp`** target shows the configuration of the TCP options for SIP calls. When used with the **`set`** verb, this target configures the TCP options for SIP calls. If configuring the device for SIP calls, either the **`tcp`** or **`udp`** target must be enabled.

get Arguments:

None

get Examples:

```
get sip tcp
enabled,5060

ok,00

get sip tcp -V
State           Port
disabled        5060

ok
```

set Arguments:

{enabled|disabled}	Enables or disables the use of TCP for SIP calls.
[*port*]	Optional: Specify the port to use for SIP calls. The default is 5060 or the previously set value. Only valid when enabled is chosen.

set Examples:

```
set sip tcp enabled

ok,00

set sip tcp disabled

ok,00

set sip tcp enabled 5060

ok,00
```

Commit the change (causes a system reboot):

```
set sip commit

ok.00
```

tls

When used with the **`get`** verb, the **`tls`** target shows whether TLS signaling for use with SIP calls is enabled or disabled and the port number that is used.

get Arguments:

None

get Examples:

```
get sip tls
disabled,5061

ok,00

get sip tls -V
State           Port
disabled        5061

ok
```

set Arguments:

{enabled|disabled}	Enables or disables the use of TLS signaling with SIP calls.
[*port*]	Optional: Specify the port to use when TLS signaling is enabled. The default is 5061 or the previously set value. Only valid when `enabled` is chosen.

set Examples:

```
set sip tls enabled 5062

ok,00
```

Commit the change (causes a system reboot):

```
set sip commit

ok.00
```

tls-cert

When used with the **`get`** verb, the **`tls-cert`** target retrieves a CA certificate installed on the system for validating the certificate sent by the SIP registrar/proxy when SIP registrar/proxy validation is enabled with the set **`sip tls-server-validate`** command. When used with the set verb, this target adds a CA certificate to the device.

get Arguments:

None

get Examples:

```
get sip tls-cert
certificate data

ok,00

get sip tls-cert -V
TLS Certificate
certificate data

ok
```

set Arguments:

None

set Examples:

```
set sip tls-cert << EOF
certificate data
EOF

ok,00
```

Commit the change:

```
set sip commit

ok.00
```

tls-server-validate

When used with the **`get`** verb, the **`tls-server-validate`** target shows whether SIP registrar/proxy server validation is enabled or disabled. When used with the set verb, this target controls whether SIP registrar/proxy server validation is enabled or disabled. If you enabled TLS signaling on the LifeSize system for SIP calls, you can use this command and the **`set sip tls-cert`** command to confirm the identity of the SIP Registrar/Proxy.

get Arguments:

None

get Examples:

```
get sip tls-server-validate
disabled

ok,00

get sip tls-server-validate -V
TLS Server Validation
disabled

ok
```

set Arguments:

`<{enabled|disabled}>`	Specify whether to enable or disable SIP registrar/proxy server validation.

set Examples:

```
set sip tls-server-validate enabled

ok,00
```

Commit the change:

```
set sip commit

ok.00
```

udp

When used with the **`get`** verb, the **`udp`** target retrieves the configuration of the UDP options for SIP calls. When used with the **`set`** verb, this target configures the UDP options for SIP calls. If configuring the device for SIP calls, either the **`tcp`** or **`udp`** target must be enabled.

get Arguments:

None

get Examples:

```
get sip udp
disabled,5060

ok,00

get sip udp -V
State           Port
enabled         5060

ok
```

set Arguments:

{enabled|disabled}	Enables or disables the use of UDP for SIP calls.
[*port*]	Optional: Specify the port to use for SIP calls. The default is 5060 or the previously set value. Only valid when enabled is chosen.

set Examples:

```
set sip udp enabled

ok,00

set sip udp disabled

ok,00

set sip udp enabled 7000

ok,00
```

Commit the change (causes a system reboot):

```
set sip commit

ok.00
```

username

When used with the **`get`** verb, the **`username`** target retrieves the current SIP username. When used with the **`set`** verb, this target sets the SIP user name for the system.

get Arguments:

None

get Examples:

```
get sip username
lifesize

ok,00

get sip username -V
Name
lifesize

ok
```

set Arguments:

<name>	Set the user name for the system.

set Examples:

```
set sip username lifesize

ok,00
```

Commit the change:

```
set sip commit

ok.00
```

via-proxy

When used with the **`get`** verb, the **`via-proxy`** target shows whether SIP registration uses a proxy to connect to the registrar, or connects directly. When used with the **`set`** verb, target target controls whether SIP registration uses a proxy to connect to the registrar or connects directly.

get Arguments:

None

get Examples:

```
get sip via-proxy
proxy

ok,00

get sip via-proxy -V
State
direct

ok
```

set Arguments:

`<{direct|proxy}>`	Choose direct connection to the registrar or the proxy connection.

set Examples:

```
set sip via-proxy direct

ok,00

set sip via-proxy proxy

ok,00
```

Commit the change:

```
set sip commit

ok.00
```

snmp

The following targets are applicable to the **`snmp`** server configuration object.

contact

When used with the **`get`** verb, the **`contact`** target retrieves the SNMP contact name. When used with the **`set`** verb, this target sets the SNMP contact name on the SNMP server running on the device.

get Arguments:

None

get Examples:

```
get snmp contact
Administrator

ok,00

get snmp contact -V
SNMP Contact
Administrator

ok
```

set Arguments:

<*contactname*>	Specify the contact name for the SNMP server. If the contact name contains more than one word separated by a space, enclose the name in quotes (“ “).

set Examples:

```
set snmp contact Administrator

ok,00
```

description

The **`description`** target retrieves the SNMP description of the system. This target applies to the **`get`** verb.

Arguments:

None

Examples:

```
get snmp description
LifeSize Room

ok,00

get snmp description -V
SNMP System Description
LifeSize Team MP

ok
```

enable

When used with the **`get`** verb, the **`enable`** target shows whether or not the SNMP service is enabled. When used with the **`set`** verb, this target enables or disables the SNMP service.

get Arguments:

None

get Examples:

```
get snmp enable
on

ok,00

get snmp enable -V
Value
off

ok
```

set Arguments:

`<{on|off}>`	Enable or disable the SNMP service.

set Examples:

```
set snmp enable on

ok,00
```

location

When used with the **`get`** verb, the **`location`** target shows the configured location for the SNMP service. When used with the **`set`** verb, this target sets the configured location for the SNMP service.

get Arguments:

None

get Examples:

```
get snmp location
Austin

ok,00

get snmp location -V
SNMP Location
Austin

ok
```

set Arguments:

<location>	Specify the location for the SNMP service. If the location contains more than one word separated by a space, enclose the location in quotes (“ “).

set Examples:

```
set snmp location Austin

ok,00
```

system-name

The **`system-name`** target retrieves the SNMP system name. This target applies to the **`get`** verb.

get Arguments:

None

get Examples:

```
get snmp system-name
foo

ok,00

get snmp system-name -V
SNMP System Name
foo

ok
```

user

When used with the **`get`** verb, the ***`user`*** target retrieves the SNMP user names. When used with the **`set`** verb, this target adds or deletes SNMP users.

get Arguments:

None

get Examples:

```
get snmp user
user1
Control
user2

ok,00

get snmp user -V
Username
user1
Control
user2

ok
```

Note: The Control user is a default user for use with LifeSize Control. You can delete this user if you are not using LifeSize Control or delete this user and create a different user for use with LifeSize Control. Use the **`set snmp user`** command to delete and create SNMP users.

set Arguments:

`-a`	Add the specified user (cannot be used with -d).
`-d`	Delete the specified user (cannot be used with -a).
`<username>`	Specify the user name. User names must not contain spaces.
`<password>`	Specify the password for the user. Required with -a. The password must be at least 8 characters in length and must not contain spaces.

set Examples:

Add a user:

`set snmp user -a` ***`username password`***

Delete a user:

`set snmp user -d` ***`username`***

v3trapdestination

When used with the **`get`** verb, the **`v3trapdestination`** shows the current version 3 SNMP trap destinations (where SNMP traps are sent). When used with the **`set`** verb, this target adds or removes entries from the list of version 3 SNMP trap destinations.

Note: The user's password is not displayed.

get Arguments:

None

get Examples:

```
get snmp v3trapdestination
Control,10.10.11.12
joeuser,169.254.101.2

ok,00
```

```
get snmp v3trapdestination -V
Username        Host/IP Address
Control         10.10.11.12
joeuser         169.254.101.2

ok
```

set Arguments:

`-a`	Add the specified destination (cannot be used with -d).
`-d`	Delete the specified destination (cannot be used with -a).
`<username>`	Specify the user name associated with the trap destination. User names must not contain spaces.
`<password>`	Specify the password for the user. Passwords must not contain spaces. Password must be at least 8 characters in length.
`<ipaddress>`	Specify the IP address of the trap destination. IP addresses must not contain spaces.

Note: The <username>, <password>, and <ipaddress> arguments are required with the -a and -d arguments. Either -a or -d must be specified. Users specified with this command appear in the output of the **`get snmp user`** command.

set Examples:

`set snmp v3trapdestination -a` ***`user1 password 10.10.11.10`***

```
ok,00
```

`set snmp v3trapdestination -d` ***`user1 password 10.10.11.10`***

```
ok,00
```

version

The **`version`** target retrieves the SNMP version number for the SNMP server running on the device. This target applies to the **`get`** verb.

Arguments:

None

Examples:

```
get snmp version
3

ok,00

get snmp version -V
SNMP Version
3

ok
```

ssh

The following targets are applicable to the **`ssh`** object.

keys

When used with the **`get`** verb, the **`keys`** target retrieves information about the currently installed ssh authorized keys. When used with the **`set`** verb, this target sets the ssh authorized keys for the **`auto`** user. Authorized keys allow the remote user to log into the system without using a password.

get Arguments:

None

get Examples:

```
get ssh keys
ssh-rsa,user@lifesize.com

ok,00
```

```
get ssh keys -V
Type            Owner
ssh-rsa         user@lifesize.com

ok
```

set Arguments:

[-c]	Clear the keys file, removing all installed keys.
[-i]	Install a new ssh key. The key is read from standard input and must be less than 4096 characters in length. You may specify multiple keys on separate lines. A maximum of 64 keys are supported.
[-r *owner*]	Remove an existing ssh key. The owner field must match the prefix of the comment field in the key file, ignoring case (for example, an owner of "li" would match all comment fields beginning with "li" in any case).

Note: Either **-i** or **-r** must be specified.

set Examples:

Manually enter an ssh key using a here document or paste the key file into the command line:

```
set ssh keys -i << EOF
ssh-rsa key_string user@lifesize.com
ssh-rsa key2_string user2@lifesize.com
EOF

ok,00
```

Copy your own public key file to the auto user's authorized key file:

```
sh% cat ~/.ssh/id_rsa.pub | ssh auto@10.10.1.1 set ssh keys -i

ok,00
sh%
```

Remove the specified key:

```
set ssh keys -r user@lifesize.com

ok,00
```

Note: The key file must not have any text prior to the key data and the key type, value, and comment (owner) must be on a single line.

service

When used with the **`get`** verb, the **`service`** target shows whether the ssh service is enabled or disabled. When used with the **`set`** verb, this target enables or disables the ssh service. An ssh session in progress is not affected if the service is disabled.

Note: Be aware that if the device does not have a serial port and you disable the ssh service and then quit the session, you may need to use the user interface or web administration interface to re-enable the ssh service.

get Arguments:

None

get Examples:

```
get ssh service
on

ok,00

get ssh service -V
Secure Shell Service
off

ok
```

set Arguments:

`<{off|on}>`	Disable or enable the ssh service.

set Examples:

```
set ssh service on

ok,00
```

system

The **`system`** object allows setting of certain system-specific parameters, for example, the system name and may be useful for tracking and monitoring inventory. The following targets are applicable to the **`system`** object.

autoreboot

When used with the **`get`** verb, the **`autoreboot`** target shows the current setting of the nightly automatic reboot feature. If enabled, the device reboots nightly if the system is idle. When used with the **`set`** verb, this target controls whether or not the device automatically reboots each evening.

get Arguments:

None

get Examples:

```
get system autoreboot
off

ok,00

get system autoreboot -V
Nightly Reboot
on

ok
```

set Arguments:

`<{on|off}>`	Specify ***`on`*** to enable the reboot feature.

set Examples:

```
set system autoreboot on

ok,00
```

branding

When used with the **`get`** verb, the **`branding`** target retrieves the state of the logo branding feature. If set to **`none`**, no logo appears in the main screen of the user interface or in the logo screen saver. When used with the **`set`** verb, this target controls whether or not the company logo appears on the main screen of the user interface and in the logo screen saver.

get Arguments:

None

get Examples:

```
get system branding
none

ok,00

get system branding -V
Company Logo
default

ok
```

set Arguments:

`<{none|default}>`	Specify `none` to disable the logo branding. Specify `default` to use the default logo.

set Examples:

```
set system branding none

ok,00
```

clean

The **`clean`** target removes personally identifiable information from the system, including call history logs, directory entries, system identity data, IP addresses, and Redial list entries. Use the **`clean`** target, for example, when you wish to use a system for customer demonstrations or for other uses that require the removal of personally identifiable information. This target applies to the **`set`** verb.

Note: Call history logs generated with the **`-X`** argument (**`status call history -X`**) are not cleaned with this target.

Arguments:

`[-C]`	Clean the call history logs (status call history).
`[-a]`	Clean all data.
`[-c]`	Clean the corporate directory, disable LDAP and Auto Discovery (get directory corporate, get directory ldap, get directory auto).
`[-d]`	Clean all directories (equivalent to -c -l -m).
`[-i]`	Clean system identity data (get system name, get system number, get system video-number, get network hostname).
`[-l]`	Clean the local directory (get directory local).
`[-m]`	Clean the meetings directory (get directory meeting).
`[-n]`	Clean the network config (get network ipv4, get network ipv6). Network is set to IPv4 static with no address and IPv6 is disabled. This occurs on reboot.
`[-r]`	Clean the redial list (get redial-list).

Examples:

Clean everything:

```
set system clean -a
```

```
ok,00
```

Clean only the directories and redial list:

```
set system clean -d -r
```

```
ok,00
```

date

When used with the **`get`** verb, the **`date`** target shows the current system date and time in either the local time zone or as UTC time.

When used with the **`set`** verb, this target changes the system time and date. The value is always specified in terms of the local time zone.

get Arguments:

`[-u]`	Show the time in UTC instead of the local time zone.

get Examples:

```
get system date
2007,10,8,16,58,25

ok,00

get system date -u -V
Year     Month    Day     Hour     Minute     Second
2007     10       8       21       58         25

ok
```

set Arguments:

`[-H {0..23}]`	Specify the hour.
`[-M {0..59}]`	Specify the minute.
`[-S {0..59}]`	Specify the second.
`[-d {1..31}]`	Specify the day of month. February 31st is interpreted as March 2nd or 3rd depending on whether the year is a leap year or not.
`[-m {1..12}]`	Specify the month.
`[-y {2005..2025}]`	Specify the year.

set Examples:

```
# change only the time, not the day
set system date -H 4 -M 3 -S 0

ok,00

# change only the day of month
set system date -d 12

ok,00
```

do-not-disturb

When used with the **`get`** verb, the **`do-not-disturb`** target shows whether the system do not disturb preference is *`enabled`* or *`disabled`*. Select **`enabled`** with the **`set`** verb to prevent incoming calls. Select **`disabled`** to allow incoming calls.

Note: This target is intended for use when the system is not in a call. To prevent incoming calls from interrupting a call in progress, refer to the **`set call do-not-disturb`** command.

get Arguments:

None

get Examples:

```
get system do-not-disturb
enabled

ok,00
get system do-not-disturb -V
System Do Not Disturb
disabled

ok
```

set Arguments:

`<{enabled|disabled}>`	Select **`disabled`** to allow incoming calls. Select **`enabled`** to block incoming calls.

set Examples:

```
set system do-not-disturb enabled

ok,00
```

fans

The **`fans`** target shows the current speed of all system fans. The speed shown is not recorded in a standard unit (such as revolutions per minute). The faster the fan spins, the higher the value reported. Systems with multiple fans report multiple values. This target applies to the **`get`** verb.

Arguments:

None

Examples:

```
get system fans
125

ok,00

get system fans -V
Fan 1
128

ok
```

fips

When used with the **`get`** verb, the **`fips`** target shows whether FIPS 140-2 security is enabled or not. Use with the **set** verb to enable or disable FIPS 140-2 security upon the next reboot.

Note: Enabling FIPS 140-2 security disables some preferences and restricts access to others. Disabling FIPS 140-2 does not return all of these preferences to the state they were in before enabling FIPS. For a full discussion of FIPS 140-2 security implications, refer to the *LifeSize Video Communications Systems Administrator Guide*.

get Arguments:

None

get Examples:

```
get system fips
enabled, disabled

ok,00

get system fips -V
Mode          Next Start
disabled      disabled

ok
```

set Arguments:

`<{enabled|disabled}>`	Select **`disabled`** to disable FIPS 140-2 security. Select **`enabled`** to enable FIPS 140-2 security.

set Examples:

```
set system fips enabled

ok,00
```

isdn

When used with the **`get`** verb, the **`isdn`** target shows the status of a connected LifeSize Networker device. If the device connection type is `Tethered` (connected to the codec), the PRI and BRI information is valid. The PRI and BRI fields indicate the number of connected ports of that type. The associated `Map` field indicates which ports are connected.

When used with the **`set`** verb, this target configures the IP address of a standalone ISDN gateway. If a gateway device is connected to the codec, the command fails and returns an invalid parameter message.

get Arguments:

None

get Examples:

```
get system isdn
No,None,,0,,0,

ok,00

get system isdn -V
ISDN    Type        IP Addr         PRI    Map    BRI    Map
Yes     Tethered    10.254.128.2    2      1,2    2      1,X,X,4

ok

get system isdn
Yes,Standalone,10.10.11.12,-1,,-1,

ok,00
```

set Arguments:

<ipaddr>	Specify the ip address of the gateway device.

set Examples:

```
set system isdn 10.10.11.10

ok,00
```

If a gateway is already connected:

```
set system isdn 10.10.11.10

error,04
```

To clear the gateway address and disable ISDN functionality:

```
set system isdn ""

ok,00
```

lcd-contrast

When used with the **`get`** verb, the **`lcd-contrast`** target retrieves the current setting of the LifeSize Phone's LCD contrast. When used with the **`set`** verb, this target controls the current setting of the LifeSize Phone's LCD contrast.

get Arguments:

None

get Examples:

```
get system lcd-contrast
6

ok,00
get system lcd-contrast -V
Setting
12

ok
```

set Arguments:

`<{1..12}>`	Specify the contrast setting

set Examples:

```
set system lcd-contrast 7

ok,00
```

licensekey

When used with the **`get`** verb, the **`licensekey`** target retrieves the current license key installed on the system for upgrades. When used with the **`set`** verb, this target installs a license key or removes all license keys of a specified type.

get Arguments:

`<-t maint>`	Specify the type of license key.

get Examples:

```
get system licensekey -t maint
...license key data...
```

set Arguments:

`[-i key]`	Install a new license key.
`[-r ]`	Remove license keys of the type specified by -t. Cannot be used with -i.
`[-t maint]`	Remove all of a certain type of license key. Cannot be used with -i. The `maint` option specifies a license key for an upgrade.
`[-u]`	Update license key.

Note: Either -i or -r must be specified.

set Examples:

To install new license keys:

```
set system licensekey -i << EOF
<key data>
EOF
```

To remove license keys for an upgrade:

```
set system licensekey -r -t maint
```

To update a license key:

```
set system licensekey -u
success
ok,00
```

local-dir-access

When used with the **`get`** verb, the **`local-dir-access`** target shows whether user access to the local directory is *`enabled`* or *`disabled`*. When used with the **`set`** verb, this target controls whether user access to the local directory is *`enabled`* or *`disabled`*. When set to ***`disabled`***, users cannot access the local directory, save **REDIAL** list and corporate directory entries to the local directory, or select entries from the local directory when creating meeting entries in the meetings directory.

get Arguments:

None

get Examples:

```
get system local-dir-access
enabled

ok,00
get system local-dir-access -V
Local Dir Access
enabled

ok
```

set Arguments:

`<{enabled|disabled}>`	Select `disabled` to restrict user access to the local directory, including saving REDIAL list and corporate directory entries to the local directory and selecting local directory entries when creating a meeting in the meetings directory.

set Examples:

```
set system local-dir-access disabled

ok,00
```

mcu

When used with the **`get`** verb, the **`mcu`** target retrieves the multiway calling status of a system. When used with **`set`** verb, this target controls whether multiway calls can be placed and received. When multiway calling is disabled, the system can support only one voice or one video call. An additional option that enables you to specify one voice call and one video call as the maximum number of connected callers is available on systems that can serve as the MCU in a multiway video call.

get Arguments:

None

get Examples:

```
get system mcu
enabled

ok,00

get system mcu -V
Multiway Calls
enabled

ok
```

set Arguments:

`<{enabled|disabled|1video+1voice}>`	Specify `disabled` to limit the number of connected callers to one (either one voice or one video call). The `1video+1voice` option is available on systems that can serve as an MCU in a multiway video call (LifeSize Room, LifeSize Room 200, LifeSize Room 220, LifeSize Team MP, LifeSize Team 200 and LifeSize Team 220). Specifying `1video+1voice` limits the maximum number of connected callers to one voice caller and one video caller.

set Examples:

```
set system mcu 1video+1voice

ok,00
```

message

The **`message`** target specifies a pop-up dialog box with a message and button layout to appear in the user interface. The dialog box can be used to inform the users of impending system maintenance or other important news. This target applies to the **`set`** verb.

Arguments:

`[-b {yes|no|cancel|ok}]`	Specify the buttons to be present in the popup. A maximum of 3 buttons may be displayed, but each button can only appear once.
`[-e]`	Specify that the dialog use the error icon (red triangle with exclamation point). The default button layout for this dialog is the OK button.
`[-i]`	Specify that the dialog use the information icon (message page). This is the default dialog type and includes an OK button.
`[-q]`	Specify that the dialog use the question icon (a question mark). The default button layout includes the Yes and No buttons.
`[-t` *`seconds`*`]`	Specify the timeout interval (in number of seconds) for the dialog. The default timeout is 30 seconds.
`[-w]`	Specify that the dialog use the warning icon (yellow triangle with exclamation point). The default button layout for this dialog is the OK button.
`message`	Specify the message to place in the dialog. If including spaces, enclose the entire message in double quotes. To wrap the message at a specific point, insert `'\n'` at the desired location in the message.

Examples:

Shows an information dialog with the desired text:

```
set system message "Hello World"

ok,00
```

Shows an error dialog with a 45-second timeout period, ok, and cancel buttons:

```
set system message -b ok -b cancel -t 45 -e "Too Hot"

ok,00
```

The user response is available through the **`get system message-status`** command.

message-status

The **`message-status`** target retrieves the user response from the most recent popup message displayed. Results may include the following:

- `yes` (user pressed the dialog's yes or ok button)
- `no` (user pressed the dialog's no button)
- `cancel` (user pressed the dialog's cancel or the remote's back button)
- `timeout` (dialog timed out before the user responded)
- empty string (user has not yet responded and the dialog has not yet timed out)

This target applies to the **`get`** verb.

Arguments:

None

Examples:

```
get system message-status

ok,00

get system message-status -V
Result
cancel

ok
```

model

The **`model`** target shows the OEM and model name for the platform. This target applies to the **`get`** verb.

Arguments:

None

Examples:

```
get system model
LifeSize,Room 200

ok,00

get system model -V
OEM         Model
LifeSize    Room 200

ok
```

name

When used with the **`get`** verb, the **`name`** target shows the current name for the device. This is the same value that appears in the user interface and on a connected phone. When used with the **`set`** verb, this target sets the device name.

get Arguments:

None

get Examples:

```
get system name
Conference Room

ok,00

get system name -V
System Name
Conference Room

ok
```

set Arguments:

`<value>`	Specify the name for the system

set Examples:

```
set system name "Marketing Region 1"

ok,00
```

networker-status

The **`networker-status`** target retrieves the status of a LifeSize Networker connected to the codec. Possible values include the following:

- none
- initializing
- initialized
- ready
- error

This target applies to the **`get`** verb.

Arguments:

None

Examples:

```
get system networker-status
none

ok,00

get system networker-status -V
Networker Status
none

ok
```

number

When used with the **`get`** verb, the **`number`** target retrieves the voice telephone number associated with the device. This appears in the user interface and on a connected phone. When used with the **`set`** verb, this target sets the voice telephone number associated with the device.

get Arguments:

None

get Examples:

```
get system number
555-1212

ok,00

get system number -V
System Phone Number
555-1212

ok
```

set Arguments:

`<value>`	Specify the voice telephone number for the system.

set Examples:

```
set system number 555-1212

ok,00
```

out-of-box

When used with the **`get`** verb, the **`out-of-box`** target shows the current state of the initial configuration process that starts when a system is installed or reset to its default configuration settings. When used with the **`set`** verb, this target runs the initial configuration process or cancels an already running initial configuration process.

get Arguments:

None

get Examples:

```
get system out-of-box
enabled

ok,00

get system out-of-box -V
Out Of Box Setup
complete

ok
```

set Arguments:

`<{enabled|complete}>`	Specify enabled to rerun the initial configuration process or complete to disable an already running initial configuration process.

set Examples:

```
set system out-of-box enabled

ok,00
```

phone-status

The **`phone-status`** target retrieves the status of a LifeSize Phone connected to the codec. Possible values include the following:

- none
- initializing
- ready

This target applies to the **`get`** verb.

Arguments:

None

Examples:

```
get system phone-status
ready

ok,00

get system phone-status -V
Phone Status
ready

ok
```

presentation

When used with the **`get`** verb, the **`presentation`** target shows whether or not the sending and receiving H.239 secondary media is enabled. This is different from **`get conference presentation`** in that it reports whether or not the local device advertises presentation capability rather than the remote devices.

When used with the **`set`** verb, this target enables and disables sending and receiving H.239 secondary media.

get Arguments:

None

get Examples:

```
get system presentation
on

ok,00

get system presentation -V
Send/Receive Presentations
off

ok
```

set Arguments:

`<{on|off}>`	Enable or disable sending and receiving presentations.

set Examples:

```
set system presentation off

ok,00
```

pstn

When used with the get verb, the **`pstn`** target shows whether Public Switched Telephone Network (PSTN) calls are enabled or disabled on a system that has the hardware necessary to make a (PSTN) call. When used with the set verb, this target enables or disables PSTN calls on a system that has the hardware necessary to make a (PSTN) call. This target is available only on systems that have the hardware necessary to make a PSTN call.

Note: It does not indicate whether there is an active phone line connected to the telephone jack.

get Arguments:

None

get Examples:

```
get system pstn
enabled

ok,00

get system pstn -V
Public Switched Telephone Network Support
enabled

ok
```

set Arguments:

`<{enabled|disabled}>`	Enable or disable PSTN calls.

set Examples:

```
set system pstn disabled

ok,00
```

screen-saver

When used with the **`get`** verb, the **`screen-saver`** target retrieves the current configuration of the screen saver feature. When used with the **`set`** verb, this target changes the screen saver.

get Arguments:

None

get Examples:

```
get system screen-saver
vga

ok,00

get system screen-saver -V
Screen Saver
window

ok
```

set Arguments:

`<{logo|vga|window|doc-camera|hd1|hd2|aux|dvi|none}>`	Set the screen saver type. The `logo` argument shows a roving logo; `window` shows a roving window; and `none` specifies no screen saver. The `logo`, `window`, and `none` arguments are available on all models. The `vga` argument shows the VGA input and is available on LifeSize Room, LifeSize Team MP, and LifeSize Express. The `doc-camera` argument shows the document camera input and is available on LifeSize Room and LifeSize Team MP. The hd1 argument shows the HD Input 1 input on LifeSize Express, LifeSize Express 220, LifeSize Room 200, LifeSize Room 220, LifeSize Team 200, and LifeSize Team 220. The hd2 argument shows the HD Input 2 input on LifeSize Room 200 and LifeSize Room 220. The `aux` argument shows auxiliary input and is available on LifeSize Room, LifeSize Room 200, and LifeSize Room 220. The `dvi` argument shows DVI-I input and is available on LifeSize Room 200, LifeSize Room 220, LifeSize Team 200, LifeSize Team 220, LifeSize Express 200 and LifeSize Express 220.

set Examples:

```
set system screen-saver logo

ok,00
```

serial-number

The **`serial-number`** target retrieves the serial numbers of the CPU board and System board within the codec. This target applies to the **`get`** verb.

Arguments

None

Examples:

```
get system serial-number
BKxxxxxxxxxx,BKxxxxxxxxxx

ok,00

get system serial-number -V
CPU Board       System Board
BKxxxxxxxxxx    BKxxxxxxxxxx

ok
```

telepresence

When used with the **`get`** verb, the **`telepresence`** target shows whether or not the system is in telepresence mode. In this mode the user interface does not appear in the display. When used with the **`set`** verb, this target enables or disables the system telepresence feature.

get Arguments:

None

get Examples:

```
get system telepresence
on

ok,00

get system telepresence -V
Telepresence
off

ok
```

set Arguments:

`<{on|off}>`	Turn the telepresence feature on or off

set Examples:

```
set system telepresence on

ok,00
```

thermal-state

The **`thermal-state`** target returns the current thermal status within the system. This target applies to the **`get`** verb. The possible states include the following:

- `normal` indicates that the codec is operating in the normal temperature range.
- `warning` indicates that the codec is operative above the normal temperature range. The codec fan speed adjusts automatically in an attempt to cool itself.
- `overheated` indicates that the codec is overheated and approaching the maximum temperature before the codec reboots in an attempt to cool itself.
- `shutdown`. indicates that the codec has reached the maximum temperature and will reboot in a matter of seconds in an attempt to cool itself.

Warning: Temperatures that require the codec to reboot can permanently damage codec components. Ensure the room that houses the codec is properly ventilated and temperature controlled.

Arguments:

None

Examples:

```
get system thermal-state
normal

ok,00

get system temperatures -V
Thermal State
warning

ok
```

uptime

The **`uptime`** target returns the amount of time that the system has been up in days, hours, minutes, and seconds. This target applies to the **`get`** verb.

Arguments:

None

Examples:

```
get system uptime
5,21,13,20

ok,00

get system uptime -V
Days     Hours     Minutes     Seconds
5        21        13          40

ok
```

version

The **`version`** target returns the software version for all of the software loaded on the system. This target applies to the **`get`** verb.

Arguments:

None

Examples:

LifeSize Room:

```
get system version
$ get system version
Software Version,LS_RM1_4.5.0 (16)
Sysmon Version,SM_P_3 3.3 Sep  5 2007 10:59:07
U-Boot Version,U-Boot 1.1.2 LifeSize Codec  2.21
Camera 0 Base,0x70221
Camera 0 Head,0x70112
Camera 1 Base,0x0
Camera 1 Head,0x0
Pixelworks Version,LS_QMBRom v3.7 Jan 29 2009 09:09:43
Video In FPGA,06110600
Video Out FPGA,051215ac
Tethered Phone,LS_PH1_4.5.0 (16)
Phone Keyboard,003_000
Phone U-Boot,U-Boot 1.1.2 LifeSize Phone  1.1
ok,00
```

```
get system version -V
Software Version      Value
Software Version      LS_RM1_4.5.0 (16)
Sysmon Version        SM_P_3 3.3 Sep  5 2007 10:59:07
U-Boot Version        U-Boot 1.1.2 LifeSize Codec, 2.21
Camera 0 Base         0x70221
Camera 0 Head         0x70112
Camera 1 Base         0x0
Camera 1 Head         0x0
Pixelworks Version    LS_QMBRom v3.7 Jan 29 2009 09:09:43
Video In FPGA         06110600
Video Out FPGA        051215ac
Tethered Phone        LS_PH1_4.5.0 (16)
Phone Keyboard        003_000
Phone U-Boot          U-Boot 1.1.2 LifeSize Phone, 1.1

ok
```

video-number

When used with the **get** verb, the **video-number** target retrieves the video telephone number associated with the system. This number appears in the user interface. When used with the **set** verb, this target sets the video telephone number associated with the system.

get Arguments:

None

get Examples:

```
get system video-number
555-1213

ok,00

get system video-number -V
System Video Number
555-1213

ok
```

set Arguments:

`<value>`	Specify the new video telephone number for the system.

set Examples:

```
set system video-number 555-1213

ok,00
```

telnet

When used with the **`get`** verb, the **`telnet`** target retrieves the current state of telnet protocol support. LifeSize recommends that you disable **`telnet`**, because it is an insecure protocol. If you must use telnet, place the system behind a firewall or other external security device. By default, the telnet protocol service is disabled.

When used with the **`set`** verb, this object enables or disables the telnet service in real time. Active telnet sessions are disconnected if the service is stopped without closing the sessions first.

get Arguments:

None

get Examples:

```
get telnet
on

ok,00

get telnet -V
Telnet Service
off

ok
```

set Arguments:

`<{off|on}>`	Disable or enable the telnet service.

set Examples:

```
set telnet on

ok,00
```

timer

The following targets are applicable to the **`timer`** object.

caller-id

When used with the **`get`** verb, the **`caller-id`** target retrieves the current setting of the caller ID display timeout (the time in seconds before the caller ID display fades out). When used with the **`set`** verb, this target controls the time in seconds before the caller ID display fades out.

get Arguments:

None

get Examples:

```
get timer caller-id
30

ok,00

get timer caller-id -V
Timeout in Seconds
on

ok
```

set Arguments:

`<{off|5|15|30|60|120|300|600|on}>`	Specify the time in seconds before the caller ID display fades out. Specifying off disables the caller ID display. Specifying on leaves the display on continuously.

set Examples:

```
set timer caller-id 30

ok,00
```

fadeout

When used with the **`get`** verb, the **`fadeout`** target retrieves the current setting for the user interface fadeout timer (the time in seconds before the user interface fades out during an active call). When used with the **`set`** verb, this target controls the time in seconds before the user interface fades out during an active call.

get Arguments:

None

get Examples:

```
get timer fadeout
6

ok,00

get timer fadeout -V
Timeout in Seconds
5

ok
```

set Arguments:

`<{5|10|20|30|60|120|300|600|never}>`	Specify the time in seconds before the user interface fades out during an active call. Specifying never disables the fadeout function.

set Examples:

```
set timer fadeout 20

ok,00

set timer fadeout never

ok,00
```

screen-saver

When used with the **`get`** verb, the **`screen-saver`** target retrieves the current setting for the screen saver timer (the amount of idle time before the screen saver activates). When used with the **`set`** verb, this target controls the amount of idle time before the screen saver activates.

get Arguments:

None

get Examples:

```
get timer screen-saver
20

ok,00

get timer screen-saver -V
Timeout in Minutes
10

ok
```

set Arguments:

`<{1|10|20|30|off}>`	Specify the time in minutes before the screen saver feature activates. Specifying off disables the screen saver function.

set Examples:

```
set timer screen-saver 20

ok,00

set timer screen-saver off

ok,00
```

sleep

When used with the **`get`** verb, the **`sleep`** target retrieves the current setting for the sleep timer (the amount of idle time after the screen saver activates and before the system enters sleep state). When used with the **`set`** verb, this target sets the sleep timer.

get Arguments:

None

get Examples:

```
get timer sleep
30

ok,00

get timer sleep -V
Timeout in Minutes
10

ok
```

set Arguments:

`<{off|1|10|20|30|60|120|180|240}>`	Specify the time in minutes before the system enters sleep state. **WARNING**: Specifying `off` disables system sleep. Damage may occur to the focus motor of a LifeSize camera causing the camera to fail if the system is awake for several hours in a dark room.

set Examples:

```
set timer sleep 20

ok,00
```

user

The **`user`** object enables configuration of user functions in the user interface.

password

The **`password`** target enables you to set the password for access to the user preferences in the user interface. This target applies to the **`set`** verb.

Arguments:

`<value>`	The new user password. The password must contain only the numbers 0-9 and/or the symbols * and #. The length can be 0 to 16 characters. If more than 16 characters are specified, the password is silently truncated.

Examples:

```
set user password 12345*#

ok,00

set user password -V abcdef

error  04  Invalid Parameter
```

verbose-mode

When used with the **`get`** verb, the **`verbose-mode`** target retrieves the current setting for verbose mode. When used with the **`set`** verb, this target enables or disables verbose mode output. Verbose mode provides human readable output. Enabling verbose mode is equivalent to specifying -V with each command entered.

get Arguments:

None

get Examples:

```
get verbose-mode
on

ok,00

get verbose-mode -V
Mode
off

ok
```

set Arguments:

`<{on|off}>`	Enable or disable verbose mode output.

set Examples:

```
set verbose-mode on

ok

set verbose-mode off

ok,00
```

video

The following targets are applicable to the **`video`** object.

aux-output

When used with the **`get`** verb, the **`aux-output`** target retrieves the configuration information for the auxiliary output on LifeSize Room. When used with the **`set`** verb, this target controls configuration of the auxiliary video output on systems that have auxiliary video output connectors. This target applies to LifeSize Room only.

get Arguments:

None

get Examples:

```
get video aux-output
on,hd0+aux,received

ok,00

get video aux-output -V
State       Idle Layout      In Call Layout
on          all              hd0

ok
```

set Arguments:

`[-d]`	Disable the auxiliary video output.
`[-e]`	Enable the auxiliary video output.
`[-c {hd0|received|transmitted}]`	Set the in-call output to the HD camera, received video or transmitted video.
`[-i {none|hd0|all|hd0+aux|hd0+aux+doc}]`	Set the idle output to nothing, the HD camera, all inputs, the HD camera and auxiliary input or the HD camera, aux input and doc camera input.

set Examples:

```
set video aux-output -e -i none -c received

ok,00

set video aux-output -d

ok,00
```

background

When used with the **`get`** verb, the **`background`** target lists the available background image names for use with the **`set video {primary|secondary}-background`** commands. The list that appears is not sorted.

When used with the **`set`** verb, this target uploads a background image to the system. Before uploading a background image, ensure that the image has the following properties:

- 1280x720 pixels
- JPEG format
- base64 encoded

This command is intended for use only in conjunction with the system restore feature when the system state was exported through the **`get config`** command or through the web administration interface. As such, no validation is performed on the input data stream and no limitation is made as to the size of the image file. You many need to reset your system to defaults if you upload an invalid image file.

get Arguments:

None

get Examples:

```
get video background
1,European Subway
2,European Town
3,Lighthouse
4,Road

ok,00
```

```
get video background -V
Number       Background Image
1            European Subway
2            European Town
3            Lighthouse
4            Road

ok
```

set Arguments:

`<image>`	The name of the image file to save. You cannot replace the standard image files or the default image file.

set Examples:

```
unix% base64 --wrap=0 image | ssh auto@ip set video background
   image

ok,00
```

This command supports here document input or simple redirection:

```
set video background image << EOF
<base 64 encoded data stream>
EOF

ok,00
```

bandwidth-balance

When used with the **`get`** verb, the **`bandwidth-balance`** target shows the percentage of total available bit rate for video that is allocated to the primary video stream during a dual stream call. The secondary stream gets whatever bandwidth is not used by the primary stream. When used with the **`set`** verb, this target controls the balance in bandwidth between the primary and secondary streams in a dual stream call.

get Arguments:

None

get Examples:

```
get video bandwidth-balance
90

ok,00

get video bandwidth-balance -V
Primary Video Bandwidth %
50

ok
```

set Arguments:

<{10|20|30|40|50|60|70|80|90}>	Specify the percentage of bandwidth allocated to the primary stream in a dual stream call. The default is 90.

set Examples:

```
set video bandwidth-balance 50

ok,00
```

digital-zoom-enable

When used with the **`get`** verb, the **`digital-zoom-enable`** target shows whether digital zoom is enabled on the camera. When used with the **`set`** verb, this target controls whether digital zoom is on or off. This target is available on LifeSize Express, LifeSize Express 200, LifeSize Room 200, LifeSize Room 220, LifeSize Team 200, and LifeSize Team 220.

get Arguments:

None

get Examples:

```
get video digital-zoom-enable
on

ok,00

get video digital-zoom-enable -V
Digital Zoom
on

ok,00
```

set Arguments:

`<{on|off}>`	Enable (on) or disable (off) digital zoom on the camera.

set Examples:

```
set video digital-zoom-enable off

ok,00
```

dvi-i-input-brightness

When used with the **`get`** verb, the **`dvi-input-brightness`** target shows the current brightness setting for video received through the DVI-I input on a LifeSize video communications system codec. When used with the **`set`** verb, this target specifies the brightness setting for video received through the DVI-I input. This target is available only on LifeSize video communications systems that have a DVI-I input on the codec.

get Arguments:

None

get Examples:

```
get video dvi-i-input-brightness
50

ok,00

get video dvi-i-input-brightness -V
Position
50

ok
```

set Arguments:

`<{0..100}>`	Specify the brightness setting for the DVI-I input.

set Examples:

```
set video dvi-i-input-brightness 60

ok,00
```

dvi-i-input-coarse

When used with the **`get`** verb, the **`dvi-input-coarse`** target shows the current coarse tuning setting for video received through the DVI-I input on a LifeSize video communications system codec. When used with the **`set`** verb, this target specifies the coarse tuning setting for video received through the DVI-I input. This target is available only on LifeSize video communications systems that have a DVI-I input on the codec.

get Arguments:

None

get Examples:

```
get video dvi-i-input-coarse
50

ok,00

get video dvi-i-input-coarse -V
Position
50

ok
```

set Arguments:

`<{0..100}>`	Specify the coarse tuning setting for the DVI-I input.

set Examples:

```
set video dvi-i-input-coarse 45

ok,00
```

dvi-i-input-contrast

When used with the **`get`** verb, the **`dvi-input-contrast`** target shows the current contrast setting for video received through the DVI-I input on a LifeSize video communications system codec. When used with the **`set`** verb, this target specifies the contrast setting for video received through the DVI-I input. This target is available only on LifeSize video communications systems that have a DVI-I input on the codec.

get Arguments:

None

get Examples:

```
get video dvi-i-input-contrast
50

ok,00

get video dvi-i-input-contrast -V
Position
50

ok
```

set Arguments:

`<{0..100}>`	Specify the contrast setting for the DVI-I input.

set Examples:

```
set video dvi-i-input-contrast 70

ok,00
```

dvi-i-input-fine

When used with the **`get`** verb, the **`dvi-input-fine`** target shows the current fine tuning setting for video received through the DVI-I input on a LifeSize video communications system codec. When used with the **`set`** verb, this target specifies the fine tuning setting for video received through the DVI-I input. This target is available only on LifeSize video communications systems that have a DVI-I input on the codec.

get Arguments:

None

get Examples:

```
get video dvi-i-input-fine
50

ok,00

get video dvi-i-input-fine -V
Position
50

ok
```

set Arguments:

`<{0..100}>`	Specify the fine tuning setting for the DVI-I input.

set Examples:

```
set video dvi-i-input-fine 65

ok,00
```

dvi-i-input-hoffset

When used with the **`get`** verb, the **`dvi-input-hoffset`** target shows the current horizontal offset position for video received through the DVI-I input on a LifeSize video communications system codec. When used with the **`set`** verb, this target specifies the horizontal offset position for video received through the DVI-I input. This target is available only on LifeSize video communications systems that have a DVI-I input on the codec.

get Arguments:

None

get Examples:

```
get video dvi-i-input-hoffset
50

ok,00

get video dvi-i-input-hoffset -V
Position
50

ok
```

set Arguments:

`<{0..100}>`	Specify the horizontal offset for the DVI-I input.

set Examples:

```
set video dvi-i-input-hoffset 80

ok,00
```

dvi-i-input-voffset

When used with the **`get`** verb, the **`dvi-input-voffset`** target shows the current vertical offset position for video received through the DVI-I input on a LifeSize video communications system codec. When used with the **`set`** verb, this target specifies the vertical offset position for video received through the DVI-I input. This target is available only on LifeSize video communications systems that have a DVI-I input on the codec.

get Arguments:

None

get Examples:

```
get video dvi-i-input-voffset
50

ok,00

get video dvi-i-input-voffset -V
Position
50

ok
```

set Arguments:

`<{0..100}>`	Specify the vertical offset for the DVI-I input.

set Examples:

```
set video dvi-i-input-voffset 65

ok,00
```

dvi-i-input-zoom

When used with the **`get`** verb, the **`dvi-i-input-zoom`** target shows the current scaling percentage applied to video received through the DVI-I input on a LifeSize video communications system codec. When used with the **`set`** verb, this target specifies the scaling percentage applied to video received through the DVI-I input. This target is available only on LifeSize video communications systems that have a DVI-I input on the codec.

get Arguments:

None

get Examples:

```
get video dvi-i-input-zoom
20%

ok,00

get video dvi-i-input-zoom -V
Zoom
20%

ok
```

set Arguments:

`<{0%|5%|10%|15%|20%|25%|30%|35%|40%}>`	Specify the percent to scale the DVI-I input to fit your display.

set Examples:

```
set video dvi-i-input-zoom 15%

ok,00
```

dvi1-mode

When used with the **`get`** verb, the **`dvi1-mode`** target retrieves the DVI-I input type. When used with the **`set`** verb, this target specifies the DVI-I input type. This target is available only on LifeSize video communications systems that have a DVI-I input on the codec.

Note: When used with the **`set`** verb, this target affects only how the input handles digital signals and does not affect the ability of the input to receive analog signals.

get Arguments:

None

get Examples:

```
get video dvi1-mode
auto

ok,00

get video dvi1-mode -V
Mode
auto

ok
```

set Arguments:

`<{auto|dvi}>`	Specify the input type for the DVI-I input. The `auto` argument determines the appropriate input type based on the capabilities of the device connected to the DVI-I input. Specify the **`dvi`** argument to force the LifeSize system to use DVI video only.

set Examples:

```
set video dvi1-mode dvi

ok,00
```

encode-quality

When used with the **`get`** verb, the **`encode-quality`** target retrieves the video encoder quality setting. When used with the **`set`** verb, this target controls the encoder quality setting. At higher settings, the encoder decreases transmitted resolution in order to increase video quality.

get Arguments:

None

get Examples:

```
get video encode-quality
-2

ok,00

get video encode-quality -V
Encoder Quality
0

ok
```

set Arguments:

`<{-4..4}>`	Specify the encoder quality setting. The default is `-2`. To specify a negative number, **`--`** must precede the value.

set Examples:

```
set video encode-quality -- -4

ok,00

set video encode-quality 4

ok,00
```

h241-mbps

When used with the **`get`** verb, the **`h241-mbps`** target retrieves the state of the H.241 MaxStaticMBPS (maximum static macroblocks per second) option. When the state is *`on`*, the codec processes H.241 MaxStaticMBPS parameters. When used with the **`set`** verb, this target controls the state of the H.241 MaxStaticMBPS option.

get Arguments:

None

get Examples:

```
get video h241-mbps
off

ok,00

get video h241-mbps -V
H.241 MaxStaticMBPS
on

ok
```

set Arguments:

`<{on|off}>`	Specify whether H.241 MaxStaticMBPS parameters are processed.

set Examples:

```
set video h241-mbps off

ok,00
```

hdmi1-mode | hdmi2-mode

When used with the **`get`** verb, the **`hdmi1-mode`** and **`hdmi2-mode`** targets shows whether the HD Input 1 and HD Input 2 respectively operate in automatic mode or DVI compatibility mode.

When used with the **`set`** verb, these targets control whether the HD inputs operate in automatic mode or are forced into DVI compatibility mode. Try DVI mode if auto mode causes problems with your device (for example, no video, solid color video, or static).

The hdmi1-mode target applies to LifeSize Room 200, Room 220, LifeSize Team 200, LifeSize Team 220, LifeSize Express and LifeSize Express 220 only. The **`hdmi2-mode`** target applies to LifeSize Room 200 and LifeSize Room 220.

get Arguments:

None

get Examples:

```
get video hdmi1-mode
auto

ok,00

get video hdmi1-mode -V
Mode
dvi

ok
```

set Arguments:

`<{auto|dvi}>`	Set the compatibility mode for the HD input port.

set Examples:

```
set video hdmi1-mode dvi

ok,00
```

input-names

When used with the **`get`** verb, the **`input-names`** target retrieves the display names associated with the various video inputs.

When used with the **`set`** verb, this target specifies the user friendly names of the various video inputs.

get Arguments:

None

get Examples:

```
get video input-names
HD Camera,Unused,Document Camera,VCR,PC

ok,00
```

LifeSize Room:

```
get video input-names -V
HD 0          HD 1          SD 0                SD 1      VGA 0
HD Camera 1   HD Camera 2   Doc Camera          DVD       PC

ok
```

LifeSize Team MP:

```
get video input-names -V
HD 0            SD 0                VGA 0
HD Camera 1     Doc Camera          PC

ok
```

LifeSize Express 200:

```
get video input-names -V
HD 0            DVI-I 0
HD Camera 1     PC

ok
```

set Arguments:

`<{hd0|hd1|sd0|sd1|hdmi0|hdmi1|comp0|dvi0|vga0}>`	Specify the input to name. The `hd0` argument is for naming HD Camera 1 and is available on all models except LifeSize Express 220. The `hd1` argument is for naming HD camera 2 and applies to LifeSize Room only. The `sd0` argument is for naming the document camera and is available on LifeSize Room, and LifeSize Team MP only. The `sd1` argument is for naming the auxiliary video input and applies to LifeSize Room only. The `hdmi0` argument is for naming HD input 1 and applies to LifeSize Express, LifeSize Express 220, LifeSize Room 200, LifeSize Room 220, LifeSize Team 200 and LifeSize Team 220. The `hdmi1` argument is for HD input 2 on LifeSize Room 200 and LifeSize Room 220. The `vga0` argument is for naming the VGA input on LifeSize Room, LifeSize Team MP, and LifeSize Express. The `dvi0` argument is for naming the DVI-I input on LifeSize Room 200, LifeSize Room 220, LifeSize Team 200, LifeSize Team 220, LifeSize Express 200, and LifeSize Express 220.
`<value>`	The new name of the input. Enclose strings with spaces inside single or double quote characters.

set Examples:

```
set video input-names hd0 "HD Camera"

ok,00

set video input-names vga0 PC

ok,00
```

input-snapshot

The **`input-snapshot`** target retrieves a base64 encoded copy of one of the video snapshot images. Refer to **`input-snapshots`** to list available inputs. Refer to RFC-3548 for information about base64 encoded data. The output is a single line containing the base64 encoded data followed by the CLI response sequence (for example, column headers if **`-V`** is used, column output, blank line, and command status). If the file does not exist, a blank line precedes the CLI response data. This target applies to the **`get`** verb.

Note: If the system is asleep when you issue this command, the system wakes up. A 10-second delay follows before the snapshot is taken. You cannot issue any other commands during this delay.

Arguments:

None

Examples:

```
get video input-snapshot hd0
/9j/wAARCAFgAh...AAAAAAD/2Q= (base64 encoded version of hd0.jpg)
hd0,19232

ok,00

get video input-snapshot sd0 -V
/9j/wAARCAFgAh...AAAAAP8A/9k (base 64 encoded version of sd0.jpg)
Image           Size(bytes)
sd0             5439

ok

get video input-snapshot foo
(blank line equivalent to a base64 encoded empty file)
foo,0

error,04
```

input-snapshots

When used with the **`get`** verb, the **`input-snapshots`** target shows whether the video snapshot feature is enabled or disabled. Snapshots appear in the web administration interface. The video snapshot feature enables administrators to save video snapshots in .jpg format of the video from the near and far cameras using the Call Manager in the web administration interface. When used with the **`set`** verb, this target enables or disables the video snapshot feature.

get Arguments:

None

get Examples:

```
get video input-snapshots
on,hd0 sd0 sd1 vga0

ok,00
```

```
get video input-snapshots -V
State    Inputs Available
off

ok
```

LifeSize Room:

```
State    Inputs Available
on       hd0 sd0 sd1 vga0


ok
```

LifeSize Express:

```
get video input-snapshots -V
State    Inputs Available
on        hd0 hdmi0 vga0
```

LifeSize Room 200:

```
get video input-snapshots -V
State    Inputs Available
on       comp0 dvi0 hd0 hdmi0 hdmi1
ok
```

set Arguments:

`<{on|off}>`	Specify whether snapshots are enabled or disabled.

set Examples:

```
set video input-snapshots on

ok,00
```

layout

When used with the **`get`** verb, the **`layout`** target retrieves the value associated with the video layout in the active call. When used with the **`set`** verb, this target specifies a video layout to use in the active call.

Note: This target is intended for use only during an active call.

get Arguments:

None

get Examples:

```
get video layout
4

ok,00

get video layout -V
Current Video Layout
4

ok
```

set Arguments:

`<1..20>`	Specify the layout to use. Values not in this range return an error. Values greater than the maximum number of layouts available in the call within this range are ignored. To discover the maximum number of layouts available in the call use the **`get video max-layout`** command.

set Examples:

```
set video layout 3

ok,00
```

layout-type

The **`layout-type`** target retrieves the screen layout type of the most recent or current call. The screen layout type represents the following set of parameters that, in conjunction with the number of connected callers, determines the number of screen layouts that are available during a call:

- the number of connected displays and the configuration of the second display
- the number of concurrent video streams (call and presentation streams)
- whether a presentation is being sent or received

The following table describes the layout types and corresponding parameters.

Layout Type	Description
`S1_HD`	call video with 1 display
`S1_HD_HD`	call video with 2 displays
`S2L_HD`	call video and sending a presentation with 1 display
`S2L_HD_HD`	call video and sending a presentation with 2 displays
`S2R_HD`	call video and receiving a presentation with 1 display
`S2R_HD_HD`	call video and receiving a presentation with 2 displays

This target applies to the **`get`** verb.

Arguments:

None

Examples:

```
get video layout-type
S1_HD

ok,00

get video layout-type -V
Current type of video layout
S1_HD

ok
```

max-layout

The **`max-layout`** target retrieves the maximum number of video layouts supported by the active call. This target applies to the **`get`** verb.

Note: This target is intended for use during an active call. If the system is not in a call, the maximum number returned is 0.

Arguments:

None

Examples:

```
get video max-layout
5

ok,00

get video max-layout -V
Current number of video layouts
5
ok
```

mtu

When used with the **`get`** verb, the **`mtu`** target retrieves the current setting of the video maximum transfer unit. When used with the **`set`** verb, this target sets the maximum transfer unit size in bytes for the video encoder.

get Arguments:

None

get Examples:

```
get video mtu
1200

ok,00

get video mtu -V
Video MTU Size (bytes)
1440

ok
```

set Arguments:

`<{900..1500}>`	Specify the MTU for the video encoder.

set Examples:

```
set video mtu 1500

ok,00
```

pip-mode

When used with the **`get`** verb, the **`pip-mode`** target retrieves the current state of the picture-in-picture (PIP) feature. When used with the **`set`** verb, this target controls the default operation of the PIP feature during an active call. In `auto` mode, the window is visible only when the interface is visible and follows the fadeout timer settings. When `on`, the window is always visible; when `off`, it is never visible. This command cannot be used to change the PIP window state for an active call. To change the PIP window state for an active call, use the **`pip-window`** target.

get Arguments:

None

get Examples:

```
get video pip-mode
auto

ok,00

get video pip-mode -V
Mode
on

ok
```

set Arguments:

`<{on|off|auto}>`	Specify how the PIP window operates.

set Examples:

```
set video pip-mode auto

ok,00

set video pip-mode off

ok,00
```

pip-window

The **`pip-window`** target controls the PIP display during a call. Turning the window on or off also changes the **`pip-mode`** setting to match the **`pip-window`** setting. This command shows the interface on the screen. If you set the PIP window to off, the window disappears when the interface fades out. If the interface fadeout timer is set to never, you cannot turn off the PIP window (since the interface never fades out). Turning the window on takes effect immediately. This target applies to the **`set`** verb.

Arguments:

`<{on|off}>`	Turn the PIP window on or off.

Examples:

```
set video pip-window on

ok,00

set video pip-window off

ok,00
```

primary-background

When used with the **`get`** verb, the **`primary-background`** target shows the name of the background image that appears in the primary display or **`none`** if a background color is used instead of an image. When used with the **`set`** verb, this target changes the background image or specifies that no background image appear in the primary display.

get Arguments:

None

get Examples:

```
get video primary-background
European Subway

ok,00

get video primary-background -V
Background Image
Road

ok
```

set Arguments:

<{***image***|none}>	Specify the background image to show or specify **none** to set a background color. The image may be the index number from **get video background**, any unique part of the image name from the same command (case insensitive), or default to show the default image. Specify **none** to choose a background color instead of an image. The default background color (sky-blue) appears in the display. Use the **set video primary-background-color** command to specify a different background color.

set Examples:

set video primary-background *town*

ok,00

set video primary-background *3*

ok,00

set video primary-background *none*

ok,00

primary-background-color

When used with the **`get`** verb, the **`primary-background-color`** target shows the background color that appears in the primary display when the value of **`get video primary-background`** is *`none`*. When used with the **`set`** verb, this target specifies the background color for the primary display.

get Arguments:

None

get Examples:

```
get video primary-background-color
sky-blue
ok,00

get video primary-background-color -V
Background Color
sky-blue

ok
```

set Arguments:

`<{sky-blue|red|orange|yellow|brown|olive-green|green|dark-green|indigo|violet|light-gray|medium-gray|dark-gray|black}>`	Specify the background color for the primary display when **`get video primary-background`** is *`none`*. The default color is `sky-blue`.
`[-H #FFFFFF]`	Specify a custom background color using a hexadecimal triplet. The first character must be #, followed by 2 hexadecimal digits for the red value, 2 hexadecimal digits for the green value, and 2 hexadecimal digits for the blue value. Cannot be used with `-I`.
`[-I "{0..255} {0..255} {0..255}"]`	Specify a custom background color using three integer values. The quotes are required. The first integer represents the red value, second integer represents the green value, and the last integer represents the blue value. Cannot be used with `-H`.
`[-N "`*`color_name`*`"]`	Specify a name to display for your custom color. For use with `-I` and `-H`.

set Examples:

Set the primary background image to none:

`set video primary-background` ***`none`***

```
ok,00
```

Change the primary background color to light gray:

`set video primary-background-color` ***`light-gray`***

```
ok,00
```

Change the primary background color to a custom color:

`set video primary-background-color -I` ***`"13 57 242"`***

```
ok,00
```

Change the primary background color to a custom color and name it:

```
set video primary-background-color -H #123456 -N "true-blue"

ok,00
```

primary-display

When used with the **`get`** verb, the **`primary-display`** target shows the configuration for the primary display. When used with the **`set`** verb, this target controls the configuration of the primary video display.

get Arguments:

None

get Examples:

LifeSize Room, and LifeSize Team MP:

```
get video primary-display
auto,auto,720p,off

ok,00

get video primary-display -V
Mode    Resolution    Output              Energy Saver
vga     1280 768      vga 1280 768        off

ok
```

Note: The `Mode` column and value is available only on LifeSize Room and LifeSize Team MP.

set Arguments:

`[-e {on|off}]`	Enables or disables the display energy saver feature. Specify on to enable this feature which turns off the signal that the LifeSize system sends to the display when the system goes to sleep. LifeSize recommends that you test this feature for compatibility with your displays before using it in your environment. For more information, refer to the *LifeSize Video Communications Systems Administrator Guide*.
`[-m {auto|720p|vga}]`	Specify the format for the primary display. Choose 720p to force component output and vga to force VGA output. This argument is available only on LifeSize Room, and LifeSize Team MP.
`[-r {auto|720|768|1080i60|1080p30}]`	Specify the resolution of the primary display. Choose 720 for 1280x720 and 768 for 1280x768. This argument is used on LifeSize Room and LifeSize Team MP only if `-m` is set to `vga`. The `1080i60` and `1080p30` options are available on LifeSize Room 200, LifeSize Room 220, LifeSize Team 220, and LifeSize Express 220. Choose `1080i60` or `1080p30` for 1920x1080.

set Examples:

```
set video primary-display -m vga -r 768

ok,00
```

primary-display-override

When used with the **`get`** verb, the **`primary-display-override`** target retrieves the display type override specified by the **`set primary-display-override`** command for the primary display attached to LifeSize Room 200, LifeSize Room 220, LifeSize Team 200, LifeSize Team 220, LifeSize Express, LifeSize Express 200, and LifeSize Express 220. The default is *`none`*, which indicates no override is specified. Specify a display type override with the **`set`** verb as a troubleshooting measure when the primary display shows no video or distorted video and the suspected cause may be an issue with the display cable, a cable adapter, or the configuration information provided by the display.

get Arguments:

None

get Examples:

No override specified (the default):

```
get video primary-display-override
none

ok,00

get video primary-display-override -V
Override Display Type
none

ok
```

set Arguments:

`<{none|hdmi|dvi|dvi-1080}>`	Specify the display type override for the primary display. The default, `none`, specifies no override—the Lifesize system relies on the information sent from the display or uses the `dvi` override if no information is sent from the display. Specify `dvi` for 720/768p DVI or `dvi-1080` for DVI with 1080i or 1080p.

set Examples:

```
set video primary-display-override dvi

ok,00
```

primary-input

When used with the **`get`** verb, the **`primary-input`** target retrieves the current setting for the primary input. When used with the **`set`** verb, this target controls what video source is associated with the primary input.

Note: The default value for the Primary Input Default and Presentation Input Default preferences is Auto. Refer to primary-input-default and secondary-input-default for more information. This default behavior overrides any setting to primary-input and secondary-input at the command line.

get Arguments:

None

get Examples:

```
get video primary-input
hd0
ok,00

get video primary-input -V
Input
hd0

ok
```

set Arguments:

`<{hd0|hd1|hdmi0|hdmi1|sd0|sd1|comp0|dvi0|vga0}>`	Specify the new source for the primary video input. Valid values by model include the following: • LifeSize Room: hd0, hd1, sd0, sd1, and vga0 • LifeSize Room 200, LifeSize Room 220: hd0, comp0, hdmi0, hdmi1, and dvi0 • LifeSize Team MP: hd0, sd0, and vga0 • LifeSize Team 200, LifeSize Team 220: hd0, hdmi0, and dvi0 • LifeSize Express: hd0, hdmi0, and vga0 • LifeSize Express 200: hd0 and dvi0 • LifeSize Express 220: hdmi0 and dvi0

set Examples:

```
set video primary-input hd0

ok,00

set video primary-input vga0

ok,00
```

primary-input-default

When used with the **`get`** verb, the **`primary-input-default`** target shows the primary video input selected as the default to use when a call connects and when a call ends. When used with the **`set`** verb, this target specifies the default primary video input to use when a call connects and when a call ends.

Note: The default value for the **Primary Input Default** and **Presentation Input Default** preferences is *Auto*. Refer to `primary-input-default` and `secondary-input-default` for more information. This default behavior overrides any setting to `primary-input` and `secondary-input` at the command line.

get Arguments:

None

get Examples:

```
get video primary-input-default
hd0
ok,00

get video primary-input-default -V
Input
hd0

ok
```

set Arguments:

`<{|auto|manual|hd0|hd1|hdmi0|hdmi1|comp0|dvi0|sd0|sd1|vga0}>`	Specify the default primary video input device that the system uses when a call connects and when a call ends. Valid values by model include the following: • LifeSize Room: auto, manual, hd0, hd1, sd0, sd1, and vga0 • LifeSize Room 200 and LifeSize Room 220: auto, manual, hd0, comp0, hdmi0, hdmi1, and dvi0 • LifeSize Team MP: auto, manual, hd0, sd0, and vga0 • LifeSize Team 200 and LifeSize Team 220: auto, manual, hd0, hdmi0, and dvi0 • LifeSize Express: auto, manual, hd0, hdmi0, and vga0 • LifeSize Express 200: auto, manual, hd0, and dvi0 • LifeSize Express 220: auto, manual, hdmi0 and dvi0 Specifying `manual` indicates that no default is chosen: the primary input is the last input selected by the user, and the user interface does not automatically change the inputs. Specifying `auto` results in the system selecting an input in the following priority order: 1. hdmi0 (if connected to LifeSize Camera 200) 2. hdmi1(if connected to LifeSize Camera 200) 3. hd0 (or hd1 on LifeSize Room if two cameras are connected and it is the active camera) 4. comp0 (only on LifeSize Room 200 and LifeSize Room 220 when the Sony EVI-HD1 camera is connected to the component input, the VISCA Input preference is set to Auxiliary Input, and the VISCA cable is connected to the serial port on the codec.) 5. hdmi0 (if connected to a device other than LifeSize Camera 200) 6. sd1 (LifeSize Room only) 7. sd0 (LifeSize Team MP only)

set Examples:

```
set video primary-input-default hd0

ok,00

set video primary-input-default vga0

ok,00
```

primary-motion

When used with the **`get`** verb, the **`primary motion`** target retrieves the current setting for the preference of motion over sharpness when encoding the primary video stream. When used with the **`set`** verb, this target controls the preference for motion over sharpness when encoding the primary video stream.

get Arguments:

None

get Examples:

```
get video primary-motion
10

ok,00

get video primary-motion -V
Primary Video Motion
9

ok
```

set Arguments:

`<{1..10}>`	Specify the motion preference. Larger numbers prefer motion over sharpness.

set Examples:

```
set video primary-motion 9

ok,00
```

secondary-background

When used with the **`get`** verb, the **`secondary-background`** target shows the name of the background image that appears in the secondary display or *`none`* if a background color is used instead of an image. When used with the **`set`** verb, this target changes the background image or specifies that no background image appear in the secondary display. This target applies to LifeSize video communications systems that support a secondary display.

Note: Background images are not available on the secondary display with LifeSize Express 200 and LifeSize Express 220.

get Arguments:

None

get Examples:

```
get video secondary-background
European Town

ok,00

get video secondary-background -V
Background Image
default

ok
```

set Arguments:

<{***image***|none}>	Specify the background image to show or specify **`none`** to set a background color. The image may be the index number from **`get video background`**, any unique part of the image name from the same command (case insensitive), or default to show the default image. Specify **`none`** to choose a background color instead of an image. The default background color (sky-blue) appears in the display. Use the **`set video secondary-background-color`** command to specify a different background color.

set Examples:

```
set video secondary-background default

ok,00

set video secondary-background "European Town"

ok,00

set video secondary-background none

ok,00
```

secondary-background-color

When used with the **`get`** verb, the **`secondary-background-color`** target shows the background color that appears in the secondary display when the value of **`get video secondary-background`** is *`none`*. When used with the **`set`** verb, this target specifies the background color for the secondary display. This target applies to LifeSize video communications systems that support a secondary display.

Note: Background colors are not available on the secondary display with LifeSize Express 200 and LifeSize Express 220.

get Arguments:

None

get Examples:

```
get video secondary-background-color
sky-blue
ok,00

get video secondary-background-color -V
Background Color
sky-blue

ok
```

set Arguments:

`<{sky-blue|red|orange|yellow|brown|olive-green|green|dark-green|indigo|violet|light-gray|medium-gray|dark-gray|black}>`	Specify the background color for the secondary display when **`get video secondary-background`** is *`none`*. The default color is `sky-blue`.
`[-H #FFFFFF]`	Specify a custom background color using a hexadecimal triplet. The first character must be #, followed by 2 hexadecimal digits for the red value, 2 hexadecimal digits for the green value, and 2 hexadecimal digits for the blue value. Cannot be used with `-I`.
`[-I "{0..255} {0..255} {0..255}"]`	Specify a custom background color using three integer values. The quotes are required. The first integer represents the red value, second integer represents the green value, and the last integer represents the blue value. Cannot be used with `-H`.
`[-N "color_name"]`	Specify a name to display for your custom color. For use with `-I` and `-H`.

set Examples:

Set the secondary background image to none:

`set video secondary-background` ***`none`***

```
ok,00
```

Change the background color to light gray:

`set video secondary-background-color` ***`light-gray`***

```
ok,00
```

Change the primary background color to a custom color:

`set video secondary-background-color -I` ***`"13 57 242"`***

```
ok,00
```

Change the primary background color to a custom color and name it:

```
set video secondary-background-color -H #123456 -N "true-blue"

ok,00
```

secondary-display

When used with the **`get`** verb, the **`secondary-display`** target shows the configuration for the secondary display. When used with the **`set`** verb, this target controls the configuration of the secondary video display. This target applies only to LifeSize models that support a secondary display.

get Arguments:

None

get Examples:

LifeSize Room:

```
get video secondary-display
auto,auto,720p,off

ok,00

get video secondary-display -V
Mode    Resolution    Output          Energy Saver
vga     1280 768      vga 1280 768    off

ok
```

Note: The `Mode` column and value is available only on LifeSize Room.

set Arguments:

`[-e {on|off}]`	Enables or disables the display energy saver feature. Specify on to enable this feature which turns off the signal that the LifeSize system sends to the display when the system goes to sleep. LifeSize recommends that you test this feature for compatibility with your displays before using it in your environment. For more information, refer to the *LifeSize Video Communications Systems Administrator Guide*.
`[-m {auto|720p|vga}]`	Specify the format for the secondary display. Choose `720p` to force component output. Choose `vga` to force VGA output. This argument is available on LifeSize Room only.
`[-r {auto|720|768 |1080i60|1080p30}]`	Specify the resolution of the secondary display. Choose `720` for 1280x720. Choose `768` for 1280x768. This argument is used on LifeSize Room, only if `-m` is set to `vga`. The `1080i60` and `1080p30` options are available on LifeSize Room 200, LifeSize Room 220, and LifeSize Team 220. Choose `1080i60` or `1080p30` for 1920x1080. The `-r` argument is not available on LifeSize Express 200 and LifeSize Express 220.

set Examples:

```
set video secondary-display -m vga -r 768

ok,00
```

secondary-display-override

When used with the **`get`** verb, the **`secondary-display-override`** target retrieves the display type override specified by the **`set secondary-display-override`** command for the secondary display attached to LifeSize Room 200, LifeSize Room 220, LifeSize Team 200, LifeSize Team 220, LifeSize Express 200, and LifeSize Express 220. The default is *`none`*, which indicates no override is specified. Specify a display type override with the **`set`** verb as a troubleshooting measure when the secondary display shows no video or distorted video and the suspected cause may be an issue with the display cable, a cable adapter, or the configuration information provided by the display.

get Arguments:

None

get Examples:

No override specified (the default):

```
get video secondary-display-override
none

ok,00

get video secondary-display-override -V
Override Display Type
none

ok
```

set Arguments:

`<{none|hdmi|dvi|dvi-1080|vga}>`	Specify the display type override for the secondary display. The default, `none`, specifies no override—the Lifesize system relies on the display information sent from the display or uses the `vga` override if no information is sent from the display. Specify `dvi` for 720/768p DVI; `dvi-1080` for DVI with 1080i or 1080p; and `vga` for 720/768p VGA. The `vga` argument is available on LifeSize Room 200, LifeSize Room 220, LifeSize Team 200 and LifeSize Team 220.

set Examples:

```
set video secondary-display-override dvi

ok,00
```

secondary-input

When used with the **`get`** verb, the **`secondary-input`** target retrieves the current setting for the secondary input. When used with the **`set`** verb, this target controls what video source is associated with the secondary input.

Note: The default value for the Primary Input Default and Presentation Input Default preferences is Auto. Refer to primary-input-default and secondary-input-default for more information. This default behavior overrides any setting to primary-input and secondary-input at the command line.

get Arguments:

None

get Examples:

```
get video secondary-input
vga0

ok,00

get video secondary-input -V
Input
sd0

ok
```

set Arguments:

`<{hd0|hd1|hdmi0|hdmi1|sd0|sd1|comp0|dvi0|vga0}>`	Specify the new source for the secondary video input. Valid values by model include the following: • LifeSize Room: hd0, hd1, sd0, sd1, and vga0 • LifeSize Room 200, LifeSize Room 220: hd0, comp0, hdmi0, hdmi1, and dvi0 • LifeSize Team MP: hd0, sd0, and vga0 • LifeSize Team 200, LifeSize Team 220: hd0, hdmi0, and dvi0 • LifeSize Express: hd0, hdmi0, and vga0 • LifeSize Express 200: hd0 and dvi0 • LifeSize Express 220: hdmi0 and dvi0

set Examples:

```
set video secondary-input hd1

ok,00
```

secondary-input-default

When used with the **`get`** verb, the **`secondary-input-default`** target shows the presentation video input selected as the default to use when a call connects and when a call ends. When used with the **`set`** verb, this target specifies the default video input to use for a presentation when a call connects and when a call ends.

Note: The default value for the Primary Input Default and Presentation Input Default preferences is Auto. Refer to **`primary-input-default`** and **`secondary-input-default`** for more information. This default behavior overrides any setting to primary-input and secondary-input at the command line.

get Arguments:

None

get Examples:

```
get video secondary-input-default
vga0

ok,00

get video secondary-input-default -V
Input
sd0

ok
```

set Arguments:

`<{|auto|manual|hd0|hd1|hdmi0|hdmi1|comp0|dvi0|sd0|sd1|vga0}>`	Specify the default secondary video input device that the system uses for presentation video when a call connects and when a call ends. • LifeSize Room: manual, auto, hd0, hd1, sd0, sd1, and vga0 • LifeSize Room 200, LifeSize Room 220: auto, manual, hd0, comp0, hdmi0, hdmi1, and dvi0 • LifeSize Team MP: auto, manual, hd0, sd0, and vga0 • LifeSize Team 200, LifeSize Team 220: the valid values are auto, manual, hd0, hdmi0, and dvi0 • LifeSize Express: auto, manual, hd0, hdmi0, and vga0 • LifeSize Express 200: auto, manual, hd0, dvi0 • LifeSize Express 220: auto, manual, hdmi0, dvi0 Specifying manual indicates that no default is chosen: the secondary input is the last input selected by the user, and the user interface does not automatically change the inputs. Specifying auto selects vga0 on LifeSize Room, LifeSize Team MP, and LifeSize Express; and dvi0 on LifeSize Room 200, LifeSize Room 220, LifeSize Team 200, LifeSize Team 220, LifeSize Express 200 and LifeSize Express 220.

set Examples:

```
set video secondary-input-default vga0

ok,00
```

secondary-layout

When used with the **`get`** verb, the **`secondary-layout`** target retrieves the layout option specified for video in the secondary display. When used with the **`set`** verb, this target specifies the layout option for video that appears in the secondary video display. This target applies only to LifeSize models that support a secondary display.

get Arguments:

None

get Examples:

```
get video secondary-layout
simulcast

ok,00

get video secondary-layout -V
Secondary Display
side-by-side

ok
```

set Arguments:

`<{projector|side-by-side|simulcast|none}>`	Specify the content displayed on the secondary display. Projector displays the VGA input when not in a call and the presentation when in a call. Side-by-side adds the near camera view when in a call and not in a presentation, Simulcast displays the same information as on the primary display when in a call and not in a presentation. None leaves the second display unused. Valid arguments for LifeSize Express 200 and LifeSize Express 220 include `projector` and `none` only.

set Examples:

```
set video secondary-layout projector

ok,00
```

secondary-sharpness

When used with the **`get`** verb, the **`secondary-sharpness`** target retrieves the setting for the preference for sharpness over motion when encoding the secondary video stream. When used with the **`set`** verb, this target controls the preference for sharpness over motion when encoding the secondary video stream.

get Arguments:

`<{1..10}>`	Specify the sharpness preference. Higher numbers prefer sharpness over motion.

get Examples:

```
get video secondary-sharpness
10

ok,00

get video secondary-sharpness -V
Secondary Video Sharpness
9

ok,00
```

set Arguments:

`<{1..10}>`	Specify the sharpness preference. Larger numbers prefer sharpness over motion.

set Examples:

```
set video secondary-sharpness 9

ok,00
```

stretch

When used with the **`get`** verb, the **`stretch`** target shows whether stretching 4:3 aspect ratio presentation or received video to 16:9 aspect ratio is enabled or disabled. When used with the **`set`** verb, this target controls whether stretching 4:3 aspect ratio presentation or received video to 16:9 aspect ratio is enabled or disabled.

get Arguments:

None

get Examples:

```
get video stretch
disabled

ok,00

get video stretch -V
State
disabled

ok
```

set Arguments:

`<{enabled|disabled}>`	Specify whether to enable or disable stretching 4:3 aspect ratio presentation or received video to 16:9 aspect ratio.

set Examples:

```
set video stretch enabled

ok,00
```

vga-input-brightness

When used with the **`get`** verb, the **`vga-input-brightness`** target shows the current brightness setting for video received through the VGA input on a LifeSize video communications system codec. When used with the **`set`** verb, this target specifies the brightness setting for video received through the VGA input.

get Arguments:

None

get Examples:

```
get video vga-input-brightness
50

ok,00
get video vga-input-brightness -V
Position
50

ok
```

set Arguments:

`<{0..100}>`	Specify the brightness setting for the VGA input.

set Examples:

```
set video vga-input-brightness 60

ok,00
```

vga-input-coarse

When used with the **`get`** verb, the **`vga-input-coarse`** target shows the current coarse tuning setting for video received through the VGA input on a LifeSize video communications system codec. When used with the **`set`** verb, this target specifies the course tuning setting for video received through the VGA input.

get Arguments:

None

get Examples:

```
get video vga-input-coarse
50

ok,00

get video vga-input-coarse -V
Position
50

ok
```

set Arguments:

`<{0..100}>`	Specify the coarse tuning setting for the VGA input.

set Examples:

```
set video vga-input-coarse 45

ok,00
```

vga-input-contrast

When used with the **`get`** verb, the **`vga-input-contrast`** target shows the current contrast setting for video received through the VGA input on a LifeSize video communications system codec. When used with the **`set`** verb, this target specifies the contrast setting for video received through the VGA input.

get Arguments:

None

get Examples:

```
get video vga-input-contrast
50

ok,00

get video vga-input-contrast -V
Position
50

ok
```

set Arguments:

`<{0..100}>`	Specify the contrast setting for the VGA input.

set Examples:

```
set video vga-input-contrast 30

ok,00
```

vga-input-fine

When used with the **`get`** verb, the **`vga-input-fine`** target shows the current fine tuning setting for video received through the VGA input on a LifeSize video communications system codec. When used with the **`set`** verb, this target specifies the fine tuning setting for video received through the VGA input.

get Arguments:

None

get Examples:

```
get video vga-input-fine
50

ok,00
get video vga-input-fine -V
Position
50

ok
```

set Arguments:

`<{0..100}>`	Specify the fine tuning setting for the VGA input.

set Examples:

```
set video vga-input-fine 70

ok,00
```

vga-input-hoffset

When used with the **`get`** verb, the **`vga-input-hoffset`** target shows the current horizontal offset position for video received through the VGA input on a LifeSize video communications system codec. When used with the **`set`** verb, this target specifies the horizontal offset position for video received through the VGA input.

get Arguments:

None

get Examples:

```
get video vga-input-hoffset
50

ok,00
get video vga-input-hoffset -V
Position
50

ok
```

set Arguments:

`<{0..100}>`	Specify the horizontal offset position for the VGA input.

set Examples:

```
set video vga-input-hoffset 40

ok,00
```

vga-input-voffset

When used with the **`get`** verb, the **`vga-input-voffset`** target shows the current vertical offset position for video received through the VGA input on a LifeSize video communications system codec. When used with the **`set`** verb, this target specifies the vertical offset position for video received through the VGA input.

get Arguments:

None

get Examples:

```
get video vga-input-voffset
50

ok,00

get video vga-input-voffset -V
Position
50

ok
```

set Arguments:

`<{0..100}>`	Specify the vertical offset position for the VGA input.

set Examples:

```
set video vga-input-voffset 75

ok,00
```

vga-input-zoom

When used with the **`get`** verb, the **`vga-input-zoom`** target shows the current scaling percentage applied to video received through the VGA input on a LifeSize video communications system codec. When used with the **`set`** verb, this target specifies the scaling percentage applied to video received through the VGA input. This target is available only on LifeSize video communications systems that have a VGA input on the codec.

get Arguments:

None

get Examples:

```
get video vga-input-zoom
20%

ok,00

get video vga-input-zoom -V
Zoom
20%

ok
```

set Arguments:

<{0%|5%|10%|15%|20%|25%|30%|35%|40%}>	Specify the percent to scale the VGA input to fit your display.

set Examples:

```
set video vga-input-zoom 15%

ok,00
```

volume

The following targets are applicable to the **`volume`** object.

aux-in

When used with the **`get`** verb, the **`aux-in`** target retrieves the volume setting for the auxiliary input on LifeSize Room. The scale is 0 to 10. When used with the **`set`** verb, this target controls the volume setting for the auxiliary input on systems that have auxiliary inputs. This target applies to LifeSize Room only.

get Arguments:

None

get Examples:

```
get volume aux-in
5

ok,00

get volume aux-in -V
Volume
6

ok
```

set Arguments:

`<{0..10}>`	Specify the volume level (0 = off, 10 = max) for the auxiliary input.

set Examples:

```
set volume aux-in 5

ok,00
```

dtmf

When used with the **`get`** verb, the **`dtmf`** target retrieves the current volume setting (using a scale of 0 to 10) for Dual Tone Multi Frequency (DTMF) tones when placing a call. When used with the **`set`** verb, this target controls the volume setting for Dual Tone Multi Frequency (DTMF) tones.

get Arguments:

None

get Examples:

```
get volume dtmf
5

ok,00

get volume dtmf -V
Volume
6

ok
```

set Arguments:

`<{0..10}>`	Specify the volume level (0 = off, 10 = max) for DTMF tone generation.

set Examples:

```
set volume dtmf 5

ok,00
```

line-in

When used with the **`get`** verb, the **`line-in`** target retrieves the relative volume setting for the line input. The scale is 0 to 10. When used with the **`set`** verb, this target controls the volume setting for the line input. This target applies to LifeSize Room, LifeSize Team MP, LifeSize Express, LifeSize Express 200, and LifeSize Express 220. To retrieve or adjust the volume setting for the line inputs on LifeSize Room 200, LifeSize Room 220, LifeSize Team 200, and LifeSize Team 220, see the **`line-in1`** and **`line-in2`** targets.

get Arguments:

None

get Examples:

```
get volume line-in
5

ok,00

get volume line-in -V
Volume
6

ok
```

set Arguments:

`<{0..10}>`	Specify the volume level (0 = off, 10 = max) for the line input.

set Examples:

```
set volume line-in 5

ok,00
```

line-in1

When used with the **`get`** verb, the **`line-in1`** target retrieves the relative volume setting for the line input 1 on LifeSize Room 200, LifeSize Room 220, LifeSize Team 200, and LifeSize Team 220. The scale is 0 to 10. When used with the **`set`** verb, this target controls the volume setting for the line input 1.

get Arguments:

None

get Examples:

```
get volume line-in1
5

ok,00

get volume line-in1 -V
Volume
6

ok
```

set Arguments:

`<{0..10}>`	Specify the volume level (0 = off, 10 = max) for the line input 1.

set Examples:

```
set volume line-in1 5

ok,00
```

line-in2

When used with the **`get`** verb, the **`line-in2`** target retrieves the relative volume setting for the line input 2 on LifeSize Room 200 LifeSize Room 220, LifeSize Team 200, and LifeSize Team 220. The scale is 0 to 10. When used with the **`set`** verb, this target controls the volume setting for the line input 2.

get Arguments:

None

get Examples:

```
get volume line-in2
5

ok,00

get volume line-in2 -V
Volume
6

ok
```

set Arguments:

`<{0..10}>`	Specify the volume level (0 = off, 10 = max) for the line input 2.

set Examples:

```
set volume line-in2 5

ok,00
```

ring-tone

When used with the **`get`** verb, the **`ring-tone`** target retrieves the current volume setting for the ring tone. When used with the **`set`** verb, this target controls the volume setting for the ring tone.

get Arguments:

None

get Examples:

```
get volume ring-tone
5

ok,00

get volume ring-tone -V
Volume
6

ok
```

set Arguments:

`<{0..10}>`	Specify the volume level (0 = off, 10 = max) for ring tone generation.

set Examples:

```
set volume ring-tone 5

ok,00
```

speaker

When used with the **`get`** verb, the **`speaker`** target retrieves the current volume setting for the system speaker (audio loudness). When used with the **`set`** verb, this target controls the volume of the system speaker.

get Arguments:

None

get Examples:

```
get volume speaker
50

ok,00

get volume speaker -V
Volume
70

ok
```

set Arguments:

`<{0..100}>`	Specify the volume level (0 = off, 100 = max) for system audio.

set Examples:

```
set volume speaker 60
ok,00
```

status-tone

When used with the **`get`** verb, the **`status-tone`** target retrieves the current volume setting for the system status tones. When used with the **`set`** verb, this target controls the volume of the system status tones.

get Arguments:

None

get Examples:

```
get volume status-tone
3

ok,00

get volume status-tone -V
Volume
5

ok
```

set Arguments:

`<{0..10}>`	Specify the volume level (0 = off, 10 = max) for the status tones.

set Examples:

```
set volume status-tone 5

ok,00
```

status Verb: Object and Targets

The following objects and targets are applicable to the **`status`** verb.

call

The following targets are applicable to the **`status call`** object.

active

The **`active`** target shows the status of all active calls in the system.

Arguments:

`[-c conference]`	Restrict output to the specified conference ID.
`[-C call]`	Restrict output to the specified call ID.
`[-d incoming|outgoing]`	Restrict output to the specified call direction.
`[-t audio|video]`	Restrict output to the specified call type.

Examples:

```
status call active
1,1,Connected,No,Video,10.10.11.166,Techpubs,Yes,h323,No,0:02:23

ok,00
```

Note: The output in the following example is split by column into tables for visual clarity. The actual output is a single line for each call.

```
status call active -V -c 1
Call   Conf   State        Incoming   Type    Number
1      1      Connected    No         Video   10.10.11.166

Name        Muted   Protocol   Secure   Duration
Techpubs    Yes     h323       No       0:02:29

ok
```

```
status call active -d incoming -t video
5,1,Connected,Yes,Video,10.10.11.166,Techpubs,Yes,h323,No,0:00:25

ok,00
```

Note: Valid values for the `State` field are *`Dialing`*, *`Ringing`*, *`Connected`*, *`Terminating`*, and *`Ringback`*. Valid values for the `Type` field are *`Video`*, *`Audio`*, and *`Unknown`*.

In software release v3.0, a LifeSize system that is a far end participant in a multiway call with a LifeSize system that is the MCU lists the virtual parties (the non-directly connected parties) of the call with *V* as the call ID. It is not possible to restrict output to only virtual parties.

history

The **`history`** target shows historical information on completed calls. Active calls are not shown. The information consists of the following fields:

Field Number	Field Name	Description	Display Mode[a]
1	`ID`	The call identifier—a monotonically incrementing index for the call **Note**: This is not the call handle used during an active call.	Default
2	`Conf`	The conference identifier— a monotonically incrementing index used to distinguish conference participants **Note**: This is not the conference handle used during an active conference.	Default
3	`Local Name`	The name of the local system (the system providing the call history)	Default
4	`Local Number`	The number of the local system	Default
5	`Remote Name`	The name of the remote system (the other participant in the call)	Default
6	`Remote Number`	The number of the remote system	Default
7	`Dialed Digits`	The digits used to place the call	Default
8	`Start Time`	The time in ISO date format at which the call started	Default

Field Number	Field Name	Description	Display Mode[a]
9	`End Time`	The time in ISO date format at which the call ended	Full
10	`Duration`	The length of the call in hours:minutes:seconds	Default
11	`Direction`	Indication of incoming or outgoing call	Default
12	`Protocol`	The communications protocol used for the call	Full
13	`Security`	The security protocol used for the call	Full
14	`Req Kibps`	Requested bit rate for the call	Full
15	`Act Kibps`	Actual bit rate for the call	Full
16	`TX Vid`	Transmit video codec used	Full
17	`TX Aud`	Transmit audio codec used	Full
18	`TX Res`	Transmit resolution used	Full
19	`RX Vid`	Received video codec used	Full
20	`RX Aud`	Received audio codec used	Full
21	`RX Res`	Received resolution	Full
22	`TX Pres`	Transmit presentation status—whether or not a presentation was transmitted	Full
23	`RX Pres`	Receive presentation status—whether or not a presentation was received	Full
24	`Pres Fmt`	Presentation format—the protocol used for the secondary video stream	Full
25	`Term Code`	Call termination code	Full
26	`TxV1 Pct Loss`	Percent packet loss of primary video transmitted	Full

Field Number	Field Name	Description	Display Mode[a]
27	`RxV1 Pct Loss`	Percent packet loss for primary video received	Full
28	`TxV1 Pkts Lost`	Number of packets lost for primary video transmitted	Full
29	`RxV1 Pkts Lost`	Number of packets lost for primary video transmitted.	Full
30	`TxV1 Avg Jitter`	Average jitter for primary video transmitted	Full
31	`RxV1 Avg Jitter`	Average jitter for primary video received	Full
32	`TxV1 Max Jitter`	Maximum jitter for primary video transmitted	Full
33	`RxV1 Max Jitter`	Maximum jitter for primary video received	Full
34	`TxA1 Pct Loss`	Percent packet loss for audio transmitted	Full
35	`RxA1 Pct Loss`	Percent packet loss for audio received	Full
36	`TxA1 Pkts Lost`	Number of packets lost for audio transmitted	Full
37	`RxA1 Pkts Lost`	Number of packets lost for audio received	Full
38	`TxA1 Avg Jitter`	Average jitter for audio transmitted	Full
39	`RxA1 Avg Jitter`	Average jitter for audio received	Full
40	`TxA1 Max Jitter`	Maximum jitter for audio transmitted	Full
41	`RxA1 Max Jitter`	Maximum jitter for audio received	Full
42	`TxV2 Pct Loss`	Percent packet loss for secondary video transmitted	Full
43	`RxV2 Pct Loss`	Percent packet loss for secondary video received	Full

Field Number	Field Name	Description	Display Mode[a]
44	`TxV2 Pkts Lost`	Number of packets lost for secondary video transmitted	Full
45	`RxV2 Pkts Lost`	Number of packets lost for secondary video transmitted	Full
46	`TxV2 Avg Jitter`	Average jitter for secondary video transmitted	Full
47	`RxV2 Avg Jitter`	Average jitter for secondary video received	Full
48	`TxV2 Max Jitter`	Maximum jitter for secondary video transmitted	Full
49	`RxV2 Max Jitter`	Maximum jitter for secondary video received	Full

a. The `Default` display mode indicates that the field always appears in the output. The `Full` display mode indicates that the field appears in the output only when you specify the `-f` option with the command. By default, only a limited set of statistics appear.

Arguments:

`[-U]`	Show times as UTC instead of local time.
`[-f]`	Enable full display mode showing all available statistics.
`[-X]`	Shows data for up to 1000 calls. When this argument is not specified, the maximum number of calls for which data is shown is 26. This argument cannot be used with -V.

Examples:

`status call history`

```
39,10,lifesize,10.10.11.209,unknown,9710,1234567,2007-07-09 17:13:32,01:02:56,In
38,10,lifesize,10.10.11.209,unknown,1310,8901234,2007-07-09 16:14:03,00:00:00,In
37,9,lifesize,10.10.11.209,unknown,9710,5678901,2007-07-09 15:13:13,00:16:45,In

ok,00
```

Note: The output in the following example is split by column into tables for visual clarity. The actual output is a single line for each call.

status call history -V

```
ID   Conf  Local Name  Local Number   Remote Name  Remote Number  Dialed Digits
39   10    lifesize    10.10.11.209   unknown      9710           1234567
38   10    lifesize    10.10.11.209   unknown      1310           8901234
37   9     lifesize    10.10.11.209   unknown      9710           5678901


Start Time          Duration   Direction
2007-07-09 17:13:32 01:02:56   In
2007-07-09 16:14:03 00:00:00   In
2007-07-09 15:13:13 00:16:45   In

ok
```

status call history -f

```
39,10,lifesize,10.10.11.209,unknown,9710,1234567,
   2007-07-09 17:13:32,2007-07-09,18:16:28,01:02:56,In,H.323,
   None,512,448,H.264,G.711Ulaw,HD,H.264,G.711Ulaw,HD,No,No,
   None,Normal,0.000,0.000,0,0,5.000,5.000,16,9,0.000,0.000,0,0,
   31.000,31.000,31,31,0.000,0.000,0,0,0.000,0.000,0,0

38,10,lifesize,10.10.11.209,unknown,1310,8901234,
   2007-07-09 16:14:03,2007-07-09 16:14:03,00:00:00,In,H.323,
   None,1152,0,,,,,,,No,No,None,Normal,0.000,0.000,0,0,5.000,
   5.000,16,9,0.000,0.000,0,0,31.000,31.000,31,31,0.000,0.000,0,
   0,0.000,0.000,0,0

37,9,lifesize,10.10.11.209,unknown,9710,5678901,
   2007-07-09 15:13:13,2007-07-09 15:29:58,00:16:45,In,H.323,
   None,512,448,H.264,G.711Ulaw,HD,H.264,G.711Ulaw,HD,No,No,
   None,Normal,0.000,0.000,0,0,5.000,5.000,16,9,0.000,0.000,0,0,
   31.000,31.000,31,31,0.000,0.000,0,0,0.000,0.000,0,0

ok,00
```

The output in the following example is split by column into multiple tables for visual clarity. The actual output is a single line for each call.

status call history -V -f

ID	Conf	Local Name	Local Number	Remote Name	Remote Number	Dialed Digits
39	10	lifesize	10.10.11.209	unknown	9710	1234567
38	10	lifesize	10.10.11.209	unknown	1310	8901234
37	9	lifesize	10.10.11.209	unknown	9710	5678901

Start Time	End Time	Duration	Direction	Protocol	Security
2007-07-09 17:13:32	2007-07-09 18:16:28	01:02:56	In	H.323	None
2007-07-09 16:14:03	2007-07-09 16:14:03	00:00:00	In	H.323	None
2007-07-09 15:13:13	2007-07-09 15:29:58	00:16:45	In	H.323	None

Req Kibps	Act Kibps	TX Vid	TX Aud	TX Res	RX Vid	RX Aud	RX Res
512	448	H.264	G.711Ulaw	HD	H.264	G.711Ulaw	HD
1152	0						
512	448	H.264	G.711Ulaw	HD	H.264	G.711Ulaw	HD

TX Pres	RX Pres	Pres Fmt	Term Code	TxV1 Pct Loss	RxV1 Pct Loss	TxV1 Pkts Lost
No	No	None	Normal	0.000	0.000	0
No	No	None	Normal	0.000	0.000	0
No	No	None	Normal	0.000	0.000	0

RxV1 Pkts Lost	TxV1 Avg Jitter	RxV1 Avg Jitter	TxV1 Max Jitter	RxV1 Max Jitter
0	5.000	5.000	16	9
0	5.000	5.000	16	9
0	5.000	5.000	16	9

TxA1 Pct Loss	RxA1 Pct Loss	TxA1 Pkts Lost	RxA1 Pkts Lost	TxA1 Avg Jitter
0.000	0.000	0	0	31.000
0.000	0.000	0	0	31.000
0.000	0.000	0	0	31.000

RxA1 Avg Jitter	TxA1 Max Jitter	RxA1 Max Jitter	TxV2 Pct Loss	RxV2 Pct Loss
31.000	31	31	0.000	0.000
31.000	31	31	0.000	0.000
31.000	31	31	0.000	0.000

```
TxV2 Pkts Lost  RxV2 Pkts Lost  TxV2 Avg Jitter  RxV2 Avg Jitter TxV2 Max Jitter
0               0               0.000            0.000           0
0               0               0.000            0.000           0
0               0               0.000            0.000           0

RxV2 Max Jitter
0
0
0

ok
```

statistics

The **`statistics`** target shows bandwidth and codec statistics for active calls or a specific active call.

Note: The user interface shows statistics for the virtual parties in a virtual multiway call; autosh shows only statistics for the actual link.

Following are the complete set of fields that appear.

Field Number	Field Name	Description
1	`ID`	The call handle
2	`ARX Codec`	Audio Receive Codec - shows the audio codec used by the remote transmitter.
3	`Kibps`	Kilo Bits per second - shows the bit rate divided by 1024 for the preceding column's codec.
4	`ATX Codec`	Audio Transmit Codec - shows the audio codec used by the local transmitter.
5	`Kibps`	Kilo Bits per second - shows the bit rate divided by 1024 for the preceding column's codec.
6	`VRX Codec`	Video Receive Codec - shows the video codec used by the remote transmitter.
7	`Kibps`	Kilo Bits per second - shows the bit rate divided by 1024 for the preceding column's codec.
8	`VTX Codec`	Video Transmit Codec - shows the video codec used by the local transmitter.

Field Number	Field Name	Description
9	`Kibps`	Kilo Bits per second - shows the bit rate divided by 1024 for the preceding column's codec.
10	`ARX Jitter`	Audio Receive Jitter - shows the packet jitter from the remote audio transmission.
11	`ARX Pktps`	Audio Receive Packets per second - shows the received audio packet rate which is dependent on the bit rate and codec used.
12	`ARX Pkt Loss`	Audio Receive Packet loss - shows the instantaneous number of audio packets transmitted by the remote side that were never received (or received too late) at the local side.
13	`ARX Cumu Loss`	Audio Receive cumulative packet loss - shows the total number of remote transmitted audio packets that were lost.
14	`ARX % Loss`	Audio Receive percentage packet loss - shows the percent of the total remote transmitted audio packets that were lost.
15	`Kibps`	Kilo Bits per second - shows the bit rate divided by 1024 for the preceding column's codec.
16	`ARX Jitter`	Audio Receive Jitter - shows the packet jitter from the remote audio transmission.
17	`ARX Pktps`	Audio Receive Packets per second - shows the received audio packet rate which is dependent on the bit rate and codec used.
18	`ARX Pkt Loss`	Audio Receive Packet loss - shows the instantaneous number of audio packets transmitted by the remote side that were never received (or received too late) at the local side.
19	`ARX Cumu Loss`	Audio Receive cumulative packet loss - shows the total number of remote transmitted audio packets that were lost.
20	`ARX % Loss`	Audio Receive percentage packet loss - shows the percent of the total remote transmitted audio packets that were lost.
21	`ATX Jitter`	Audio Transmit Jitter - shows the packet jitter from the local audio transmission.

Field Number	Field Name	Description
22	`ATX Pktps`	Audio Transmit Packets per second - shows the transmitted audio packet rate which is dependent on the bit rate and codec used.
23	`ATX Pkt Loss`	Audio Transmit Packet loss - shows the instantaneous number of audio packets transmitted by the local side that were never received (or received too late) at the remote side.
24	`ATX Cumu Loss`	Audio Transmit cumulative packet loss - shows the total number of locally transmitted audio packets that were lost.
25	`ATX % Loss`	Audio Transmit percentage packet loss - shows the percent of the total locally transmitted audio packets that were lost.
26	`VRX Jitter`	Video Receive Jitter - shows the packet jitter from the remote video transmission.
27	`VRX Pkt Loss`	Video Receive Packet loss - shows the instantaneous number of video packets transmitted by the remote side that were never received (or received too late) at the local side.
28	`VRX Cumu Loss`	Video Receive cumulative packet loss - shows the total number of remote transmitted video packets that were lost.
29	`VRX % Loss`	Video Receive percentage packet loss - shows the percent of the total remote transmitted video packets that were lost.
30	`VRX Fps`	Video Receive Frames per second - shows the frame rate of the received video.
31	`VRX Res`	Video Receive Resolution - shows the resolution (width by height) of the received video.
32	`VTX Jitter`	Video Transmit Jitter - shows the packet jitter from the local video transmission.
33	`VTX Pkt Loss`	Video Transmit Packet loss - shows the instantaneous number of video packets transmitted by the local side that were never received (or received too late) at the remote side.

Field Number	Field Name	Description
34	`VTX Cumu Loss`	Video Transmit cumulative packet loss - shows the total number of local transmitted video packets that were lost.
35	`VTX % Loss`	Video Transmit percentage packet loss - shows the percent of the total number of local transmitted video packets that were lost.
36	`VTX Fps`	Video Transmit Frames per second - shows the frame rate of the transmitted video.
37	`VTX Res`	Video Transmit Resolution - shows the resolution (width by height) of the transmitted video.

Arguments:

[-C *callHandle*]	Specify that statistics for a specific call handle are desired. This argument cannot be used with **-a**.
[-a]	The output produced by specifying the **-a** argument with this target for recent calls statistics is deprecated. The target accepts the **-a** argument, but ignores it. Specifying this argument produces statistics only for active calls.

Examples:

```
status call statistics
1,G722,78.1,AAC_LC,94.0,H264,924.6,H264,893.9,19,50,0,0,
   0.000000,19,50,0,0,0.000000,7,0,0,0.000000,30,
   1280 720,7,0,0,0.000000,30,1280 720
4,G711ULAW,62.4,G711ULAW,62.4,H264,1050.2,H264,1050.2,17,50,0,0,
   0.000000,17,50,0,4,0.000000,9,0,0,0.000000,30,
   1280 720,9,0,0,0.000000,30,1280 720

ok,00
```

The output in the following example is split by column into tables for visual clarity. The actual output is a single line for each call.

```
status call statistics -v
ID   ARX Codec   Kibps   ATX Codec   Kibps   VRX Codec  Kibps   VTX Codec
1    G722        78.1    AAC_LC      94.0    H264       924.6   H264
4    G711ULAW    62.4    G711ULAW    62.4    H264       1050.2  H264
```

```
Kibps    ARX Jitter    ARX Pktps   ARX Pkt Loss  ARX Cumu Loss   ARX % Loss
893.9    19            50          0             0               0.000000
1050.4   17            50          0             0               0.000000

ATX Jitter  ATX Pktps ATX Pkt Loss  ATX Cumu Loss ATX % Loss  VRX Jitter
19          50        0             4             0.000000    7
17          50        0             4             0.000000    9

VRX Pkt Loss  VRX Cumu Loss VRX % Loss    VRX Fps    VRX Res    VTX Jitter
0             0             0.000000      30         1280 720   7
0             0             0.000000      30         1280 720   9

VTX Pkt LossVTX Cumu Loss VTX % Loss   VTX Fps   VTX Res
0           0             0.000000     30        1280 720
0           0             0.000000     30        1280 720


ok

status call statistics -C 1
1,G722,62.4,AAC_LC,93.7,H264,924.6,H264,894.8,19,50,0,0,
   0.000000,19,50,0,0,0.000000,7,0,0,0.000000,30,
   1280 720,7,0,0,0.000000,30,1280 720

ok,00
```

Presentation targets

The **`presentation`** object shows information about presentations.

statistics

The **`statistics`** target shows information about active presentations, either received or transmitted.

Arguments:

[-c *conference*]	Restrict output to the specified conference ID.

Examples:

```
status presentation statistics
1,true,rx,dec2,H264,145.6,1280 720

ok,00

status presentation statistics -c 1 -V
Conf        Enabled     Type        Device      Codec       Kibps       Resolution
1           true        tx          sd0         H264        144.7       704 480


ok
```

control Verb: Objects and Targets

The following objects and targets are applicable to the **`control`** verb.

Asynchronous Messages

During normal operation, the system may receive asynchronous messages relating to call status changes, presentation status changes, or incoming call notifications. These messages are printed after a command completes between the ok or error message and the shell prompt, for example:

```
...
ok,00
CS,3,1,Connected,Video,Normal,10.10.11.10,LifeSize
<prompt>
```

In addition, if the shell detects that no input has been received since the prompt was printed, it may spontaneously print an asynchronous message by emulating the user having pressed return. In this way, asynchronous messages are delivered in a timely fashion while still guaranteeing that the messages do not interfere with processing the current command being executed.

Because asynchronous messages may be received at any time and to preserve the order in which messages arrive, some commands do not produce any synchronous output and instead produce only asynchronous output. Execution of these commands generally causes asynchronous messages (for example, placing a call, starting a presentation). Commands that operate in this fashion are indicated as doing so in the description of the command.

Call Status Messages

While a call is active, or as a response to the **`control call`**, **`add-part`**, **`answer`**, **`del-part, dial`** and **`hangup`** commands, the CLI produces status messages about the call. These messages use the Call Status (CS) format. For example:

```
...
ok,00
CS,3,1,Connected,Video,Normal,10.10.11.10,LifeSize
<prompt>
```

The meaning of the columns is as follows:

Col #	Meaning	Values	Description
1	Prefix	CS	CS indicates that this asynchronous event is a call status update.
2	Call ID	<number>	Indicates the number of the call.
3	Conference ID	<number>	Indicates the number of the conference managing this call.
4	State	On Hook Terminating Terminated Off Hook Valid Number Dialing Proceeding Ringing Answered Number Answered Consult Connected Call Encrypted Call Not Encrypted Notify Info Ring Incoming Caller ID Local Ring Back Off Remote Pres Begin Remote Pres End Remote Pres Failed Far End Mute Far End Unmute Far End Hold Far End Resume	Phone is on hook. Call is terminating. Call is terminated (but may still be off hook). Phone is off hook. Dialed number is valid. Dialing is proceeding. Call is proceeding. Call is ringing. Answered number information. When a call is answered in consult mode (private from main call). Call is connected. Call is encrypted. Call is not encrypted. Notification of miscellaneous events. Incoming call received. Caller ID information. Local ringback is off. A remote presentation is beginning. A remote presentation is ending. The remote presentation has failed. The far end has muted the microphone. The far end has unmuted the microphone. The far end has placed the call on hold. The far end has resumed the call.
5	Type	Audio Video Unknown	The message pertains to an audio call. The message pertains to a video call. The message pertains to either type of call.

Col #	Meaning	Values	Description
6	Disconnect Reason	Normal	Normal disconnection.
		Unknown	Unknown reason for disconnection.
		Busy	Remote end is busy.
		No Answer	Remote end did not answer.
		Bad Number	Invalid number dialed.
		Comm Failure	Communications failure.
		Unreachable	Remote end is unreachable.
		Rejected	Remote end rejected the call.
		Max Calls	Simultaneous call limit reached.
		Parse Error	Parse error in called address.
		Enc Not Sup	Encoder not supported.
		No Bandwidth	No bandwidth available for call.
		Unreachable GK	Gatekeeper is unreachable.
		GK Resources	Gatekeeper out of resources for call.
		GW Resources	Gateway out of resources for call.
		Invalid Addr	Invalid called address.
		Not Registered	Called address not registered.
		SIP 400	SIP Bad request.
		SIP 403	SIP Disallowed.
		SIP 404	SIP Remote party not in a domain.
		SIP 415	SIP Mismatched codec.
		SIP 416	SIP Unsupported address.
		SIP 480	SIP User temporarily unavailable.
		SIP 500	SIP Server error.
		SIP 502	SIP Bad gateway.
		SIP 513	SIP Server failed - request too large.
		SIP 603	SIP User declined call.
		SIP 606	SIP Service not acceptable.
7	Number	<IP or PSTN #>	The phone number of the remote side of the call.
8	Name	<string>	The assigned name of the remote system.

Incoming Call Messages

When an incoming call is received, a status message about the call is printed. These messages use mostly the same format as the call status messages previously described, but are prefixed with “IC” (incoming call) instead of “CS” and do not contain the disconnect reason field (column 6 in the previous example), for example:

```
...
ok,00
IC,16,1,Ringback,Video,10.10.11.155,Sunshine
<prompt>
```

Once an incoming call notice has been generated, further notices about that specific call are relayed through call status (“CS”) messages.

Presentation Status Messages

While a presentation is active, or as a response to the **`control call presentation`** command, the CLI produces status messages about the presentation. These messages use the PS (presentation status) format, for example:

```
...
ok,00
PS,15,1,Terminated,No,Rejected
<prompt>
```

The output columns for this command are as follows:

Col #	Meaning	Values	Description
1	Prefix	PS	PS indicates that this asynchronous event is a presentation status event.
2	Presentation ID	<number>	Indicates the number of the presentation.
3	Conference ID	<number>	Indicates the number of the conference running the presentation.
4	State	Initiated Terminated Relinquished	The presentation has started. The presentation has ended. The local presentation has been superseded by a remote one.
5	Remote	Yes No	The presentation message concerns a remote presentation. The presentation message concerns a local presentation.
6	Disconnect Reason	None Normal Rejected Unknown	No disconnect has occurred. Normal disconnect occurred (phone on hook). The presentation was rejected. Unknown disconnect occurred.

Far Camera Control Messages

During an active call you may receive control messages for the local camera. The system normally handles these messages internally, but in the event that an external pan-tilt-zoom camera is being used, external control software can use these messages to determine what actions to take with that camera. These messages use the FC (far camera) format. For example:

```
...
ok,00
FC,1,Near,main,Move,Pan Left  # Begin moving camera left.
...
ok,00
FC,1,Near,main,Move,Continue  # Continue current camera motion.
...
ok,00
FC,1,Near,main,Stop,None   # Stop camera movement.
...
ok,00
FC,1,Near,aux,None,None    # Change the camera source.
```

Following are the output columns for this format:

Col #	Meaning	Values	Description
1	Prefix	FC	FC indicates this asynchronous event is a far camera control message.
2	Call ID	<number>	The call ID associated with this message.
3	Where	Near Far None	The local camera is the target of the operation. The far camera is the target of the operation. The message does not pertain to a camera.
4	Target	main aux doc auxdoc playback 6..15	Indicates that the primary HD camera is available. Indicates that the secondary HD camera is available. Applies to LifeSize Room, LifeSize Express, LifeSize Room 200, LifeSize Room 220, LifeSize Team 200, and LifeSize Team 220. On LifeSize Express, this is a camera connected to the HD input. On LifeSize Room 200, LifeSize Room 220, LifeSize Team 200, and LifeSize Team 220, this is a camera connected to HD input 1. Indicates that the document camera is available. Applies to LifeSize Room and LifeSize Team MP. Indicates that the VGA input (LifeSize Room, LifeSize Team MP, and LifeSize Express) or the DVI-I input (LifeSize Room 200, LifeSize Room 220, LifeSize Team 200, LifeSize Team 220, LifeSize Express 200, and LifeSize Express 220) is available. Indicates that the DVD/VCR input is available. Applies to LifeSize Room, LifeSize Room 200, and LifeSize Room 220. Indicates other video sources that may be available on the device. On a LifeSize system, the value 6 is a camera on HD input 2 on LifeSize Room 200 and LifeSize Room 220.
5	Operation	Move Stop None	The camera should begin or continue motion. The camera should stop all motion immediately. The message is not a motion control message.

Col #	Meaning	Values	Description
6	Movement	Pan Left	Pan the camera to the left.
		Pan Right	Pan the camera to the right.
		Tilt Up	Tilt the camera up.
		Tilt Down	Tilt the camera down.
		Zoom In	Zoom the camera in (telephoto).
		Zoom Out	Zoom the camera out (widen).
		Focus In	Focus the camera in.
		Focus Out	Focus the camera out.
		None	Not a camera motion operation.

The movement messages generally do not indicate the camera being operated, so any control software must use **`get video primary-input`** to determine the camera to control if more than one PTZ camera is connected to the system. Monitoring for source change messages is insufficient, because the local user can change the camera source without causing a message to be generated.

Mute Status Messages

During normal call operation, the state of the remote side mute function is available through the call status messages. The local mute status is available through the Mute Status message. These messages use the `MS` prefix and are in direct response to the user pressing the local mute button on either the phone or the remote. The mute status messages use the following format:

```
...
ok,00
MS,true
...
ok,00
MS,false
```

When the second column is *`true`*, the local side is muted. When the second column is *`false`*, the local side is not muted. When an outgoing call is placed, the local mute status is false. When an incoming call is placed, the state of the auto-mute (see **`get call auto-mute`**) controls the initial state. The current status is available through the **`get audio mute`** command.

Video Capabilities Messages

The remote side of a call may support sending more than one video source. The video capabilities message provides a means to determine which sources are supported and what capabilities they provide. This message generally appears after a call is connected, but may also appear mid call if the remote codec supports hot-plugging of video sources. Video capabilities messages use the following format:

```
...
ok,00
VC,12,2,main,PTZF,auxdoc,---
...
ok,00
VC,12,1,main,PTZF
```

The output columns are as follows:

Col #	Meaning	Values	Description
1	Prefix	VC	VC indicates that this asynchronous event is a video capabilities message.
2	Call ID	<*number*>	The call ID associated with this message.
3	Count	<*number*>	The number of video sources available for this call. Each video source indicated in this count has two additional columns.
4, 6, ...	Source	main	Indicates that the primary HD camera is available.
		aux	Indicates that the secondary HD camera is available. Applies to LifeSize Room, LifeSize Express, LifeSize Room 200, LifeSize Room 220, LifeSize Team 200, and LifeSize Team 220. On LifeSize Express, this is a camera connected to the HD input. On LifeSize Room 200, LifeSize Room 220, LifeSize Team 200, and LifeSize Team 220, this is a camera connected to HD input 1.
		doc	Indicates that the document camera is available. Applies to LifeSize Room and LifeSize Team MP.
		auxdoc	Indicates that the VGA input (LifeSize Room, LifeSize Team MP, and LifeSize Express) or the DVI-I input (LifeSize Room 200, LifeSize Room 220, LifeSize Team 200, LifeSize Team 220, LifeSize Express 200, and LifeSize Express 220) is available.
		playback	Indicates that the DVD/VCR input is available. Applies to LifeSize Room, LifeSize Room 200, and LifeSize Room 220.
		6..15	Indicates other video sources that may be available on the device. On a LifeSize system, the value 6 is a camera on HD input 2 on LifeSize Room 200 and LifeSize Room 220.
5, 7, ...	Capabilities	`PTZF` or `----` or a combination	Each character is a flag indicating a capability supported. `P` indicates support for panning, `T` indicates support for tilting, `Z` indicates support for zooming and `F` indicates support for focusing. A dash (-) indicates that the corresponding capability is not present.

Only the supported sources are reported. If a source is not listed, video is not available from that source.

System Sleep Messages

System sleep messages are generated when a system goes to sleep and when it wakes up.

```
...
ok,00
SS,true
...
ok,00
SS,false
```

When the second column is *`true`*, the system has gone to sleep. When the second column is *`false`*, the system has awakened.

call

The following targets are applicable to the **`call`** object.

For those targets that take a called address, the address may be specified as an IP address, a PSTN phone number, a URI, or a directory specification string. Following are the directory specification strings:

Form	Description
redial:<n>	Dial the indicated entry from the redial list. Entry 1 is at the top of the list, entry 2 is the entry immediately following it. The ordering of the redial list changes as calls are placed and received. For automation use, do not use this form unless the intent is to redial the last call.
redial:<string>	Dial the indicated entry from the redial list. The string is used as a case insensitive prefix to match the name stored in the redial list (the name that shows in the user interface). For example, the prefix “sun” matches the names “sunrise” and “SUNSET”, but not “summer” or “fun-in-the-sun”. For automation use, the prefix should completely specify the intended entry and that entry should be locked in the redial list.
local:<string>	Dial the indicated entry from the local directory. The string is used as a case insensitive prefix to match against the name stored in the local directory. For automation use, the string should completely specify the desired entry.
corp:<string>	Dial using the indicated entry from the corporate (network) directory.
meeting:<string>	Dial using the indicated entry from the meetings directory. Can only be used with **`dial`** to initiate a new meeting, not add a participant with **`add-part`**.

add-part

The **`add-part`** target places a conference call if one does not exist or adds a new participant to an existing conference call. This command produces only asynchronous messages as a response to ensure proper ordering of displayed call status.

Arguments:

`[-b {auto|128|192|256|320|384|512|640|768|896|1024|1152|1280|1472|1728|1920|2000|2500|3000|4000|5000|6000|7000|8000}]`	Specify the maximum bandwidth in kilobits per second (kb/s) to use for the call. Use `auto` to use the configured maximum bandwidth. The default is `auto`. LifeSize Room 220 supports bandwidths up to 8000 kb/s. LifeSize Room, LifeSize Room 200, and LifeSize Team 220 support bandwidths up to 6000 kb/s. LifeSize Express 220, LifeSize Team 200, and LifeSize Team MP support bandwidths up to 4000 kb/s. LifeSize Express and LifeSize Express 200 support bandwidths up to 2000 kb/s.
`[-p {auto|h323|h323gw|isdn|pstn|sip}]`	Specify the protocol to use to connect the new party to the call. The default is auto.
`[-t {audio|video}]`	Specify to add the participant as an audio or video call. The default is video. Specifying video fails on LifeSize Express, LifeSize Express 200, and LifeSize Express 220 if a video call is in progress.
`<confHandle>`	Specify the handle to the conference to which to add the participant. Specify `0` to place a conference call if one does not exist or to specify the active conference.
`<number>`	Specify the phone number, IP address, or URI of the party to add.

Examples:

```
set prompt "% "

ok,00
```

Initiate a call:

```
% control call add-part 0 -t audio 10.10.11.166

ok,00
CS,4,1,Dialing,Audio,Normal,10.10.11.166,10.10.11.166
```

Add a participant to an existing call:

```
% control call add-part 1 -p pstn -t audio 555-1212

ok,00
CS,3,1,Ringing,Video,Normal,10.10.11.10,LifeSize
% control call add-part -V 2 -p h323 10.10.11.11 -b 1024

ok
CS,5,2,Ringing,Video,Normal,10.10.11.10,LifeSize
```

Add 3rd redial entry as call:

```
% control call add-part 1 redial:3

ok,00
CS,3,1,Ringing,Audio,Normal,1-512-555-1212,
%
```

Refer to “Asynchronous Messages” on page 289 for a description of the response.

answer

The **`answer`** target answers or rejects an incoming call. This command produces only asynchronous messages as a response to ensure proper ordering of displayed call status.

Arguments:

`[-r]`	Specify whether to reject the call. The default is to answer. Cannot be used with **`-t`**.
`[-t {audio|video}]`	Specify whether to answer the call as an audio or video call. Cannot be used with **`-r`**.
`<callHandle>`	Specify the handle of the incoming call to answer.

Examples:

```
set prompt "% "

ok,00
% control call answer 1 -t audio

ok,00
CS,1,2,Connected,Audio,Normal,10.10.11.10,LifeSize
% control call answer 2 -r -V

ok
CS,1,2,Terminated,Video,Rejected,10.10.11.10,LifeSize
%
```

Refer to “Asynchronous Messages” on page 289 for a description of the response.

del-part

The **`del-part`** target drops a participant from an existing conference call. This command produces only asynchronous messages as a response to ensure proper ordering of displayed call status.

Arguments:

<callHandle>	Specify the handle to the call on which to drop the participant.

Examples:

```
set prompt "% "

ok,00
% control call del-part 3

ok,00
CS,3,2,Terminated,Video,Normal,10.10.11.10,LifeSize
% control call del-part -V 2

ok
CS,2,2,Terminated,Video,Normal,10.10.11.10,LifeSize
%
```

Refer to “Asynchronous Messages” on page 289 for a description of the response.

dial

The **`dial`** target initiates a new call. This command produces only asynchronous messages as a response to ensure proper ordering of displayed call status.

Arguments:

`[-b {auto|128|192|256|320|384|512|640|768|896|1024|1152|1280|1472|1728|1920|2000|2500|3000|4000|5000|6000|7000|8000}]`	Specify the maximum bandwidth to use for the call. Use `auto` to use the configured maximum bandwidth. The default is auto. LifeSize Room 220 supports bandwidths up to 8000 kb/s. LifeSize Room, LifeSize Room 200, and LifeSize Team 220 support bandwidths up to 6000 kb/s. LifeSize Express 220, LifeSize Team 200, and LifeSize Team MP support bandwidths up to 4000 kb/s. LifeSize Express and LifeSize Express 200 support bandwidths up to 2000 kb/s.
`[-p {auto|h323|h323gw|isdn|pstn|sip}]`	Specify the protocol to use to connect the new party to the call. The default is auto.
`[-t {audio|video}]`	Specify to add the participant as an audio or video call. The default is video.
<number>	Specify the phone number, IP address, or URI of the party to dial.

Examples:

```
set prompt "% "

ok,00
% control call dial 10.10.11.155

ok,00
CS,1,2,Ringing,Video,Normal,10.10.11.10,LifeSize
% control call dial -V -p h323 -t video 10.10.11.11 -b 1024

ok
CS,1,2,Ringing,Video,Normal,10.10.11.10,LifeSize
```

Dial using local directory entry:

```
% control call dial "local:john doe"
```

```
ok,00
CS,3,1,Ringing,Video,Normal,192.168.168.203,John Doe
```

Dial an MCU using a conference ID to join an existing conference.

% control call dial *ip_address_of_MCU##conference_id_number*

```
ok,00
CS,3,1,Ringing,Video,Normal,192.168.168.203,John Doe
```

Refer to “Asynchronous Messages” on page 289 for a description of the response.

display

The **display** target controls what remote source is shown on the local display.

Arguments:

[-s {main|aux|doc|auxdoc|playback|6|7|8|9|10|11|12|13|14|15}]	Specify the far camera source; the default is main. The description for these options is the same as the description for the output that appears in even-numbered columns 4 and greater in the video capabilities and far camera control messages. Refer to "Video Capabilities Messages" on page 297 or “Far Camera Control Messages” on page 294.
<*callhandle*>	Specify the call whose camera source is to be changed.

Examples:

control call display *4* # Switch to the main video source

```
ok,00
```

control call display -s *doc 4* # Switch to the document camera source

```
ok,00
```

dtmf

The **dtmf** target allows sending DTMF tones inband in an active call (for example, to access remote menu systems).

Arguments

<*callHandle*>	Specify the handle of the call to which to send digits.
<{0-9|A-D|a-d|*|#}>	Specify the digits to dial. The digits may be strung together for example, 5551212*#).

Examples:

```
control call dtmf 1 123456789abcd*#ABCD

ok,00
```

hangup

The **hangup** target disconnects from either a conference (multi-way call) or a single-way call. This command produces only asynchronous messages as a response to ensure proper ordering of displayed call status.

Arguments:

[-a]	Specify that all active calls be terminated (cannot be used with **-c** and <handle>)
[-c]	Terminate a conference. The default is a single call.
<*handle*>	Specify the call or conference handle to disconnect.

Examples:

```
set prompt "% "

ok,00
% control call hangup 1

ok,00
CS,1,2,Terminated,Video,Normal,10.10.11.10,LifeSize
% control call hangup -c 2 -V

ok
CS,1,2,Terminated,Audio,Normal,10.10.11.10,LifeSize
%
```

```
%control call hangup -a

ok,00
CS,1,2,Terminated,Video,Normal,10.10.11.10,LifeSize
```

Refer to “Asynchronous Messages” on page 289 for a description of the response.

Note: The **hangup** command may occasionally report an error even though the call was actually hung up. To ensure the correct response for this command, refer to the asynchronous output that follows the command to determine the actual state of the command.

hook

The **hook** target enables control of the hook status of a PSTN call. The following operations are supported:

- **off**—takes the phone off hook in preparation to place a call
- **flash**—places the phone on hook for a short period and then takes it back off hook to allow access to features such as call waiting
- **on**—places the phone back on hook to hang up a call

Arguments:

[-t {h323|h323gw| isdn|pstn|sip}]	Specify the type of call on which to perform the hook operation. The default is pstn. The **-t** argument is valid only with **off** and **flash** operations.
<flash|off|on>	Specify the operation to perform.
[<*callHandle*>]	Specify the call on which to operate. The [<callHandle>] argument is valid only for the **on** operation.

Examples:

```
set prompt “%”

ok,00
% control call hook off

ok,00
CS,6,1,Dialing,Unknown,Normal,,
CS,6,1,Answered Number,Unknown,Normal,,
CS,6,1,Connected,Audio,Normal,,
```

```
% control call dial dtmf 6 5551212

ok,00
% control call hook flash

ok,00
% control call hook on 6

ok,00
CS,6,1,Terminated,Audio,Normal,,
%
```

presentation

The **presentation** target allows starting and stopping a presentation. All responses to this command are produced as asynchronous responses due to the interaction of local and remote presentations causing potential ordering issues with the output.

Arguments:

[-t {slides}]	Specify the source of the presentation. Slides indicates a PC based presentation. The default is ***slides***. Specifying this argument is optional.
<*confHandle*>	Specify the conference to which to provide the presentation. In all cases the value is ***1***.
<{start|stop}>	Specify whether to start or stop the presentation.

Examples:

```
control call presentation 1 start

ok,00
PS,15,1,Initiated,No,None

ok,00
control call presentation 1 stop -V

ok
PS,15,1,Terminated,No,Rejected

ok,00
```

Refer to “Asynchronous Messages” on page 289 for a description of the response.

reboot

The **`reboot`** target causes the system to reboot.

Arguments:

[*seconds*]	Delay the reboot for the indicated number of seconds.

Examples:

```
control reboot 60

ok,00
```

Note: Session terminated after 60 seconds.

remote

The **`remote`** target emulates the silver remote control by sending sequences of commands that replicate the functionality of the remote control.

Arguments:

`[-d` *`msec`*`]`	Specifies the delay between press and release events in milliseconds. The default is 250 ms. This allows setting the hold down delay for all buttons in a given sequence. Minimum 0 ms, maximum 2000 ms. Cannot be used with `-p` or `-r`.
`[-p]`	Only send a key press event. Cannot be used with `-d` or `-r` or multiple buttons.
`[-r]`	Only send a key release event. Cannot be used with `-d` or `-p` or multiple buttons.
`<call|tri|squ|cir|back|ok|left|right|up|down|vup|vdn|mute|zin|zout|near|far|1|2|3|4|5|6|7|8|9|0|*|#|home|dir|yellow|red|blue|green>`	Specify the specific button to press. You can specify as many buttons on the command line as desired. Buttons are processed in the sequence given on the command line.

Note: The **`home`** and **`dir`** arguments do not correspond to any keys that are physically present on the remote, but serve as an aid to creating deterministic automated remote control sequences. The **`home`** argument goes to the main screen of the user interface. The **`dir`** argument goes to the directory screen from any other screen within the user interface.

Examples:

```
control remote left left ok zin 1 2 3 4 5 #
```

```
ok,00
```

Remote emulation software usage - user presses and holds a button:

```
control remote -p left
```

```
ok,00
```

User releases button:

```
control remote -r left
```

```
ok,00
```

remote1

The **`remote1`** target emulates the black remote control by sending sequences of commands that replicate the functionality of the remote control.

Arguments:

`[-d msec]`	Specifies the delay between press and release events in milliseconds. The default is 250 ms. This allows setting the hold down delay for all buttons in a given sequence. Minimum 0 ms, maximum 2000 ms. Cannot be used with `-p` or `-r`.
`[-p]`	Only send a key press event. Cannot be used with `-d` or `-r` or multiple buttons.
`[-r]`	Only send a key release event. Cannot be used with `-d` or `-p` or multiple buttons.
`<call|hup|tri|squ|cir|back|ok|left|right|up|down|vup|vdn|mute|zin|zout|nf|layout|input|mode||1|2|3|4|5|6|7|8|9|0|*|#|home|dir|yellow|red|blue|green>`	Specify the specific button to press. You can specify as many buttons on the command line as desired. Buttons are processed in the sequence given on the command line. The `nf` argument refers to the button labeled **near/far** on the remote control.The `layout` and `mode` arguments refer to the and buttons respectively.

Note: The **`dir`** argument does not correspond to any key that is physically present on the remote, but serves as an aid to creating deterministic automated remote control sequences. The **`dir`** argument goes to the directory screen from any other screen within the user interface.

Examples:

```
control remote1 left left ok zin 1 2 3 4 5 #
```

```
ok,00
```

Remote emulation software usage - user presses and holds a button:

```
control remote1 -p left
```

```
ok,00
```

User releases button:

```
control remote1 -r left
```

```
ok,00
```

reset

The **`reset`** target configures the system to return to default configuration settings after the next system reboot.

Note: The reset target does not reboot the system. To return the system to default configuration settings after entering **`control reset`**, enter **`control reboot`**.

Arguments:

None

Examples:

```
control reset
```

```
ok,00
```

sleep

The **`sleep`** target puts the system into sleep mode.

Arguments:

None

Examples:

```
control sleep
```

```
ok,00
```

wakeup

The **`wakeup`** target wakes the system up from the sleep state if it was previously sleeping. It has no effect if the system is already awake.

Arguments:

None

Examples:

```
control wakeup
```

```
ok,00
```