LifeSize® Networker™

LifeSize® Networker™ Installation Guide

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Contacting Customer Support

If you have questions, concerns, or need assistance, contact your LifeSize Channel Partner.

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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. Contact information for LifeSize Communications is as follows:

Method	*Address*
Internet	http://www.lifesize.com
E-mail	support@lifesize.com
Phone	(877) LIFESIZE or (877) 543-3749 (512) 347-9300
Fax	(512) 347-9301

Welcome to LifeSize Networker

LifeSize Networker is an enhanced, all-in-one gateway for integration between IP and Integrated Services Digital Networks (ISDN) that offers multiple compact network interfaces. LifeSize Networker provides seamless IP to ISDN calls from your LifeSize video communications system.

Installing LifeSize Networker

Your LifeSize Networker package includes the following components:

- LifeSize Networker unit
- Four 3 meter RJ-45 cables for BRI or PRI ports
- One 9 meter RJ-45 cable for connecting LifeSize Networker to:
  - LifeSize Room or LifeSize Team MP

    or
  - a network port when configured as a standalone unit

    Note: LifeSize Networker installed as a standalone unit also requires a power adapter and power cord. Contact your LifeSize reseller to obtain these parts.
- One ferrite
- Quick reference card
- Documentation CD; also available at www.lifesize.com.

Installation Procedure

Before you install LifeSize Networker, ensure that the version of the system software installed on your LifeSize video communications system is supported with LifeSize Networker. Refer to the LifeSize Networker *Release Notes* available from the Customer Support page of www.lifesize.com for supported software versions.

If you are using LifeSize Room or LifeSize Team MP, you can install LifeSize Networker by either connecting it to the **Networker** port on the codec with an Ethernet cable, or by installing it as a standalone device. When LifeSize Networker is connected to the codec, it obtains power directly from the LifeSize video communications system and does not need a power supply. When LifeSize Networker is installed as a standalone device, it requires a power adapter and power cord. If you are using LifeSize Team or LifeSize Express, LifeSize Networker installs as a standalone device only.

To install LifeSize Networker, follow these steps:

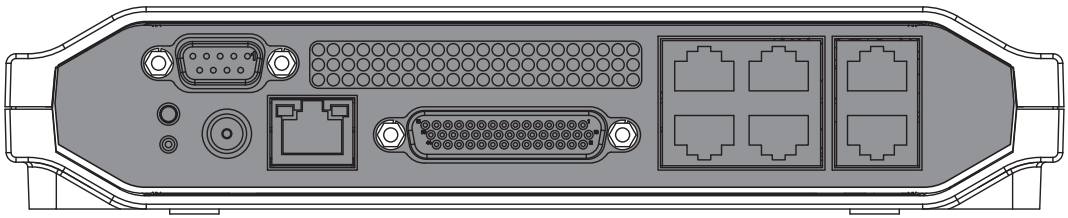
Note: Refer to the quick reference card included in your product package for a visual depiction of the proper setup.

1. Depending on the LifeSize video communications system you are using and the installation option that you choose, do one of the following:

   - If you are using LifeSize Room or LifeSize Team MP and wish to connect LifeSize Networker to the codec, insert the 9 meter RJ-45 cable into the port marked with the LAN symbol on LifeSize Networker and the opposite end into the **Networker** port on the codec that is part of your LifeSize video communications system.

     Note: Power is supplied from the LifeSize video communications system. Do not use a power supply directly connected to the LifeSize Networker for this configuration.

   - If you are using LifeSize Networker as a standalone unit, insert the cord from the power adapter into the power outlet marked DC 48V on LifeSize Networker. Insert one end of the power cord into the power adapter and the opposite end into the power outlet on the wall.



2. Verify that the LED above the **RESET** button on the back panel of LifeSize Networker is green. If the LED is yellow, verify that you have properly connected the 9 meter RJ-45 cable or power cord and adapter as appropriate for your configuration.

   Note: LifeSize recommends that you do not connect the RJ-45 cables to the BRI ports or to the PRI port until after you configure LifeSize Networker as a BRI or PRI device. See ”Configuring LifeSize Networker as a BRI or PRI Device” on page 11.

   Note: The RS-232 port on LifeSize Networker is reserved for future use and not supported in this release. The second PRI port is reserved for future use and not supported. The V.35 port is not supported in this release.

3. Depending on which LifeSize video communications system you are using, do one of the following:
   - If you installed LifeSize Networker by connecting it to a LifeSize Room or LifeSize Team MP codec, configure LifeSize Networker as a BRI or PRI device. See “Configuring LifeSize Networker as a BRI or PRI Device” on page 11.
   - If you installed LifeSize Networker as a standalone device, you must first configure LifeSize Networker and the LifeSize video communications systems that you intend to use with LifeSize Networker to function together in a standalone configuration. Complete the steps in ”Configuring LifeSize Networker as a Standalone Unit” on page 5.

     Note: Ensure that you have Flash Player installed and configured on your web browser to access the administrator configuration from a web browser. You can download the Flash Player from **www.adobe.com**. Refer to the LifeSize Networker *Release Notes* available from the Customer Support page of www.lifesize.com for for required version information.

Configuring LifeSize Networker as a Standalone Unit

You can configure LifeSize Networker to function as a standalone unit with or without registration to an H.323 gatekeeper.

To use LifeSize Networker as a standalone device with a LifeSize video communications system and without an H.323 gatekeeper, you must configure each device with the IP address of the other device. To prevent disruptions in service, LifeSize supports this configuration with static IP addresses only for both devices.

If you plan to register a standalone LifeSize Networker to an H.323 gatekeeper for use with one or more LifeSize video communications systems, you can configure these devices with either a static IP address or dynamically assigned IP address using DHCP. You must register all devices to the same gatekeeper, and configure LifeSize Networker with gateway service prefixes and Direct Inward Dial (DID) values. To configure LifeSize Networker as a standalone unit with registration to an H.323 gatekeeper, follow the steps in ”Configuration with Registration to an H.323 Gatekeeper” on page 8.

Configuration Without Registration to an H.323 Gatekeeper

To configure LifeSize Networker as a standalone unit without registration to an H.323 gatekeeper, complete the following steps:

1. Insert the 9 meter RJ-45 cable into the port marked with the LAN symbol on LifeSize Networker. Insert the opposite end of the RJ-45 cable into a personal computer that is configured for DHCP, but not connected to a network.

   Note: You may need to wait for the operating system to assign an IP address to the personal computer after you disconnect the personal computer from the network.

2. Access the LifeSize Networker administrator configuration:

   a. On the personal computer not connected to the network, open a web browser and navigate to the following address:

      169.254.100.100

      This is the default address of LifeSize Networker. The login screen of the LifeSize Networker administrator interface appears.

   b. On the login screen, choose the language in which to display the interface.

   c. Enter the administrator password (the default is 1 2 3 4).

   Note: For security reasons, LifeSize recommends you change the default administrator password during the initial configuration. The **Password** screen is available from the **Preferences** menu of the LifeSize Networker administrator configuration.

   d. Click **Submit**.

3. Click **Preferences**.

4. Click **Network**.

5. In the **DHCP** preference, select *Disabled*. When you disable DHCP, you must enter values for the following preferences:

   - **IP address**

     Enter the locally configured static IP address for LifeSize Networker.

   - **Subnet Mask**

     Enter the IP address of the subnet mask for LifeSize Networker.

   - **Default Gateway**

     Enter the IP address of the default gateway that LifeSize Networker will use.

   - **DNS Servers**

     Enter the IP addresses (separated by spaces) to configure DNS servers.

   Note: The **Hostname** and **Name Search Domains** preferences are optional. If you enter a hostname for LifeSize Networker, the name must be a unique name on your network. By default, **Network Speed** is set to Auto.

6. Click **Save Changes**.

   LifeSize Networker reboots and runs with the IP address that you entered in step 5.

7. Click **Log Out** in the LifeSize Networker administrator configuration.

8. Unplug the RJ-45 cable from the personal computer and connect it to an active port on your network.

9. On a computer connected to your network, open a web browser and access the LifeSize Networker administrator configuration using the IP address for LifeSize Networker that you entered in step 5 as the URL. To log in, see steps 2 b through 2 d.

10. Click **Preferences**.

11. Click **Direct Connect**.

12. Select **LifeSize System IP address** and enter the IP address of the LifeSize video communications system to use with LifeSize Networker.

    Note: The IP address of your LifeSize video communications system appears at the top of the main screen in the user interface.

13. Click **Save Changes**.

14. Access the LifeSize video communications system user interface and navigate to **Administrator Preferences : Communications : General**.

15. Select **LifeSize Networker IP Address** and enter the IP address of LifeSize Networker that you entered in step 5.

16. Configure LifeSize Networker as a BRI or PRI device. See ”Configuring LifeSize Networker as a BRI or PRI Device” on page 11.

Configuration with Registration to an H.323 Gatekeeper

To configure LifeSize Networker for use with LifeSize video communications systems and an H.323 gatekeeper, complete the following steps:

1. Determine which method (static or dynamic) you will use for assigning an IP address to LifeSize Networker, and then do one of the following:
   - To use a dynamically assigned IP address:
     a. Follow steps 1 and 2 in ”Configuration Without Registration to an H.323 Gatekeeper” on page 6 to access the LifeSize Networker administrator interface.
     b. Click **Preferences**.
     c. Click **Network**.
     d. Ensure that the **DHCP** preference is set to *Enabled*.

        Note: If you change this setting from *Disabled* to *Enabled*, click **Save Changes** to save the change. LifeSize Networker automatically reboots.
   - To assign a static IP address:
     a. Complete steps 1 through 8 in ”Configuration Without Registration to an H.323 Gatekeeper” on page 6.
     b. On a computer connected to your network, access the LifeSize Networker administrator interface using the static IP address of LifeSize Networker that you assigned.
     c. Click **Preferences**.
2. Click **H.323**.

3. Configure the following preferences as specified:

   a. **H.323 Name**

      Also referred to as H.323 ID. This optional value 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, this field should contain that ID.

   b. **Gatekeeper ID**

      Set the **Gatekeeper ID** only if the gatekeeper requires it (for example, configurations with multiple gatekeepers). The **Gatekeeper ID** must match the Gatekeeper ID configured on 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.

   c. **Gatekeeper Mode**

      If you wish LifeSize Networker to automatically discover an H.323 gatekeeper set the **Gatekeeper Mode** preference to *Auto*. You can also set this preference to *Manual* to manually choose a gatekeeper. If set to *Manual*, specify the IP address and port for the primary gatekeeper.

      Note: Configuration of a secondary H.323 gatekeeper is optional.

4. Click **Save Changes**.

5. Configure gatekeeper service prefixes for outgoing calls:

   a. Click **Gateway**.

   b. Click **Service Prefixes**.

   c. In the **Prefix** column, you can enter up to 20 service prefixes and select a bandwidth for each in the **Bandwidth** column. You must enter at least one service prefix. Ensure that each service prefix conforms to the following rules:

      - Contains numeric characters only.
      - Does not exceed five characters.
      - Is not already registered to the gatekeeper.
      - Is not a substring of another service prefix.
      - Is not already configured for another LifeSize Networker if you are using more than one LifeSize Networker on your network

If you define only one service prefix and specify *Auto* as the bandwidth, LifeSize Networker uses the bandwidth selected in your LifeSize video communications system for the call. If you specify a bandwidth other than *Auto* for a service prefix, LifeSize Networker uses that bandwidth for calls and ignores the bandwidth selected in your LifeSize video communications system.

Note: When placing a call, you must prepend the number you are calling with a service prefix.

6. Click **Save Changes**.

   Note: To delete a prefix, select the **Delete** checkbox and then click **Save Changes**.

7. Configure DID values for incoming calls:

   a. Click **Direct Inward Dial**.

   b. In **DID Extension Length**, enter the number of last uncommon digits of the ISDN number. For example, if the ISDN incoming numbers are 5125551212, 5125551234, and 5125551256, then the DID extension length is 2, because the last two digits of each incoming number are not common to all three numbers.

   c. *Optional*: In **DID Prefix**, enter a unique number that identifies the LifeSize video communications system to which the incoming ISDN call must be delivered. The DID prefix is applied to an incoming call after the number has been truncated based on the DID extension length.

8. Click **Save Changes**.

9. If you are using DHCP to assign an IP address to LifeSize Networker, do the following:

   a. Unplug the RJ-45 cable from the personal computer and connect it to your network. LifeSize Networker automatically reboots with a dynamically assigned IP address and attempts to register with the gatekeeper.

   b. Access your gatekeeper user interface and note the IP address assigned to LifeSize Networker. See your gatekeeper product documentation for information about how to locate the IP address of a registered device.

   Note: You will need the dynamic IP address to access the LifeSize Networker administrator interface and configure LifeSize Networker as a BRI or PRI device.

10. Register each LifeSize video communications system that you intend to use with LifeSize Networker with the H.323 gatekeeper:

    a. Access the LifeSize video communications system user interface and navigate to **Administrator Preferences: Communications : H.323**.

    b. The value of the **H.323 Extension** preference is the DID Prefix that you entered in step 7 and the DID extension. For example, if the DID Prefix value is 234, the DID Extension length is 4, and the last four digits of the ISDN number are 8989, then the H.323 Extension is 2348989. If you did not specify a DID Prefix, the H.323 Extension is the same as the DID extension (8989 in this example).

    c. For the **Gatekeeper Mode** preference, select *Manual* and specify the IP address and port for the primary gatekeeper.

    d. To complete the remaining H.323 preferences, see your LifeSize video communications system product documentation.

11. Configure LifeSize Networker as a BRI or PRI device. See “Configuring LifeSize Networker as a BRI or PRI Device.”

Configuring LifeSize Networker as a BRI or PRI Device

Once you have set up LifeSize Networker in your environment to function with your LifeSize video communications system, you must configure LifeSize Networker as either a BRI or PRI device. You can choose either PRI or BRI but not both simultaneously.

Your telephone company provides ISDN with one of the following protocols:

- **Basic Rate Interface (BRI)**

  ISDN telephone with BRI provides fingertip access to ISDN functions and eliminates the need for a terminal adapter.

- **Primary Rate Interface (PRI)**

  ISDN telephone with PRI channels are carried on a T-carrier system line (in the US, Canada, and Japan) or an E-carrier line (in other countries). The channels can be reassigned when necessary to meet special needs such as video conferences.

  Before you configure LifeSize Networker as a BRI or PRI device, ensure that your switch is supported. For a list of supported switches, see the LifeSize Networker *Release Notes* available from the Customer Support page of www.lifesize.com.

Accessing the Administrator Configuration

Administrator configuration screens accessible through a web browser enable you to configure LifeSize Networker as a BRI or PRI device.

To access the administrator configuration for LifeSize Networker, follow these steps:

1. Open a web browser and do one of the following:
   - If you installed LifeSize Networker by connecting it to a LifeSize Room or LifeSize Team MP codec, navigate to the IP address displayed on the main page of your LifeSize video communications system.
   - If you installed LifeSize Networker as a standalone unit, navigate to the IP address that you assigned to LifeSize Networker in ”Configuring LifeSize Networker as a Standalone Unit” on page 5.
2. On the login screen, choose the language in which to display the interface.
3. Enter the administrator password (the default is 1 2 3 4).

   Note: For security reasons, LifeSize recommends you change the default administrator password during the initial configuration. If you are using LifeSize Networker as a standalone unit, the **Password** screen is available from the **Preferences** menu of the LifeSize Networker administrator configuration.
4. Click **Submit**.
5. Depending on your configuration, do one of the following:
   - If you are using LifeSize Networker connected to a LifeSize video communications system, on the **Preferences** tab, click **Communications** and then click **LifeSize Networker**.
   - If you are using LifeSize Networker as a standalone unit, click **Preferences** and then **ISDN**.

Configuring LifeSize Networker as a BRI Device

ISDN telephone with Basic Rate Interface (BRI) provides fingertip access to ISDN functions and eliminates the need for a terminal adapter. You can individually enable or disable each BRI line; however, all lines must be connected to the same switch.

Most ISDN lines consist of two lines, called B channels. You can configure each BRI line as a single number or one number per channel.

A Service Profile Identifier (SPID) may be associated with each B channel for North American switches. A SPID tells equipment at the phone company whether the device on the B channels accepts voice or data information. A SPID is assigned when you order ISDN BRI from the phone company. You manually specify this numeric string of 3 to 20 digits when you configure LifeSize Networker.

To configure BRI lines on LifeSize Networker, follow these steps:

1. Access the administrator configuration. See ”Accessing the Administrator Configuration” on page 12.
2. Select **BRI Single Number** to configure each BRI line as a single number or select **BRI ISDN Number** to configure a range of ISDN numbers for each channel.
3. If you chose **BRI Single Number**, follow these steps:
   a. Select **Configuration** from the menu bar.
   b. Click the **Edit** button.
   c. Choose the switch to which your LifeSize Networker is connected and click **Save Changes**.
   d. If you are using LifeSize Networker in Taiwan, in the **ISDN SendingComplete** option select *Enabled*.
   e. Select **Single Number** from the menu bar.
   f. Select the BRI line you wish to configure and click **Edit**.
   g. Enter the number for the BRI line and click **Save Changes**.
4. If you chose **BRI ISDN Number**, follow these steps:
   a. Select **ISDN Number** from the menu bar.
   b. Select the BRI line you wish to configure and click **Edit**.
   c. Enter the first and last numbers of the range for the selected BRI line and click **Save Changes**.
   d. Select **Channel** from the menu bar to configure the BRI channels.
   e. Click **Edit** below the **BRI Configuration** table.
   f. Select the switch to which your LifeSize Networker is connected and click **Save Changes**.

g. If you are using a National ISDN switch, you can configure a Service Profile Identifier (SPID) by clicking **Edit** below the SPID table.

   Note: If your switch is does not support SPIDs, configuration of a SPID is not available.

h. Select the BRI line numbers to configure and choose *Manual* to assign a SPID manually.

i. Enter the SPID numbers for each line (one number for each B channel).

j. Click **Save Changes**.

k. If you are using LifeSize Networker in Taiwan, in the **ISDN SendingComplete** option select *Enabled*.

   Note: If you configured a range of ISDN numbers for each channel, incoming calls must use the number that you configure for the first B channel of a BRI line. LifeSize Networker does not support incoming calls that are dialed using the number configured for the second B channel of a BRI line.

5. To set administrative control of your BRI lines, select **General** from the menu bar and click the **Edit** button.

6. Choose the BRI line you wish to configure (or choose *All* to configure all lines simultaneously) and choose *Active* or *Inactive* for **Administrator Control**.

   Note: If **Administrator Control** is inactive, the **Line Status** is also inactive. If **Administrator Control** is active, the **Line Status** is active only when it is connected to the switch and the ISDN communication is successful.

7. Click **Save Changes**.

8. Connect up to four 3 meter RJ-45 cables to the numbered ports labeled **ISDN BRI**. Connect the opposite ends to the ISDN switch. Check that the BRI lines are connected in the same order in which the numbers are configured.

9. Power cycle LifeSize Networker. To power cycle LifeSize Networker, press (but do not hold in) and release the **RESET** button on the back of LifeSize Networker. If you are using LifeSize Networker directly connected to LifeSize Room or LifeSize Team MP, you can also power cycle LifeSize Networker by rebooting the LifeSize system or disconnecting and then reconnecting the RJ-45 cable that connects the LifeSize system to LifeSize Networker.

   Note: Power cycle LifeSize Networker if you change the switch type in your LifeSize Networker configuration.

10. Place a call to ensure the Networker LED (on the left side of the back panel) is green, indicating a call is active and LifeSize Networker has been properly configured. If the LED is yellow, verify that you have connected all cables properly.

Configuring LifeSize Networker as a PRI Device

ISDN telephone with Primary Rate Interface (PRI) channels are carried on a T-carrier system line (in the US, Canada, and Japan) or an E-carrier line (in other countries).

Note: You cannot disable the PRI port; it is automatically enabled.

PRI consists of 23 B-channels using a T1 line or 30 B-channels using an E1 line. You can configure the PRI line with a single number or a range (1 number per B channel).

Line coding and frame coding for PRI lines are determined by your telephone company.

	Line Coding	**Framing**
T1	B8ZS (Bipolar 8 with Zero Substitution)	ESF, Extended Superframe (preferred)
E1	HDB3 (preferred for E1 circuits)	CRC4 (cyclic redundancy check 4-bit)

To configure PRI channels, follow these steps:

1. Access the administrator configuration. See ”Accessing the Administrator Configuration” on page 12.
2. Select **PRI Single Number** to configure your PRI line as a single number, or select **PRI ISDN Number** to configure a range of ISDN numbers for each channel.
3. Select **Configuration** from the menu bar.
4. Click the **Edit** button.
5. Select the line type, line coding, and framing methods.
6. If your ISDN service provider requires and provides a video network-specific facility (NSF) code, in the **Video NSF** preference, select *Enabled* to send a video NSF code when placing video calls. If you select *Enabled*, enter a value in **Video NSF Code**. The value must be a number in the range 0 through 31.
7. Select the switch to which your LifeSize Networker is connected.
8. Click **Save Changes**.

9. Depending on the line type of your configuration, do one of the following:
   - If you selected T1 line as the line type, select a value for **PRI T1 Cable Length**. The PRI T1 cable length is the length of the cable that connects your LifeSize Networker device to the phone company box for an outside T1 line.
   - If you selected E1 as the line type and are using LifeSize Networker in Mexico, select *75 ohms* as the value for the **E1 Line Type** preference.
10. Click **Save Changes**.
11. If you chose **PRI Single Number** in step 2, follow these steps:
    a. Select **Single Number** from the menu bar.
    b. Click **Edit**.
    c. Enter the number for the PRI line and click **Save Changes**.
12. If you chose **PRI ISDN Number** in step 2, follow these steps:
    a. Select **ISDN Number** from the menu bar.
    b. Click **Edit**.
    c. Enter the first and last numbers of the designated range for the selected PRI line.
       - For T1, a range of 23 numbers, one number per B channel.
       - For E1, a range of 30 numbers, one per B channel.
    d. Click **Save Changes**.
13. Power cycle LifeSize Networker. To power cycle LifeSize Networker, press (but do not hold in) and release the **RESET** button on the back of LifeSize Networker. If you are using LifeSize Networker directly connected to LifeSize Room or LifeSize Team MP, you can also power cycle LifeSize Networker by rebooting the LifeSize system or disconnecting and then reconnecting the RJ-45 cable that connects the LifeSize system to LifeSize Networker.

    Note: Power cycle LifeSize Networker if you change the switch type in your LifeSize Networker configuration.
14. Connect one 9 meter RJ-45 cable to port 1 labeled **PRI**. The second PRI port is reserved for future use and not supported.
15. Place the ferrite included with your LifeSize Networker on the PRI cable within 8 cm of the PRI port.

16. Place a call to ensure the LifeSize Networker LED (above **RESET** on the back panel) is green, indicating a call is active and LifeSize Networker has been properly configured. If the LED is yellow, verify that you have connected all cables properly.

Configuring Parallel Dial for H.320 Dialing

Parallel dial for H.320 dialing is enabled by default. To disable parallel dial, follow these steps:

1. Access the configuration from your web browser as described in ”Accessing the Administrator Configuration” on page 12.
2. Choose the PRI or BRI interface option you wish to configure.
3. Click **General**.
4. From the **Parallel Dial** menu, choose *Disabled*.

   Note: The default is *Enabled*. If you experience interoperability issues or one-way video with other vendor equipment, LifeSize recommends that you set this to *Disabled* and retry the call.

Troubleshooting LifeSize Networker

The following sections describe symptoms, possible causes, and potential solutions for common problems you may encounter with LifeSize Networker. When experiencing a problem, visually inspect the unit. Ensure the system has not been exposed to water or heat sources or appears physically damaged.

Incorrect Cabling

Improperly connected or loose cables are common causes of problems with hardware units. When investigating a system problem, first check all the external controls and cable connections. Check that connections are correct and secure, and that nothing is obstructing the cables.

Verify that power is supplied correctly to LifeSize Networker as follows:

- through the 9 meter RJ-45 cable if you installed LifeSize Networker by connecting it to a LifeSize Room or LifeSize Team MP codec
- through the power cord and adapter if you installed LifeSize Networker as a standalone unit.

Inspect connections to any system cables and ensure there are no obstructions or loose cables at either end.

Rebooting and Resetting LifeSize Networker

You may need to reboot LifeSize Networker with no changes to your configuration or reset LifeSize Networker to its default configuration settings to correct unknown problems you may be experiencing. You can reboot or reset LifeSize Networker from the **Maintenance** menu of the LifeSize Networker administrator configuration. If a reboot or reset from the administrator configuration fails, you can manually reboot or reset LifeSize Networker as follows.

Reboot

To reboot LifeSize Networker with no changes to your configuration, press (but do not hold in) and release the **RESET** button on the back of the unit. The LED flashes red and orange during the reboot. When the LifeSize Networker application has completed booting, the LED is green.

Reset to Default Settings

To restore the unit to its default configuration settings, follow these steps:

1. Disconnect the power supply from the back panel of the LifeSize Networker unit.
2. Press and hold in the **RESET** button on the back panel of the LifeSize Networker unit.
3. While continuing to hold in the **RESET** button, reconnect the power supply to the unit.
4. When the LED on the back panel of LifeSize Networker flashes orange twice per second, release the **RESET** button. The LED flashes orange between 5 and 10 seconds after applying power to the unit.

Return to a Previous Working Image

To return to the last working image, follow these steps:

1. Disconnect the power supply from the back panel of the LifeSize Networker unit.
2. Press and hold in the **RESET** button on the back panel of the LifeSize Networker unit.
3. While continuing to hold in the **RESET** button, reconnect the power supply to the unit.
4. When the LED on the back panel of LifeSize Networker flashes red four times per second, release the **RESET** button.

   Note: Note: The LED flashes orange first (between 5 and 10 seconds after applying power to the unit) and then red (between 10 and 15 seconds after applying power to the unit).

Upgrading LifeSize Networker

To upgrade the software for your LifeSize Networker unit, follow these steps:

1. Access www.lifesize.com/support and click the **Download Software** button.
2. Enter the serial number located on the bottom or back of your LifeSize Networker unit.
3. Click the link for the software version you wish to download.
4. Download the file to a local directory on your system.
5. Depending on the LifeSize video communications system that you are using with LifeSize Networker, do one of the following:
   - If you are using LifeSize Networker connected to a LifeSize video communications system codec, open a web browser and enter the IP address that displays on the main page of your LifeSize system.
   - If you are using LifeSize Networker as a standalone device, open a web browser and enter the IP address of LifeSize Networker.

   Note: You must have Flash installed and configured on your web browser. You can download Flash from www.adobe.com.
6. Choose the language in which to display the interface.
7. Enter the admin password and click **Submit**.
8. If you are using LifeSize Networker connected to a LifeSize video communications system codec, on the **Preferences** tab, click **Communications** and then **LifeSize Networker**.
9. Click **Maintenance**.
10. Click **System Upgrade**.
11. If your upgrade requires you to reset the system to the original default settings, mark the **Reset to Default State** checkbox.
12. Browse for the upgrade file you downloaded in step 1.
13. Click **Submit**.

    Note: This may take several minutes; do not disrupt the upgrade process.
14. A system upgrade status message displays when the upgrade is complete. Close the status window and close the administrator configuration window.
15. Your LifeSize Networker unit is ready to use. If you marked the **Reset to Default State** checkbox in step 11, you must first reconfigure LifeSize Networker.

Upgrade Error Codes

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

Code	Problem	Description
1	Internal error	The system is missing critical files.
2	Switch to upgrade failed	The command to set the active partition failed.
3	Write failed	A write failure occurred during copying of the image to the upgrade partition. This typically occurs when using an upgrade image for another LifeSize product.
4	Read failed	Reading incoming data failed during uploading of the image. This typically occurs if the connection is broken during the upload.
5	Upgrade script failed	After the image has been successfully uploaded the system runs an upgrade script for final processing. This error indicates a failure in that script. This typically occurs when using an upgrade image for another LifeSize product.
6	Unable to run upgrade script	The system was unable to run the upgrade script. This typically occurs when using an upgrade image for another LifeSize product.
7	Unable to mount upgrade partition	After the image has been copied to the system, the system failed to mount the image. The typically occurs if the upgrade image is corrupt or when using an upgrade image for another LifeSize product.
8	No permission	The system failed to read the upgrade partition.
9	Corrupt image	The upgrade image is corrupt and unusable. This typically occurs due to a bad image or errors during upload to the device.
10	Bad argument	An invalid argument was submitted to the upgrade process. This typically occurs when using an upgrade image for another LifeSize product.
11	Invalid signature	The encryption signature is invalid. This typically occurs if the image is corrupt or compromised.
12	Decrypt failed	The system was unable to decrypt the upgrade image. This typically occurs if the image is corrupt or compromised.
13	Developer system	The system is configured for development and can only be upgraded by a LifeSize representative.
14	Upgrade in progress	An upgrade is already in progress. The system only supports one upgrade at a time.