LifeSize® UVC Platform™
Installation and Deployment Guide

May 2013

LifeSize UVC 1100
LifeSize UVC 3300
LifeSize UVC Virtual Machine

LifeSize UVC Platform

LifeSize UVC Platform allows you to manage multiple LifeSize applications from your browser:

LifeSize UVC Access	Standalone H.323 gatekeeper that provides address translation, network access control, bandwidth management, and routing management for H.323 calls to gateways, video systems, and MCUs.
LifeSize UVC ClearSea	Client and server solution for desktop and mobile video collaboration. Users can connect from their desktops or mobile devices to H.323 or SIP devices, including video systems, MCUs, and gateways.
LifeSize UVC Manager	Network management tool for video communications devices.
LifeSize UVC Multipoint	Flexible capacity MCU for use with devices at 1080p30, 720p30, 480p, and 360p.
LifeSize UVC Transit	Unified set of firewall and Network Address Translation (NAT) traversal technologies that enable session and media traversal for the H.323 and SIP protocols.
LifeSize UVC Video Center	Network server that stores and streams video from LifeSize video systems enabled for recording. LifeSize UVC Video Center can also initiate recordings through SIP calls.
LifeSize UVC Video Engine for Microsoft Lync	Server that transcodes video between Microsoft RT Video and H.264.

Planning your LifeSize UVC deployment includes setting up each application in your network and opening the appropriate firewall ports. In addition to this guide, refer to the deployment guides for each UVC application in your environment. For information about UVC server capacity and planning your UVC deployment, refer to the datasheet or product page for LifeSize UVC Platform at lifesize.com.

Related documentation is available from lifesize.com/support.

Section 1: Installation

This section describes how to install and configure LifeSize UVC 1100, LifeSize UVC 3300, and LifeSize UVC virtual machine.

LifeSize UVC Appliance Installation	Describes the installation and rack mounting processes for LifeSize UVC 1100 and LifeSize UVC 3300.
LifeSize UVC Virtual Machine Installation	Describes the installation process for the LifeSize UVC virtual machine.
Troubleshooting	Provides instructions for accessing the server console and replacing faulty drives.

LifeSize UVC Appliance Installation

LifeSize UVC 1100 and LifeSize UVC 3300 ship with the following components:

- 1U (44.45 mm, 1.75 in) rack-mountable LifeSize UVC 1100 server or LifeSize UVC 3300 server, as applicable
- face plate and key
- rack rail hardware
  - two front inner rails (attached to the server chassis)
  - two rear inner rails for the chassis
  - two rails for the rack
  - one bag of brackets and screws
- power cord

For best performance, use a Category 6 Ethernet cable (not included) to connect LifeSize UVC 1100 to your network. At minimum, use a Category 5e cable.

Choose a clean, dust-free, well-ventilated location near a grounded power outlet. Avoid areas where heat, electrical noise, and electromagnetic fields are generated. If you intend to mount the server in a rack, read Installing the LifeSize UVC Appliance into a Rack.

LifeSize recommends that you install the server on a non-lossy gigabit Ethernet network for optimal performance.

NOTE Before you install LifeSize UVC 1100 or LifeSize UVC 3300, read *LifeSize UVC Safety and Regulatory Notices* for important safety information.

Installing the LifeSize UVC Appliance

1. Remove all components from the product packaging and place them in the appropriate position in your environment.
2. If you are installing the server in a rack, refer to Installing the LifeSize UVC Appliance into a Rack and complete those instructions before continuing.
3. Insert a network cable into the left network port as you face the back panel of the server.
4. Insert the other end of the network cable directly into a computer that you will use to configure the server network settings.
5. If you are using the second network port, insert a network cable into the right network port as you face the back panel of the server. This can be a WAN or LAN interface. Read more at Dual Home Hosts.

NOTE You can also use the right port for Ethernet Bonding.

6. Insert one end of the power cord into the back of the server and the other end into a power outlet.
7. Press the power button on the front of the server.

   Refer to Power and Reboot.
8. Attach the face plate:
   a. Fit the left side of the face plate into the slots on the front of the server.
   b. Press and hold the release button, place the right side of the face plate against the front of the server, and release the button to lock the face plate into the slots.
   c. Use the key to lock the face plate to the chassis.
9. Complete the steps in Configuring Network Settings.

Installing the LifeSize UVC Appliance into a Rack

Use the included rack rail hardware to install LifeSize UVC 1100 or LifeSize UVC 3300 into your rack. The rack mounting procedure varies according to rack type. Refer to the installation instructions included with your rack in conjunction with these instructions.

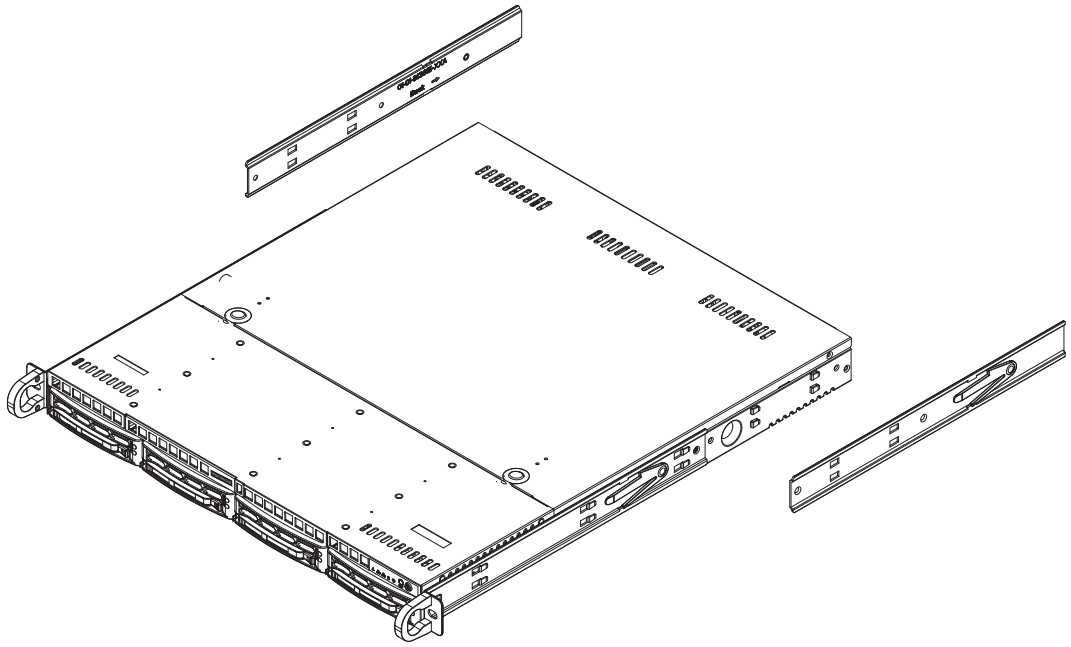
Consider the following points as you plan the rack installation:

Rack Stability	Ensure that the leveling jacks on the bottom of the rack are fully extended to the floor with the full weight of the rack resting on them. In a single rack installation, attach stabilizers to the rack. In multiple rack installations, couple the racks together.
Airflow and Access	Leave approximately 63.5 centimeters (25 inches) of clearance in front of the rack and approximately 76 centimeters (30 inches) of clearance in back of the rack to allow for sufficient airflow and ease in servicing.
Ambient Operating Temperature	If you install LifeSize UVC 1100 or LifeSize UVC 3300 in a closed or multi-unit rack assembly, the operating temperature of the rack environment might be greater than the ambient temperature of the room. The maximum operating temperature is 35 degrees Celsius.

Circuit Overloading	Consider the connection of this equipment to the power supply circuitry and the effect that it might have on overcurrent protection and power supply wiring. Give appropriate consideration to equipment nameplate ratings when addressing this concern.
Reliable Ground	Because a reliable ground must be maintained at all times, ensure that the rack itself is grounded. Pay particular attention to power supply connections other than the direct connections to the branch circuit, like the use of power strips.

Installing the Rear Inner Rails

1. Beginning with the rail for the right side of the chassis as you face the chassis, align the two square holes on the rail against the hooks on the right side of the chassis.



2. Use the flat head screws that are provided to secure the rail to the chassis.
3. Repeat the previous steps to install the left rear inner rail to the left side of the chassis.

The chassis rails feature locking tabs that lock the server into place when it is pushed fully into the rack, which is its normal operating position. These tabs also lock the server in place to prevent it from coming completely out of the rack when you extend it for servicing.

Installing the Rack Rails in Non-Telco Racks

1. Position a chassis rail guide (rack rail) in the appropriate location in the rack.

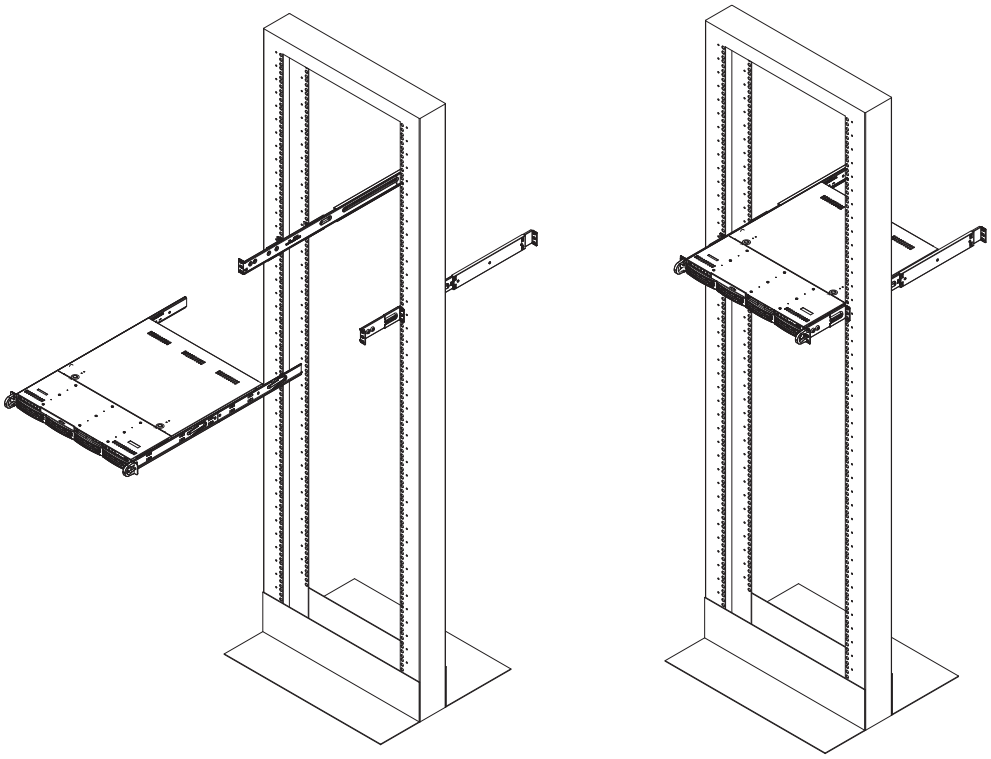
   Make certain the sliding rail guide faces the inside of the rack.
2. Use the following items to secure the assembly to the rack:
   - The brackets that are provided with the rack rails
   - Screws that are appropriate for the rack
3. Attach the other assembly to the opposite side of the rack.

   Ensure that both assemblies are at the same height and that their rail guides face inward.

Installing the Rack Rails in Telco Racks

Use two of the provided L-shaped brackets on either side of the rack (four total) to attach the rack rails to a telco-type rack.

1. Use screws that are appropriate for the rack to attach a bracket to the front and rear of one side of the rack at the same height.



2. Position the rail for one side of the rack so that the server will be stable after it is locked into place.

   Make certain the sliding rail guide faces the inside of the rack.
3. Use the screws that are provided to attach the rack rail to the brackets on the rack.
4. Repeat the process for the opposite rail.

Placing the Server into the Rack

After you attach rails to both the chassis and the rack unit, place the server into the rack.

1. Align the rear of the chassis rails with the front of the rack rails.
2. Slide the chassis rails into the rack rails, keeping the pressure even on both sides.

NOTE You might need to depress the locking tabs while inserting the rails.

3. Push the server completely into the rack until you hear the locking tabs click.

Configuring Network Settings

The server uses the following default network settings:

IP address: 192.168.1.25

Network Mask: 255.255.255.0

Default Gateway: 192.168.1.1

Configure the server for your network as follows:

1. Connect a monitor directly to the VGA output on the back of the server.
2. Connect a keyboard directly to the server with USB or PS/2 connectors.
3. When prompted, use the following credentials to log in to the system:

   Username: `administrator`

   Password: `admin123`
4. Configure the network settings. To instruct the system to enter default values, press **Tab** after you enter the server's IP address. Review any values entered by the server.

   ```
   network set eth0 static <serverIPAddress> <subnetMask> <network>
         <broadcastIPAddress> <gatewayIPAddress> [mtu]
   ```

   NOTE Configure the second network interface through the browser. Read more at Dual Home Hosts.
5. Test the configuration by entering the server's IP address in a web browser (on a computer in the same network) and logging in to the server with the same credentials that you used to log in to the console.

   LifeSize recommends that you change the administrator password after you log in for the first time. Select **User Management > Users – Edit**, click the **administrator** username, and click **Change password**.

Power and Reboot

The faceplate covers the reset and power buttons on the server chassis. Remove the faceplate to use these buttons.

The reset button on the front panel reboots the server, and the power button controls the main system power. Turning off the system power removes the main power, but standby power remains available to the system while it is connected to the power line.

WARNING Using the reset button initiates a hard reboot of the server. Instead, reboot and power down the server from the web administration interface. Use the reset and power buttons on the server only if the web administration interface is unresponsive.

LED Status

The LED indicators on the server signify the following conditions:

LED	Icon	Indicator
Overheat/Fan Failure		When flashing, indicates a fan failure; when on continuously, indicates the server is overheated, which might be caused by cables obstructing the system airflow or by high ambient room temperature. Ensure that the chassis cover is installed securely. This LED remains flashing or on continuously for as long as the condition persists.
NIC2		When flashing, indicates network activity on LAN2 or WAN.
NIC1		When flashing, indicates network activity on LAN1.
HDD		Indicates channel activity for all hard disk drives. When flashing, indicates SATA drive activity.
Power		Indicates power is supplied to the system's power supply unit. This LED is illuminated when the system is operating.

LifeSize UVC Virtual Machine Installation

The LifeSize UVC virtual machine can be installed on VMware or Microsoft Hyper-V.

Hardware Prerequisites for Virtual Machines

The following table lists the requirements to support LifeSize UVC applications.

Hardware Reference Specification	Supported Applications
Hardware processors: Intel Xeon E5620, 2.4 GHz (minimum) vCPU: 4 vRAM: 6 GB DDR3 1333 Disk space: 100 GB (minimum), 1 TB (LifeSize UVC Video Center if you are using local storage for recordings) Network: 1 Gb/s	LifeSize UVC Access LifeSize UVC ClearSea LifeSize UVC Manager LifeSize UVC Transit LifeSize UVC Video Center
Hardware processors: 2x Intel Xeon X5650, 2.66 GHz (minimum) vCPU: refer to the application vRAM: 12 GB DDR3 1333 Disk space: 100 GB (minimum) Network: 1 Gb/s	LifeSize UVC ClearSea: • 4 vCPU for a maximum of 50 calls • 8 vCPU for a maximum of 140 calls LifeSize UVC Multipoint: • 4 vCPU for a maximum of 4 HD flexports • 8 vCPU for a maximum of 8 HD flexports • 30 vCPU for a maximum of 30 HD flexports) LifeSize UVC Video Engine for Microsoft Lync (2 cores minimum per HD call): • 12 vCPU for a maximum of 6 HD calls All other LifeSize UVC applications

VMware Prerequisites

VMware version	Supported Applications
VMware ESXi v5.0.0 or later on the host machines on which you intend to install the LifeSize UVC virtual machine. VMware vSphere Client v5.0.0 or later (Microsoft Windows only) on the computer from which you intend to access the VMware server.	All LifeSize UVC applications
VMware ESXi v4.0.0 or later on the host machines on which you intend to install the LifeSize UVC virtual machine. VMware vSphere Client v4.0.0 or later (Windows only) on the computer from which you intend to access the VMware server. (8 vCPU maximum)	LifeSize UVC Access LifeSize UVC ClearSea LifeSize UVC Manager LifeSize UVC Multipoint (8 HD flexports) LifeSize UVC Transit LifeSize UVC Video Center

Microsoft Hyper-V Prerequisites

Hyper-V version	Supported Applications
Hyper-V on Microsoft Windows Server 2012 on the host machines on which you intend to install the LifeSize UVC virtual machine.	All LifeSize UVC applications
Hyper-V on Microsoft Windows Server 2008 on the host machines on which you intend to install the LifeSize UVC virtual machine. (4 vCPU maximum).	LifeSize UVC Access LifeSize UVC ClearSea LifeSize UVC Multipoint (4 HD flexports) LifeSize UVC Transit LifeSize UVC Video Center LifeSize UVC Manager

Installing the LifeSize UVC Virtual Machine

LifeSize recommends that LifeSize UVC Video Center, LifeSize UVC Multipoint, and LifeSize UVC Video Engine for Microsoft Lync reside on their own instance of a virtual machine for optimal performance.

VMware

Perform the following steps to create and install a new virtual machine on VMware:

1. Enter lifesize.com in a browser and navigate to **Products > LifeSize UVC**.
2. Follow the instructions to download the LifeSize UVC virtual machine.
3. Start the VMware vSphere Client and use the following credentials to log in to the server:
   - IP address of the VMware ESXi server
   - administrator username and password
4. From the VMware vSphere Client, select the server: **Home > Inventory**.
5. Select **File > Deploy OVF Template**.
6. Click **Browse** to select the virtual machine file that you downloaded in step 2.
7. Follow the prompts to install the LifeSize UVC virtual machine.
8. Adjust the settings to ensure that the virtual machine meets the vCPU, memory, disk space, and network interface requirements listed for you application in Hardware Prerequisites for Virtual Machines
9. Power on the virtual machine.
10. Click **Console** and log in with the following credentials when prompted:

    Username: `administrator`

    Password: `admin123`

11. Configure the network settings. To instruct the system to enter default values, press **Tab** after you enter the server's IP address. Review any values entered by the server.

```
network set eth0 static <serverIPAddress> <subnetMask> <network>
       <broadcastIPAddress> <gatewayIPAddress> [mtu]
```

NOTE Configure a second network interface through the browser. Read more at Dual Home Hosts.

12. Test the configuration by entering the server's IP address in a web browser and logging in to the server with the same credentials that you used to log in to the console.

    LifeSize recommends that you change the administrator password after you log in for the first time. Select **User Management > Users – Edit**, click the **administrator** username, and click **Change password**.

Hyper-V on Microsoft Server 2008, 2012

Perform the following steps to create and install a new virtual machine on Microsoft Hyper-V:

1. Enter lifesize.com in a browser and navigate to **Products > LifeSize UVC**.
2. Follow the instructions to download the LifeSize UVC Platform Hyper-V virtual machine .zip file.
3. Unzip the file.
4. From the Microsoft Hyper-V Manager, right-click the instance on which you want to install the virtual machine, and select **Import Virtual Machine**.
5. Select the unzipped virtual machine software image.
6. Under **Import settings**, select **Move or restore the virtual machine**.
7. Start the virtual machine.
8. Click **Console** and log in with the following credentials when prompted:

   Username: `administrator`

   Password: `admin123`

9. *On Hyper-V on Microsoft Windows 2012 only*: Issue the command: `run-on-hyperv2012`
10. Configure the network settings. To instruct the system to enter default values, press **Tab** after you enter the server's IP address. Review any values entered by the server.

```
network set eth0 static <serverIPAddress> <subnetMask> <network>
       <broadcastIPAddress> <gatewayIPAddress> [mtu]
```

NOTE Configure a second network interface through the browser. Read more at Dual Home Hosts.

11. Test the configuration by entering the server's IP address in a web browser and logging in to the server with the same credentials that you used to log in to the console.

    LifeSize recommends that you change the administrator password after you log in for the first time. Select **User Management > Users – Edit**, click the **administrator** username, and click **Change password**.

Upgrading VMware to Use More Than 8 vCPUs

Install ESXi 5.0 or later and upgrade to VMware tools version 8 or later.

1. Ensure the virtual machine is powered off.
2. Right-click the virtual machine.
3. Select **Upgrade Virtual Hardware**.
4. Click **Yes**.

Troubleshooting

Console Command Line Interface Access

Perform the following steps if you cannot access the server from a browser:

1. Access the console.
   - *LifeSize UVC 1100 and LifeSize UVC 3300:* Connect a monitor directly to the VGA output on the back of the server, and connect a keyboard directly to the server with USB or PS/2 connectors.
   - *LifeSize UVC virtual machine:* In a browser, open the vSphere Client. Select the virtual machine and click the **Console** tab.
2. When prompted, use the following credentials to log in to the system:

   Username: `administrator`

   Password: `admin123`

   NOTE You cannot change the console username and password. This safeguard ensures that you can always access the server when you are locked out of the web administration interface. Consider the physical security implications for your organization.

A command line interface opens. Enter `help` to view a list of commands:

```
network
ssh-access
reboot
shutdown
reset-password
ping
traceroute
disk-extend (virtual machines only)
staticroute
reset-network
reset-platform
run-on-hyperv2012 (Microsoft Hyper-V 2012 only)
help
```

Enter `help` ***command*** to view help for the command.

Press **Tab** to complete a command automatically. Review any values entered by the server.

Changing the Network Settings

If you changed the default network settings for the server but cannot access it on the LAN with the IP address supplied when you made the changes, use the `network` command to view and change the settings.

View the current network settings for `eth0`:

```
network show eth0
```

Change the network settings for `eth0`:

```
network set eth0 static <serverIPAddress> <subnetMask> <network>
       <broadcastIPAddress> <gatewayIPAddress> [mtu]
```

To reset the server to factory defaults, enter the following command:

```
reset-network
```

Resetting the Default Administrator Password

Use the `reset-password` command to reset the administrator password in the web administration interface to `admin123`.

Increasing Disk Size Allocated to a VM

Increasing the disk space allocation enables a UVC application such as LifeSize UVC Video Center to use the entire disk. To increase the disk size allocated to a VM installation, use the following procedure:

1. In the VMware vSphere Client, right-click > **Edit Settings** to access the virtual machine's properties and adjust the provisioned hard disk size. The increment must be greater than 1 GB.
2. Access the console and enter the following command:

   `disk-extend`

   The system reboots automatically.

   Running `disk-extend` resizes LifeSize UVC Platform's disk partitions to make the additional capacity granted by the vSphere Client available.

NOTE You can increase (but not decrease) the disk space by repeating the procedure.

Replacing Faulty Drives

NOTE This section applies to LifeSize UVC 1100 and LifeSize UVC 3300 only.

The server stores videos on two SATA drives in a Linux MD RAID10 (RAID 10) array configuration, mirroring the data on the drives. As a result, if one drive fails, the remaining drive contains a copy so that no data is lost.

The SATA drives are mounted in drive carriers to simplify installation and removal from the chassis and to promote appropriate airflow for the system. All carriers, whether they house drives or not, must remain in the chassis during operation.

If **RAID State** on the dashboard indicates a faulty drive, back up the remaining drive immediately to prevent data loss. Refer to the deployment guide for each of the applications installed on your LifeSize UVC 1100 or LifeSize UVC 3300 for information about backing up your server.

Replace a faulty drive by contacting your LifeSize Partner or LifeSize Technical Services for an RMA (returned merchandise authorization) and replacement drive, depending on your service plan.

NOTE Use only authorized LifeSize replacement drives. LifeSize UVC 1100 and LifeSize UVC 3300 do not support larger capacity drives or more than two drives.

Deregistering a Drive

After backing up the drives, deregister the faulty disk from the RAID array.

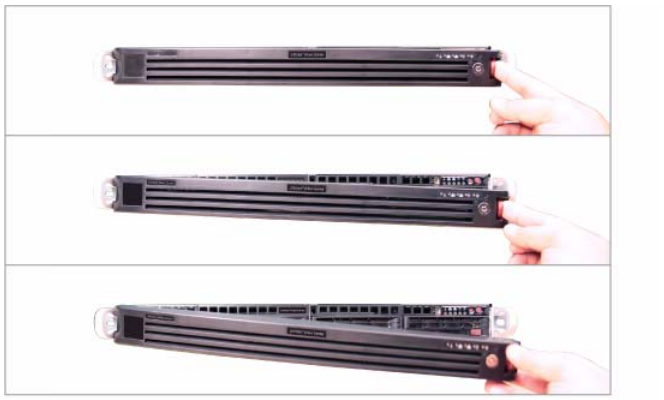
1. Open a web browser and enter the server's URL.
2. Click **System Status**.
3. In the **Storage** section, click **View RAID details**.
4. Locate the faulty disk and click **Remove Disk** to deregister the disk from the RAID array.

   Verify that the drive state is **Removed** in all RAID devices.
5. Power off the server by selecting **Operations and Maintenance > Shut down – Power off**.

Removing the Face Plate

1. Use the key to unlock the face plate on the chassis.

2. Press the release button.



3. Remove the face plate.

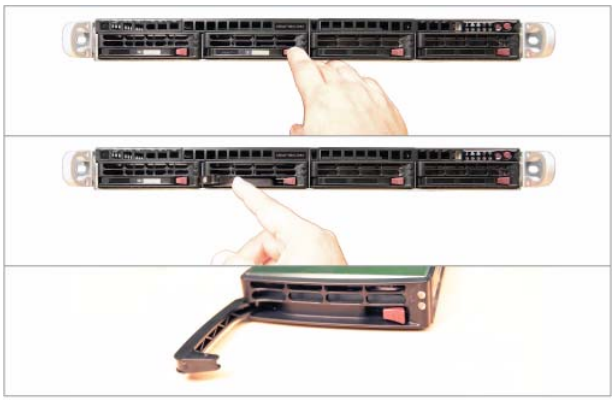
Removing a Drive Carrier

Before physically removing the faulty drive, deregister the drive in the RAID array. Refer to Deregistering a Drive. After the faulty drive is deregistered from the RAID array, use the power button to shut down the server before attempting to remove the drive.

NOTE The server might require a few minutes to shut down as it cycles through a series of steps to ensure that it shuts down safely.

1. To remove a carrier, press the release button beside the drive LEDs.

   A handle releases from its locked position.



2. Swing the handle out and use it to pull the unit directly out.

NOTE Do not touch the SATA backplane with metal objects. Ensure that no ribbon cables touch the backplane.

Installing a Drive Carrier

CAUTION Ensure that the functioning drive is in the far-left slot of the server as you face it. Install the new drive in the second slot from the left.

1. Insert the carrier into the carrier slot and press it into place in the SATA backplane.
2. Swing the handle closed until it locks into place with an audible click.
3. Ensure that LifeSize UVC 1100 is plugged in and use the power button to restore power.
4. Replace the face plate.

   Refer to step 8 of Installing the LifeSize UVC Appliance.

Refer to Registering a Drive to register the newly installed drive in the RAID 10 array.

Registering a Drive

After you replace the faulty drive, restart the server and register the new drive in the RAID array.

1. Open a web browser and enter the server's URL.
2. Click **System Status**.
3. In the **Storage** section, click **View RAID Details**.
4. Locate the new disk, which is listed as **Removed**, and click **Add Drive**.

   After the drive has successfully been partitioned and added to the RAID array, the drive's state changes to **Synchronizing** while it is populated with the data from the other drive.

Synchronizing the drive might require several hours. After the process is finished, the drive's state changes to **OK**.

Section 2: Initial Configuration

Apply licenses to applications.	Licensing
Apply an SSL certificate.	Applying an SSL Certificate
Configure LifeSize UVC Platform.	Configuring LifeSize UVC Platform to Auto Configure Devices Configuring User Email Accounts for Reporting Adding IPv6 Support Adding Web Proxy Support Configuring Single Sign-on Dual Home Hosts Ethernet Bonding

Licensing

To use a LifeSize UVC application, you must first activate a trial or purchase a license. To purchase a LifeSize UVC application for the first time or to add capacity or features to an existing installation, contact your LifeSize representative.

Before You Begin

- To purchase a license, contact your LifeSize representative. A trial does not require a license.
- If you do not yet have an account with the LifeSize download site, create and activate one at software.lifesize.com.

> NOTE After you create a new account with the LifeSize download site, ensure that you activate the account by clicking the link in the email you receive from the LifeSize download site.

- Configure your DNS server by logging in to LifeSize UVC Platform and navigating to **System Settings > Network Settings > DNS configuration – Edit**.
- Confirm that the server's time zone is accurate to ensure that you receive the full functionality of your trial or licensed application. Set the time zone in **System Settings > Time and Date Settings > Current time – Edit**. LifeSize recommends that you use an NTP server.

> CAUTION Before performing licensing tasks on systems with existing applications, ensure that server activity is terminated. Applying a license might disrupt processes, including calls and recordings, that are running on the server. Applying an edition upgrade restarts the server.

Activating Your LifeSize UVC Application

1. Log in to LifeSize UVC Platform with the following credentials:

   Username: *administrator*

   Password: *admin123*

2. If it is not already selected, click **Platform Administration** in the top navigation bar.
3. Click **Licenses**.
4. Click **Activate a new product**.
5. Select your connection type: *Internet*, *No Internet*, or *HTTP proxy*.
6. If you selected *HTTP proxy*, enter the credentials for the proxy host.
7. Click **Next**.
8. If you are activating your LifeSize UVC application for the first time, enter the credentials that you use to log in to the LifeSize download site.

   If you do not have an account, create one. Ensure that you activate your account from the email you receive from the LifeSize download site. After you create and activate your account, return to this page in LifeSize UVC Platform.

9. Select the product and an activation type:

   - *Trial*

     You can activate a trial for a product only once. If you have already activated a trial for the product, the *License* activation type is the only available option. To extend an existing trial, apply the unlock license file provided by your LifeSize representative. Learn how at Applying a License.

     NOTE Applications lock when their trial licenses expire. However, data and settings are preserved and ready to use once you apply a new license.

   - *Free* (available for LifeSize UVC Manager Proxy)
   - *License*

     After you select *License*, a prompt appears for the license file. Browse to the license key file provided by your LifeSize representative.

10. Click **Activate**.
11. If your connection type is *Internet* or *HTTP proxy*, proceed to step 12. If your connection type is *No Internet*, perform the following steps:

    a. Download the offline activation request file to your computer.

    b. Log in to the LifeSize download site at software.lifesize.com.

    c. In **Upload UVC Activation Request File**, browse to the license request file that you downloaded to your computer and click **Upload File**.

       A prompt requests that you download an unlock license file.

    d. Save the unlock license file to your computer.

e. In LifeSize UVC Platform, navigate to the **Licenses** page.

f. From **Apply License**, select *Unlock license file*.

g. Browse to the unlock license file that you downloaded from the LifeSize download site and click **Unlock**.

12. After you activate your LifeSize UVC application, you must associate it with one or more IP addresses and enable it in **Platform Administration > Operations and Maintenance**. Read more in the deployment guide for your LifeSize UVC application.

Applying a License

The following licenses are available for activated applications:

Capacity	Allows you to apply additional capacity for each application. The capacity depends on the LifeSize UVC application. For example, you can purchase additional traversals for LifeSize UVC Transit Server.
Edition upgrade	Upgrades from the standard to enterprise edition of the application.
Unlock license file	Unlocks the license if you selected the *No Internet* connection type when you activated the application.
Maintenance	Applies a maintenance contract.

Perform the following steps to apply a license:

1. Log in to the LifeSize UVC Platform:

   Username: *administrator*

   Password: *admin123*

2. If it is not already selected, click **Platform Administration** in the top navigation bar.
3. Click **Licenses**.
4. From **Apply License**, select *Capacity*, *Edition upgrade*, *Unlock license file*, or *Maintenance*.
5. Select your connection type: *Internet*, *No Internet*, or *HTTP proxy*.
6. If you selected *HTTP proxy*, enter the credentials for the proxy host.
7. Click **Next**.
8. If required, enter the credentials that you use to log in to the LifeSize download site.
9. Browse to the license file and click **Next**.

Applying an SSL Certificate

To use an SSL certificate other than the default certificate, create one on a server that runs OpenSSL in the same network environment as LifeSize UVC Platform. Generate a certificate signing request (CSR) and send it to the certificate authority.

Upload the certificate to LifeSize UVC Platform and perform the following steps:

1. Select **System Settings > SSL Configuration > Certificate – Configure**.
2. Clear the **Use default certificate** check box.
3. In **Certificate**, click **Browse** to select a certificate to upload.
4. In **Key file**, click **Browse** to select the key file associated with the certificate.
5. If the key file is encrypted, enter the **Key Password**.
6. Click **Apply Changes**.

When your LifeSize UVC Platform manages multiple LifeSize UVC applications, all IP addresses served by the web server use the same certificate.

Configuring LifeSize UVC Platform to Auto Configure Devices

Administrators can configure their DHCP server and LifeSize UVC for LifeSize devices to pull configurations when the devices reboot:

- H.323 configuration, including LifeSize UVC Access or a third party gatekeeper.
- SIP configuration, including LifeSize UVC Transit or a third party SIP server.
- Recording and streaming configuration, including a LifeSize UVC Video Center and a recording key.
- LDAP address book location.

NOTE The video systems must use DHCP.

From LifeSize UVC Platform, navigate to **Auto Configuration** and do the following:

1. Add a DHCP URL option for devices to locate the UVC server.

   Configure option 157 on the DHCP server with the HTTP URL of a LifeSize UVC server that includes device configurations (defined through the **Auto Configuration** page or by uploading a spreadsheet).
2. Click **Add device configurations**.

   To edit or add a device configuration, position your cursor in a cell and start typing.

The serial number, MAC address, and IP address identifies a specific device. Use a network mask for the IP address to identify a group of devices in a network. By default, LifeSize UVC Platform contains a single configuration record that uses a wildcard for the three device identification properties, and therefore, applies to all devices that connect to the server.

NOTE Older LifeSize video devices cannot be identified by serial number.

If a device matches more than one set of identification rules, the properties from rules that specify the MAC address or serial number have the highest priority, followed by network mask based rules. The default rule has the lowest priority. If a configuration property is not specified by a higher priority rule, the property from a lower priority rule is used.

3. Click **Edit the address book**.

   Every UVC server has a default LDAP address book. To edit or add an entry, position your cursor in a cell and start typing. Click **Show LDAP configuration** for address book access information.

4. Click **Group UVC servers to share device configurations and address books** to create a service group.

   A service group allows all servers in the group to make one set configurations and address books available to video systems that connect to any of the servers in the group. Configure the DHCP URL option to access any one of the servers in the group.

   Servers in the service group are listed in **Auto Configuration Service Group**. Servers you can add to the service groups are listed in **Neighboring UVC Servers**.

NOTE To edit configuration values in a spreadsheet, navigate to **Auto Configuration > Add device configurations > Download current configuration**. Edit the spreadsheet and upload the edited configuration file from **Auto Configuration > Add device configurations**.

Testing the Configuration

1. Navigate to **Auto Configuration > Add device configurations** and click **Test configuration** to show the configuration that the server will apply when the device contacts the server.
2. Enter the IP address, serial number, or MAC address of a device.
3. Click **View Configuration** and verify the settings. To push a configuration to a device, click **Configure device**.

Configuring User Email Accounts for Reporting

LifeSize UVC applications allow administrators to generate and email reports at regular intervals. Create an email account in LifeSize UVC Platform to serve as the originator of the emails.

1. Navigate to **User Management > Email – Add**.
2. Enter a name for the account. For example, *UVC Video Center notification account*.
3. Select an application.
4. Select the mail server protocol.
5. Enter the hostname or IP address of the SMTP server.
6. Enter the port value.
7. *Optional*: Select **Use secure connection**.
8. Select the **Authentication method** that the SMTP server supports.

   Select *Auto* if the SMTP server supports a secure authentication method. Do not use *Auto* if the SMTP server uses an unsecured authentication method such as PLAIN.
9. Enter the username and password for the account.
10. Enter the default email address and display name to use for messages originating from this account.
11. *Optional*: Enter the **NTLM domain**.
12. Select **Verify server certificate** if you are using SSMTP or TLS with SMTP.
13. Click one of the save options.
14. To send a test email from the new account, click **Test**.
15. Enter a recipient's address and click **Send Test Email**.

Adding IPv6 Support

1. Navigate to **System Settings > Network Settings > IP addresses – Edit**.
2. Locate the address for which you want to add IPv6 support and click **Edit**.
3. Enter an IPv6 address, an IPv6 prefix, and an IPv6 gateway.
4. Click **Apply Changes**.

Adding Web Proxy Support

1. Navigate to **System Settings > Network Settings > Proxy settings – Edit**.
2. Select **Use proxy server**.
3. Enter the IP address or domain name of the proxy server.
4. Enter the port number (default is 3128).
5. Optionally, select **Proxy server requires password** and enter the username and password.

6. Click **Apply Changes**.
7. Click **Test**.
8. Enter the IP address or hostname of the server to which the HTTP proxy connects.
9. Click **Test**.

Configuring Single Sign-on

Configure a single sign-on for all the applications on an instance of LifeSize UVC. You must assign a hostname for each application with a common domain. For example, for the common domain *.example.com,* use the hostname *vc.example.com* for LifeSize UVC Video Center and *ts.example.com* for LifeSize UVC Transit Server. Navigate to **System Settings > Network Settings > IP addresses – Edit** to assign hostnames to each application.

1. Navigate to **System Settings > Single Sign-on Settings > Single Sign-on – Enable**.
2. Select **Enable single sign-on**.
3. Enter the common domain for the applications on the server.
4. Click **Save**.

Dual Home Hosts

LifeSize UVC Platform supports both LAN/LAN and LAN/WAN dual home configurations. The following table shows sample configurations:

2 LANs	LAN1 LAN2	LifeSize UVC Video Center LifeSize UVC Transit
1 LAN 1 WAN	LAN WAN	LifeSize UVC Video Center LifeSize UVC Transit
	LAN WAN	LifeSize UVC ClearSea LifeSize UVC ClearSea

As illustrated in the preceding table, LifeSize UVC ClearSea is the only UVC application that supports using two network IP addresses on separate network interfaces. Although LifeSize UVC Transit uses two IP addresses, one for signaling and one for media, both IP addresses are on the same network.

When you first install LifeSize UVC Platform, you configure the `eth0` network port and the default gateway with the `network set eth0` console command.

Virtual machines: A dual home configuration requires a second network interface on the server hosting the virtual machine. You must also assign the interface to your virtual machine.

Complete the network configuration by logging in to LifeSize UVC Platform from a browser:

1. Navigate to **System Settings > Network Settings > IP addresses – Edit**.
2. Click **Add address**.

3. Enter the new IP address.
4. Click **Apply Changes**.
5. Navigate to **System Settings > Network Settings > IP addresses – (Default gateway) Edit** to ensure that the default gateway is set on the correct interface.

   Typically, you set the default gateway on the WAN interface and configure static routes for the LAN interface to route traffic to all known LAN address ranges through the gateways specified in the static routes.

   If you are using a LAN/LAN configuration, you set the default gateway on one of the networks and use static routes for the other network.

Ethernet Bonding

You can also use the second network port on the LifeSize UVC appliance for Ethernet bonding for performance, network redundancy, and automatic failover if one NIC fails.

1. In **System Settings > Network Settings > Network interfaces**, click **Enable ethernet bonding**.
2. Select **Enable bonding**.
3. Click **Save**.

On virtual machines, use the NIC bonding features on the virtual machine host.

Section 3: User Management

LifeSize UVC Platform supports multiple users and groups. Permissions are used to control access to functionality.

NOTE Integrate the LDAP server with LifeSize UVC Platform if your site uses LDAP to authenticate users. Refer to Integrating LDAP with LifeSize UVC Platform.

Administrator Accounts

LifeSize UVC Platform includes the following default administrative users:

Administrator	Description	Username	Password
Console administrator	Default administrative user available when you install LifeSize UVC Platform. You cannot delete the console user or modify the username or password. This safeguard ensures that you can always access the server when you are locked out of the web administration interface. Read more at Console Command Line Interface Access.	administrator	admin123
LifeSize UVC Platform administrator	Default administrative user for managing LifeSize UVC Platform and all active applications. The LifeSize UVC Platform administrator has access to all functionality of all applications. LifeSize recommends that you change the password for this user.		

NOTE The duration of a login session is 14 days. You cannot customize this value.

You can optionally create administrative users for all of your active LifeSize UVC applications. These administrative users can access administrator functionality for the selected LifeSize UVC application.

1. Navigate to **User Management > Users – Add**.
2. Enter a username and password.
3. Optionally, enter an email address for the user. The user will receive email notification of the account. You must configure an email account on LifeSize UVC Platform as the originator of the email. Refer to Configuring User Email Accounts for Reporting.
4. Click **Save**.
5. Select **Administrator** for the application.
6. Click **Save**.

Creating Users and Groups in LifeSize UVC Video Center

Create user accounts in **User Management > Users – Add**.

NOTE When you create a new user account, click **Save** (instead of **Save and add another**) to view additional settings.

Create group accounts in **User Management > Groups – Add**.

Set the following permissions when you create or edit user and group accounts for LifeSize UVC Video Center:

Permission	Description
Content administrator	Grants LifeSize UVC Video Center administrator permissions to the user or group. A content administrator has access to the **Administer** tab in LifeSize UVC Video Center.
Recording	Grants the user or group permission to create recordings with existing keys, to own and manage videos, and to upload videos. When the user, termed a *content creator*, logs in to the system, the **Manage** tab appears. If the **Allow users to create recording keys** global permission in LifeSize UVC Video Center is selected, the user can also create recording keys. When this option is selected, options appear that allow you to set the disk quota, recording length, maximum recording bit rate, and default recording bit rate.
Content subscription	Grants the user or group permission to retrieve live and recorded content from the server for publishing to another LifeSize UVC Video Center. Only content that the user can view can be retrieved.

Managing Permissions

Administrators can set permissions at the user and group levels. When the permissions differ, the more permissive setting is applied. For example, if you set the disk quota for a user in LifeSize UVC Video Center to 50 MB and then add the user to a group with a 10 MB disk quota, the user retains permission for the larger disk quota. Likewise, adding a user who has permission to record at a maximum 512 kb/s bit rate to a group with a maximum of 768 kb/s increases the user's allowed maximum bit rate. Removing that user from the group resets the user's permissions to a maximum recording bit rate of 512 kb/s.

NOTE Administrators manage site-wide permission to create recording keys by editing global authorization properties. Refer to the *LifeSize UVC Video Center Deployment Guide*.

The process of adding users to a group streamlines the assignment of permissions. For example, you can add 30 members of a chemistry class to a *Chemistry 101* group. You can then grant that group, rather than each user, permission to watch a video. Set the permission either by editing the recording key or the video. If you edit the recording key, only future recordings reflect the new setting. Older video recordings are not affected.

Integrating LDAP with LifeSize UVC Platform

You can configure LifeSize UVC Platform to authenticate users and to load user and group information from an external directory that uses LDAP by selecting **User Management > LDAP Settings – Edit**.

Authentication Methods

- **Do not use LDAP Server**. LifeSize UVC Platform stores all users and groups in the local database.
- **Use LDAP server for user authentication**. An LDAP server authenticates LDAP users who log in to LifeSize UVC Platform. If you select this authentication method, you must create groups locally. Local users can coexist with LDAP users and belong to local groups that include any mix of local and LDAP users.
- **Use LDAP server for user and group management**. An LDAP server authenticates LDAP users and LDAP groups. Select this option to manage LifeSize UVC Platform permissions with groups that are already defined on the LDAP server. Local users and groups can coexist with LDAP users and groups.

Configuration

Configure the LDAP integration according to the settings that are identified by the table in this section. When you save these settings, LifeSize UVC Platform attempts to contact and bind to the specified LDAP server. If the binding is unsuccessful, the settings are not applied. LifeSize UVC Platform does not write data to the LDAP server.

NOTE Refer to the *LifeSize UVC ClearSea Server Deployment Guide* for the corresponding preferences in LifeSize UVC ClearSea Server.

The following default settings use attribute names and filter specifications that work with Microsoft's Active Directory.

Configuration	Setting	Default Value
LDAP Server Settings	URL or IP address of the LDAP server.	N/A
	Optional: Use Transport Layer Security (TLS) protocol. If TLS is enabled, LifeSize UVC Platform negotiates a secure connection on the LDAP port. Do not use LDAPS. Upload the LDAP server's CA certificate if TLS is enabled. LifeSize UVC Platform does not connect to the LDAP server if TLS is enabled and the server's certificate cannot be verified. NOTE: LifeSize UVC ClearSea Server does not support using the TLS protocol to communicate with the LDAP server.	Disabled
	User and password with read access to the LDAP tree.	N/A
	Location of the user and group trees. Searches start at the base context.	N/A
User Query Settings Use these settings to limit the scope of user queries.	*Optional:* User search filter combined (using AND) with user search parameters.	(objectCategory=person)
	Username	sAMAccountName
	Optional: First name	givenName
	Optional: Surname	sn
	Optional for LifeSize UVC ClearSea: User's display name and phone extension. The extension corresponds to the H.323 extension in video calls.	displayName extensionName
	Group membership This setting is required only when you select **Use LDAP server for user and group management** authentication.	memberOf
	Optional: Email	mail

Configuration	Setting	Default Value
Group Query Settings Use these settings to limit the scope of group queries.	*Optional:* Group search filter combined (using AND) with group search parameters.	(objectCategory=group)
	Group name	name
	Group member	member
	Query nested groups Supported only with Microsoft Server 2003 SP2 and later by using the LDAP_MATCHING_RULE_IN_CHAIN operator. You must also set the Group member attribute. CAUTION: Enabling this setting when your site does not use Active Directory disables all group queries.	Enabled

Testing the Configuration

Display the LDAP filters in **User Management > LDAP Settings – Test**. LifeSize recommends that you test the configuration by typing an LDAP username or group name in the appropriate text box. If the integration is successful, the LDAP server returns usernames or group names as you type. Refer to the *webapp* log available in **Operations and Maintenance > Server logs > View Logs** to verify queries made to the LDAP server and the responses to LifeSize UVC Platform.

Users and Groups

When you first integrate the LDAP server, LifeSize UVC Platform displays only local users and groups. The following events cause LDAP users and groups to appear in the LifeSize UVC Platform interface:

- The LDAP user logs in to LifeSize UVC Platform.
- The administrator (or a content creator) sets viewing permissions on a video to include an LDAP user or group.
- The administrator imports the LDAP user or group.

NOTE If a group is imported and privileges are assigned to it, you do not need to import the users who belong to the group.

Both local and LDAP users and groups can reside on the LifeSize UVC Platform server. Additionally, local groups can include a mix of local and LDAP users.

Only LDAP users can belong to an LDAP group. Administrators must add LDAP users to the LDAP group from the LDAP server, not from LifeSize UVC Platform. When you configure users and groups in LifeSize UVC Platform (granting video access to a group, for example), LifeSize UVC Platform maintains the configuration locally and does not write data to the LDAP server.

Using Filters

Display usernames by selecting **User Management > Users – Edit** and selecting one of the following filters:

- **All**
- **Local users**
- **LDAP users**
- **Users deleted from LDAP server**

Display group names by selecting **User Management > Groups – Edit** and selecting one of the following filters:

- By group type: **All**, **Local groups**, or **LDAP groups**
- By group privileges: **All**, **Administrators**, or **Content Creators**

Synchronizing with the LDAP Server

When you import LDAP users and groups, a local entry for each user and group resides in the LifeSize UVC Platform database. Changes that are made to LifeSize UVC Platform are written only to the local record. As a result, local entries remain in the database even if the users or groups are no longer on the LDAP server. Select the **Users deleted from LDAP server** filter at **User Management > Users – Edit** to view deleted LDAP users.

NOTE Users who have been deleted from the LDAP server cannot log in to LifeSize UVC Platform. Additionally, LifeSize UVC Platform permissions that are set for an LDAP group no longer apply if that group is deleted from the LDAP server.

Authenticating Users and Groups

LifeSize UVC Platform authenticates users and groups locally before querying the LDAP server. If the LDAP server is unavailable, authentication does not occur. The maintenance of local users allows you to access LifeSize UVC Platform when the LDAP server is unavailable.

Importing Users and Groups from the LDAP Server

Import LDAP users and LDAP groups in **User Management > Users** or **Groups – Import**. When you start typing the user or group name, the LDAP server returns matches. If a local username already exists in LifeSize Video Center, you can map an LDAP user to the local user.

NOTE When you import an LDAP group, its members gain access to LifeSize Video Center according to group privileges. However, the group's members are not imported individually. Do not import members individually unless you intend to assign individual privileges that differ from the group privileges.

Managing Permissions with LDAP Users and Groups

After you import users and groups from the LDAP server, you can edit their properties within LifeSize UVC Platform. Refer to Managing Permissions. The method that you use to manage permissions depends on the number of users and on your LDAP authentication mode. Consider the following options:

- From the LDAP server, create an LDAP group and assign users to that group. Import the LDAP group into LifeSize UVC Platform and assign permissions. All group members inherit the permissions that are assigned to the group. Only LDAP users can belong to an LDAP group.
- Create a local group and assign users to the group. You must manage group membership within LifeSize UVC Platform. Both LDAP and local users can belong to a local group.
- Assign permissions directly to an LDAP user.

NOTE The LDAP server maintains an LDAP user's password and group membership. You cannot edit these properties in LifeSize UVC Platform. Password changes that you make on the LDAP server take effect immediately in LifeSize UVC Platform.

The following scenario illustrates LifeSize UVC Video Center privilege management with LDAP users and groups:

1. The administrator imports *User1* from LDAP and grants *User1* content creation privileges with a disk quota of 10 MB and a maximum recording bit rate of 512 kb/s.
2. The administrator imports the LDAP *Marketing* and *Managers* groups, to which *User1* belongs.
3. The administrator assigns a disk quota of 50 MB and a recording bit rate of 768 kb/s to the *Marketing* group.
4. The administrator assigns a disk quota of 100 MB and a recording bit rate of 512 kb/s to the *Managers* group.

Because *User1* is a member of the *Managers* group, *User1*'s disk quota is the maximum of 100 MB. Because *User1* is a member of the *Marketing* group, *User1*'s recording bit rate is the maximum of 768 kb/s.

Section 4: Maintaining LifeSize UVC

Use the following tools to manage the server:

System status	Read more at Monitoring the Server.
Logs	Select **Operations and Maintenance > Server logs > View logs** to view and download logs for LifeSize UVC Platform and all enabled applications.
Updates	Read more at Updating Server Software.
Maintenance mode	Read more at Maintenance Mode.
Remote access	Select **Operations and Maintenance > Remote access – Enable** to allow support personnel SSH access for remote debugging.
System settings	Select **System Settings** to define the hostname, network settings, single sign-on, time and date, and SSL configuration. Read more at System Settings.

Monitoring the Server

Administrators can monitor the server in **Administer > System Status**.

Property	Description
Storage	**Disk Usage** shows the percentage used and hours remaining at the default recording bit rate specified in LifeSize UVC Video Center in **Administer > Content Management > Global Recording Properties**. **RAID State** alerts you to disk issues in the RAID. Refer to the *LifeSize UVC Platform Installation Guide* to learn how to replace a faulty RAID drive.
System Status	Displays server status, including how long the server has been running since its last restart, and CPU and memory usage. The server has a health monitoring system that checks the status of critical processes. If a process fails, the health monitoring system attempts to restart the process. If you cannot restart a process and instead receive an error message, contact your LifeSize Partner or LifeSize Technical Services.
Port Usage	Displays the ports used for each server process. For information about ports and firewall settings, refer to the deployment guide for your application.

Using Diagnostic Tools

Administrators can use ping, trace route, and DNS query tests to determine network connectivity.

- **Operations and Maintenance > Diagnostic Tools > Ping**
- **Operations and Maintenance > Diagnostic Tools > Trace route**
- **Operations and Maintenance > Diagnostic Tools > DNS Query**

Updating Server Software

If you have a current service plan, you will receive notice of updates to server software. Perform the following steps to download the update file image and then to update the server software:

1. Access lifesize.com/support.
2. Click **Download Software**.

NOTE Access the LifeSize download site directly at software.lifesize.com.

3. Log in to the LifeSize download site.
4. Enter your serial number (located on the physical device and for many systems in **Operations and Maintenance**) and click **Submit**.
5. Click the link for the software version that you want to download.
6. Download the software update image to a local directory on your system.
7. From LifeSize UVC Platform, select **Operations and Maintenance > Software version > Update**.
8. Browse to the software update image that you downloaded to your computer.
9. Click **Update Software**.

   The application validates the update package and shows the updated software version. A warning appears if the update is older than the current software version.
10. Click **Update Software** to confirm the update.

NOTE Your maintenance license must be valid to perform the update. You cannot downgrade to a previous release.

If attempts to update the server software fail, note the error and contact your LifeSize Partner or LifeSize Technical Services.

Maintenance Mode

LifeSize recommends that you place the server in maintenance mode before backing up, restoring, or implementing NAS (for LifeSize UVC Video Center implementations). Maintenance mode terminates streaming, calls, and recording activity and prevents non-administrators from logging in to the system.

CAUTION Although a message alerts users when an administrator terminates their activity, LifeSize UVC Platform does not warn users before their activity is terminated. Use another method, such as email, to forewarn users.

Perform the following steps to enter maintenance mode:

1. Select **Operations and Maintenance > Shut down – Maintenance mode**.
2. Click **Shut Down Services**.

Ensure that you exit maintenance mode and restore services after your tasks are complete.

System Settings

Select **System Settings** for the following options:

Hostname		Select **Hostname – Edit** to enter a fully qualified domain name of the server.
Network	IP addresses	Select **IP addresses – Edit** to define network IP addresses and the default gateway. To configure two network interfaces, refer to Dual Home Hosts.
	Network interfaces	Select **Network interfaces – Enable Ethernet bonding** to use the second network port on the appliance. Read more at Ethernet Bonding.
	DNS	Select **DNS configuration – Edit** to define your DNS configuration.
	Routes	Select **Routes – Edit** to add network routes apart from the default gateway.
	Proxies	Refer to Adding Web Proxy Support.
Single sign-on		Refer to Configuring Single Sign-on.
System date and time		Select **Time and Date Settings > Current time – Edit** to change the time zone. Reboot the system for your changes to take effect. Manually reboot or shut down the system from **Operations and Maintenance**.
SSL		Refer to Applying an SSL Certificate.

Contacting Technical Services
LifeSize Communications welcomes your comments regarding our products and services. If you have feedback about this or any LifeSize product, please send it to feedback@lifesize.com. Refer to lifesize.com/support for additional ways to contact LifeSize Technical Services.