Table of Contents

Let's get started

Congratulations on joining Lifesize for the ultimate video conferencing experience!

Learn more about your system	
After installing your system, complete additional setup tasks, such as changing default passwords and configuring firewalls.	**Configuration overview**
Then, start placing calls. You can also manage your calls, share data, and create recordings.	**Using your system**
Advanced preferences are available for additional configuration.	**Preferences and protocols**
Perform regular maintenance, such as software upgrades, restoring default settings, and troubleshooting.	**System maintenance**
Learn about Lifesize Cloud, a cloud-based video service that supports desktop, mobile, and browser-based video collaboration with your Icon.	**Lifesize Cloud**
Learn about what's new in the latest release.	**What's new**

Related information is available from **lifesize.com/support**.

Configuration overview

When you first install your system, a wizard directs you to configure the language, network settings, and time zone. You can also choose to connect your Icon to the Lifesize Cloud service at this time.

After installation, configure your video system using the remote control or from the system's web interface:

1. Open a web browser.
2. Navigate to the system IP address. This appears in ⓘ on the main screen.

Lifesize Cloud users: Select ⚙ > 📄 to view the IP address.

After installation you can also configure the following:

What do you want to do?	Read more
Connect to Lifesize Cloud. If you did not connect your Icon to Lifesize Cloud during initial configuration, reset your system to associate it with your Cloud account.	**Connecting to Lifesize Cloud**
Integrate your system with other Lifesize applications.	**Integrations**
Set administrator passwords. Sign in to the web interface and browse to **Preferences > Passwords**.	**System access and passwords**
Change the system date, time, and time zone. Sign in to the web interface and browse to **Preferences > Date and Time**.	**Date and time**
Change the language of the system's interface. Do one of the following: • Sign in to the web interface and browse to **Preferences > Appearance**. • Using the remote control, select ⚙ > 🏳. **NOTE**: To change the language of your system's web interface, select **Language** in the sign-in screen of the web interface.	**Language**
Change the system name. Sign in to the web interface and browse to **Preferences > System**. *Lifesize Cloud users:* your system name is defined through Lifesize Cloud when you connect the Icon to the service.	**System name**
Adjust the safe area. If the day, date, and time are not fully visible in the upper right corner of your display, select ⚙ > ▭ to adjust the safe area.	**System options**
Select a configuration for dual displays. *(Icon 600 and 800 only.)* Sign in to the web interface and browse to **Preferences > Appearance > Physical Display Arrangement**.	**Dual displays**
Upload a custom background to your Icon. If you have Icons that are connected to Lifesize Cloud, you can upload a custom background image to your systems from the Admin Console.	**Lifesize Cloud**
Customize your Lifesize Phone HD. For Lifesize Cloud customers with Lifesize Phone HD attached to a Lifesize Icon 400|600|800 system, you can customize the time zones and buttons on the home screen from the Admin Console.	**Lifesize Cloud**

What do you want to do?	Read more
Enable H.323 and SIP. Sign in to the web interface and browse here: • **Preferences > H.323** • **Preferences > SIP Registrar 1** • **Preferences > SIP Registrar 2**	**H.323** **SIP**
Configure preferences for calls, audio, and video. Sign in to the web interface and browse here: • **Preferences > Calls** • **Preferences > Audio** • **Preferences > Video**	**Call preferences** **Audio preferences** **Video preferences**
Configure your video system for firewall traversal.	**Configuring your firewall**
Enable automatic provisioning. Enable your video system to discover a provisioning server and to configure itself with settings that are specified on the server.	**Provisioning your Icon through UVC ClearSea**
Configure network preferences. Do one of the following: • Sign in to the web interface and browse to **Preferences > Network**. • Using the remote control select > and enter the passcode (by default, 1234) to access .	**System options**

System access and passwords

Remote control	Access administrator functions from the video system's display: Select ⚙ > 🔒 and enter the passcode (by default, 1234).
Browser	Open a web browser and enter the IP address of the Lifesize system. Log in with administrator credentials. The default username and password are *admin*. The IP address of the system appears in ⓘ on the main screen of the video system's display. *Lifesize Cloud users:* Select ⚙ > 📄 to view the IP address. By default, remote management of a Lifesize video system over HTTP is enabled at **Preferences > Security > Enable Remote Management Over HTTP**. **CAUTION**: Disabling HTTP logs you out and prevents you from logging back in to the system.
SSH	Log in with administrator credentials to an SSH session and enter commands to manage your Lifesize system remotely. The default username and password are *admin*. For an introduction to using the API, enter **help** at the command prompt. You can also access more detailed documentation about the commands at https://<*videoSystemIPAddress*>/docs/json/ By default, remote management over SSH is enabled at **Preferences > Security > Enable SSH Access**. **CAUTION**: Disabling SSH prevents you from managing the system remotely over SSH.
UVC Manager	With UVC Manager, administrators can manage video systems across the enterprise.

Navigate to **Preferences > Passwords** to manage passwords:

User	Access	Username	Default Password
Administrator	Browser, SSH	*admin*	*admin*
Administrator	Video system's display with the remote control	None	*1234*
Support	Browser, SSH	*support*	*support*

Passwords can be up to 16 characters in length and contain any combination of the numbers 0-9, the letters a-z and A-Z, and the symbols * (star) and # (pound). The passcode must be one to 32 characters in length and contain any combination of the numerals 0-9.

You cannot change the username.

System name, date, and time

System name

Define the video system name in **Preferences > System > System Name**.

NOTE: The system name is defined through Lifesize Cloud when you connect the Icon to the service.

System date and time

The system date and time are automatically set if one of the following conditions exists:

- DHCP is enabled in **Preferences > Network > Use DHCP** and the DHCP server passes an NTP server address to your system.
- You specify the hostname or IP address of an NTP server in **Preferences > Date and Time > NTP Server Hostname**.

NOTE: The value you specify for **NTP Server Hostname** is used in addition to any NTP server address that a DHCP server passes to your system.

The time zone is not set automatically. Navigate to **Preferences > Date and Time** to specify the time zone.

Language and dual displays

Language

Select a language for the system's interface in **Preferences > Appearance > Language**. You can also use the remote control: select  >  to change the language.

NOTE: To change the language of your system's web interface, select **Language** in the login screen.

Dual displays *(Icon 600 and 800 only)*

When you connect a second display, select a layout option in **Preferences > Appearance > Physical Display Arrangement**. Your LifeSize video system automatically configures the second display according to your selection and the state of the video system.

NOTE: Connecting a second display requires a license key. Contact your Lifesize representative for details.

Option	Display 1	Display 2
Default	Cameras, callers, local presentation, in-call presentation, composite callers + in-call presentation	Mirror, in-call presentation
Apart	Cameras, callers, local presentation	Mirror, in-call presentation
Adjacent	Cameras, callers, local presentation	In-call presentation only
Adjacent (Never Blank)	Similar to *Adjacent*, but mirrors local view or presentation when not in a call	Local view when in a video call without a presentation
Dual ***(Icon 800 only)***	Local view or presentation of input 1 when not in a call	Local view or presentation of input 2 when not in a call
Mirrored	Cameras, callers, local presentation, in-call presentation, composite callers + in-call presentation	Cameras, callers, local presentation, in-call presentation, composite callers + in-call presentation
Single	Cameras, callers, local presentation, in-call presentation, composite callers + in-call presentation	Deactivated

System options

Select for system options:

	Shows the status of the system, including communications, audio, system inputs and outputs, DHCP, auto provisioning, temperature sensors, and fan speeds.
	Shows detailed system information, including communications, audio, network, system inputs and outputs, DHCP, auto provisioning, and cameras.
	Allows you to configure the safe area of your display.
	Shows the system's IP address for your administrator to configure the system. If the system is not configured or inoperable, serial port information appears.
	Select the language for onscreen text.
	Shows licenses applied to the system.
	After confirmation, reboots the system.
	Provides administrative tools. This area requires a numeric passcode (by default, 1234). enables or disables DHCP. When DHCP is disabled, you can set the IP address, netmask, default gateway, and address of the static DNS server. Select **Test network** to test the connection. resets network settings to their default values: enables DHCP, resets the VLAN tag to 0, and enables HTTP and SSH. resets all settings to their default values and reboots the system. reverts the system to an alternate software version, resetting all preferences to their default values, and then reboots the system. Select to sign out.

Using your system

You can integrate your Icon with Lifesize Cloud, the UVC suite of applications, and Lifesize Bridge. Available options depend on the applications configured in your environment.

What do you want to do?	
Place, answer, and end a call	Select **Call** and navigate to one of the available calling options: **Favorites** **Recents** **Directory** **Meetings** **Keypad** (phone) or **Dialer** (video system) **Schedule** Select **Answer** and (to end a call). Learn more about **placing a call** and **managing your video system in a call**.
Initiate a presentation	Select **Presentation**. If you connect a laptop to a video input on the system during a call, a presentation starts automatically. **Read more.**
Control a camera	To adjust the near end camera when the system is idle, select **View**. During a call, select to adjust the near end camera. Select to adjust the far end camera. **Read more.**
Create a recording	With UVC Video Center configured, select . **Read more.**
Show my number	Select to show the system name and numbers that callers use to dial in to the video system.
Enable do not disturb	Select to reject incoming calls. When enabled, appears.
Adjust the volume	Select to open a volume navigation bar. *Remote control:* Select a volume level from 0 to 100. The level represents the volume as a percentage. Use the remote control to adjust the level. Tap ◀ or ▶ to adjust the level in 1% increments. Press ◀ or ▶ rapidly and continuously adjust the volume.
Put the system to sleep	Select to put the system, camera, and display to sleep. **Read more.**
Show system status	Select for system options. **Read more.**

When your Lifesize video system is idle, the screen shows video from your camera. When the Lifesize video system is asleep, the screen is black. An incoming call, showing a presentation, or pressing any button on the remote control activates the system. Point the remote control at the IR receiver (located on both the camera and the codec), not the screen, and tap a button to activate the system.

Sleep

Select to put the system, camera, and display to sleep. The video system automatically sleeps

under the following conditions:

- Ten minutes elapse without user interaction.
- A voice call connects.

Tap on the phone or any key on the remote control to wake the system. When the system wakes, one of the following options is highlighted, depending on the state of the video system:

	A system issue is present. Select for more information about the issue.
	The do not disturb feature is enabled.
	A call scheduled on UVC Manager is available on your video system.
	No other conditions are present.

Placing a call

Place a call using one of the following methods:

Schedule	Select to show upcoming calls that UVC Manager has scheduled for your video system. Details about the call can include the start time, title, description, and participants. Calls that require a passcode show a lock icon. The schedule also shows time periods during which no calls are scheduled. A call begins at its scheduled start time and connects the participants either automatically or after one or more of them accepts an invitation to join the call.
Favorites	Select > to show your Favorites. Select an entry in the list to dial the number. *Remote control:* Additional options include **Advanced Dialing** and **Remove** or **Remove All** (to manage the entries in Favorites).
Recents	Select > to show recently dialed, received, or missed calls. Select an entry to dial the number. *Remote control:* Additional options include **Advanced Dialing**, **Add to Favorites**, and **Remove** or **Remove All** (to manage the entries in Recents). Recents is limited to 50 entries.
Directory	Select > to show entries. Select an entry to dial the number. *Remote control:* Additional options include **Advanced Dialing** and **Add to Favorites**.
Meetings	Select > to show available calls. Select an entry to dial the number. **Read more about joining a meeting.**
Keypad	*Phone:* Select > to enter calling information manually. As you enter each character, the corresponding touch tone is audible for the values 0-9, #, and *. Select **abc** to open a keyboard to enter alphabetic characters. Select the shift character ⇧ to enter an uppercase letter. Select the shift character twice for caps lock.
Dialer	*Remote control:* Select > to enter calling information manually. Navigate to advanced options to enter alphabetic characters or select a call bandwidth or protocol. The list of available bandwidth values adjusts to the maximum bandwidth preference set by your administrator. Similarly, only enabled call protocols appear.

A video icon represents a video call in progress. A voice icon represents a voice call. Select to end the call.

Available calling options also depend on the applications configured in your environment. Read more about **integrating your Icon with other Lifesize applications**.

Joining a meeting

Select > to show available meetings. Details about the meeting can include the start time, meeting name and description. Calls that require a passcode show a lock icon .

The status for a meeting can be one of the following entries:

Live	The meeting has started.
Live in <minutes>	The meeting starts within 10 minutes.
Ready	The meeting is open to participants but has no participants yet.
Active	Participants have already joined the meeting. If an active meeting is full, the bridge does not accept new participants.
Unavailable	No resources are available.
Full	No ports are free because the conference is full.

Select an entry from the list to join the meeting. If the meeting has not yet started, a counter shows the time remaining until the meeting is live. You can join the meeting ten minutes before the start time; the bridge connects you automatically when the meeting is live.

Joining a meeting from the calendar

1. When subscribed, your Lifesize Icon and Lifesize Phone HD receive a list of meetings for the next two days. Select **Calendar**, and scroll to the meeting you wish to join.
2. Click on the meeting to join. You can join the meeting up to ten minutes before the start time.

At the time of the meeting, a pop-up notification will be displayed to the invited participants. Click **Yes** to join the meeting.

Learn more about meeting notifications and other Calendar FAQs.

Learn how to manage calendars in Lifesize Cloud.

Multiway calling

In multiway calls, video composited from the external MCU appears on each caller’s display. Requirements for multiway calling include:

Your Icon is integrated with UVC ClearSea and a supported Lifesize MCU. **Learn more.**
Your Icon is connected to Lifesize Cloud. **Learn more.**

To add a participant to an ongoing call, select **Add**. Use this method also to transfer a caller: after you add the participant, you can leave the call without ending it. To remove an individual caller, select and the participant you want to remove.

For incoming calls, the following options are available:

- Click **End + Answer** to end the current call and answer the incoming call.
- Click **Answer** to add the caller to the current call.
- Click **Ignore** to ignore the caller.

If your Icon has an associated Lifesize ClearSea Client that is active and registered to UVC ClearSea, you can select on the client for the client to join the call. This action disconnects the call on your Icon.

Your system in a call

Hide onscreen text	Select ▲ **Hide**. To hide the onscreen text and save the settings, see **Call preferences > Hide or show the user interface**.
Mute audio	Press to mute audio to the far end. When enabled, appears. If audio at the far end is muted, appears.
Mute video	Select > to mute video to the far end. When enabled, appears.
Show picture in picture	Select > to show picture in picture video during a call. When enabled, appears. This setting persists across calls. If enabled during a call, PIP remains enabled for subsequent calls.
Change the call and presentation layout	Select or and navigate to the desired layout. is not available if the call has only one available layout. Learn more about **managing calls hosted by a Lifesize MCU** and **presenting**. *Lifesize Cloud users:* you can change the layout only when a presentation is active.
Move the cameras	During a call, select to adjust the near end camera. Select to adjust the far end camera. **Learn more about controlling cameras.**
Swap camera input *(Icon 600 and 800 only)*	If two cameras are connected on Icon 600 or 800, select or to swap the primary camera input. Selecting adjusts the current camera: • *Icon 600:* By default, the HD camera is the primary input, camera 1, and the DVI camera is camera 2. Presentations are not available with two connected cameras. • *Icon 800:* By default, DVI 1 is the primary input.
Change camera input *(Icon 800 only)*	If three or more devices are connected, select to change the primary input. You can select any input, 1 through 4, as the primary or secondary source. You can also select any input source to display on the primary and secondary displays when not in a call. Select Dual in **Preferences > Appearance > Physical Display Arrangement**.
Use the keypad	Select to show a keypad to enter tones.
Show caller information	Select > to show details about the caller, including the system name and number, and call statistics, including the call type and protocol, connection time, and direction of the call.
Show recording information	Select (or > with the remote control) while recording with UVC Video Center to show video and audio statistics of the recording stream.
End the call	Select .

By default, you must manually answer or ignore incoming calls. Administrators can set **Auto Answer** and **Auto Answer Mute** in **Preferences > Calls**.

Learn more about call preferences and customizing system behavior.

Presenting

Select **Presentation** to start a presentation before or during a call. If you connect a laptop to a video input on the system, a presentation starts automatically, and appears. To stop the presentation, select . Stopping a presentation ends any active recording.

Administrators can disable automatic presentations from **Preferences > System**. The default is enabled.

Icon 800 only: The DVI input that functions as presentation input is represented by a numeral in the Presentation option. To change the presentation input, select . You can use any input as presentation input; video changes to a secondary input if the primary is selected for presentation. You cannot select the same input for both the primary and secondary source.

If your video system is already receiving a presentation, you cannot connect a laptop and start your own presentation without first stopping the current presentation to all callers. Further, you cannot take control of a remote presentation.

Layouts

Select from the following layout options during a call:

	Presentation input and video from the far end appear side by side.
	Presentation input and video from multiple callers appear. This layout is available with integrated bridge calls from **Meetings** . For bridges that are not integrated, select **<** or **>** to choose a layout.
	Presentation input appears.
	Video from the far end appears.

If the video call does not support presentations simultaneously with video, the video system automatically swaps the primary and presentation inputs to send the presentation. The near end shows both the camera and presentation input, and the far end shows only the presentation.

Navigation and search

Your Icon shows call entries and other system information in lists.

Navigate information with the remote control as follows.

Navigate to the top or bottom of a list	Tap ▶ to quickly navigate to the top or bottom of the list. A bar to the right of the list shows your current position and the total number of entries in the list.
Search call entries	Tap ◀ to open a search box to locate call entries. As you select values, the list is filtered to match any word in an entry's name that starts with the filter string. Search box options include: • Tap ◀ to delete a value in the search box. • Select the # symbol to represent any numeral. • Select ▭ to insert a space between search entries, allowing you to use multiple words in your filter.

When you select Russian for the language of the video system's display, the search uses the Cyrillic alphabet. Select 🌐 using your phone and **abc** using the remote control to show the Latin alphabet.

If your Icon is integrated with UVC ClearSea, select 🌐 to search all UVC ClearSea entries, not just the entries in your group. Add a global entry to your Favorites for quick access. As you enter your search string, the results are filtered to match any word in an entry's name that starts with the filter string. Entries from the global directory are denoted with 🌐.

Camera control

Your Icon allows you to adjust a camera during and before a call. To prevent far end users from adjusting the near end camera, your administrator can disable **Far Control of Near Camera** (enabled by default) in **Preferences > Video**. To prevent far end users from using and configuring camera presets for the near end camera, disable **Far Control of Near Camera** or **Far Set of Camera Presets**.

Pan, tilt, zoom, and presets

1. From the phone (or on screen display), select the camera that you want to control:

>	Adjust the near end camera when the system is not in a call.
	Adjust the near end camera during a call. The near end video appears in the PIP window.
	Adjust the far end camera.

1. Adjust pan and tilt using the group of four arrows.
2. Adjust the zoom using the group of two arrows.
3. A camera preset is a predefined camera position that is associated with a numeral. Camera presets enable you to quickly change the position of a camera during a call.

To define a camera preset for the current camera position, press and hold a numeral until *Preset saved* appears.

To move the camera to a preset location, tap the numeral.

1. To end your camera control session, select **End**.

Recording

With UVC Video Center configured in your environment, you can initiate a recording at any time.

To show video and audio statistics of the recording stream during recording, select using the phone or > using the remote control.

Recording during a call

Select to start recording during a call. If prompted, enter a valid recording key. If successful, the recording begins and the recording icon appears.

By default, all callers are recorded. To record only the near or far video, change the default recording layout in **Preferences > Record and Stream**.

To stop a recording, end the call or presentation, or select .

If you're using an Icon that's connected to Lifesize Cloud, you can select the recording owner when you start recording. Learn more.

Recording outside a call

1. Select .
2. Select from one of the available recording options to start the recording session:

	Record input from the camera.
	Record input from the presentation.
	Record two streams: input from the presentation and camera.
	Record input from two cameras. Select or to select the camera that provides the primary input. This option is available only with two connected cameras.

1. Select to start recording. If prompted, enter a valid recording key. If successful, the recording begins and the recording icon appears.
2. *Optional:* If you are recording input from the camera or from a presentation, select to toggle the input: presentation or camera. If you are recording two streams, select to toggle between recording two streams (presentation and camera) and a single stream (camera).
3. To stop recording, select .

NOTE: If you placed a call or started a presentation after the recording started, you can stop the recording and the session by ending the call or presentation.

1. To end the recording session, select the appropriate option (depending on your selection in step 2):

Using Lifesize Phone HD

Several quick gestures have been added for Lifesize Phone HD attached to a Lifesize Icon system. You must be in a call to use these gestures.

- Two-finger touch on any screen will mute or unmute
- Two-finger swipe up on any screen will increase the volume by 10%
- Two-finger swipe down on any screen will decrease the volume by 10%
- Three-finger swipe and hold on any screen will move the local camera in the direction indicated
- Four-finger touch on any screen will take you to the System options

Learn more.

For Lifesize Cloud customers with Lifesize Phone HD attached to a Lifesize Icon 400|600|800 system, you can easily customize the buttons and time zones on your home screen via the web console. Find out how.

Calls hosted by an MCU

When UVC Multipoint or Lifesize Bridge is integrated with your Icon, scheduled and on demand conferences available to your video system appear in > . When you join a call from **Meetings** , all of the bridge layouts that are available for the current call scenario appear. If the call supports more than one layout, appears. To change the call layout, select and navigate to the desired layout. For bridges that are not integrated, select **<** or **>** to choose a layout.

When you join a call that is hosted by a Lifesize MCU that is not integrated with your Icon, select on the phone to navigate the interface. Tap 9 to toggle help text on your display. If the Virtual Operator answers the call, you are prompted to select a conference to join.

Tap 3 to show bridge options:

Self View	The view from a participant's camera appears on their screen.
Speaker Order	When enabled, the most recent speaker appears in the prominent window.
Status Indicators	When enabled, status icons appear.
Mute Video	When enabled, mutes video.
Announcements	Voice prompts and system sounds indicate the current system status or action required.
Camera Control Navigation Touch Tone Navigation	Toggles far end camera control and DTMF tones.
Language	The language of the onscreen text and voice prompts.
Text Inset	How far the text is offset from the sides of the screen.

Icon 800: Audio inputs

DVI-I	Audio received from the DVI-I input is sent to the near and far end only if you configure the input to be the primary or presentation stream. *Example:* if you connect a DVR to DVI 3 and change the presentation input to use DVI 3, both audio and video are sent to the near and far end.
Line in	Analog line in is always on, eliminating the requirement to associate line in with a digital input. *Example:* if you connect your smartphone to the Icon line in and press play on the smartphone, audio is sent to both the near and far end. If you do not want to send audio, you must control the sound at the source.

When you press mute, all audio inputs to the system are muted by default. To configure the system to mute only the active microphone, sign in to your video system's web console and set **Preferences > Audio > Audio Mute** to *Active Mic*.

By default, the embedded audio processor for Icon 800 controls AEC, noise reduction, and automatic gain control. To use an external controller, turn **Integrated Audio** on in **Preferences > Audio**. When **Integrated Audio** is on, **Active Mic** defaults to *Line In*.

Preferences and protocols

For a complete list of preferences and their default values, **click here**.

Network preferences

Configure network settings in **Preferences > Network**.

DHCP or a static IP address	DHCP dynamically allocates and assigns IP addresses. If you disable DHCP, enter the locally configured IP address, subnet mask (used to partition the IP addresses into a network and host identifier), and default gateway. **NOTE**: From your video system, select > and enter the passcode (by default, 1234) to access network settings .
Network speed	Lifesize recommends that you select **Auto negotiate speed and duplex settings** unless your network specifically requires a fixed speed or duplex setting. If you do not select **Auto negotiate speed and duplex settings**, ensure that the values match the speed and duplex configured on your network switch. **NOTE**: If your Ethernet switch is configured for half duplex, you might experience poor quality video when placing calls greater than 512 kb/s. Change your Ethernet switch configuration to a setting other than half duplex when you select **Auto negotiate speed and duplex settings**.
VLAN tag	If you have static VLANs configured, you can configure your Lifesize system to apply a VLAN tag to outgoing packets and accept incoming tagged packets only if they share the same VLAN identifier. Specify the VLAN identifier of the VLAN to which the system is assigned. The value range is 1 through 4094.
DNS servers and domain	Enter the IP addresses to configure DNS servers. Enter the domain names to search when resolving hostnames. DNS translates names of network nodes into addresses; specify this preference to use DNS to resolve the hostnames to IP addresses.
Search domains	Domains are searched in the order you list them, and the search stops when a valid name is found. To search a name hierarchy, use search domains of varying scope. For example: • *building.campus.university.edu* • *campus.university.edu* • *university.edu*
Reserved TCP and UDP ports	By default, Lifesize video systems communicate through TCP and UDP ports in the range 60000 - 64999. Lifesize recommends that you use the default range. However, you can restrict the range of UDP and TCP ports that are available for communication. Lifesize recommends that the range you choose, if other than a subset of the default range, begins with a port number greater than 49151.
QoS	Set QoS preferences according to the settings used in your network.
MTU of video packets	Video packets that exceed the MTU size for any router or segments along the network path might be fragmented or dropped, resulting in poor quality video at the receiving device. You can set the MTU of video packets that your Lifesize system sends. The default value is 1440 bytes. The valid range is 900 - 1500 bytes. Lifesize recommends that you do not change this value unless your network requires a different MTU.
Static NAT	If you are using static NAT to associate a public IP address with the private IP address of your Lifesize Icon, select **Static NAT** and enter the NAT public IP address or hostname of your Lifesize Icon. Read more about configuring your system for firewall traversal in the *Lifesize Icon Guide*.
802.1x authentication	By default, 802.1x authentication is disabled on Lifesize Icon conference room systems. To learn how to enable, go to 802.1x Authentication.

802.1x Authentication

Lifesize Icon conference room systems support port-based mutual authentication based on the IEEE 802.1x standard using the EAP-TLS subprotocol. IEEE 802.1x enhances security and deployment by providing support for centralized user identification, authentication and dynamic key management.

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. By default, 802.1x authentication is disabled on Lifesize Icon conference room systems.

Before you enable this feature, ensure that your environment meets the following prerequisites:

- The authentication server is installed with the CA certificate, the server certificate and the server certificate private key
- The authenticator is configured to access the authentication server and to allow one or more of its ports to provide 802.1x access control
- A certificate authority has produced a CA certificate, a client certificate, a client key and a client key passphrase (optional) for the Lifesize Icon conference room system

To enable 802.1x authentication:

1. Log in to the web interface and select **Preferences > Network**.
2. Scroll down to **802.1x Authentication**. Select the checkbox to enable.
3. Add files:
   - Certificate PEM File
   - CA PEM File
   - Key PEM File
4. Type in your Client Key Private Key Passphrase (optional).
5. Select **Save**.
6. You will be prompted to confirm the changes, and then the network interface will restart and you will need to relaunch your browser. When you are ready, select **Yes**.

Call preferences

To configure user interface preferences, log in to the web interface and select **Preferences > Appearance**.

Preference	Description	Default Value
Hide or show the user interface	Choose from the following options in **Preferences > Appearance > On-Screen UI Mode**: • **Default:** Show the on-screen user interface, and access settings using the remote control or the phone. • **Events Only:** Hide the on-screen user interface but show event notifications. Start calls using the Lifesize phone. Manage events such as incoming calls, muting, and recording using the remote control or the phone. • **Blank:** Keep displays clear by hiding both the on-screen user interface and event notifications. Manage all events and configuration using the Lifesize phone. Use the remote control to mute audio and move cameras.	Default

To configure call preferences, log in to the web interface and select **Preferences > Calls**.

Preference	Description	Default Value
Auto Answer	If disabled, you must manually answer or ignore incoming calls.	Disabled
Auto Answer Mute	If enabled and **Auto Answer** is enabled, the system is muted when a call connects.	Enabled
Auto Bandwidth	Addresses how the system responds to packet loss during a call. When enabled, the default, the system attempts to use the best available bandwidth after the call connects.	Enabled
Maximum Call Bandwidth	Sets the maximum amount of network bandwidth to use for each incoming and outgoing video call. This value becomes the maximum value that users can choose from the Dialer when they place a call manually. This value also sets the maximum receive bandwidth for any video call independent of the value of **Maximum Call Transmit Bandwidth**.	6000 kb/s
Maximum Call Transmit Bandwidth	Sets the maximum amount of network transmit bandwidth to use for each outgoing video call. This value cannot be greater than **Maximum Call Bandwidth**.	6000 kb/s
Default Call Bandwidth	Sets the amount of network bandwidth to use for each outgoing video call when the user specifies *Auto* for bandwidth when placing the call.	1328 kb/s

Preference	Description	Default Value
Secondary Stream	Enables H.239 capability, allowing you to send and receive presentations on a second stream. By default, a secondary stream is enabled. Consider disabling the secondary stream if your system experiences issues with third party systems that do not support a secondary stream. If the video call does not support secondary streams (because the secondary stream function is disabled on the near end or the far end does not support secondary streams), the primary and presentation input are automatically swapped so that the presentation appears to all callers.	Enabled

Audio preferences

Configure audio preferences in **Preferences > Audio**.

Preference	Description	Default Value
Video Call Output	Specifies the location for audio output during video calls: *Line Out*, *HD Out*, *DVI*, or *Phone*.	HD Out
Voice Call Output	Specifies the location for audio output during voice calls: *Line Out*, *HD Out*, *DVI*, or *Phone*.	Phone
	Icon 600 Only	
Analog Mic Gain	Sets the value that controls the mic gain of the analog audio input. Choose one of the following values: • *Line Level*. Use this value with professional line in microphones. • *Microphone Level*. Use this value with consumer microphones. • *Microphone Level with Boost*. Use this value when your microphones require an increase in the gain.	Line Level
	Icon 800 Only	
Integrated Audio	By default, the Icon 800's embedded audio processor controls the following: • Acoustic echo canceller (AEC) • Noise reduction • Automatic gain control To use an external controller, turn **Integrated Audio** on. When this option is on, the following conditions apply: • The volume buttons on your phone and main screen are unavailable. • **Active Mic** defaults to *Line In*. Microphones connected to line in audio inputs are always on. • DVI audio inputs are on until you stop them at their source. **NOTE**: The **Integrated Audio** preference is available for the Icon 600 from the command line.	Off
Active Mic	Your system can connect to more than one microphone device for audio input during calls. Only one device can function as the active microphone during a call.	Auto
Audio Mute	When you press the mute button, all audio inputs are muted by default, including audio from the active microphone, a PC connected to the codec for a presentation, or a device connected to auxiliary inputs. To configure the system to mute only the active microphone, select *Mic Only*.	All

SIP

By default, Lifesize systems support the SIP protocol for placing and receiving video and voice calls. Lifesize Icon systems have the ability to register to two independent SIP services simultaneously, allowing registration to both a SIP video service and a local SIP VoIP telephone system. Configure SIP preferences in **Preferences > SIP Registrar 1** (or **2**).

NOTE: If UVC ClearSea manages your Lifesize Icon or your Icon is connected to Lifesize Cloud, you cannot edit SIP Registrar 1 preferences. Instead you can use the SIP Registrar 2 preferences for registration with a local SIP voice service.

Preference	Description	Default Value
SIP Registrar 1: Use SIP	When enabled, allows you to specify a SIP name to use when placing a call.	Enabled
SIP Registrar 2: Use SIP	When enabled, allows you to specify a SIP name to use when placing a call.	Disabled
SIP Username	SIP username for the device.	Lifesize
Authorization Username	SIP server authorization username. Set a value only if required by the registrar or proxy.	No default
Authorization Password	SIP server authorization password. Set a value only if required by the registrar or proxy.	No default
SIP Server Type	Type of SIP registrar and proxy servers.	Auto
SIP Registrar	When enabled, uses a SIP registrar.	Disabled
Registrar Hostname	Hostname or IP address of the SIP registrar.	No default
SIP Registration	Communication path to use when registering with a SIP registrar. SIP devices use register settings to dynamically register their current location.	Direct
SIP Proxy	When enabled, uses a SIP proxy server.	Disabled
Proxy Hostname	Hostname or IP address of the SIP proxy server.	No default
SIP Signaling	Preferred SIP signaling protocol. Signaling protocols are mutually exclusive; enabling one disables the others. To enable transport security for signaling, set the value to *TLS*. To enforce encrypted media in SIP calls, set **SIP Security** in **Preferences > Security** to *Strict*. **Read more.**	Auto

To enable or disable support for SIP calls, clear **Use SIP** in **Preferences > SIP Registrar 1** (and **2**) **> General** when the system is not in a call.

If SIP calling is enabled through UVC Transit, clear **Enable for SIP** in **Preferences > Lifesize UVC Transit**. Read more at **Integrating With Lifesize UVC Transit.**

When you save your changes, the yellow system health indicator appears when your Lifesize system is trying to register with the SIP server. If the registration fails, the red indicator appears. Select > for more information about the issue.

The system reports registration status in > , and the configured system numbers appear in .

Media encryption in SIP calls

To manage media encryption in SIP calls, set **SIP Security** in **Preferences > Security** to one of the following values:

Value	Description
Off	Encrypted media is not supported.
Auto	Both encrypted and unencrypted media are supported. Encrypted media is supported only if the far end supports encryption.
Strict	Unencrypted media is not supported.

If media is encrypted in SIP calls, enable TLS signaling in **Preferences > SIP Registrar 1** (or **2**) **> SIP Signaling**.

NOTE: If UVC ClearSea manages your Lifesize Icon or your Icon is connected to Lifesize Cloud, you cannot edit SIP security preferences.

Read more about SIP.

USB preferences

Configure USB settings in **Preferences > USB**.

VISCA Control

1. Set **Shell** to *VISCA*.
   For Icon 400 or 600:
2. Select the device connection type: HDMI or DVI.
   For Icon 800:
3. Select the device connection type: DVI0, DVI1, DVI2, or DVI3.
4. Select **Advanced** to set the speed and flow control of the serial connection.

Serial Control

1. Set **Shell** to *Serial*.
2. Select the speed of the serial connection.
3. Select the flow control of the serial connection: hardware or software flow control; or no flow control.

Default values

This topic lists configuration preferences and their default values. To configure a preference using your system's web interface, open a browser, enter the system's IP address, and sign in. The default username and password are *admin*.

Preferences > Appearance	Default value
Language	English
Physical Display Arrangement	Default

Preferences > Audio	Default value
Video Call Output	HD Out
Voice Call Output	Phone
Icon 600 Only:	
Analog Mic Gain	Line Level
Icon 800 Only:	
Integrated Audio (Available for Icon 600 from the command line)	Off
Active Mic	Auto
Audio Mute	All

Preferences > Calls	Default value
Auto Answer	Disabled
Auto Answer Mute	Enabled
Auto Bandwidth	Enabled
Maximum Call Bandwidth	6000 kb/s
Maximum Call Transmit Bandwidth	6000 kb/s
Default Call Bandwidth	1300 kb/s
Secondary Stream	Enabled

Preferences > Lifesize UVC ClearSea	Default value
Enable UVC ClearSea	Disabled
UVC ClearSea Username	No default
UVC ClearSea Password	No default
UVC ClearSea IP Address	No default

Preferences > Date and Time	Default value
System Time	Greenwich Mean Time (GMT) value
System Date	GMT value
Time Zone	GMT
Clock Format	12-Hour
NTP Server Hostname	No default

Preferences > System Log Levels	Default value
Syslog Server	No default
Audio	Debug
Communications	Debug
Database	Information
License Manager	Information
System Administration	Information
System Information	Information
System Status	Information
Timer	Information
User Interface	Information
Video Hardware	Debug
Video In	Information
Video Out	Information

Preferences > Directory	Default value
Hostname	No default
Username	No default
Password	No default
Base	No default
Port	No default
Encryption	None

Preferences > H.323	**Default value**
Use H.323	Enabled
Name	Number randomly generated by the system
Extension	Same value as **Name**
Gatekeeper Mode	Off
Available preferences with Gatekeeper Mode: *Auto*	
Gatekeeper ID	No default
Gatekeeper Authentication	Disabled
Gatekeeper Username	No default
Gatekeeper Password	No default
Available preferences with Gatekeeper Mode: *Manual* or *Manual H.460*	
Gatekeeper Address	No default
Gatekeeper Port	1719
Gatekeeper Authentication	Disabled
Gatekeeper Username	No default
Gatekeeper Password	No default

Preferences > MCUs	**Default value**
Enable MCU Integration	Disabled
IP Address	No default
Username	No default
Password	No default

Preferences > Network	**Default value**
IP Address	No default
Subnet Mask	No default
Use DHCP	Enabled
Auto negotiate speed and duplex settings	Enabled
Speed	No default
Duplex	No default
VLAN Tag	0
Default Gateway	No default
DNS Server	8.8.8.8
DNS Domain	No default
Search Domains	No default
TCP and UDP Lowest Port Value	60000
TCP and UDP Highest Port Value	64999

Preferences > Network	Default value
Network QoS	None
Video Maximum Transmission Unit (MTU)	1440
Static NAT	Disabled
NAT Public IP Address	No default
802.1x Authentication	Disabled

Preferences > Record and Stream	Default value
Recorder	Disabled
Recorder Hostname	No default
Recorder Port	443
Recording Key	No default
Default Recording Layout	All Callers

Preferences > Security	Default value
Enable SSH Access	Enabled
Enable Admin User SSH Key	Disabled
Enable Remote Management Over HTTP	Enabled
509 Authentication	Disabled
SIP Security	Off
H.323 Security	Off

Preferences > SIP Registrar 1	Default value
Use SIP	Enabled
SIP Username	Lifesize
Authorization Username	No default
Authorization Password	No default
SIP Server Type	Auto
SIP Registrar	Disabled
Registrar Hostname	No default
SIP Registration	Direct
SIP Proxy	Disabled
Proxy Hostname	No default
SIP Signaling	Auto

Preferences > SIP Registrar 2	Default value
Use SIP	Disabled

Preferences > SIP Registrar 2	Default value
SIP Username	Lifesize
Authorization Username	No default
Authorization Password	No default
SIP Server Type	Auto
SIP Registrar	Disabled
Registrar Hostname	No default
SIP Registration	Direct
SIP Proxy	Disabled
Proxy Hostname	No default
SIP Signaling	Auto

Preferences > System	Default value
System Name	Conference Room
Auto Start Presentation	Enabled

Preferences > Lifesize UVC Transit	Default value
UVC Transit	Disabled
UVC Transit Hostname	No default
UVC Transit Username	No default
UVC Transit Password	No default
Enable for SIP	Disabled
SIP Username	No default
Enable for H.323	Disabled
H.323 Extension	Same value as **Preferences > H.323 > Extension**

Preferences > USB 1 (and USB 2 for Icon 600 and 800 only)	Default value
Shell	None
Speed	115200 b/s
Flow Control	No flow control

Preferences > Video	Default value
Far Control of Near Camera	Enabled
Far Set of Camera Presets	Disabled
Far Move to Camera Presets	Enabled

Preferences > Video	Default value
Presentation Video Bandwidth	20%
Adaptive Motion Control	Enabled
HD Display Resolution	Highest resolution supported by the display
DVI Display Resolution	No default
Enable CEC	Disabled
Enable Sleep	Disabled
HDMI DPMS Mode	Off
DVI DPMS Mode	Off

Diagnostics > Camera	Default value
IR Receiver	Enabled
Anti-Flicker	Auto
Auto Exposure Method	Full-frame
Brightness	0
Auto Focus	Enabled
White Balance	Auto
Lock camera position	Disabled

Maintenance > Auto Provisioning	Default value
Auto Provisioning Server	No default

Video preferences

Controlling camera use by far end users

To prevent far end users from controlling your near end camera, including configuring and controlling camera presets, disable **Preferences > Video > Far Control of Near Camera**.

If you enable **Far Control of Near Camera**, you can still prevent far end users from configuring and using near end camera presets by disabling **Far Set of Camera Presets** and **Far Move to Camera Presets**.

Balancing primary and presentation video bandwidth

Allocate bandwidth to the presentation video input stream as a percentage of the total available bit rate for the video streams in **Preferences > Video > Presentation Video Bandwidth**. The default value is 20%.

NOTE: Adjust this preference before placing a call. Adjusting this preference during a call has no effect.

The percentage applies to the presentation video input stream, typically a laptop connected to the codec. The system allocates the bandwidth based on the selected option only when the system sends video images during a presentation. Consider allotting a larger percentage to the presentation video input stream when the presentation video input includes motion. Examples include a slide show that includes several animations or video input from a DVD player.

When you use the default call bandwidth (1152 kb/s) and the default presentation video bandwidth (20%), the transmitted resolution of the presentation defaults to 1920 x 1080p5.

To increase the frame rate of the presentation stream, increase the bandwidth of the call and the presentation. For example, if you set **Presentation Video Bandwidth** to 50% in a 2500 kb/s call, the presentation supports 1080p30. If recording is enabled during the presentation, the resolution defaults to 1920 x 1080p15.

DVI-I input resolution

Lifesize systems support native 16:9 and 4:3 VGA and DVI-I inputs at the following resolutions:

Aspect Ratio	Supported Resolutions
4:3	640 x 480 800 x 600 1024 x 768 1280 x 1024 1400 x 1050 1600 x 1200
16:9	1280 x 720 1920 x 1080

Navigate to **>** to show the actual DVI-I input size.

NOTE: These resolutions are supported with a screen refresh rate set to 60 Hertz (Hz) on the device connected to the DVI-I input. A screen refresh rate of 30 Hz is also supported for 1080p.

The resolutions are sent natively to the far end for the primary or secondary video streams. The resolutions might not match exactly because of H.264 or H.263 protocol resolution constraints. Available bandwidth on the call may also affect the actual resolution.

NOTE: A resolution at 1200 lines might be scaled down to a maximum of 1080 lines.

Following are the supported input resolutions and frame rates for video sent to the DVI-I input from an HDMI source:

- 480p60
- 576p50
- 720p60
- 1080p30
- 1080p60

Display resolution

Specify the resolution of the HD and DVI displays in **Preferences > Video**. The default resolution is 1920 x 1080p60.

LifeSize video systems connect to HD displays (720p minimum) with the following supported display resolutions:

- 1280 x 720p60
- 1920 x 1080p30
- 1920 x 1080p60

NOTE: If a display does not support a resolution, that resolution does not appear.

Enabling CEC

Consumer Electronics Control (CEC) allows certain HDMI devices to control each other when appropriate. Enable CEC and configure sleep settings in **Preferences > Video**.

If your display does not fall asleep when your Lifesize Icon video system falls asleep, CEC is incompatible with the display.

If an incoming call wakes a sleeping video system, check whether the monitor wakes up within a reasonable amount of time. If it does not, the monitor probably requires too much time to power up for CEC to be useful.

In scenarios like these examples, consider using analog speakers instead of the display speakers.

Power management of the display

Display Power Management Signaling (DPMS) allows you to control the power of compliant HDMI and DVI displays without pressing a button on the display or using its remote control.

DPMS relies on the following four power states:

- on
- sleep
- suspend
- active off

When you enable DPMS control in **Preferences > Video > Video Monitor**, Icon attempts to manage the power state of the display. Set the DPMS mode to one of the following values:

On	Always attempts to turn the display off.
Off	Never attempts to turn the display off.
Auto	Attempts to turn the display off if the display indicates support for the sleep or suspend power states.
Intelligent	Attempts to turn the display off if the display indicates support for the sleep, suspend, or active off states.

To test whether your monitor supports DPMS, complete these steps:

1. Disable CEC.
2. Set **DPMS Mode** to *On*.
3. Put your Icon to sleep.
4. If the display does not turn off, DPMS is not supported. Set **DPMS Mode** to *Off*.
5. If the display eventually turns off, wake Icon.
6. If the display turns on, DPMS is supported. Leave DPMS enabled.
7. If the display does not turn on, try using the combination of CEC and DPMS to control the display's power state: use CEC to wake the display and DPMS to put the display to sleep.

Adaptive motion control

Adaptive motion control minimizes video problems caused by minor packet loss and improves video reproduction. For packet loss of 5% or less, this feature eliminates or greatly reduces video artifacts. This feature is enabled by default in **Preferences > Video > Adaptive Motion Control**.

H.323

By default, Lifesize systems support the H.323 protocol for placing and receiving video and voice calls. Configure H.323 preferences in **Preferences > H.323**.

NOTE: If UVC ClearSea manages your Lifesize Icon or your Icon is connected to Lifesize Cloud, H.323 is disabled.

Preference	Description	Default Value
Use H.323	When H.323 is enabled, you can specify an H.323 name or extension to use when placing a call. The H.323 name and extension identify the device to the gatekeeper. Any registered device can dial another using this name and extension.	Enabled
Name	Optional value that is used when a gatekeeper is configured and requires the system to register with an H.323 ID. If the gatekeeper administrator assigns an H.323 ID for the system, enter that ID for the name. If UVC Transit serves as an H.460 server, specify the username that was set up for the device on UVC Transit.	Number randomly generated by the system
Extension	Optional value that is used when a gatekeeper is configured and requires the system to register with an E.164 number or extension. If the gatekeeper administrator assigns an E.164 number or extension for the system, enter that number for the extension. If UVC Transit serves as an H.460 server, specify the extension that was set up for the device on UVC Transit.	Number randomly generated by the system (same value as above)
Gatekeeper Mode	Allows you to choose a gatekeeper. Choose one of the following options: • Set to *Auto* to automatically discover a gatekeeper. • Set to *Manual* or *Manual H.460* to specify the IP address and port for the primary gatekeeper. The gatekeeper port defaults to the industry standard, 1719. To enable H.460 support, you must have an H.460 server configured in your environment. With H.460 support enabled, the system ignores settings in **Preferences > Network > Static NAT**.	Off
Gatekeeper ID	Set only when required by the gatekeeper; for example, for configurations with multiple gatekeepers. The value for **Gatekeeper ID** must match the authorization name configured for the gatekeeper to which the system is registering. Do not configure this preference if the gatekeeper does not require it, as this may result in failure to register with the gatekeeper.	No default
Gatekeeper Address	Address of the primary gatekeeper. If UVC Transit serves as an H.460 server, specify the IP address of the UVC Transit signaling server.	No default
Gatekeeper Port	Port for the primary gatekeeper.	1719
Gatekeeper Authentication	Allows you to specify a username and password for H.235 authentication. **Read more about H.323 security.**	Disabled

To disable support for H.323 calls, clear **Use H.323** in **Preferences > H.323 > General** when the system is not in a call.

When you save your changes, the yellow system health indicator appears when your Lifesize system is trying to register with the gatekeeper. If the registration fails, the red indicator appears. Select **>** for more information about the issue.

The system reports registration status in > , and the configured system numbers appear in .

Enabling H.323 security

Lifesize systems support H.235 security in H.323 calls. Set **H.323 Security** in **Preferences > Security** to one of the following values:

Value	Description
Off	Encrypted calls are not supported.
Auto	Both encrypted and unencrypted calls are supported. Secure calls are supported only if the far end supports encryption.
Strict	Unencrypted calls are not supported.

Read more about H.323.

Security preferences

SSH Access

SSH provides a secure channel over an unsecured network in a client-server architecture. We support SSH keys of 1096, 2048 and 4096 bits in length.

To enable SSH access and add an SSH key:

1. Log in to the web interface and select **Preferences > Security**.
2. Scroll down to **SSH - Secure Shell**.
3. Select the checkbox next to **Enable Admin User SSH Key**. The **Enable SSH Access** checkbox should already be selected.
4. Add Key PEM File.
5. Select **Save**.

509 Authentication

X.509 certificates are used to enhance device-level authentication.

To enable 509 authentication:

1. Log in to the web interface and select **Preferences > Security**.
2. Scroll down to **HTTP - Hypertext Transfer Protocol**.
3. Select the checkbox next to **509 Authentication** to enable.
4. Add files:
   - Certificate PEM File
   - CA PEM File
   - Key PEM File
5. Type in your Client Key Private Key Passphrase (optional).
6. Select **Save**.
7. You will be prompted to confirm the changes, and then the network interface will restart and you will need to relaunch your browser. When you are ready, select **Yes**.

Integrations

You can integrate your Icon with Lifesize Cloud, the UVC suite of applications, and Lifesize Bridge. Available options depend on the applications configured in your environment.

Option	Appears when integrated with...	Configuration
Schedule	UVC Manager	Manage your video system in UVC Manager.
Directory	Lifesize Cloud	**Connecting to Lifesize Cloud**
	UVC ClearSea	**Provisioning your Icon through UVC ClearSea** **Integrating Icon with UVC ClearSea**
	UVC Manager	Manage your video system in UVC Manager.
	A directory server	Configure the integration in **Preferences > Directory**.
Meetings	Lifesize Cloud	**Connecting to Lifesize Cloud**
	UVC ClearSea (Your system registers to UVC ClearSea over H.323.)	**Enabling Icon support for Lifesize MCU conferences**
	UVC Manager	Manage your video system in UVC Manager.
	UVC Multipoint or Lifesize Bridge	Configure the integration in **Preferences > MCUs > Enable MCU Integration**.
Record	UVC Video Center	Configure your system to record to UVC Video Center in **Preferences > Record and Stream**.
Call escalation	Lifesize Cloud	**Connecting to Lifesize Cloud**
	UVC ClearSea	**Provisioning your Icon through UVC ClearSea** **Integrating Icon with UVC ClearSea**
Global search	UVC ClearSea	**Provisioning your Icon through UVC ClearSea** **Integrating Icon with UVC ClearSea** **Navigation and search**

Lifesize Cloud

Once you have a Lifesize Cloud account, you can connect your Icon to the Cloud service. Associate your Icon with your Cloud account or activate an Icon that serves as a conference room system. **Learn how.**

After you are connected, you can take advantage of these features:

- You can download the Cloud app on all of your devices: laptop, tablet, and smartphone. Incoming calls ring all devices.
- Lifesize Cloud applies configuration settings to the Icon directly.
- All contacts in your company's Cloud group are available from your Icon directory. Their online status appears as well.
- Virtual meeting rooms configured by your Cloud account manager are available in **Meetings** . All Cloud users can add meetings from their Cloud app.
- Icon can add video participants and accept multiple incoming callers to the active call.
- Software updates are automatically applied to your Icon instead of requiring you to perform a manual update from a separate file. The system prompts you to apply the update, allowing you to delay the operation if you are in a call or otherwise using the system.

Activating Icon

Connect to the Lifesize Cloud service during initial configuration. Learn more.

To initiate this process after installation, reset your system to its default settings. **Read more about resetting the system.**

NOTE: You must have a Lifesize Cloud user account to connect your Icon to the service.

1. When the initial configuration wizard asks you to join the Cloud service, select **Yes**.
2. Open a browser and navigate to the URL shown on your Icon.
   NOTE: You cannot activate your Icon from the system's web interface.
3. Sign in by entering your Cloud email address and password.
4. Enter the activation code shown on your Icon.
   Scanning the QR code opens the Lifesize Cloud sign-in page in a browser, where your activation code already appears.
5. You can associate an Icon to an individual user or a conference room.

Individual user	**Me** – allows Cloud end users to associate the device to themselves. **User** – allows Cloud account managers to associate the device to any user in their Cloud group.
Conference room	Use this option if the device resides in a conference room and is intended for multiple users. Creates a separate Cloud account for the Icon. Enter a name for the system that will appear in the Cloud directory. Optionally, enter an email address for calling the system.

1. From the Icon main screen, navigate to  **>**  to view the status of the system. When your Icon is successfully activated, *Ready* shows for **Communications > Lifesize Cloud Service**.

Removing Icon from a Cloud user account

1. Reset your system to its default settings.
2. When the initial configuration wizard asks you to join the Cloud service, select **No**.
3. *Cloud account manager:* Sign in to the Cloud web console and remove the Icon from the Cloud user account. **Learn more in the online help for Cloud.**

Lifesize MCUs

When UVC Multipoint or Lifesize Bridge is integrated with your Lifesize Icon video system, users can select **>** to join scheduled and on demand bridge conferences.

Configure integration in **Preferences > MCUs**.

Preference	Description	Default Value
Enable MCU Integration	Select to integrate the Lifesize video system with UVC Multipoint or Lifesize Bridge.	Disabled
IP Address	The IP address of UVC Multipoint or Lifesize Bridge.	No default
Username Password	The username and password for your UVC Multipoint or Lifesize Bridge administrator account.	No defaults

NOTE: If UVC ClearSea manages your Lifesize Icon or your Icon is connected to Lifesize Cloud, you cannot edit MCU preferences.

The list of conferences available in **Meetings** includes live events and events that start within 10 minutes. Each entry in the list includes the event's start time, title, description, attendees and their location. Calls that require a passcode show a lock icon. The event's status can be:

Status	Description
Live Soon	The meeting will start within 10 minutes.
Live	The meeting has started.
Ready	Ready to join. The meeting has no participants.
Active	Participants have already joined the meeting. If an active meeting is full, Lifesize Bridge does not accept new participants.
Unavailable Full	The meeting has no participants and no ports are available.

UVC ClearSea

Integrating your Icon with UVC ClearSea applies configuration settings from UVC ClearSea to enable multiway calling on Icon.

Learn more about provisioning your Icon through UVC ClearSea.

UVC Manager

When your Lifesize Icon video system is managed by UVC Manager, public conferences are listed in **>** . If your video system is invited to a conference, the conference appears in your video system's **Schedule** .

If UVC Manager also manages a Lifesize Bridge, on demand and scheduled (public) conferences appear in > on your Icon system. Public conferences through a managed UVC Multipoint also appear in > .

Refer to the *Lifesize UVC Manager Deployment Guide* for details about configuring UVC Manager to operate with Icon video systems.

UVC Transit

Integrate your Lifesize video system with UVC Transit to enable firewall and NAT traversal of session and media for the H.323 and SIP protocols.

Configure UVC Transit integration in **Preferences > Lifesize UVC Transit**. The system reports UVC Transit status in > , and the configured numbers appear in .

NOTE: If UVC Transit serves as an H.460 server, the **Name**, **Extension**, **Gatekeeper Mode**, and **Gatekeeper Address** must be set to specific values. **Read more.**

Preference	Description	Default Value
UVC Transit	Select to integrate the Lifesize video system with UVC Transit.	Disabled
UVC Transit Hostname	Enter the hostnames or IP addresses (separated by spaces) of the instances of UVC Transit Server.	No default
UVC Transit Username	Enter your video system's username for UVC Transit. The video system's username corresponds to the video system's credentials created in UVC Transit Server. All three values must be identical. • **Configuration > Users > H.323 name** • **Configuration > Users > SIP authorization name** • **Configuration > Tunnel Accounts > Tunnel account ID**	No default
UVC Transit Password	Enter your video system's password for UVC Transit. The video system's password corresponds to the video system's credentials created in UVC Transit Server. Both values must be identical. • **Configuration > Users > Password** • **Configuration > Tunnel Accounts > Password**	No default
Enable for SIP	Select to enable SIP calls through UVC Transit. When enabled, enter the video system's SIP username used for placing calls with SIP.	Disabled
Enable H.323 Tunneling	Select to tunnel H.323 signaling and media through UVC Transit. **NOTE**: Enabling H.323 tunneling clears **Use H.323** in **Preferences > H.323**. When enabled, enter the video system's H.323 extension used for placing calls with H.323.	Disabled

UVC Video Center

With a UVC Video Center in your environment, Lifesize video systems can initiate a recording to UVC Video Center at any time.

Configure UVC Video Center integration in **Preferences > Record and Stream**.

Preference	Description	Default Value
Recorder	Select to integrate the Lifesize video system with a UVC Video Center.	Disabled
Recorder Hostname	Enter the IP or DNS address of the recording and streaming server.	No default
Recorder Port	Typically, you can accept the default value of 443. **NOTE**: If your network uses NAT with port forwarding rules that remap port 443 between the video system and the server, **Recorder Port** must reflect the remapped port number.	443
Recording Key	Enter a value to provide a default key to use for server authorization for all recordings from this system. If you leave this preference blank, the system prompts users to enter a key for each recording.	No default
Default Recording Layout	Choose to record *All Callers*, *Near Video Only*, or *Far Video Only*. **NOTE**: A layout specified through the recording key on UVC Video Center overrides the **Default Recording Layout** set at the video system.	All Callers

Learn about the **transmitted resolution during a presentation when recording is enabled**.

Directory servers

If you are not using another method to populate your Icon's directory (such as Lifesize Cloud, UVC ClearSea, or UVC Manager), you can configure your Lifesize system to load user information from an external directory that uses LDAP. When you integrate a directory server, user information from the directory server is available from the video system in > .

Configure the directory server integration in **Preferences > Directory**.

Preference	Description	Default Value
Hostname	Hostname or IP address of your directory server.	No default
Username Password	Username and password with login access to the directory server.	No default
Base	The base Distinguished Name (DN) used to query your directory server.	No default
Port	The directory server port.	No default
Encryption	If TLS is enabled, your Lifesize video system negotiates a secure connection on the directory server’s port.	None

The LDAP directory refreshes its data when you navigate to > and 10 minutes have passed since the last refresh. A refresh occurs only if the directory is in use. Refreshing directory data includes adding new entries, updating existing entries, and deleting entries that are no longer in the server’s database.

System maintenance

Sign in to your system's web interface to perform system maintenance.

Reboot	**Diagnostics > System Reboot**
Save	**Maintenance > System Reset > System Save** Saves the backup file to your computer.
Restore	**Maintenance > System Reset > System Restore**
Reset	**Maintenance > System Reset > System Reset**
Revert	**Maintenance > System Reset > System Revert**
Update license keys	**Maintenance > License Keys**
Upgrade system software	**Maintenance > System Upgrade**

Diagnostic tools are available in **Diagnostics**.

Restore

The following procedure restores a system configuration from a saved configuration file:

1. Ensure that a current, saved configuration file exists before performing a restore.

Configuration preferences and options vary across software releases. Restoring a system configuration by using a file saved from a different software release can produce unexpected results. Only restore a configuration that was saved from the same software release.

1. Hang up all calls connected to the system. If calls are connected when you perform a restore, you are prompted to continue or cancel the restore. If you continue, the system restore process terminates the calls.
2. Select **Maintenance > System Reset > System Restore** .

You must have a current system configuration saved prior to executing the system restore function or you will be unable to return to the previous state.

1. Browse to the system configuration file and click **Upload**.

Reset

The following procedure resets the system to its default state:

1. Select **Maintenance > System Reset > System Reset** .
2. *Optional:* Enter the reason for the reset.
3. Click **OK** to confirm setting the system to its default state.

The system automatically reboots and the administrator password is reset to the default value (*admin*).

NOTE: You can also reset the system by pressing the red reset button on the back of the codec for 10 to 15 seconds.

Revert

The following procedure reverts the system to an alternate software version:

1. Select **Maintenance > System Reset > System Revert** .
2. *Optional:* Enter the reason for reverting the system.
3. Click **Yes**.
   The system automatically reboots.

You can also revert the system by pressing the red reset button on the back of the codec for 15 to 20 seconds.

Reboot

The system reboots when you complete any of the following tasks:

Manually reboot the system.	**Diagnostics > System Reboot**
Reset the system to its default state.	**Maintenance > System Reset > System Reset**
Revert the system to the previous state.	**Maintenance > System Reset > System Revert**
Restore the system to a saved state.	**Maintenance > System Reset > System Restore**
Change the **VLAN Tag** preference.	**Preferences > Network > VLAN Tag**
Change the values for the reserved ports.	**Preferences > Network > Reserved Ports**
Upgrade the system software.	**Maintenance > System Upgrade**

You can also reboot the system by pressing the red reset button on the back of the codec for 5 to 10 seconds.

License keys

You must have current license keys to enable the following:

- software upgrades
- dual display (for Icon 600 and 800 only)

NOTE: The expiration date for a license key appears in **Maintenance > License Keys**. Contact your Lifesize Partner for details about license keys.

Updating license keys

If your system has HTTP access through port 80 to the Lifesize license key server, update your license keys from the system's web interface. **Otherwise, install the key manually.**

1. Navigate to **Maintenance > License Keys**.
2. Click **Update**.

If the update is successful, **Success** appears along with the current license keys and their expiration dates.

Update failures might be caused by one of the following conditions:

- A current maintenance agreement for the device does not exist. Contact your Lifesize Partner to renew your maintenance agreement.
- The system failed to connect. The server might be down or your system might not have HTTP access. Contact Lifesize Technical Services if this condition persists and you have HTTP access, or install a key manually.
- A license key exists, but it is invalid. Contact Lifesize Technical Services.

Installing a license key manually

1. From the **lifesize.com/support** software downloads page, click **Download Software**.
2. Sign in to your support account. If this is your first visit, create the account.
3. Enter the serial number of your Lifesize video system (located in **Diagnostics > System Information**) and follow the instructions to obtain a license key. You might have multiple keys.
4. Download a license key.
5. Sign in to your video system from a web browser and navigate to **Maintenance > License Keys**.
6. Click **Add** and paste the license key that you obtained in step 3 in **Enter License Key**.
7. Click **Add**.
8. Repeat steps 3 through 7 for each license key listed for your video system.

Upgrades

NOTE: If your Icon is connected to Lifesize Cloud, software updates are automatically applied to your system. The system prompts you to apply the update, allowing you to delay the operation if you are using the system.

Before you upgrade your system software, ensure that the system meets the following prerequisites:

- A current license key for upgrading exists on the system. The expiration date for the maintenance license appears in **Maintenance > License Keys**. An upgrade fails if a current license key does not exist on the system or has expired. Contact your Lifesize Partner to renew your maintenance agreement.

Read more about updating license keys.

- All cameras that you intend to use with the video system are properly connected to the codec. Cameras not connected to a Lifesize system before an upgrade may not function properly after an upgrade.
- Terminate all calls prior to upgrading.

Upgrading your system software

1. From the **lifesize.com/support** software downloads page, click **Download Software**.
2. Sign in to your support account. If this is your first visit, create the account.
3. Enter the serial number of your Lifesize video system (located in **Diagnostics > System Information**). Follow the instructions to find the software version you want for your product, and download it to a local directory on your computer.
4. Navigate to **Maintenance > System Upgrade**.
5. Click **Select File** to browse for the upgrade file you downloaded.

The system validates the file. To re-validate the same file or if you manually entered a path to a file, click **Validate** for the verification to occur.

1. To reset the system to the original default settings, select **Reset to defaults**.
2. Click **Upload**.

The upgrade can take several minutes; do not disrupt the process. During an upgrade, a status screen appears in a browser in which you can monitor the process of the file upload. If you close the window before the file upload completes, the upload is cancelled.

When the upgrade is complete, the system automatically reboots.

1. Your video system is ready to use. If you selected **Reset to defaults**, you must first reconfigure your system.
2. To access all options from a browser after an upgrade (or downgrade), refresh the browser before signing in again.

Troubleshooting upgrade failures

If attempts to upgrade software fail, follow these steps:

1. Ensure you have a valid upgrade image.
2. Reboot the system.
3. Attempt the upgrade again.
4. If a second attempt fails, note the error code returned.
5. If problems persist, contact your Lifesize Partner or Lifesize Technical Services.

Upgrade error codes

Following are the error codes you might receive when an upgrade fails.

Code	Description
1	An upgrade is in progress. The system supports only one upgrade at a time.
2	The image is corrupt. This typically occurs because of a bad image or errors during upload to the device.
3	The encryption signature is invalid. This typically occurs if the image is corrupt or compromised.
4	The image is missing an upgrade script. After the image has been successfully uploaded, the system runs an upgrade script for final processing. This error indicates a failure in that script.
5	The manifest is corrupt or missing.
6	The serial number is invalid.
7	The build date is invalid.
8	The software image is for a different system type.
9	Unable to downgrade to the image version.
10	The upgrade license expired. A current license key for upgrading the system software does not exist on the device. Contact your Lifesize Partner to renew your maintenance agreement.
11	You cannot upgrade while calls are connected.
12	A restore to defaults is required. The upgrade requires a reset. Navigate to **Maintenance > System Reset** and reset the system to its default state before proceeding with the upgrade.
13	A system error occurred.
16	Insufficient space to store the image.
17	Failed to verify the image.
18	The license server is unreachable.
19	Failed to download the upgrade image.

Diagnostic tools

Diagnostic	Description
System Information	Details about your system, including serial numbers and versions, are available in **Diagnostics > System Information**. Access system information also in > on the video system's display.
System Logs	Save system logs to your computer in **Diagnostics > System Logs**. Set log levels in **Preferences > System Log Levels**. Lifesize recommends using a syslog server for integrated configurations. **NOTE**: If you disable the logs for **Database**, **System Status**, **Timer**, and **Video Hardware**, rebooting the system returns the log levels to their default values.
Diagnostic Report	Support personnel might request that you capture a diagnostic report from your system to identify the cause of a problem with your system. When you are instructed to gather information, select **Diagnostics > Diagnostic Report > Generate Diagnostic Report**.
Camera	Use the camera diagnostics to adjust camera brightness and white balance and correct some types of flicker. Read more about **camera diagnostics**.
Call Records	To download call history, select **Diagnostics > Call Records > Download Call Records**. Read more about **call records**.
System Health Indicator	The health icon that appears on the main screen is an indicator of a system issue. Read more about **system health**.

Camera diagnostics

Configure camera preferences in **Diagnostics > Camera**:

- auto focus
- lock the camera position
- **anti-flicker**
- **auto exposure**
- **brightness**
- **white balance**

Diagnostic camera preferences are available only if the selected camera is connected to the codec and **Connected** appears as the status for the camera in **Diagnostics > System Information** and in > on the video system's display.

Anti-Flicker

Lights powered by a 50 Hz power source can produce a flicker that the camera captures and transmits to the system. If you are using lights powered by a 50 Hz power source and observe a flicker in the video, set **Anti-Flicker** to *50 Hz*. The default value is *Auto*.

NOTE: The value you choose for this preference applies to all cameras connected to the system.

Some camera exposure settings designed for use in rooms lit by sunlight may result in a flicker. To remove the flicker, increase the **Brightness** setting.

Auto Exposure

Auto exposure refers to how a camera automatically adjusts its aperture and shutter speed to affect video image brightness. Choose an auto exposure method for the camera by specifying one of the following values for **HD Auto Exposure Method**:

Value	Description
Full Frame	Default value. Adjusts exposure for the average brightness of a full frame of video.
Center-weighted	Adjusts exposure for the average brightness of a full frame of video, but assigns a higher weight to the center of the frame.
Spot	Adjusts exposure for the average brightness of a small area in the center of the frame.
Manual	Disables auto exposure. Adjust exposure manually by changing the value of **Brightness**.

Brightness

Camera brightness refers to the amount of light received through the lens of the camera. Improve dim scenes by adjusting room lighting and manually adjusting the camera brightness.

If you select an auto exposure method, the camera self adjusts based on the brightness setting. Adjusting the value of **Brightness** sets a new target value.

If the auto exposure method is *Manual*, the camera uses the brightness setting only.

White Balance

Camera white balance refers to how a camera references the color white, which is a mixture of all colors. Adjust the white balance when video color appears to be unbalanced. White balance is affected by the type of light source.

When the value is set to *Auto*, the default, your Lifesize system determines the proper value for the camera’s white balance by automatically adjusting to changed lighting conditions in the room.

Call records

Download call history in **Diagnostics > Call Records > Download Call Records**. Save the .tgz file, which includes an XML file and an XSL style sheet for viewing in the application of your choice.

Each call leg is contained on a single line, which contains the following:

- call type
- name and IP address of the far end
- start time and duration
- call direction
- protocol
- dialed and actual bandwidths
- the reason for disconnection

Possible reasons for disconnection are as follows:

- The call was terminated correctly.
- The far end was unavailable.
- The far end was busy.
- The maximum number of calls has been reached.

Advanced topics

Configuring your firewall

This section explains how to configure your Lifesize video systems for firewall traversal as a stand-alone H.323/SIP device. This section is not applicable for customers who are using a firewall traversal product, such as UVC Transit or UVC ClearSea, or have a subscription to Lifesize Cloud.

- If you are using UVC Transit, refer to the *Lifesize UVC Transit Deployment Guide*. If you are using UVC ClearSea, refer to the *Lifesize UVC ClearSea Deployment Guide*.
- If your Icon is connected to Lifesize Cloud, refer to the online help available **here**.

Call setup and media ports
Restricting reserved ports

Placement behind a firewall

Lifesize recommends that you place your system behind a firewall. Use one of the following options:

DMZ with public IP address	Placing your video systems in the DMZ allows you to assign public IP addresses. This configuration makes it easier for your system to connect with public video systems on the Internet.
Private LAN with NAT	Placing your video systems in the private LAN with Network Address Translation (NAT) obscures their private IP addresses, but makes calls with systems outside of your network more complicated.

Port Security

Lifesize Icon video systems are network devices that offer different services and protocols for different purposes. Not all of these should be accessible from outside of your organization or network, such as access to the administrative functions of the device or SSH terminal access.
To maintain security and help prevent unwanted malicious exploitation or attack, at a minimum, Lifesize recommends blocking external or inbound access to the following ports:

- 22 (SSH)
- 80 (HTTP)
- 443 (HTTPS)
- 554 (RTSP)
- 10008 (REST API service if UVC Manager manages your system)

Lifesize recommends that these ports remain open for internal administrator access. Ensure that you change the default administrator password to be secure.

NOTE: Change the administrator password in the web interface in **Preferences > Passwords**. You can disable SSH and web access on the system in **Preferences > Security**.

Refer to Anti-spam filtering for more information about preventing unsolicited and nuisance calls.

Call setup and media ports

To place calls to other systems through the firewall, you must configure your firewall to allow incoming and outgoing traffic to the system through the following:

UDP port 1719	Gatekeeper registration.
TCP port 1720	H.323 call negotiation.
UDP port 5060	SIP call negotiation.
TCP port 5060	SIP call negotiation if TCP signaling is enabled for SIP calls.
TCP port 5061	TLS signaling in SIP calls if TLS signaling is enabled. **NOTE**: TLS is the only transport supported for encrypted calls.
Required TCP and UDP ports	Range specified in **Preferences > Network > Reserved Ports**.

Restricting reserved ports

To place calls to other devices through a firewall, you must configure your firewall to allow incoming and outgoing traffic to the Lifesize system through the reserved ports. Users placing calls through a firewall to systems with public IP addresses may experience one-way audio or video if the firewall is not properly configured to allow two-way audio and video traffic.

By default, Lifesize systems communicate through TCP and UDP ports in the range 60000 - 64999 for video, voice, presentations, and camera control. Lifesize systems use a subset of these ports during a call.

NOTE: The minimum number of required ports is 100.

To minimize the number of UDP and TCP ports that are available for communication, restrict the range by changing values in **Preferences > Network > Reserved Ports**. Lifesize recommends that the range you choose, if other than a subset of the default range, begins with a port number greater than 49151. The range must start with an even number and end with an odd number to include an even number of total ports. For a range that starts at 62000, set the lower end to 62000 and the upper end to 62099 to allocate a range of 100 ports, the minimum.

NOTE: Changing the values in **Reserved Ports** causes the system to restart.

Using your Icon in a private LAN with NAT

If you choose to place your video systems in a private LAN, you must use NAT to communicate with outside systems. This may include enabling static NAT on your Lifesize system.

On your firewall, whether standalone or built in to your router, you must complete one of the following tasks:

- Use 1:1 NAT and open the **call setup and media ports** over that connection bidirectionally with an access list.
- Forward the **call setup and media ports** to your Lifesize system.

Read more about **restricting reserved ports** and refer to your firewall vendor's documentation for more information.

Enabling static NAT

NAT enables communication between devices on your LAN that have private IP addresses and devices that are accessed through a public IP network. Static NAT ensures that the same public IP address always maps to a system’s private IP address so that data from the public network intended for the private system can be routed to the system reliably.

If you are using static NAT to associate a public IP address with the private IP address of your Lifesize system, you must configure your Lifesize system to work with your static NAT server. From a browser, navigate to **Preferences > Network** and select **Static NAT**. Enter the public IP address, hostname, or fully qualified domain name of your system in **NAT Public IP Address**.

NOTE: You cannot upgrade the system from a web browser outside a firewall when static NAT is enabled. Instead, perform the upgrade from within the firewall.

Testing your NAT environment

If your firewall does not employ a feature set that performs H.323 or SIP NAT, you must enable NAT on your private Lifesize system.

Place a call from a system on the Internet to your system in the private LAN. If your private system connects within the first 2 seconds after answering, your NAT configuration is working properly. If the call does not connect after answering and disconnects after 30 to 50 seconds, the reserved port settings on your codec do not match the settings on your firewall. Ensure that the system and firewall settings for UDP/TCP ports match.

If you still cannot place a successful call, you may have to disable the stateful packet inspection feature on the firewall. Some firewall vendors may call this feature dynamic packet filtering. Refer to your firewall vendor's documentation for more information.

Anti-spam filtering

If you are using a standalone Icon, enable the anti-spam filter to help prevent incoming spam calls.

By default, all spam filtering is turned off.

CAUTION: If you need assistance configuring anti-spam settings, contact Lifesize Technical Services.

IP address and domain filtering

To set up anti-spam filtering on incoming calls using IP addresses and domain names:

1. Go to **Preferences > Anti-Spam Configuration**.
2. Under **General**, select **Enable Anti-Spam**.
3. In **Allowed IP Addresses** and **Allowed Domains**, enter specific allowed network IP addresses and domains. Incoming calls from any IP address or domain name not listed in these fields are blocked. Use the pipe (|) character to delimit multiple addresses and an * (asterisk) to specify a range of addresses.
4. Click **Save**.

Note: If applicable, always include H.323 gatekeeper addresses in your allowed lists.

SIP and H.323 filtering

Incoming call blocking is available for SIP and H.323. If you are using SIP, you can allow specific users and block user agents. If you are using H.323, you can allow specific IDs and extensions.

SIP filtering:

1. Go to **Preferences > Anti-Spam Configuration**.
2. In **SIP Anti-Spam Configuration**, select **Enable SIP Anti-Spam**.
3. In **Allow SIP Users**, enter allowed SIP users.
4. In **Blacklisted SIP User Agents**, enter SIP header or software information you want to block.
5. Click **Save**.

H.323 filtering:

1. Go to **Preferences > Anti-Spam Configuration**.
2. In **H.323 Anti-Spam Configuration**, select **Enable H.323 Anti-Spam**.
3. In **Allowed H.323 IDs**, enter allowed H.323 user IDs.
4. In **Allowed H.323 Extensions**, enter allowed extensions.
5. Click **Save**.

Vendor ID filtering

With H.323 filtering, you can enable filtering for vendor IDs and direct-dialing. The **Enable H.323 Vendor ID Filtering** option limits incoming calls to vendors with signaling parameters that match industry hardware whitelists. The **Enable Checking Dialed Digits** option verifies the call setup message information matches the information for the user placing the call. If not, the call is blocked.

Contact Lifesize Technical Services if you need assistance with this feature.

Scheduling automatic system reboot

You now have the option to have your Lifesize Icon automatically reboot at a prescheduled time you select. Follow the instructions below.

SSH to the command line of the Lifesize Icon system you would like to configure and then log in.

At the **rbsh>** type in the command **clish**.

rbsh>clish

Now you have entered the command line interface shell, and you should see **$**.

When used with the **get** verb, the **autoreboot** target shows the current setting and local time of the nightly automatic reboot feature. If enabled, the device reboots at the specified local time if the system is sleeping at that local time. An awake system will reboot the next time the system goes to sleep. When used with the **set** verb, this target controls whether or not the device automatically reboots each evening and optionally can specify the local time to perform the automatic reboot. Times are based on a 24-hour clock.

get Arguments: None

get Examples:

get system autoreboot

off,22,00,00

ok,00

get system autoreboot –V

Nightly Reboot, Hour, Minute, Second

on,22,00,00

ok

set Arguments:

<{on|off|keep}>	on enables auto reboot off disables auto reboot keep preserves current value, useful to change only the time
[-H {0..23}]	Specify the hour.
[-M {0..59}]	Specify the minute.
[-S {0..59}]	Specify the second.

set Examples:

enable the auto reboot feature

set system autoreboot *on*

ok,00

disable the auto reboot feature

set system autoreboot *off*
ok,00

change the auto reboot hour to 23

set system autoreboot *on –H 23*

ok,00

change the auto reboot hour and minute to 21:30

set system autoreboot *keep –H 21 –M 30*

ok,00

Provisioning through UVC ClearSea

UVC ClearSea allows Icon to discover a provisioning server and to configure itself with settings that are specified on the server. When auto provisioning is enabled, UVC ClearSea functions as the provisioning server. Whenever your device discovers this server, it retrieves the hosted configuration settings and applies them locally.

NOTE: Automatic provisioning requires Icon to discover the provisioning server. **Read more about discovering the provisioning server.**

You can use one of the following options to provision Icon through UVC ClearSea:

OPTION 1: Register your Icon to UVC ClearSea over H.323 or SIP	Lifesize MCU conferences appear in **Meetings** on your Icon. **Learn how to enable support for Lifesize MCU conferences.**
OPTION 2: Integrate Icon with UVC ClearSea (using SIP only)	Icon applies configuration settings from UVC ClearSea to enable multiway calling. **Learn how to integrate Icon with UVC ClearSea.**

Select > to view the auto provisioning status in the **Communications** section of the table. If your system was provisioned successfully, the IP address of the provisioning server appears.

If no explicit ports are available, Icon attempts to communicate through the following default ports:

- HTTP requests are sent to port 80. Failed requests revert to port 8180.
- HTTPS requests are sent to port 443. Failed requests revert to port 8181.

Enabling Icon support for Lifesize MCU conferences

This configuration allows Icon to dial in to bridge conferences through UVC ClearSea. The managed MCU populates **Meetings** on Icon.

Complete the following prerequisite steps on UVC ClearSea:

1. Add an MCU in **Manage > MCUs**. Select **Enable MCU Integration**.
2. Create a user account for your Icon in **Manage > Users**.
   - Users registering with SIP or H.323 devices must use local credentials.
   - Enter the device's IP address in **UVC Auto Provisioning**.
3. Add a call routing rule in **Manage > Call Routing** that forwards the dial string to the MCU address. The forwarding destination uses the format: <*dialstring*>@<*mcuIPAddress*>

When Icon discovers the provisioning server, Icon retrieves the following configuration settings from UVC ClearSea and applies them locally:

Icon preference	Description
Directory	Registers to the directory server in UVC ClearSea. Uses the credentials from **UVC Address Book** in the Icon account you created in UVC ClearSea (in **Manage > Users**).
H.323	Enables H.323 and registers to the gatekeeper in UVC ClearSea using the following settings: • Sets **Name** and **Extension** to the user ID and extension for the Icon account you created in UVC ClearSea. • Sets **Gatekeeper Mode** to *Manual*. • Sets **Gatekeeper Address** to the IP address or domain name for UVC ClearSea Server. • Sets **Gatekeeper Username** and **Gatekeeper Password** to the user ID and password of the Icon account you created in UVC ClearSea.
SIP	Enables SIP.
MCUs	Uses a Lifesize MCU integrated with UVC ClearSea. Uses the IP address for the UVC ClearSea Server and the user ID and password of the Icon user account you created in UVC ClearSea.

Registering Icon to UVC ClearSea through the SIP registrar

Lifesize recommends that you register Icon over H.323 or SIP, not both. If you register the device over SIP, keep H.323 enabled.

1. Navigate to **Preferences > SIP Registrar**.
2. Enter the user ID of the Icon account you created in UVC ClearSea in **SIP Username**.
3. Enter the user ID and password of the Icon account you created in UVC ClearSea in **Authorization Username** and **Authorization Password**.
4. Enter the IP address or domain name for UVC ClearSea in Registrar Hostname and Proxy Hostname (if you use a SIP proxy).

Integrating Icon with UVC ClearSea

Integrating your Icon with UVC ClearSea provides the following features:

- Icon registers to UVC ClearSea over SIP and uses configuration settings for the Icon user directly from UVC ClearSea Server.
- Icon can add video participants and accept multiple incoming callers to the ongoing call. UVC ClearSea contacts are available in Icon. A contact's online status appears in the directory in Icon.

Complete the following prerequisite steps on UVC ClearSea:

1. Add an MCU in **Manage > MCUs**.
2. Create a user account for your Icon in **Manage > Users**.
   - For automatic provisioning, users must use local credentials.
   - Enter the device’s IP address in **UVC Auto Provisioning**.
   - Select **Enable ClearSea Integration**.
3. Add a call routing rule in **Manage > Call Routing** that forwards the dial string to the MCU address. The forwarding destination uses the format: *<dialstring>@<mcuIPAddress>*

When Icon discovers the provisioning server, Icon retrieves the following configuration settings from UVC ClearSea and applies them locally:

Icon preference	Description
UVC ClearSea Username **UVC ClearSea Password**	Uses the user ID and password of the Icon account that was created in UVC ClearSea. **NOTE**: If the Icon account does not use local credentials, enter the LDAP password.
UVC ClearSea IP Address	Uses the IP address of the UVC ClearSea Server.

Because Icon is integrated with UVC ClearSea and relies on the server’s configuration, you are restricted from editing MCU, H.323, and SIP preferences. Additionally, directory preferences are not set on Icon, and **Meetings** does not appear.

Discovering the provisioning server

A device attempts to discover the provisioning server through the following methods:

DHCP option 157	Retrieves the IP address of the server. Read more in the *Lifesize UVC ClearSea Deployment Guide*.
DNS, based on local search domains (Icon only)	Devices use a preconfigured DNS name that represents the provisioning server. Read more in the *Lifesize UVC ClearSea Deployment Guide*.
Update the settings manually (Icon only)	This option overwrites any IP address for the provisioning server that might have been obtained through the DHCP or DNS options. Use this method when you have little or no control over the DHCP and DNS servers. Sign in to your Icon's web interface and select **Maintenance > Auto Provisioning**.

API overview

The Lifesize API provides a command line based entry point for automating access and control of Icon video systems. The API supports a REST method for accessing a set of resources, or objects, through a fixed set of operations. API calls are made by sending a request to an API resource and specifying a method and arguments. A formatted response details the operation's outcome.

This section provides an introduction to the Lifesize API. More detailed documentation is available at:

https://<*videoSystemIPAddress*>/docs/clish (traditional command line interface)

https://<*videoSystemIPAddress*>/docs/json (REST API)

Authentication

The same authentication policies that are enforced on a browser also apply to API calls. Sign in to your Lifesize video system through an SSH or HTTP connection over the network as follows:

1. Open a client, such as Cygwin or Putty, and enter the IP address of your Lifesize video system.
2. Sign in to the system with administrator credentials. The default username and password are *admin*.

Command syntax

Commands take the following form:

<actor> <command> <parameters>

Use commas to separate multiple parameters. Show help from a command prompt as follows:

help	Shows a brief introduction to using the API.
Press the Tab key on your keyboard	Shows a list of actors.
<actor> ?	Shows commands for an actor. For example: **audio ?**
<actor> <command> ?	Shows help for a command. For example: **sysadmin gettimezone ?**

Need help?

The following sections describe symptoms, possible causes, and potential solutions for common problems you may encounter with your Lifesize system.

When experiencing a problem, visually inspect the unit. Ensure that the system has not been exposed to water or heat sources or was physically damaged.

Improperly connected or loose cables are common problems with hardware units. When investigating a system problem, first inspect the external controls and cable connections. Ensure that connections are correct and secure and that nothing is obstructing the cables. Contact your administrator for information about proper cabling.

System health

From your system's display, navigate to > to view the status of the system. When a system issue arises that might require your attention, the health icon appears on the main screen.

The shading behind the icon reflects the severity of the issue:

- Yellow shading indicates a warning.
- Red shading indicates a critical issue.

Communications	
Network	**Warning**: the system is binding to the network. **Critical**: the system is disconnected or no DHCP server is present.
Lifesize Cloud Service	**Warning**: Your account expired; your account trial ended; you must validate your account.
Auto Provisioning	**Warning**: the system is being provisioned. **Critical**: provisioning failed.
Lifesize ClearSea	**Warning**: the system is registering with UVC ClearSea. **Critical**: the registration failed, or UVC ClearSea is unavailable.
H.323 Gatekeeper	**Warning**: the system is registering with the H.323 gatekeeper. **Critical**: the registration failed, or the gatekeeper is unreachable.
SIP Registrars	**Warning**: the system is registering with the SIP registrar. **Critical**: the registration failed, or the registrar is unreachable.
UVC Transit	**Warning**: the system failed to connect with UVC Transit; the system is registering with the H.323 gatekeeper or SIP registrar. **Critical**: the system failed to connect with UVC Transit; the system failed to register with the gatekeeper or registrar.
MCU	**Warning**: communication with the integrated bridge has been interrupted.
Lifesize Phone	**Warning**: the phone is initializing.
System I/O	
Active Microphone	**Warning**: no active microphone is present.
Lifesize Link Power	**Critical**: an error occurred with the power to Lifesize Link.
Thermal	
Fan Speed	**Critical**: the system is overheated.
Temperature Sensors	**Warning**: the system is above normal operating temperature. **Critical**: the system is overheated and approaching the maximum allowed operating temperature.
Processes	
System Status	**Critical**: a process failed.

Power and connectivity

If a call does not successfully connect, verify that you dialed a working number and that the far end is powered on and available. Verify that the network is ready and available by navigating to > to view the network status.

Audio issues

If the far side is hearing an echo or distortion, the microphone connected to your Lifesize system may be too close to the speakers. Repositioning the microphone may solve this problem.

Poor audio reception from the far end may be caused by highly reverberant rooms. If you are experiencing poor audio reception, add more sound absorbency to the room and speak in close proximity to the phone or microphone.

Degradation in the audio quality can also be caused by faulty microphones.

If dust and debris are on the microphones clean the top surface of the units with a soft, slightly damp cloth. Do not use any kind of liquid or aerosol cleaner on Lifesize devices that include microphones.

Presentations

Consider disabling the secondary stream function if your system experiences issues with third party systems that do not support secondary streams. Sign in to the video system's web interface and navigate to **Preferences > Calls**.

Camera issues for Icon 600 and 800

If you are unable to pan, tilt, or zoom a camera, ensure that the remote control contains two AAA batteries that are in good working condition. Verify that no objects are obstructing the sensor on the front of the camera and that the LED on the front of the camera flashes bright blue when you use the remote control to perform a task.

If the camera does not show video, ensure that the camera is connected to the Lifesize system with a camera cable in the appropriate camera input or contact your administrator.

Verify that the blue LED on the front of the camera is lit, which indicates that power is active, and reboot the system if necessary to verify that the camera turns on. If a system reboot does not resolve the problem, you might need to reapply power to the camera.

Administrators can also configure preferences for the following camera conditions:

- auto focus
- lock camera position
- anti-flicker
- auto exposure
- brightness
- white balance

Read more about these preferences.

Display issues

If data does not appear on the display, ensure cables are properly connected on the display and that the display cable is connected to the HD 1 output on the back panel of the codec.

If the video image and user interface appear washed out or too bright, examine your HDTV input settings to make sure the HDTV has the appropriate resolution. Some HDTVs, particularly plasma displays, allow you to configure the native resolution of the input device from the HDTV administration interface.

Sign in to the video system's web interface and navigate to **Preferences > Video** to ensure that the display resolution is correct for your display.

Adjusting room lighting

Ensure that the system maintains the best possible image quality by altering the lighting and background colors of your environment. If light levels are too low, you may consider adding artificial lighting. Indirect light from shaded sources or reflected light from pale walls often produces excellent results.

Avoid the following:

- Direct sunlight on the subject matter, the background, or the camera lens, which creates harsh contrasts
- Direct illumination of the subject matter and camera lens
- Colored lighting
- Harsh side lighting or strong light from above

What's new

Version 2.11.2 - October 2016

Performance enhancements and fixes

Lifesize Icon was updated to include important fixes for stability and performance. Learn more.

Version 2.11.1 - September 2016

Performance enhancements and fixes

Lifesize Icon was updated to include important fixes for stability and performance. Learn more.

Version 2.11.0 - September 2016

Enable enhanced security capabilities

Delivering additional security options for admins, this release includes support for 802.1x authentication and X.509 authentication as well as the ability to add an SSH key.

Performance enhancements and fixes

Lifesize Icon was updated to include important fixes for stability and performance. Learn more.

Version 2.10.0 - June 14, 2016

Customize your Lifesize Phone HD home screen

For Lifesize Cloud customers with Lifesize Phone HD attached to a Lifesize Icon 400|600|800 system, you can easily personalize your home screen to display the time zones and buttons most important to you, including shortcuts to users in your Directory, Meetings or frequently called third parties.

Performance enhancements and fixes

Lifesize Icon was updated to include important fixes for stability and performance. Learn more.

Version 2.9.1 - April 19, 2016

Improvements to volume control on Lifesize Phone HD

The volume icon has been moved to the left hand side of the main Active Call screen for quick access when you’re in a call.

Performance enhancements and fixes

Lifesize Icon was updated to include important fixes for stability and performance. Learn more.

Version 2.9.0 - February 29, 2016

Quick gestures for Lifesize Phone HD now available

Quick gestures have been added for Lifesize Phone HD attached to a Lifesize Icon system. For

example, while in a call, a two-finger touch on any screen will mute or unmute. Learn more.

On-screen menu enhancement

When you're not in a call, the Lifesize Icon on-screen menu will hide after 10 seconds.

Performance enhancements and fixes

Lifesize Icon was updated to include important fixes for stability and performance. Learn more.

Version 2.8.3 - January 5, 2016

Performance enhancements and fixes

Lifesize Icon was updated to include important fixes for stability and performance. Stay tuned for updates about what's coming in future releases.

Version 2.8.2 - November 24, 2015

Lifesize Phone HD is now available to order

With a bigger and sharper display and improved touchscreen performance, the new Lifesize Phone HD makes it easy to deploy, manage, and update your Icon systems through the Lifesize Cloud service. The phone has four options on the home screen, so you can easily **Start** managing your systems, place a **Call**, **Present** data from your laptop, or adjust the **Camera**. It's the only device you need on your conference room table.

Streamlined options for Icon Home screens

New options on the Home screen allow you to focus on the people and content of your calls. You can hide the user interface completely, or choose to see only event notifications. Learn more.

Direct calling to Icons and Cloud users using Skype for Business

Users of Skype for Business, previously called Microsoft Lync, now have the ability to call direct to Icon and Cloud users.

Custom backgrounds for Icons connected to Cloud

Customize your Icon systems by adding a company logo or other image, which displays when the systems are not in use. Learn more.
Learn more about what's new for Cloud.

To learn about previous releases of Cloud and Icon, check out Recent Updates.