LifeSize® Networker™

LifeSize® Networker™ Installation Guide

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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, LifeSize Room 200, LifeSize Team MP, or LifeSize Team 200
    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 Support page of www.lifesize.com for supported software versions.

If you are using LifeSize Room, LifeSize Room 200, LifeSize Team MP, or LifeSize Team 200, 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. If you are using LifeSize Team or LifeSize Express, LifeSize Networker installs as a standalone device only.

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.

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:

    - Connecting LifeSize Networker to the Codec:

    If you wish to connect LifeSize Networker to LifeSize Room, LifeSize Room 200, LifeSize Team MP, or LifeSize Team 200, insert the 9 meter RJ-45 cable into the port marked with the LAN symbol 品 on LifeSize Networker and the opposite end into the **Networker** port on the codec.

    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.

    - Installing LifeSize Networker as a Standalone Unit:

    If you are using LifeSize Networker as a standalone unit, insert the cord from the power adapter into the power outlet marked ⊖-⊙-⊕ 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 13.

    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 the installation option that you chose for LifeSize Networker, do one of the following:

   - If you installed LifeSize Networker by connecting it to a LifeSize video communications system codec, configure LifeSize Networker as a BRI or PRI device. See "Configuring LifeSize Networker as a BRI or PRI Device" on page 13.

   - If you are installing 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 6.

     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

When you configure LifeSize Networker as a standalone unit, you must choose a dialing policy. By default, the dialing policy is set to *None* for an unconfigured unit and when you reset the unit to default settings. For more information about resetting LifeSize Networker to default configuration settings, refer to "Reset to Default Settings" on page 22.

If you are using LifeSize Networker as a standalone unit without an H.323 gatekeeper, the following dialing policies apply:

- Direct Connect

  If you choose Direct Connect, LifeSize Networker is dedicated to a specific LifeSize system.

- Dial Peer

  If you choose Dial Peer, you can share LifeSize Networker with more than one LifeSize system by mapping each ISDN number to the IP address of a LifeSize system.

Without registration to an H.323 gatekeeper, you must configure LifeSize Networker and each associated LifeSize video communications system 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. To configure LifeSize Networker as a standalone unit without registration to an H.323 gatekeeper, follow the steps in "Configuration Without Registration to an H.323 Gatekeeper" on page 7.

If you plan to register a standalone LifeSize Networker to an H.323 gatekeeper, the following dialing policies apply:

- Direct Inward Dial

  If you choose direct inward dial, the H.323 extension of the LifeSize system that is registered to the gatekeeper is determined by the optional DID prefix that you assign to a LifeSize video communications system plus the last *x* number of digits of the ISDN number, where *x* is the DID extension length that you specify when configuring LifeSize Networker. An incoming call is dialed by specifying the ISDN number configured on LifeSize Networker. Call routing is handled by the gatekeeper without the caller specifying the H.323 extension of the system.

- TCS4

  If you choose TCS4, incoming calls are placed using an ISDN number that is configured on LifeSize Networker, a delimiter specific to the system placing the call, and the H.323 extension of the LifeSize system that is registered with the H.323 gatekeeper.

  Note: LifeSize Networker supports the * character as a delimiter with TCS4 routing for dialing outgoing calls.

With registration to an H.323 gatekeeper, you can configure LifeSize Networker and the associated LifeSize video communications systems 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. 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 10.

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 몲 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. Click **General**.

6. 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.

7. Click **Save Changes**.

   LifeSize Networker reboots and runs with the IP address that you entered in step 6.

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

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

10. 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 6 as the URL. To log in, see steps 2 b through 2 d.

11. Click **Preferences**.

12. Click **Gateway**.

13. Click **Dialing Policy**.

14. In the **Dialing Policy** box, choose either **Direct Connect** or **Dial Peer**. If you choose **Direct Connect**, LifeSize Networker is dedicated to a specific LifeSize system. If you choose **Dial Peer**, you can share LifeSize Networker with more than one LifeSize system by mapping each ISDN number to the IP address of a LifeSize system.

15. Click **Save Changes**.

16. Depending on the dialing policy that you chose in step 14, do one of the following:

    - If you chose **Direct Connect**, complete the following steps:

        a. In the **LifeSize System IP Address** box, 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.

        b. Click **Save Changes**.

        c. Click **Log Out**.

        d. Access the LifeSize video communications system user interface of the LifeSize system that will be used with LifeSize Networker and navigate to **Administrator Preferences : Communications : General**.

        e. Select **LifeSize Networker IP Address** and enter the IP address of LifeSize Networker that you entered in step 6.

    - If you chose **Dial Peer**, complete the following steps:

        a. In the **ISDN Number** and **IP Address** columns, enter the ISDN number and the IP address of the LifeSize system to which the ISDN number resolves. You can enter a maximum of 50 ISDN numbers. Each ISDN number can map to only one IP address. The same IP address can map to more than one ISDN number.

        b. Click **Save Changes**.

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

        c. Click **Log Out**.

        d. For each LifeSize system mapped to an ISDN number, access the LifeSize video communications system user interface and navigate to **Administrator Preferences : Communications : General**.

        e. Select **LifeSize Networker IP Address** and enter the IP address of LifeSize Networker that you entered in step 6.

17. Configure LifeSize Networker as a BRI or PRI device. See "Configuring LifeSize Networker as a BRI or PRI Device" on page 13.

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 7 to access the LifeSize Networker administrator interface.

     b. Click **Preferences**.

     c. Click **Network**.

     d. Click **General**.

     e. 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 9 in "Configuration Without Registration to an H.323 Gatekeeper" on page 7.

     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 **Gateway.**

3. Click **Dialing Policy**.

4. In the **Dialing Policy** box, choose either **Direct Inward Dial** or **TCS4**.

5. Click **Save Changes**.

6. If you chose **TCS4** in step 4, skip to step 7. If you chose **Direct Inward Dial**, do the following:

   a. 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.

   b. *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.

7. Configure gatekeeper preferences:

   a. The **H.323 Name** (also referred to as the H.323 ID) is used when a gatekeeper is configured that requires the system to register with an H.323 ID. If the gatekeeper administrator assigns an H.323 ID for the system, enter the H.323 ID in this box. The default name is LifeSize.

      Note: Call routing failures may occur if you are using more than one LifeSize Networker registered to the same gatekeeper with the same value specified for the **H.323 Name** preference. LifeSize recommends that you change the default name to a name that is unique to the LifeSize Networker unit if you are using more than one LifeSize Networker registered to the same gatekeeper.

   b. 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. 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.

8. Click **Save Changes**.

9. Configure gatekeeper service prefixes for outgoing calls:

a. Click **Service Prefixes**.

b. 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.

10. Click **Save Changes**.

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

11. 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.

12. 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 6 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.

13. 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 video communications system 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 6.

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 codec, 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. Refer to the LifeSize Networker *Release Notes* available from the Customer Support page of www.lifesize.com for a list of supported 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 14.

2. On the menu bar, navigate to **BRI : Configuration**.

3. Assign a switch to the BRI lines:

   a. Click **Edit** below the **BRI Configuration** table.

   b. In the **Line Number** box, choose the line number or *All*.

   c. In the **Switch** box, choose the switch to which your LifeSize Networker is connected.

   d. Click **Save Changes**.

4. If you are using a switch that supports SPIDs, you can configure a Service Profile Identifier (SPID) by clicking **Edit** below the **Service Profile Identified (SPID)** table.

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

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

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

   c. Click **Save Changes**.

5. If you are using LifeSize Networker in Taiwan, do the following:

   a. In the **ISDN SendingComplete Indication** box, select *Enabled*.

   b. Click **Save Changes**.

6. Configure each BRI line as a single number or one number for each channel:

   a. On the menu bar, click **ISDN Number**.

   b. In the **Line Number** column, click the BRI line number that you wish to configure and then click **Edit**.

   c. Do one of the following:

      • To configure the BRI line as a single number, enter the number in the **ISDN #1** and **ISDN #2** boxes.

      • To configure a number for each channel, enter the number for the first channel in the **ISDN #1** box; enter the number for the second channel in the **ISDN #2** box.

   d. Click **Save Changes**.

7. To set administrative control of your BRI lines, do the following:

   a. Click **General** on the menu bar.

   b. Click the **Edit** button.

   c. 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.

   d. 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 a LifeSize codec, 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. By default, LifeSize Networker is configured to use all channels based on the line type you select. If you are using less than the total number of channels available on the line, you can configure LifeSize Networker to use a contiguous subset of the total channels.

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 14.

2. From the menu bar, navigate to **PRI : Configuration**.

3. Click the **Edit** button.

    a. Select the line type, line coding, and framing methods.

    b. Select the switch to which your LifeSize Networker is connected.

    c. Click **Save Changes**.

4. By default, LifeSize Networker is configured to use all B channels on the line (23 B channels on a T1 line or 30 B channels on an E1 line). If you are using only a contiguous subset of the total number of channels on the line, specify the range of active channels to use by doing the following:

    a. In the **First Active Channel** box, select the number of the first active channel.

    b. In the **Total Active Channels** box, select the total number of active channels. You must specify at least two active channels. The total number available for selection depends on the line type (E1 or T1) and the number of the channel selected as the first active channel.

    c. Click **Save Changes**.

5. Depending on the line type of your configuration, you may need to do one of the following:

    - If you selected T1 as the line type:

        a. 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.

        b. On the menu bar, click **Save Changes**.

    - If you selected E1 as the line type and are using LifeSize Networker in Mexico:

        a. select *75 ohms* as the value for the **E1 Line Type** preference.

        b. Click **Save Changes**.

6. If your ISDN service provider requires and provides a video network-specific facility (NSF) code, do the following:

    a. In the **Video NSF** preference, select *Enabled* to send a video NSF code when placing video calls.

    b. Enter a value in **Video NSF Code**. The value must be a number in the range 0 through 31.

    c. Click **Save Changes**.

7. Configure the PRI line as a single number or a range of numbers (1 number per B channel):

   a. On the menu bar, click **ISDN Number**.

   b. Click **Edit**.

   c. To configure the PRI line as a single number, enter the number in the **Begin** and **End** boxes.

   d. To configure the PRI line with a range of numbers (1 number per B channel), enter the first number in the range in the **Begin** box and the last number of the range in the **End** box.

   e. Click **Save Changes**.

8. 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 a LifeSize codec, 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.

9. Connect one 9 meter RJ-45 cable to port 1 labeled **PRI**. The second PRI port is reserved for future use and not supported.

10. Place the ferrite included with your LifeSize Networker on the PRI cable within 8 cm of the PRI port.

11. 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 14.

2. Click **General**.

3. 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.

4. Click **Save Changes**.

Enabling the Keypad Facility

If your switch requires keypad dialing, you can enable this feature on LifeSize Networker by doing the following:

1. Access the configuration from your web browser as described in "Accessing the Administrator Configuration" on page 14.

2. On the menu bar, click **General**.

3. In the **Keypad Facility** box, choose *Enabled*.

   Note: Choosing *Enabled* for **Keypad Facility** automatically disables parallel dial.

4. Click **Save Changes**.

Sending the Caller's Number

By default, the calling party's number is sent to the far side when you place a call. If a PBX provides the ISDN services, you can disable this feature by doing the following:

1. Access the configuration from your web browser as described in "Accessing the Administrator Configuration" on page 14.

2. On the menu bar, click **General**.

3. In the **Send Calling Party Number** box, choose *Disabled*.

4. Click **Save Changes**.

Configuring Quality of Service (QoS)

You can specify network Quality of Service (QoS) settings for LifeSize Networker. These settings apply only to the IP packets in a call. Consider specifying these settings on LifeSize Networker with a standalone configuration if LifeSize Networker is on a different network or router than the LifeSize systems for which it is configured and you wish to specify a higher priority for the media packets.

To specify QoS settings on a standalone LifeSize Networker, do the following:

1. Access the administrator configuration for your standalone LifeSize Networker. See ”Accessing the Administrator Configuration” on page 14.

2. From the menu bar, navigate to **Preferences** : **Network** : **Network QoS**.

3. Specify the QoS settings.

4. Click **Save Changes**.

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 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.