# Poly Rove DECT IP Phone Administrator Guide

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# Contents

# Before You Begin

This guide describes how to provision Poly devices with OBi Edition software.

This guide focuses on the following Poly devices:

- Poly Rove 20 wireless handset
- Poly Rove 30 wireless handset
- Poly Rove 40 wireless handset
- Poly Rove B1 base station
- Poly Rove B2 base station
- Poly Rove B4 base station
- Poly Rove R8 repeater

For information specific to using a Poly OBi device, go to the Poly Online Support Center. For additional information about the concepts in this guide, see the *Poly OBi Device Technical Reference*.

## Related Poly and Partner Resources

See the following sites for information related to this product.

- Poly Support is the entry point to online product, service, and solution support information. Find product-specific information such as Knowledge Base articles, Support Videos, Guide & Manuals, and Software Releases on the Products page, download software for desktop and mobile platforms from Downloads & Apps, and access additional services.
- The Poly Documentation Library provides support documentation for active products, services, and solutions. The documentation displays in responsive HTML5 format so that you can easily access and view installation, configuration, or administration content from any online device.
- The Poly Community provides access to the latest developer and support information. Create an account to access Poly support personnel and participate in developer and support forums. You can find the latest information on hardware, software, and partner solutions topics, share ideas, and solve problems with your colleagues.
- The Poly Partner Network is a program where resellers, distributors, solutions providers, and unified communications providers deliver high-value business solutions that meet critical customer needs, making it easy for you to communicate face-to-face using the applications and devices you use every day.
- Poly Services help your business succeed and get the most out of your investment through the benefits of collaboration. Enhance collaboration for your employees by accessing Poly service solutions, including Support Services, Managed Services, Professional Services, and Training Services.
- With Poly+ you get exclusive premium features, insights and management tools necessary to keep employee devices up, running, and ready for action.
- Poly Lens enables better collaboration for every user in every workspace. It is designed to spotlight the health and efficiency of your spaces and devices by providing actionable insights and simplifying device management.

## Privacy Policy

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# Getting Started

Poly Rove DECT IP phones are standalone IP-based wireless systems that consist of multiple devices: three wireless handset models, single/dual-cell and multicell base stations, repeaters, chargers, and multihandset charging stations known as multichargers.

## Overview of Poly Rove DECT IP Phones

This section provides overview information for Poly Rove DECT IP phones.

Poly Rove phones include the following features and functionalities:

- Signal range up to 50 m (165 ft) indoors and 300 m (980 ft) outdoors
- Support for standard SIP-based IP PBX and ITSPs/VSPs
- High-quality voice encoding using G.711, G.722, G.726, and Opus codecs
- VoIP network management for endpoint devices and applications
- Cloud management enabled via the PDMS-SP service with both a user portal and an ITSP partner portal
- Recursive digit maps and associated call routing (outbound and inbound)
- Support for large scale deployments with up to 254 Rove B4 base stations

### Poly Rove Wireless Handsets

The Poly Rove wireless handsets enable voice communication and some system interaction for controlling features on a Poly Rove base station.

There are three models of Poly Rove wireless handsets:

- Poly Rove 20 wireless handset
- Poly Rove 30 wireless handset
- Poly Rove 40 wireless handset

#### Overview of Poly Rove 20 Wireless Handsets

Poly Rove 20 wireless handsets support the following features and functionalities:

- Four programmable line keys for speed dials or features
- Wideband audio support for the G.722 and Opus audio codecs
- 5.08 cm (2 in.) color screen
- Lithium ion battery with up to 400 standby hours and 35 talk hours

#### Overview of Poly Rove 30 Wireless Handsets

Poly Rove 30 wireless handsets support the following features and functionalities:

- Antimicrobial coating to make cleaning and sanitizing handsets easier
- Four programmable line keys for speed dials or features
- Wideband audio support for the G.722 and Opus audio codecs
- 6 cm (2.4 in.) rugged color screen with an IP65 rating
- Lithium ion battery with up to 300 standby hours and 18 talk hours

#### Overview of Poly Rove 40 Wireless Handsets

Poly Rove 40 wireless handsets support the following features and functionalities:

- Antimicrobial coating to make cleaning and sanitizing handsets easier
- Four programmable line keys for speed dials or features
- Wideband audio support for the G.722 and Opus audio codecs
- 6 cm (2.4 in.) rugged color screen with an IP65 rating
- Lithium ion battery with up to 300 standby hours and 18 talk hours
- Programmable emergency button

- Bluetooth device pairing for up to four devices

## Poly Rove Base Stations

Rove DECT IP systems support up to 254 base stations on the same network and can support up to 1000 registered handsets, depending on the number of paired base stations.

There are three models of Poly Rove base stations:

- Poly Rove B1 single-cell base station
- Poly Rove B2 single/dual-cell base station
- Poly Rove B4 multi-cell base station

**Note:** You can pair only the same model base stations. You can't pair Poly Rove B2 base stations with Rove B4 base stations.

### Overview of Poly Rove B1 Single-Cell Base Stations

The following features are supported for each Rove B1 base station:

- Support for up to 10 SIP registrations
- Support for up to 10 registered handsets
- Support for up to 10 concurrent narrowband calls and 5 concurrent wideband calls
- Support for one base station per system
- Support for up to three paired Rove R8 repeaters per base station
- High-quality voice encoding
- Cloud management via the PDMS-SP service with both a user portal and an ITSP partner portal

### Overview of Poly Rove B2 Single/Dual-Cell Base Stations

The following features are supported for each Rove B2 base station:

- Support for up to 20 SIP registrations
- Support for up to 20 registered handsets
- Support for up to 10 concurrent narrowband calls and 5 concurrent wideband calls
- Support for up to two paired base stations
- Support for up to six paired Rove R8 repeaters per base station
- High-quality voice encoding
- Dual DECT base station solution for wider coverage, higher concurrent call volume, and redundancy
- Cloud management via the PDMS-SP service with both a user portal and an ITSP partner portal

### Overview of Poly Rove B4 Multi-Cell Base Stations

The following features are supported for each Rove B4 base station:

- Support for up to 1000 SIP registrations
- Support for up to 30 registered handsets per base station and 1000 handsets in a multi-cell system
- Support for up to 10 concurrent calls per station, and 1000 concurrent calls in a multi-cell system
- Support for up to 254 paired base stations in large-scale DECT deployments
- Support for up to three paired Rove R8 repeaters per base station
- High-quality voice encoding
- Multicell base station solution for wider coverage, higher concurrent call volume, and redundancy
- Cloud management via the PDMS-SP service with both a user portal and an ITSP partner portal

## Poly Rove Repeaters

Poly Rove R8 repeaters enable you to increase the signal coverage between Poly Rove wireless handsets and base stations. This ensures that your users have the best signal coverage for managing calls.

Rove R8 repeaters extend the signal range between base stations and wireless handsets by 50 m (165 ft) indoors and up to 300 m (980 ft) outdoors. You can pair a maximum of six repeaters to one base station and daisy-chain up to three repeaters.

**Overview of Poly Rove R8 Repeaters**
Rove R8 repeaters support the following features and functionalities:

- Pairing up to three repeaters for each Poly Rove B1 base station
- Pairing up to six repeaters for each Poly Rove B2 base station
- Pairing up to three repeaters for each Poly Rove B4 base station
- Encrypted daisy-chaining (cascade) for up to three repeaters
- Two simultaneous wideband calls and five narrowband calls per repeater
- High-level DECT encryption
- DECT recovery
- Automatically hand-off calls between repeaters

## Poly Rove Status Indicators

Poly Rove DECT IP phones have LED indicators that indicate the status of the different phone components.

**Note:** You can program the LED indicators on the wireless handset if you want to change them from the default settings.

The following tables show the LED indicators and the default system states for each of the DECT IP phone components.

**Poly Rove Wireless Handset Status Indicators**

| LED Indicator | Default Status |
|---|---|
| Green | Voice message |
| Yellow | Low battery |
| Red | Missed call |
| Flashing red and green | Software update |

**Poly Rove Base Station Status Indicators**

| LED Indicator | Status |
|---|---|
| No indicator | Powered off |
| Solid green | Registered; good quality signal |
| Blinking green | Searching for nearby base stations, or handset or repeater registration |
| Solid red | Powered on, but has an error or no signal |
| Blinking red | Firmware update or factory reset in progress |
| Slow blinking red | SIP registration failure |
| Solid orange | Powered on, but has poor signal quality |
| Blinking orange | Searching for IP address |

Poly Rove Repeaters have two states of LED indicators:

- Not registered to a base station or repeater
- Registered to a base station or repeater

**Poly Rove Repeater Status Indicators - Not Registered**

| LED Indicator | Status |
|---|---|
| No indicator | Powered off |
| Blinking green | Unlocked; searching for base station |
| Flashing green | Registration/subscription mode and searching for open base station; registering procedure |
| Solid green | Locked to base station and ready for use; idle |
| *n* Blinking red | *n* handset relayed by repeater |
| Solid red | Registration procedure timed out after 5 minutes<br>**Note:** When you press a key, the LED lights up in 2 seconds to indicate that releasing the key deletes the registration. The LED turns off after 4 more seconds. |
| Blinking red and green | Recovery mode – the repeater locks to a base station or repeater without repeater mode activated<br>• Sync: source base station/repeater not found (Manual mode)<br>• Timeout during Radio fixed Part Number (RPN) allocation because of a busy base station or repeater |

**Poly Rove Repeater Status Indicators - Registered**

| LED Indicator | Status |
|---|---|
| No indicator | Powered off |
| Solid red | Error condition; unacceptable Received Signal Strength Indicator (RSSI), below -90dBm; critical error |
| Solid green | Ethernet connection available; normal operation with good RSSI, equal to or better than -75dBm |
| Blinking green | Searching for base stations |
| Blinking red | Ethernet connection not available or handset de/registration failed |
| Solid orange | Normal operation with pure RSSI, from -90dBm to -75dBm |

**Poly Rove Multicharger Status Indicators**

| LED Indicator | Status |
|---|---|
| Red | Charging |
| Green | Charged |

## Supported Audio Codecs and Concurrent Calls

Poly Rove base stations and R8 repeaters support several narrow and wideband audio codecs. For each base station, the number of concurrent calls that are supported varies according to the codec used.

**Important:** If the PTT feature is in use, it uses two of the DECT channels and reduces the number of concurrent calls supported by two. For example, using PTT in a Rove B2 single cell system using the G.711 codec with SRTP reduces the number of supported concurrent calls from 10 to eight. To enable the feature, see the Poly Rove DECT IP Phone User Guide.

### Poly Rove Base Stations - Supported Audio Codecs and Concurrent Calls

The information in the following table describes the number of concurrent calls supported for an audio codec for a Rove B1, a single-cell Rove B2 or a Rove B4 base station. If you have deployed a single-cell or dual-cell B2 or B4, or a multicell B4 base station, use the following examples to determine how many concurrent calls are supported for each codec.

**Rove B2 Example:**

- Using the G.711 codec with SRTP, a single-cell B2 device supports 10 concurrent calls.
- Using the G.711 codec with SRTP, a dual-cell device supports 20 concurrent calls, or *2 x 10*. You can use this formula:

  ```
  n x c
  ```

  where *n* is the number of cells and *c* is the number of calls supported for a single cell device. As this is a dual -cell device, the value for *n* is always two.

**Rove B4 Example:**

- Using the G.711 codec with SRTP, a single-cell B4 device supports 8 concurrent calls.
- Using the G.711 codec with SRTP, a dual-cell device supports 16 concurrent calls, or *2 x 8*. You can use the formula introduced earlier:

  ```
  n x c
  ```

  where *n* is the number of cells and *c* is the number of calls supported for a single-cell device.
- Using the G.711 codec with SRTP, you can work out how many concurrent calls a multicell device supports by using the same formula:

  ```
  n x c
  ```

  where *n* is the number of cells in the multicell Rove B4, and *c* is the number of calls supported for a single-cell Rove B4. For this codec example, *n* x 8 concurrent calls, where *n* is the number of cells.

### Poly Rove Base Stations: Supported Audio Codecs and Concurrent Calls

| Functionality | Rove B1 | Rove B2 | Rove B4 |
|---|---|---|---|
| Number of SIP extensions per system | 10 | 20 | 30 |
| Number of DECT registrations per system | 10 | 20 | 30 |
| G.711 number of concurrent calls per device with SRTP | 10 | 10 | 8 |
| G.711 number of concurrent calls per device without SRTP | 10 | 10 | 10 |

| Functionality | Rove B1 | Rove B2 | Rove B4 |
|---|---|---|---|
| G.722 number of concurrent calls per device with SRTP | 5 | 5 | 5 |
| G.722 number of concurrent calls per device without SRTP | 5 | 5 | 5 |
| Number of concurrent calls per device with or without SRTP and with G.722 in the codec list | 9 | 9 | 9 |
| G.729 number of concurrent calls per device with SRTP | 4 | 4 | 8 |
| G.729 number of concurrent calls per device without SRTP | 4 | 4 | 10 |
| Opus number of concurrent calls per device with SRTP | 2 | 2 | 4 |
| Opus number of concurrent calls per device without SRTP | 2 | 2 | 4 |

**Poly Rove R8 Repeaters - Supported Audio Codecs and Concurrent Calls**

The information in the following table describes the number of Rove R8 repeaters and concurrent calls supported for audio codecs for a single-cell Rove B1, B2 or Rove B4 base station, a dual-cell Rove B2 or Rove B4, and a multicell Rove B4 base station.

**Important:** The base station determines the number of concurrent calls supported. Repeaters only extend the call range.

**Poly R8 Repeaters Supported Audio Codecs and Concurrent Calls**

| Functionality | Single Cell | | Dual Cell | | Multicell |
|---|---|---|---|---|---|
| | Rove B1/B2 | Rove B4 | Rove B2 | Rove B4 | Rove B4 |
| Number of Rove R8 repeaters supported | 3/6 | 3 | 12 | 6 | 100[1] |
| Number of concurrent calls per system - Narrowband | 5 | 5 | 5 | 5 | $n \times c^2$ |
| Number of concurrent calls per system - Wideband | 2 | 2 | 2 | 2 | $n \times c^2$ |
| Number of concurrent calls per system with daisy-chaining repeaters - Narrowband | $4^3$ | $4^3$ | $4^3$ | $4^3$ | $n \times c^{23}$ |

| Functionality | Single Cell | | Dual Cell | | Multicell |
|---|---|---|---|---|---|
| | Rove B1/B2 | Rove B4 | Rove B2 | Rove B4 | Rove B4 |
| Number of concurrent calls per system with daisy-chaining repeaters - Wideband | 2[3] | 2[3] | 2[3] | 2[3] | *n* x *c*[23] |

[1] The maximum number of repeaters allowed in a multicell system is 100.

[2] *n* is the number of cells in the multicell Rove B4, and *c* is the number of calls supported for a single-cell Rove B4.

[3] Daisy-chaining repeaters reduces the number of concurrent calls by one, regardless of the number of repeaters chained together. For example, if you daisy-chain two Rove R8 repeaters, the number of concurrent calls available is four for narrowband calls and two for wideband calls. If you daisy-chain three Rove R8 repeaters, the same number of calls are available.

## Configuration Options

Poly offers different methods to configure your Poly Rove system.

Use the following options to configure and manage your Poly Rove system:

- System web interface
- Remote provisioning

### Access the System Web Interface

Access the Poly Rove system web interface from a computer using a web browser.

Although all popular browsers are tested for compatibility with the system web interface, some inconsistencies may arise from time to time. Contact Poly Support if you have any questions about the system web interface and how it appears in your browser window.

**Important:** When you change settings on the system web interface, you must submit every configuration page after you make changes. If you don't save the changes, the system discards them once you go to another page.
Many changes also require you to reboot the system for them to take effect. However, you can reboot the unit just once after you complete all the changes.

#### Task

1. On the wireless handset, press **Menu**, then select **Info** ⓘ.
   The base station's IP address displays.
2. Enter the IP address in a web browser on your computer.
3. When prompted, enter the username and password.
   The default username is `admin`, and the default password is `admin`.

   **Note:** When you log in for the first time, you must change the password from the default.

### Remote Provisioning

Manage the local interface and network interaction on Poly Rove systems directly from the PDMS-SP service or using your own remote provisioning server.

For more information on remote provisioning your Poly Rove system, see the *Poly Device Management Service for Service Providers Administrator Guide* at the Poly Documentation Library

# Setting Up the System

After you set up and power on your Poly Rove DECT IP phones, register your handsets and start configuring features.

Go to Poly Support for more information on setting up your DECT IP phone.

## Set Up Ethernet Connections

By default, when you connect your base station to an internet router or Ethernet switch, it obtains an IP address, DNS information, and an internet (LAN) gateway IP address via DHCP.

**Task**

» Plug an Ethernet cable into the Ethernet port on the base station.

If the base station powers on, you have PoE, and the base station automatically obtains an IP address via DHCP. If the base station doesn't power on, connect its 5V power adapter.

## Find the System IP Address

You must have the system IP address to log in to the system web interface, pair Poly Rove devices, and configure settings.

Plug in all your Poly Rove devices and connect your base stations to Ethernet ports.

**Task**

» Do one of the following:

- On the wireless handset, press **Menu** ☰, then press `*47*` on the keypad. Scroll through the list of discovered base stations. Take note of the IP address of the base station with the desired MAC address.
- If the handset is already registered to the base, on the wireless handset, go to **Menu** ☰ **> Info** ⓘ.

## Complete Initial System Setup with the Setup Wizard

The Setup Wizard located in the system web interface provides a convenient way to set basic system parameters on your base station.

**Task**

1 In the system web interface, go to **Setup Wizard**.

2 In the **Default** column, clear the check boxes for the following parameters and enter the applicable values in the **Value** column.

Record these values for future use, such as for troubleshooting.

**System Management**

| Parameter | Description |
|---|---|
| LocalTimeZone | Local time zone. |
| AdminPassword | The administrator password is case sensitive and can contain uppercase and lowercase letters, numerals, and special characters.<br>**Note:** If the default password is set, a warning message displays on the web page. |

**ITSP x Profiles (x = ITSP A through ITSP J)**

| Parameter | Description |
|---|---|
| ITSP x SIPProxyServer | Host name or IP address of the SIP proxy server. |
| ITSP x SIPProxyServerPort | Destination port to connect to the SIP server. Don't choose a port at random. |

**Voice Services (n = SP1 through SP8)**

| Parameter | Description |
|---|---|
| SPn ITSP Profile (ITSP Profile) | Selects a service provider profile for this service. Choices include the following: A, B, C, D, E, F, G, H, I, or J. |
| SPn AuthUserName | Username used to authenticate the connection to the server. |
| SPn AuthPassword | Password used to authenticate the connection to the server. |
| SPn URI | See the description of the URI parameter for more details and examples. |
| SPn HandsetList | Selects the handset associated with this SIP registration. |

3 Select **Submit**.
4 Select **Reboot**.

## Configure the Base Station Name

You can set a unique name for a base station to easily differentiate between multiple sets of base stations.

**Task**

1 In the system web interface, go to **DECT Wireless > System**.
2 Under **DECT Base Settings**, clear the check box in the **Default** column for **BaseName**.
3 In the **Value** column, enter a unique name for the base station.
4 Select **Submit**.
5 Reboot your system when you complete your changes.

## Register SIP Lines to the Base Station

Before you can pair a handset to the base station, register the base station with a SIP server.

You can register up to 10 lines to a Rove B1 base station. On Rove B2 base stations, you can register up to 20 lines to a base station. For Poly Rove B4 base stations, you can register up to 1000 lines on a multicell system.

**Task**

1 In the system web interface, go to **Service Providers > ITSP Profile*N* > SIP**.
2 In the **Default** column, clear the check boxes for the following settings:

- **ProxyServer**
- **ProxyServerPort**
- **ProxyServerTransport**
- **OutboundProxy**
- **OutboundProxyPort**
- **RegistrationPeriod**

3 In the **Value** column, enter the following information:

- For **ProxyServer**, enter the host name or IP address for the SIP server.
- For **ProxyServerPort**, enter the port where the SIP server receives SIP signaling, if the port is different from the standard ports used (5060 for UDP/TCP and 5061 for TLS). If using DNS SRV to find the SIP server address, set the port to 0.
- For **ProxyServerTransport**, select the SIP transport where the SIP server receives SIP signaling, if different from UDP.
- For **OutboundProxy**, if using an outbound proxy or a Session Border Controller (SBC), enter the host name or IP address of the outbound proxy.
- For **OutboundProxyPort**, if using an outbound proxy or a SBC, enter the port of the outbound proxy, if the port is different from the standard ports used (5060 for UDP/TCP and 5061 for TLS). If using DNS SRV to find the outbound proxy or SBC address, set the port to 0.
- For **RegistrationPeriod**, enter the value in seconds for when the phone attempts to reregister.

4 Select **Submit**.

5 In the system web interface, go to **Voice Services > SP*N* Service**.

6 Under **SP*N* Service**, in the **Default** column, clear the check boxes for the following settings:

- **Enable**
- **X_DisplayNumber**

7 In the **Value** column, select the check box for **Enable**.

8 Enter the phone number in the **X_DisplayNumber** field.

9 Optional: If you are using an ITSP server profile different from the default profile, clear the check box in the **Default** column for **X_ServProvProfile**, then select a server profile from the drop-down list.

10 Under **SIP Credentials**, clear the check boxes in the **Default** column for **AuthUserName** and **AuthPassword**.

11 In the **Value** column, enter the service provider credentials for **AuthUserName** and **AuthPassword**.

12 Optional: Clear the check box in the **Default** column for **URI**, and enter the SIP URI if the SIP address of record (AoR) is different from the **AuthUserName**.

13 Select **Submit**.

14 Reboot your system when you complete your changes.

## Configure the Handset Registration Access Code

Configure the default access code for wireless handsets in your system.

When you manually pair a wireless handset to a base station, you must enter an access code to register the handset. The default access code is `0000`.

**Task**

1 In the system web interface, go to **DECT Wireless > System**.

2 Under **Handset Preferences**, in the **Default** column, clear the check box for **AccessCode**.

3 In the **Value** column, enter a new four-digit access code.

4 Select **Submit**.

## Preset the Handset IPEIs

Add the wireless handset IPEIs, using the system web interface or provisioning, before registering the handsets.

Presetting the handset IPEI allows you to assign the handset to line mappings in advance.

**Important:** Presetting the IPEI doesn't automatically pair the handset to the base. You still need to start handset registration on the base station and handset to successfully pair the handset to the base.

**Task**

1 In the system web interface, go to **DECT Wireless > Handset*N***.

2 Under **Settings**, in the **Default** column, clear the check box for **PresetIPEI**.
3 In the **Value** column, enter the desired handset's IPEI.
4 Select **Submit**.

## Pair a Handset to a Base Station Using the Handset IPEI

Manually pair wireless handsets to base stations by entering the IPEI address for each handset. This method is best for pairing handsets with a Rove B4 multicell base station.

For Rove B4 base stations, pair up to 30 handsets to a base station. For Rove B2 base stations, pair up to 20 handsets. For Rove B1 base stations, you can pair up to 10 handsets.

**Task**

1 In the system web interface, go to **DECT Wireless > Handset Summary**.
2 Under **New Handset Settings**, enter the **IPEI** of the handset you want to register to the base station.
Locate the handset's IPEI in one of the following locations:
- The handset box.
- Go to **Menu** > **Info** .

3 Under **Specific Handsets**, select an index number for the handset you're registering, then select **Register**.
4 On the wireless handset, go to **Menu** > **Settings** .
5 Select **Connectivity > Register**.
6 Select an **Empty** slot and enter the access code.
The default access code is `0000`. See Configure Handset Registration Access Codes for more information.

When the handset successfully registers to the base station, signal bars display on the handset screen, and the handset displays under **Handset Status** in the system web interface.

## Pair a Handset with a Base Station

You can automatically pair a wireless handset to a Rove B1 or a Rove B2 base station, which sequentially assigns a registered line to the handset. This method is best suited for single/dual-cell deployments. You can also use Easy Registration to pair a handset or a Rove R8 repeater with a Rove B4 base station.

For Rove B4 base stations, before using **Register Next**, ensure that you've configured each **SPN Service** and assigned each **X_Handset** to a handset.

Pair up to 10 wireless handsets to a Rove B1 base station, up to 20 wireless handsets to a Rove B2 base station, or up to 30 handsets to a Rove B4 base station.

**Important:** If you have changed the handset Access Code from the default, `0000`, Easy Registration fails.

**Task**

1 On the wireless handset, go to **Menu** > **Settings** .
2 Do one of the following:
- Select **Connectivity > Easy Registration**.
- Select **Connectivity > Register**, then select an **Empty** slot and enter the handset access code configured on the base station.

3 In the system web interface for your Rove base station, go to **DECT Wireless > Handset Summary**.
4 Under **Register Next Handset**, select **Register Next**.

## Use a Paired Handset to Pair Another Device with a Base Station

Initiate the handset or repeater registration window on a Rove base station using a handset that's already paired to the base.

**Task**

1. On a paired wireless handset, go to **Menu**  **> Settings**  .
2. Select **Connectivity > Easy Registration**.
3. Select **Yes** to add another device to the system.
   The base station opens the registration window for two minutes.
4. To pair a handset, on the new wireless handset, go to **Menu**  **> Settings**  .
   A. Select **Connectivity** and then do one of the following:
   - Select **Register** and select an **Empty** slot. Enter the handset access code.
   - Select **Easy Registration**.

   **Note:** **Easy Registration** only succeeds if the handset access code is the default.
5. To pair a Rove 8 repeater, power on the repeater while the base station is in pairing mode.

## Assign Multiple Handsets to a Line Extension

On Rove B1 base stations, you can assign up to 10 handsets to a line extension. On Rove B2 base stations, you can assign up to 20 handsets to a line extension. This enables users to place outgoing calls from one line on any handset.

You must have the wireless handsets paired to the base station.

**Note:** For wireless handsets paired with Rove B4 base stations, you can assign only one wireless handset to one line extension.

**Task**

1. In the Rove B1 or Rove B2 system web interface, go to **Voice Services > SP*N* Service**.
2. Under **SP*N* Service**, in the **Default** column, clear the check box for **X_HandsetList**.
3. In the **Value** column, enter a comma-separated list for the handset indexes you want to assign to this line extension.
   For example, enter `1,2,3,4`.
4. Select **Submit**.
5. Repeat the previous steps to add wireless handsets to additional SP services.

## Assign Multiple Line Extensions to a Handset

On Rove B4 base stations, you can assign up to five line extensions to one wireless handset. This enables users to place and answer calls for multiple line extensions from one handset.

You must have the wireless handsets paired to the base station.

**Task**

1. In the Rove B4 system web interface, go to **Voice ServicesSP*N* Service**.
2. Under **SP*N* Service**, in the **Default** column, clear the check box for **X_Handset**.
3. In the **Value** column, enter the handset index you want to assign to this line extension.
4. Select **Submit**.
5. Repeat the previous steps to assign a wireless handset to additional SP services.

## Data Synchronization in Dual- and Multicell Systems

When enabling dual- and multicell systems on the Poly Rove B2 and B4 base stations, data syncs between the base stations in the system.

There are two methods for the base stations to join the system:

| Method | Description |
|---|---|
| Multicast | Base stations use IP multicast to discover the dual or multicell system. Multicast is the default method. |
| Peer-to-Peer | Base stations are set to communicate with a designated primary base station initially to join the dual or multicell system. |

**Tip:** When using Peer-to-Peer, you should assign a static IP address to the designated primary base station. Then configure the other base stations with the primary base station's IP address.

### Select Data Synchronization Method

Choose the method of synchronizing data between base stations in dual- and multicell systems on the Poly Rove B2 and B4 base stations.

**Task**

1. In the system web interface, go to **DECT Wireless > System**.
2. Do one of the following:
   - For Rove B2 base stations, under **Dual-Cell Unit Settings**, clear the check box for **DataSyncMethod** in the **Default** column.
   - For Rove B4 base stations, under **Multi-Cell Unit Settings**, clear the check box for **DataSyncMethod** in the **Default** column.
3. In the **Value** column, select the desired data synchronization method:
   - Multicast
   - Peer-to-Peer

   **Note:** If **DataSyncMethod** is set to **Peer-to-Peer**, clear the check box for **DataSyncIP** in the **Default** column, then enter the IP address of the designated primary base station.
4. Select **Submit**.

## Enable Dual-Cell Pairing on Rove B2 Base Stations

Enable dual-cell pairing on your Poly Rove B2 base stations to increase the coverage area of your base stations and repeaters.

You must have a voice service registered on only one of the Rove B2 base stations. The base station with the registered service acts as the primary base station.

**Task**

1. Go to the system web interface for the base station that you want to use as the primary.
2. In the system web interface, go to **DECT Wireless > System**.
3. Under **Dual-Cell Unit Settings**, clear the check box for **Enable** in the **Default** column, then select the check box in the **Value** column.
4. Select **Submit**.
   Under **Dual-Cell Status**, the **SystemInfo** setting displays the message Unchained Allowed to Join as Primary.
5. Go to the system web interface for the secondary base station.
6. Repeat steps 2 to 4 for the secondary base station.
7. Select **Submit**.

Under **Dual-Cell Status**, the **SystemInfo** setting displays the message Unchained Allowed to Join as Secondary.

8 Reboot both base stations.

9 In the system web interface for each base station, go to **DECT Wireless > Base Station Group > Dual-Cell Status** and verify the following information:

- **System Information** displays Keep Alive - Primary for primary base station.
- **System Information** displays Keep Alive - Secondary for the secondary base station.
- Both base stations have the same **ChainID**.

## Multicell Pairing

Depending on your environment, pair up to 254 Poly Rove B4 base stations together to create a multicell system, increase signal coverage, and prevent drops in calls.

### Rove B4 Base Station and Repeater System Combinations

The number of Rove B4 base stations you can pair depends on how many repeaters you want to include in your system setup.

The following table shows the system combinations available when pairing Rove B4 base station and Rove R8 repeaters.

**Rove B4 Base Station and Repeater System Combinations**

| Maximum Base Stations | Maximum Repeaters per Base Station |
|---|---|
| 254 | 0 |
| 127 | 1 |
| 50 | 3 |

### Enable Multicell Pairing

The multicell capabilities in the Poly Rove B4 base station enable you to pair up to 254 base stations.

You must have a voice service registered on only one of the Rove B4 base stations. The base station with the registered service acts as the primary base station unless you designate another as the provisioning primary.

#### Task

1 Designate a Rove B4 base station as the primary provisioning cell.

   A In the system web interface, go to **System Management > Auto Provisioning > ITSP Provisioning**.
   B In the **Default** column, clear the check box for **ProvisioningPrimary**.
   C In the **Value** column, enter the MAC Address of the Rove B4 base station provisioned on the SIP server that you want to designate as the primary provisioning cell.
   This Rove B4 base station will then be the cell to initiate provisioning from the SIP server and fetch the shared configuration file from the server.
   D Select **Submit**.
   E Reboot your system when you complete your changes.

2 Enable multicell pairing on the primary base station.

   A In the system web interface, go to **DECT Wireless > System**.
   B Under **Multi-Cell Unit Settings**, clear the check box in the **Default** column for **Enable**, then select the check box in the **Value** column.
   C In the **Default** column, clear the check box for **ChainID**, then enter a unique four-digit number into the field in the **Value** column.
   D Under **Base Station Settings**, in the **Default** column, clear the check box for **SystemCombination**.
   E In the **Value** column, select one of the base station-repeater combinations from the drop-down menu.

F Select **Submit**.

G Reboot your system when you complete your changes.

3 Enable multicell pairing on the secondary base stations.

A Go to the system web interface for each secondary base station you want to pair with the primary base station.

B In the system web interface, go to **DECT Wireless > System**.

C Under **Multi-Cell Unit Settings**, clear the check box in the **Default** column for **Enable**, then select the check box in the **Value** column.

D In the **Default** column, clear the check box for **ChainID**, then enter the same four-digit number as the primary base station into the field in the **Value** column.

E Select **Submit**.

F Reboot your system when you complete your changes.

4 Verify the Base Stations are paired in multi-cell mode.

A In the system web interface for each base station, go to **DECT Wireless > Base Station Group**.

B Under **Multi-Cell Status**, verify the following information:

- **System Information** displays Keep Alive - Primary for primary base station.
- **System Information** displays Keep Alive - Secondary for all paired base stations.
- All base stations have the same **ChainID**.

## Pairing Poly Repeaters to Base Stations

Depending on your system configuration, you can pair up to three Poly Rove R8 repeaters to a Poly Rove B1 base station, six Poly Rove R8 repeaters to a Poly Rove B2 base station, and up to three to a Poly Rove B4 base station.

However, the number of repeaters you can pair to a Poly Rove B4 base station depends on how many base stations you have in your environment. See Multicell Pairing for information on repeater and base station combinations for Poly Rove B4 base stations.

You can pair a repeater to a base station to increase the range by 50 m (164 ft) indoors and 300 m (984 ft) outdoors.

### Pair a Repeater Using a Configuration File

Pair a repeater to a base station using a configuration file and a wireless handset.

Power on your base stations and wireless handsets and have your provisioning server set up with the configuration file to update.

**Task**

1 In your configuration file, add the following parameter:

```
VoiceService.1.X_Repeater.n.Enable="True"
```

Set *n* to the repeater index. The maximum value of *n* is determined by the maximum number of repeaters supported in your system. For example, two paired Poly Rove B2 base stations can support up to 12 repeaters, so you can include parameters `VoiceService.1.X_Repeater.1.Enable` up to `VoiceService.1.X_Repeater.12.Enable` in your configuration file. See Rove B4 Base Station and Repeater System Combinations for the maximum supported repeaters for Rove B4 base stations.

2 Optional: Add additional repeater parameters to your configuration file.

See the *Poly Rove Parameter Reference Guide* at Poly Support for a list of repeater parameters.

3 Power all the repeaters you want to pair.
The status indicator on the repeaters flash green when they are in pairing mode.

4 On the wireless handset, go to **Menu** > **Settings** .

5 Select **Connectivity > Easy Registration**.

6 Select **Yes**.

The Poly Rove base station searches for a repeater in pairing mode and assigns it to the first available index. The repeater's status indicator displays solid green when it's paired with a base station.

## Pair a Repeater using Local Automatic Mode

Using the system web interface, you can quickly pair a Poly Rove R8 repeater to a base station.

Locate the IPEI number for each repeater you want to pair. You can find the IPEI on the product box and on the back label of the repeater.

When you pair a repeater to a base station using the Local Automatic sync method, you only need to enter the IPEI number for each repeater, and the system will automatically assign RPN and Sync Source values to the repeater.

**Task**

1. Access the system web interface for your Rove base station.
2. Go to **DECT Wireless > Repeaters**.
3. Under **New Repeater Settings**, configure the following settings for your Rove R8 repeater:
   - **Name**: Enter a name for the repeater to distinguish it from others. For example, Lobby1.
   - **IPEI**: Enter the IPEI number located on the label of the repeater.
   - **Sync Mode**: Select **Local Automatic** from the drop-down menu.
4. Select **Register Next**.
5. Power on your Rove R8 repeater.
   When the repeater successfully pairs, it displays under **Repeater Status Summary**, and the repeater status indicator glows a solid green.
6. Repeat the previous steps to pair additional repeaters.

After you pair your repeaters with a base station, arrange the repeaters around the base station about 50 m apart indoors or 300 m apart outdoors. Also, arrange the repeaters on the outside perimeter of your deployment. Don't place repeaters between base stations.

## Pair a Repeater using Manual Sync Mode

You can manually set the DECT synchronization source for the repeater when you pair a repeater to a base station or another repeater.

Locate the IPEI number for each repeater you want to pair. You can find the IPEI on the product box and on the back label of the repeater.

**Task**

1. Access the system web interface for your Rove base station.
2. Go to **DECT Wireless > Repeaters**.
3. Under **New Repeater Settings**, configure the following settings for your Rove R8 repeater:
   - **Name**: Enter a name for the repeater to distinguish it from others. For example, Lobby1.
   - **IPEI**: Enter the IPEI number located on the label of the repeater.
   - **Sync Mode**: Select **Manually** from the drop-down menu.
   - **RPN**: Enter the next available RPN value for the repeater. See RPN Values for Base Stations and Repeaters for applicable values.
   - **Sync Source**: Enter the RPN of the base station or repeater you want to pair the repeater with. See RPN Values for Base Stations and Repeaters for applicable values.
4. Select **Register Next**.
5. Power on your Rove R8 repeater.
   When the repeater successfully pairs, it displays under **Repeater Status Summary**, and the repeater status indicator glows a solid green.
6. Repeat the previous steps to pair additional repeaters.

After you pair your repeaters with a base station, arrange the repeaters around the base station about 50 m apart indoors or 300 m apart outdoors. Also, arrange the repeaters on the outside perimeter of your deployment. Don't place repeaters between base stations.

## RPN Values for Poly Rove Base Stations and Repeaters

Poly Rove base stations and repeaters have pre-determined RPN values that you can use to directly pair repeaters with specified base stations.

**Poly Rove B1 Base Station**
You can pair up to 3 Rove R8 repeaters to each Rove B1 system. The following table shows the RPN values available for each base station and repeater in a single-cell system.

**Rove B1 and Rove R8 RPN Values**

| Base Station RPN | Repeater 1 RPN | Repeater 2 RPN | Repeater 3 RPN |
|---|---|---|---|
| 00 | 01 | 02 | 03 |

**Poly Rove B2 Base Station**
For Rove B2 base stations, you can only pair up to two Rove B2 base stations together to create a dual cell system. You can then pair up to 12 Rove R8 repeaters to the dual-cell system. The following table shows the RPN values available for each base station and repeater in a dual-cell system.

**Rove B2 and Rove R8 RPN Values**

| Base Station RPN | Repeater 1 RPN | Repeater 2 RPN | Repeater 3 RPN | Repeater 4 RPN | Repeater 5 RPN | Repeater 6 RPN |
|---|---|---|---|---|---|---|
| 00 | 01 | 02 | 03 | 04 | 05 | 06 |
| 08 | 09 | 10 | 11 | 12 | 13 | 14 |

**Rove B4 and Rove R8 RPN Values**
The RPN values for the Rove B4 base stations and Rove R8 repeaters depend on how many base stations you have in your multicell system. For multicell systems with 254 base stations, you can't add any repeaters to the system, so the RPN values are 00 to 253.

The following tables provide a general idea of the RPN values available for a multicell system with a 50 base station and 3 repeater (50/3) system combination or a 127 base station and 1 repeater (127/1) system combination.

**RPN Values with a 50/3 System Combination**

| Base Station RPN | Repeater 1 RPN | Repeater 2 RPN | Repeater 3 RPN |
|---|---|---|---|
| 00 | 01 | 02 | 03 |
| 04 | 05 | 06 | 07 |
| 08 | 09 | 10 | 11 |
| ... | ... | ... | ... |
| 192 | 193 | 194 | 195 |

| Base Station RPN | Repeater 1 RPN | Repeater 2 RPN | Repeater 3 RPN |
|---|---|---|---|
| 196 | 197 | 198 | 199 |

**RPN Values with a 127/1 System Combination**

| Base Station RPN | Repeater 1 RPN |
|---|---|
| 00 | 01 |
| 02 | 03 |
| ... | ... |
| 250 | 251 |
| 252 | 253 |

**RPN Values with a 254/0 System Combination**

| Base Station RPN |
|---|
| 00 |
| 01 |
| ... |
| 253 |

## Daisy-Chain Repeaters

You can daisy-chain up to three repeaters to extend the signal range in one direction.

You must have one Rove R8 repeater paired to a Rove B1, Rove B2, or Rove B4 base station. Locate the IPEI number for each repeater you want to pair. You can find the IPEI on the product box and on the back of the repeater hardware.

Daisy-chaining is most beneficial for smaller spaces and for users with Rove B1 or Rove B2 base stations (which are limited to pairing only two base stations). Daisy-chaining also extends signal strength into corners or low signal areas.

**Task**

1. Access the system web interface for your Rove base station.
2. Go to **DECT Wireless > Repeaters**.
3. Under **New Repeater Settings**, configure the following settings for your Rove R8 repeater:
   - **Name**: Enter a name for the repeater to distinguish it from others. For example, Lobby1.
   - **IPEI**: Enter the IPEI number located on the label of the repeater.
   - **Sync Mode**: Select **Manually** from the drop-down menu.
   - **Sync Source**: Enter the RPN of the repeater you want to daisy-chain this repeater to. For example, `01`.
4. Under **Register Specific Repeaters**, select a number to assign the repeater an RPN, then select **Register**.
   When the repeater is successfully daisy-chained, the **Sync Source** for the added repeater matches the RPN of the repeater it's chained to.

5 Repeat the previous steps to daisy-chain an additional repeater.

## Programmable Alarm Button

Poly Rove 40 wireless handsets have an alarm button that you can program to call an emergency service (such as 911) or play an alarm.

### Set Up Alarm Profiles

Configure alarm profiles to determine what happens when a user presses the alarm button on a Poly Rove 40 wireless handset.

**Task**

1 In the system web interface, go to **Alarm > Alarm Profile*N***.
2 In the **Default** column, clear the check boxes for the options you want to configure.
3 In the **Value** column, configure the following settings:

- **Alias**: Enter an alternate name for the profile. For example, `Lobby Alarm`.
- **AlarmType**: Select **Alarm Button** from the drop-down menu to enable the alarm button.
- **AlarmStopAllowed**: Select the check box to enable users to stop the alarm from the wireless handset.
- **TriggerDelay**: Enter the time in seconds before the wireless handset triggers the pre-alarm.
- **PreAlarmStopAllowed**: Select the check box to display a warning that enables users to stop the alarm before it's triggered.
- **PreAlarmDelay**: Enter the time in seconds before the wireless handset triggers the alarm.
- **Howling**: Select the check box to enable an alarm sound to play on the wireless handset when a user presses the alarm button.

4 Select **Submit**.
5 Reboot your system when you complete your changes.

### Assign an Emergency Number and Alarm Profile to a Wireless Handset

Assign one alarm profile to a Poly Rove 40 wireless handset and set the emergency number that the handset calls when a user presses the alarm button.

Make sure you register your handsets to a base station, assign all wireless handsets a registered line, and create at least one alarm profile before performing this task.

**Task**

1 In the system web interface, go to **DECT Wireless > Handset*N***.
2 In the **Default** column under **Settings**, clear the check box for the following settings:

- **Alarm Line**
- **Alarm Number**
- **AlarmProfile**

3 In the **Value** column, configure the following settings:

- **AlarmLine**: Enter the number for the SP service you want the handset to use to call an emergency service. For example, enter `2` if you want the phone to use the SP2 service.
- **AlarmNumber**: Enter the emergency number the phone calls when a user presses the alarm button. For example, enter `911` or the number to on-site security.

  **Note:** The SP service that you use determines which emergency number you can set (excluding 911, which users can access from any SP service). Make sure that the SP service allows for calls outside the network if you want to enable users to call off-site numbers.
- **AlarmProfile**: Select a profile option from the drop-down menu.

4 Select **Submit**.
5 Reboot your system when you complete your changes.

## Add a Background and Startup Image to the Wireless Handsets

Specify a background and startup image to display on all wireless handsets.

Add images as .bmp files that are 240 × 320 pixels or less.

**Task**

1. Place your images on the same provisioning server where you store your software and configuration files.
2. In the system web interface, go to **System Management > Auto Provisioning**.
3. Optional: If your image files are in a different location than the firmware, clear the check box for **TerminalFilePath** in the **Default** column, then enter the file path for the folder where the images are stored in the **Value**.
4. Under **Firmware Versions and Handset Images**, in the **Default** column, clear the check boxes for the following settings:
   - **Rove*N*BackgndImgName**
   - **Rove*N*StartUpImgName**
5. In the **Value** column, enter the image file name for each option.

   For example, enter `poly.bmp`.
6. Select **Submit**.

The images upload to the wireless handsets and display as the background or startup images.

## Enable Shared Lines

Configure shared lines on your Poly Rove wireless handsets to enable multiple users to monitor the same line.

Make sure to set the line as a shared line on the voice server.

**Task**

1. In the system web interface, go to **Voice Services > SPN Service**.
2. Under **Shared Line Features**, clear the **X_ShareLine** check box in the **Default** column.
3. In the **Value** column, select the check box for **X_ShareLine**.
4. Select **Submit**.

## Set Up Voicemail Services

Configure voicemail services on the Poly Rove DECT IP phone to enable users to access voicemail messages from a wireless handset.

You must enable voicemail services and voicemail numbers on the SIP server before you enable the feature on Poly Rove.

**Task**

1. In the system web interface, go to **Voice Services > SPN Service**.
2. Under **Network Provided Services**, clear the check boxes in the **Default** column for **X_MailboxID** and **X_CheckVoiceMailNumber**.
3. In the **Value** column, enter the following information:
   - For **X_MailboxID**, enter the username or URI for the voicemail account.
   - For **X_CheckVoiceMailNumber**, enter the phone number or star code users can enter to access voicemail messages.
4. Select **Submit**.
5. Reboot your system when you complete your changes.

# UC Software Configuration on Poly Rove

Use your UC Software provisioning server and configuration files to provision and configure features on the Poly Rove DECT IP phone.

Using UC Software configuration files, you can provision and configure your phones, and you can include a mix of UC Software parameters and OBi Edition parameters within the configuration file.

## Configure the UC Software Provisioning Server Address

Configure the Poly Rove base station to request and download a UC Software configuration file. It first requests the MAC.cfg or 000000000000.cfg (if it doesn't find MAC.cfg on the server) primary configuration file at the configured provisioning server address. Then it requests any configuration files listed in the CONFIG_FILES attribute.

**Task**

1. In the system web interface, go to **System Management > Auto Provisioning**.
2. Under **ITSP Provisioning**, clear the check boxes in the **Default** column for the following settings:
   - **ProvisioningOption**
   - **UCSServer**
3. In the **Value** column, configure the following settings:

| Parameter Name | Value |
|---|---|
| **ProvisioningOption** | UCSServer |
| **UCSServer** | The URL of the path to the primary configuration file on the provisioning server. For example, https://provisioning.example.com/poly/rove |

4. Select **Submit**.

## Creating Configuration Files

Create a configuration file that includes a mixture of UC Software and OBi parameters.

Use a small subset of UC Software parameters to configure your phones, mainly for registering the phone with a SIP service. Then use OBi parameters in UC Software parameter syntax to configure any additional features you want to include on your phone.

**Important:** Define OBi parameters using the UC Software parameter syntax when using the UC Software configuration file.

The following code is an example configuration with both UC Software parameters in standard XML format and OBi parameters in the same format as UC Software parameters.

```
<?xml version="1.0" encoding="utf-8" standalone="yes"?>
<PHONE_CONFIG>
<config
tcpIpApp.sntp.address="ntp.poly.com"
reg.1.server.1.address="server.poly.com"
reg.1.address="0123456789"
reg.1.auth.userId="0123456789"
reg.1.auth.password="poly"
reg.1.broadsoft.userId="0123456789@server.polycom.com"
reg.1.server.1.transport="TCPOnly"
>
</config>
<OBiParameterList
VoiceService.1.VoiceProfile.6.SIP.ProxyServer="i3.voip.polycom.com"
VoiceService.1.VoiceProfile.6.SIP.ProxyServerPort="5066"
VoiceService.1.VoiceProfile.6.SIP.ProxyServerTransport="TLS"
VoiceService.1.VoiceProfile.1.Line.6.X_LineName="i3"
VoiceService.1.VoiceProfile.1.Line.6.X_ServProvProfile="F"
```

```
>
</OBiParameterList>
</PHONE_CONFIG>
```

## Include Poly Rove in Your Primary Configuration File

Using your UC Software primary configuration file, you can direct Poly Rove DECT IP phones to fetch the latest firmware and configuration files on your provisioning server.

Add the Poly Rove firmware and configuration files to your provisioning server.

**Note:** Do not change the firmware (.fwu) file names, and make sure you store all the firmware files in the same folder.

### Task

1 In your primary configuration file (MAC.cfg or 000000000000.cfg), enter the following parameters and values:

```
APP_FILE_PATH_RoveB1="<Rove B1 firmware file name>.fwu"
CONFIG_FILES_RoveB1="<Name of Rove B1 configuration file>.cfg"
APP_FILE_PATH_RoveB2="<Rove B2 firmware file name>.fwu"
CONFIG_FILES_RoveB2="<Name of Rove B2 configuration file>.cfg"
APP_FILE_PATH_RoveB4="<Rove B4 firmware file name>.fwu"
CONFIG_FILES_RoveB4="<Name of Rove B4 configuration file>.cfg"
APP_FILE_PATH_Rove20="<Rove 20 firmware file name>.fwu"
APP_FILE_PATH_Rove30="<Rove 30 firmware file name>.fwu"
APP_FILE_PATH_Rove40="<Rove 40 firmware file name>.fwu"
APP_FILE_PATH_RoveR8="<Rove R8 firmware file name>.fwu"
```

2 Save the configuration file.

## UC Software Parameters Supported on Poly Rove

Poly Rove DECT IP phones support a small list of UC Software parameters.

**Note:** For the reg.x.server.y.* parameters, Poly Rove only supports configuring the system to only one server, so use reg.1.server.1. for all related parameters.

**`reg.x.address`**

The user part (for example, 1002) or the user and the host part (for example, 1002@poly.com) of the registration SIP URI.

Null (default)

String address

**`reg.x.server.y.address`**

If this parameter is set, it takes precedence even if the DHCP server is available.

IP address or hostname - SIP server that accepts registrations.

**`reg.x.server.y.expires`**

The phone's requested registration period in seconds. The period negotiated with the server may be different. The phone attempts to reregister at the beginning of the overlap period.

3600 (default)

Positive integer, minimum 10

**reg.x.server.y.port**

Null (default) - The port of the SIP server doesn't specify registrations.

1 to 65535 - The port of the SIP server that specifies registrations.

**reg.x.server.y.transport**

The transport method the phone uses to communicate with the SIP server.

If `reg.x.server.y.address` is an IP address or if you provide a port, then the phone uses UDP.

TCPpreferred

UDPOnly

TLS

TCPOnly

**reg.x.auth.userId**

User ID used for authentication challenges for this registration.

Null (default)

String

**reg.x.auth.password**

The password used for authentication challenges for this registration.

Null (default)

String

**reg.x.broadsoft.userId**

Enter the BroadSoft user ID to authenticate with the BroadSoft XSP service interface.

Null

string

**reg.x.displayName**

The display name used in SIP signaling and the label that displays on the wireless handset.

Null

UTF-8 encoded string

**reg.x.outboundProxy.address**

The IP address or hostname of the SIP server where the phone sends all requests.

Null

IP address or hostname

**reg.x.outboundProxy.port**

The port of the SIP server where the phone sends all requests.

0

1 to 65535

**tcpIpApp.sntp.address**

Specifies the SNTP server address.

NULL (default)

Valid hostname or IP address.

**tcpIpApp.sntp.gmtOffset**

Specifies the offset in seconds of the local time zone from GMT.

0 (Default) - GMT

3600 seconds = 1 hour

-3600 seconds = -1 hour

Positive or negative integer

**tcpIpApp.sntp.gmtOffsetcityID**

NULL (Default)

0 to 127

# Configuring Call Settings

Configure the call features for your system.

Configure call features using different methods:

- A system-level feature applies to all calls on the system, regardless which line a call is on. For example, call waiting is a system feature.
- A line-level feature applies only to calls on a specific line. For example, server-based Do Not Disturb (DND) and centralized conferences are line-based features.
- Some features can have both a system feature version and a line feature version. For example, you can provision call park as a system feature for all calls and as a line feature for each line for supported voice services.

## Conference Calls

Poly Rove DECT IP phones support users joining two or more remote parties into a conference call.

The system supports two methods of conference calls:

- Local mixing or bridging
- External conference bridges

### Local Mixing or Bridging

Local mixing is the default conference feature available on Poly Rove phones.

Users can start three-way conference calls on Poly Rove phones, and they can see the two remote parties in the **Connected** state on the handset.

**Note:** The Opus audio codec doesn't support three-way calling when both legs of the call bridge are using Opus.

### External Conference Bridges

When using an external conference bridge, the bridge limits the conference size. Check with your service provider on the conference size limit.

#### Enable an External Conference Bridge

Configure the conference bridge to enable call participants to join calls into a conference call.

**Task**

1. In the system web interface, go to **Service Providers > ITSP Profile*N* > SIP**.
2. In the **Default** column, clear the check box for **UseExternalConferenceBridge**.
3. In the **Value** column, check the box for **UseExternalConferenceBridge**.
4. In the **Default** column, clear the check box for **X_ConferenceBridge**.
5. In the **Value** column, enter the number for the external conference bridge.
6. Select **Submit**.
7. Reboot your system when you complete your changes.

## Network-Based Call Park

Network-based call park enables users to park calls to a monitored parking lot, and any users on the company's network can retrieve a call from the parking lot.

Call hold keeps the held call on the same line, but call park moves the call to a separate address where someone can retrieve the call from any phone. This feature requires support from a SIP server, and setup of this feature depends on the SIP server.

For Poly Rove DECT IP phones, users can enter star codes to park and retrieve calls.

## Enable Network-Based Call Park

Enable users to park calls to a monitored parking lot and choose the call park method.

**Note:** Check with your service provider or call control platform to see which options are available for call park.

### Task

1. In the system web interface, go to **Service Providers > ITSP Profile*N* > SIP**.
2. Under **Feature Configuration**, clear the check boxes in the **Default** column for the following parameters:
   - X_CallParkEnable
   - X_CallParkMethod
   - X_CallParkStatusMethod
   - X_CallParkPickupMethod
3. In the **Value** column, select the options for the following settings:

| Setting | Option |
|---|---|
| **X_CallParkEnable** | Select the check box to enable call park. |
| **X_CallParkMethod** | Select one of the following methods for parking a call:<br>• **REFER** - The base station sends a SIP REFER to park the call on the call park extension.<br>• **Feature Code** - The base station sends a SIP INVITE and prepends the feature code to the call park extension. |
| **X_CallParkStatusMethod** | Select one of the following methods for alerting users to parked calls:<br>• **Dialog/BLF** - The base station uses SIP SUBSCRIBE/ NOTIFY to subscribe to call state and receive an “early” state for calls parked on park extensions.<br>• **BroadWorks** - The base station uses SIP SUBSCRIBE/ NOTIFY to subscribe to call state and receive a BroadWorks call park status on park extensions.<br>• **Dialog/FreePBX** - The base station uses SIP SUBSCRIBE/ NOTIFY to subscribe to call state and receive a confirmed state for calls parked on a park extensions. |
| **X_CallParkPickupMethod** | Select a method for retrieving parked calls:<br>• **INVITE+Replaces** - The base station sends a call to the park extension and includes the Replaces header with the call-id and to/from-tags so the user can retrieve the parked call.<br>• **Feature Code** - The base station sends a call and prepends the CallPickup feature code to the park extension, which a user can enter to retrieve the parked call.<br>• **INVITE** - The base station sends a call to the park extension where a user can retrieve the parked call. |

4. Select **Submit**.
5. Reboot your system when you complete your changes.

## Set Call Park Star Codes

Set the star codes that the system prepends to parked and retrieved calls.

The default star codes are `*68` for parking calls and `*88` for retrieving calls for all ITSP profiles. If you configure multiple ITSP profiles, you can set different star codes for call park on each profile.

**Task**

1. In the system web interface, go to **Service Providers > ITSP Profile*N* > SIP**.
2. Under **Feature Configuration**, set **X_CallParkMethod** and **X_CallParkPickupMethod** to **Feature Code**.
3. Under **Feature Codes**, clear the check boxes in the **Default** column for Park and CallPickup.
4. In the **Value** column, enter new star codes for Park and CallPickup.

   For example, enter `*00` for parking a call and `*99` for retrieving a call.
5. Select **Submit**.
6. Reboot your system when you complete your changes.

### Program Line Keys for Call Park

Program the line keys on Poly Rove wireless handsets to enable users to quickly park and retrieve calls.

Create line key profiles where you determine the function of the line key, set the parking lot number, and create a label for each key. Each profile enables you to set functions for the four line keys on the wireless handset. You can only set one profile per wireless handset.

**Task**

1. In the system web interface, go **Line Key > Line Key Profile *N***.
2. Under **Line Key *N***, clear all the check boxes in the **Default** column.
3. In the **Value** column for **Function**, select **Call Park Monitor** from the drop-down menu.
4. For **ServProvProfile**, select the ITSP profile the line uses for call park.
5. Enter a **Number** for the call parking lot.

   For example, enter `100` as the parking lot number. Users who don't have the programmed line keys can also use this number to retrieve parked calls.
6. Enter a **Label** for the line key.

   You can designate each line key to a specific department and use the label to specify which parked calls are for which company department.
7. Select **Submit**.
8. Reboot your system when you complete your changes.

## Supported Audio Codecs

The following tables includes the audio codecs supported on Poly Rove DECT IP phones.

#### Audio Codecs Supported on Rove B1 Base Stations

The following table includes the audio codecs supported on Rove B1 base stations and any limitations.

**Supported Audio Codecs**

| Codec | Priority | Bandwidth | Limitation |
|---|---|---|---|
| G.711 a-law | 4 | Narrowband | None |
| G.711 µ-law | 3 | Narrowband | None |

| Codec | Priority | Bandwidth | Limitation |
|---|---|---|---|
| G.722 | 1 | Wideband | • Supports only five concurrent calls.<br>• If G.722 is in the codec list, the number of concurrent calls changes to nine.<br>• Using SRTP doesn't impact the number of concurrent calls.<br>• Push-to-Talk reduces the number of concurrent calls by two. |
| G.726 | 5 | Narrowband | None |
| G.729 | 6 | Narrowband | • Supports only four concurrent calls.<br>• Push-to-Talk reduces the number of concurrent calls by two. |
| Opus | 2 | Wideband | • Supports only two concurrent calls.<br>• Push-to-Talk reduces the number of concurrent calls by two. |

**Audio Codecs Supported on Rove B2 Base Stations**
The following table includes the audio codecs supported on Rove B2 base stations and any limitations.

**Supported Audio Codecs**

| Codec | Priority | Bandwidth | Limitation |
|---|---|---|---|
| G.711 a-law | 4 | Narrowband | None |
| G.711 μ-law | 3 | Narrowband | None |
| G.722 | 1 | Wideband | • Supports only five concurrent calls per base station.<br>• If G.722 is in the codec list, the number of concurrent calls per base station changes to nine.<br>• Using SRTP doesn't impact the number of concurrent calls.<br>• Push-to-Talk reduces the number of concurrent calls by two. |
| G.726 | 5 | Narrowband | None |

| Codec | Priority | Bandwidth | Limitation |
|---|---|---|---|
| G.729 | 6 | Narrowband | • Supports only four concurrent calls per base station.<br>• Push-to-Talk reduces the number of concurrent calls by two. |
| Opus | 2 | Wideband | • Supports only two concurrent calls per base station.<br>• Push-to-Talk reduces the number of concurrent calls by two. |

**Audio Codecs Supported on Rove B4 Base Stations**
The following table includes the audio codecs supported on Rove B2 base stations and any limitations.

**Supported Audio Codecs**

| Codec | Priority | Bandwidth | Limitation |
|---|---|---|---|
| G.711 a-law | 4 | Narrowband | None |
| G.711 μ-law | 3 | Narrowband | None |
| G.722 | 1 | Wideband | • Supports only five concurrent calls per base station.<br>• If G.722 is in the codec list, the number of concurrent calls per base station changes to nine.<br>• Using SRTP doesn't impact the number of concurrent calls.<br>• Push-to-Talk reduces the number of concurrent calls by two. |
| G.726 | 5 | Narrowband | None |
| G.729 | 6 | Narrowband | • Supports only four concurrent calls per base station.<br>• Push-to-Talk reduces the number of concurrent calls by two. |

| Codec | Priority | Bandwidth | Limitation |
|---|---|---|---|
| Opus | 2 | Wideband | • Supports only four concurrent calls per base station.<br>• Push-to-Talk reduces the number of concurrent calls by two. |

### Configure Audio Codec Settings

Configure the list of supported audio codecs, set the codec priority for incoming calls, and configure other audio codec settings.

**Task**

1. In the system web interface, go to **Service Providers > ITSP Profile*N* > RTP**.
2. Under **Codec Settings**, clear the check boxes in the **Default** column for the settings you want to configure.
3. In the **Value** column, set the values for the settings you want to configure.

| Setting | Description |
|---|---|
| X_CodecList | Sets the comma-separated list of codecs for the base station, ordered by priority. |
| X_UseOwnCodecPriority | Determines if the system uses the incoming caller's codec priority list or the list set for the system. By default, the system uses the caller's priority list. |
| X_G729AB | Enables or disables G.729 Annex B. |
| X_PacketizationPeriod | Sets the preferred packet size in milliseconds (ms). However, OPUS packet size is set as 20 ms, and you can't change it. |
| X_TelEventPayload | Specifies the DTMF payload type. |

4. Select **Submit**.
5. Reboot your system when you complete your changes.

## Configure Call Forwarding

Enable users to forward incoming calls to another contact or phone line.

Configure the Poly Rove phone to forward calls unconditionally (always), forward calls when the line is busy, or forward calls when an incoming call goes unanswered. You can also set the phone numbers where the calls are automatically forwarded.

**Task**

1. In the system web interface, go to **Voice Services > SP*N* Service**.
2. Under **Calling Features**, clear the check boxes in the **Default** column for any of the following options:
   - **CallForwardUnconditionalEnable**
   - **CallForwardUnconditionalNumber**
   - **CallForwardOnBusyEnable**
   - **CallForwardOnBusyNumber**
   - **CallForwardOnNoAnswerEnable**
   - **CallForwardOnNoAnswerNumber**
3. In the **Value** column, select the check box for each call forwarding option you want to enable.

4 Enter a forwarding phone number in the **CallForward*X*Number** field for each option you enable.
5 Select **Submit**.
6 Reboot your system when you complete your changes.

## Supported Concurrent Calls

Rove DECT IP phones support concurrent calls. The number of calls supported depends on several factors in the environment including the base station, bandwidth, number of cells, audio codec used, and whether repeaters are used.

The following information includes the numbers of concurrent calls supported on Rove base stations and repeaters.

### Concurrent Calls Supported on Rove B1 Base Stations

The following tables include the concurrent calls supported on Rove B1 base stations.

**Important:** When in use, the Push to Talk (PTT) feature takes two of the DECT channels and reduces the number of concurrent calls by two. For example, using PTT in a Rove B1 single cell system using the G.711 codec with SRTP reduces the number of supported concurrent calls from 10 to 8. To enable the feature, see the Poly Rove DECT IP Phone User Guide.

**Rove B1 Supported Concurrent Calls - Narrowband**

| Functionality | Single Cell |
|---|---|
| Number of SIP extensions per system | 10 |
| Number of DECT registrations per system | 10 |
| G.711 number of concurrent calls per device with SRTP | 10 |
| G.711 number of concurrent calls per device without SRTP | 10 |
| G.729 number of concurrent calls per system with SRTP | 4 |
| G.729 number of concurrent calls per system without SRTP | 4 |

**Rove B1 Supported Concurrent Calls - Wideband**

| Functionality | Single Cell |
|---|---|
| G.722 number of concurrent calls per device with SRTP | 5 |
| G.722 number of concurrent calls per device without SRTP | 5 |
| Number of concurrent calls per device with or without SRTP and with G.722 in the codec list | 9 |
| Opus number of concurrent calls per device with SRTP | 2 |
| Opus number of concurrent calls per device without SRTP | 2 |

### Concurrent Calls Supported on Rove B2 Base Stations

The following tables include the concurrent calls supported on Rove B2 base stations.

**Important:** When in use, the Push to Talk (PTT) feature takes two of the DECT channels and reduces the number of concurrent calls by two. For example, using PTT in a Rove B2 single cell system using the G.711 codec with SRTP reduces the number of supported concurrent calls from 10 to 8. To enable the feature, see the Poly Rove DECT IP Phone User Guide.

### Rove B2 Supported Concurrent Calls - Narrowband

| Functionality | Single Cell | Dual Cell |
|---|---|---|
| Number of SIP extensions per system | 20 | 20 |
| Number of DECT registrations per system | 20 | 20 |
| G.711 number of concurrent calls per device with SRTP | 10 | 20 |
| G.711 number of concurrent calls per device without SRTP | 10 | 20 |
| G.729 number of concurrent calls per system with SRTP | 4 | 8 |
| G.729 number of concurrent calls per system without SRTP | 4 | 8 |

### Rove B2 Supported Concurrent Calls - Wideband

| Functionality | Single Cell | Dual Cell |
|---|---|---|
| G.722 number of concurrent calls per device with SRTP | 5 | 5 |
| G.722 number of concurrent calls per device without SRTP | 5 | 5 |
| Number of concurrent calls per device with or without SRTP and with G.722 in the codec list | 9 | 9 |
| Opus number of concurrent calls per device with SRTP | 2 | 4 |
| Opus number of concurrent calls per device without SRTP | 2 | 4 |

## Concurrent Calls Supported on Rove B4 Base Stations

The following tables include the concurrent calls supported on Rove B4 base stations.

**Important:** When in use, the Push to Talk (PTT) feature takes two of the DECT channels and reduces the number of concurrent calls by two. For example, using PTT in a Rove B2 single cell system using the G.711 codec with SRTP reduces the number of supported concurrent calls from 10 to 8. To enable the feature, see the Poly Rove DECT IP Phone User Guide.

### Rove B4 Supported Concurrent Calls - Narrowband

| Functionality | Single Cell | Dual Cell | Multicell |
|---|---|---|---|
| Number of SIP extensions per system | 30 | 60 | 1000 |

| Functionality | Single Cell | Dual Cell | Multicell |
|---|---|---|---|
| Number of DECT registrations per system | 30 | 60 | 1000 |
| G.711 number of concurrent calls per device with SRTP | 8 | 16 | *n* x 8 [1] |
| G.711 number of concurrent calls per device without SRTP | 10 | 20 | *n* x 10 [1] |
| G.729 number of concurent calls per system with SRTP | 8 | 16 | *n* x 8 [1] |
| G.729 number of concurent calls per system without SRTP | 10 | 20 | *n* x 10 [1] |

[1] *n* is the number of Rove B4 base stations in the multicell system.

**Rove B4 Supported Concurrent Calls - Wideband**

| Functionality | Single Cell | Dual Cell | Multicell |
|---|---|---|---|
| G.722 number of concurrent calls per device with SRTP | 5 | 5 | 5 |
| G.722 number of concurrent calls per device without SRTP | 5 | 5 | 5 |
| Number of concurrent calls per device with or without SRTP and with G.722 in the codec list | 9 | 9 | 9 |
| Opus number of concurrent calls per device with SRTP | 4 | 8 | *n* x 4 [1] |
| Opus number of concurrent calls per device without SRTP | 4 | 8 | *n* x 4 [1] |

[1] *n* is the number of Rove B4 base stations in the multicell system.

## Concurrent Calls Supported on Rove R8 Repeaters

Rove R8 repeaters extend the range of calls on Rove base stations.

The following tables include the concurrent calls supported on Rove R8 repeaters.

**Important:** When in use, the Push to Talk (PTT) feature takes two of the DECT channels and reduces the number of concurrent calls by two. For example, using PTT in a Rove B2 single cell system using the G.711 codec with SRTP reduces the number of supported concurrent calls from 10 to eight. To enable the feature, see the Poly Rove DECT IP Phone User Guide.

**Note:** The base station determines the number of concurrent calls supported.

The following table includes the concurrent calls supported on Rove R8 repeaters with B1 base stations.

**Rove R8 Supported Concurrent Calls with Rove B1**

| Functionality | Single Cell | Bandwidth |
|---|---|---|
| Number of repeaters supported | 3 | N/A |
| Number of concurrent calls per system | 5 | Narrowband |
| Number of concurrent calls per system | 2 | Wideband |
| Number of concurrent calls per system with daisy-chaining repeaters | 4[1] | Narrowband |
| Number of concurrent calls per system with daisy-chaining repeaters | 2[1] | Wideband |

[1] Daisy-chaining repeaters reduces the number of concurrent calls by one, regardless of the number of repeaters chained together. For example, if two Rove R8 repeaters are daisy-chained, the number of concurrent calls available is four for narrowband calls and two for wideband calls. The same numbers of calls are permitted if three Rove R8 repeaters are daisy-chained.

The following table includes the concurrent calls supported on Rove R8 repeaters with B2 base stations.

**Rove R8 Supported Concurrent Calls with Rove B2**

| Functionality | Single Cell | Dual Cell | Bandwidth |
|---|---|---|---|
| Number of repeaters supported | 6 | 12 | N/A |
| Number of concurrent calls per system | 5 | 5 | Narrowband |
| Number of concurrent calls per system | 2 | 2 | Wideband |
| Number of concurrent calls per system with daisy-chaining repeaters | 4[1] | 4[1] | Narrowband |
| Number of concurrent calls per system with daisy-chaining repeaters | 2[1] | 2[1] | Wideband |

[1] Daisy-chaining repeaters reduces the number of concurrent calls by one, regardless of the number of repeaters chained together. For example, if two Rove R8 repeaters are daisy-chained, the number of concurrent calls available is four for narrowband calls and two for wideband calls. The same numbers of calls are permitted if three Rove R8 repeaters are daisy-chained.

The following table includes the concurrent calls supported on Rove R8 repeaters with B4 base stations.

**Rove R8 Supported Concurrent Calls with Rove B4**

| Functionality | Single Cell | Dual Cell | Multicell | Bandwidth |
|---|---|---|---|---|
| Number of repeaters supported | 3 | 6 | 100[1] | N/A |

| Functionality | Single Cell | Dual Cell | Multicell | Bandwidth |
|---|---|---|---|---|
| No of calls per system | 5 | 5 | $n \times c^2$ | Narrowband |
| No of calls per system | 2 | 2 | $n \times c^2$ | Wideband |
| Number of calls per system with daisy-chaining repeaters | $4^2$ | $4^2$ | $n \times c^{23}$ | Narrowband |
| Number of calls per system with daisy-chaining repeaters | $2^2$ | $2^2$ | $n \times c^{23}$ | Wideband |

[1] The maximum number of repeaters allowed in a multicell system is 100.

[2] *n* is the number of cells in the multicell Rove B4, and *c* is the number of calls supported for a single cell Rove B4.

[3] Daisy-chaining repeaters reduces the number of concurrent calls by one, regardless of the number of repeaters chained together. For example, if two Rove R8 repeaters are daisy-chained, the number of concurrent calls available is four for narrowband calls and two for wideband calls. The same numbers of calls are permitted if three Rove R8 repeaters are daisy-chained.

# Configuring Network and Security Settings

Control how your Poly Rove base station accesses the web and your network.

## Default DHCP Options

When you initialize a network connection to a configuration server, Poly Rove DECT IP phones extract DHCP Option 160 and 66 from a DHCP offer by default. You don't need to reconfigure this default setting.

Poly Rove phones also prioritize DHCP Option 160 and 66 ahead of other options in the ConfigURL parameter.

You don't need to reconfigure this default setting, but you can confirm that DHCP Option 160 and 66 are enabled in the following locations:

- In the system web interface under **System Management > Auto Provisioning > ITSP Provisioning**, the **UCSServer** setting includes `$DHCPOPT160;$DHCPOPT66`.
- In the system web interface under **System Management > Auto Provisioning > ITSP Provisioning**, the **ConfigURL** setting includes the `$DHCPOPT160/$MAC.xml;$DHCPOPT160/$DM.xml;$DHCPOPT160; tftp://$DHCPOPT66/$DM.xml;$DHCPOPT66/$DM.xml;$DHCPOPT66` macro string.

## Enable CDP

Enable your Poly Rove DECT IP phones to automatically configure VLAN and other network parameters using the Cisco Discovery Protocol (CDP).

**Note:** CDP can coexist with LLDP-MED, but LLDP-MED always takes precedence.

**Task**

1. In the system web interface, go to **System Management > WAN Settings > Internet Settings**.
2. In the **Default** column, clear the check boxes for the following parameters:
   - CDPSend
   - CDPRecv
   - CDPSendDelay
3. In the **Value** column, select the check box to enable CDPSend and CDPRecv.
4. For CDPSendDelay, enter the time in seconds for the delay between LLDP-MED messages.
5. Select **Submit**.
6. Reboot your system when you complete your changes.

## Configure SRTP Crypto Suite

Configure SRTP encryption to enhance the security of your calls.

SRTP is disabled by default, but you can configure Poly Rove DECT IP phones to use either of the following crypto suites:

- AES_CM_128_HMAC_SHA1_32
- AES_CM_128_HMAC_SHA1_80

**Task**

1. In the system web interface, go to **Service Providers > ITSP Profile*N* > SIP**.
2. In the **Default** column, clear the check boxes for the following parameters:
   - X_SRTP
   - X_SRTPAuth
   - X_SRTPCryptoSuite
3. In the **Value** column, select an option from the drop-down menu to enable X_SRTP.
4. In the **Value** column, select an option from the drop-down menu for X_SRTPCryptoSuite.

5 Select **Submit**.

6 Reboot your system when you complete your changes.

## Server Redundancy

VoIP deployments often require server redundancy. Server redundancy ensures phone high availability in the event that the phone loses connection to the server.

Poly phones support failover and fallback server redundancy. In some cases, you can deploy a combination of the two server redundancy types. Consult your SIP server provider for recommended methods of configuring phones and servers for failover configuration.

### Configure Server Redundancy

Set a failover timer for when the base station tries to register with the next server after reregister attempts with the current server fail.

**Task**

1 In the system web interface, go to **Service Providers > Common Settings**.

2 In the **Default** column, clear the check boxes for the following settings:

- **TimerB**
- **TimerF**
- **X_CheckFallbackInterval**

3 In the **Value** column, configure the following settings:

| Setting | Description |
|---|---|
| TimerB | The value in milliseconds for the failover timer |
| TimerF | The value in milliseconds for the failover timer |
| X_CheckFallbackInterval | The time in seconds between checking for a higher priority proxy server online and using that server as the primary |

4 Select **Submit**.

5 Reboot your system when you complete your changes.

# Setting Up a Directory

Configure a general local directory and a network-based directory on Poly Rove DECT IP phones.

## Configure a Local Central Directory

Add a local central directory with prepopulated contacts to your Poly Rove wireless handsets.

Your local directory file can have up to 3000 contacts as long as the maximum size of the file is under 100 KB.

**Task**

1. In the system web interface, go to **Service Providers > Central Directory > Directory Service**.
2. For **Directory Type**, clear the check box in the **Default** column, then select **Local** from the drop-down menu.
3. Under **Local Directory**, clear the check boxes in the **Default** column for **Server** and **FileName**.
4. In the **Value** column, configure the following settings:
   - For **Server**, enter the server URL and file path where the directory file is located.
   - For **FileName**, enter the file name of the directory file.
5. Optional: Clear the check box in the **Default** column for **ReloadInterval**, then enter the value in seconds for how often the phone tries to reload the phone book.
6. Select **Submit**.
7. Reboot your system when you complete your changes.

### Example Local Central Directory Files

Create a simple directory file that you can load onto your Poly Rove phones. The file can be either a simple text file with the extension .txt or .csv, or it can be in structured XML format with the extension .xml.

#### Simple Text Files

Make sure you follow these rules when you create a simple text file with the file extension .txt or .csv:

- A simple text file must have one line per directory entry.
- Each line must start with the contact's name, followed by up to three contact numbers.
- The entry fields must be comma-separated.

The following is a short example of a local directory simple text file.

```
Maria Lee,1380
Richard Powell,1220,1221,1222
Robert Lopez,1230
Ruth Jenkins,1340
Michelle Cole,1335
William Brooks,1231
John White,1240
Robert West,1245
Lisa Foster,1370
William Jones,1248
Ruth Martinez,1350,1351
David Lee,1250
David Torres,+34094590875
Carol Evans,+441632960206
Sharon Kelly,1310,1311
Sarah Robinson,1360
```

#### XML Structured Files

Make sure you follow these rules when you create an XML structured directory file with the file extension .xml:

- The directory file must be a valid XML file.
- The file must begin and end with the tag `<IPPhoneDirectory>`.

- Each directory entry must begin and end with the tag `<DirectoryEntry>`.
- Each entry must contain one and only one contact as indicated by the `<Name>` tag.
- Each entry must contain at least one, and can have up to three numbers, using the `<Telephone>`, `<Office>`, or `<Mobile>` tags.

The following is a short example of a local directory XML file:

```
<?xml version="1.0" encoding="utf-8" standalone="yes"?>
<IPPhoneDirectory>
<DirectoryEntry>
<Name>Maria Garcia</Name
<Telephone>7142620</Telephone
</DirectoryEntry>
<DirectoryEntry>
<Name>Robert Smith</Name
<Telephone>7891410</Telephone
<Mobile>7774562</Mobile
</DirectoryEntry>
</IPPhoneDirectory>
```

**Directory File Limitations**
The following limitations apply to both structured XML files and simple text files:

- Contact names must be 23 characters or less. Longer names are truncated.
- Contact numbers are limited to 21 digits. If the numbers contain more than 21 digits, the entry is discarded without a warning.
- Contact number digits allowed are: +0123456789.
- Contact numbers do not support SIP-URI.
- Up to three contact numbers are allowed for each directory entry.

The following limitations apply only to simple text files with the extension .txt or .csv:

- Contact names must not contain ",".
- Spaces between the name section "," and the number section in an entry are not supported.

## Configure an LDAP Directory

Configure a LDAP directory to display on your Poly Rove DECT IP phones.

The wireless handsets can display up to 3000 LDAP directory contacts.
**Task**

1. In the system web interface, go to **Service Providers > Central Directory**.
2. Under **Service Providers**, for **Directory Type**, clear the check box in the **Default** column, then select **LDAP Server** from the drop-down menu.
3. Under **LDAP Server**, clear the check boxes in the **Default** column for the following settings:
   - **Host**
   - **Port**
   - **Password**
   - **TLSSecurity**
4. In the **Value** column, configure the following settings:

**LDAP Server Settings**

| Parameter Name | Value |
|---|---|
| Host | The domain name or IP address of the LDAP server. Do not prepend the ldap:// or ldaps:// scheme before the domain name or IP address, and do not append a port number, to the Host parameter. |
| Port | The port for the LDAP server TCP port. The standard port is `389` for LDAP and `636` for secure LDAP. |
| Password | The password for authenticating with the LDAP server. This is based on the distinguished name specified for **BindDN**. |
| TLSSecurity | Check the box if using secure LDAP. |

5 Select **Submit**.

6 Reboot your system when you complete your changes.

## Configure LDAP Search Settings

Configure the search settings for the LDAP directory on your Poly Rove DECT IP phone system.

Configure the default search settings for searching the LDAP directory.

**Task**

1 In the system web interface, go to **Service Providers > Central Directory**.

2 Under **LDAP Search Parameters**, clear the check boxes in the **Default** column for the following settings:

- **BindDN**
- **SearchBase**
- **Filter**
- **VirtualList**
- **SortBy**

3 In the **Value** column, configure the following settings:

**LDAP Search Parameters**

| Parameter Name | Value |
|---|---|
| BindDN | Enter a distinguished name (DN) that is authorized to use the LDAP service. The BindDN value is usually derived from a username that looks like an email address, such as `admin@ldap.example.com`. For this example, the corresponding BindDN is: `CN=admin,OU=users,DC=example,DC=com`. |
| SearchBase | Enter a comma-separated list of {`object`}={`value`} pairs, where {`object`} can be any of the following values for the starting point of the LDAP directory search:<br>• `CN` (Common Name)<br>• `OU` (Organization Unit)<br>• (Organization)<br>• `c` (Country)<br>• `DC` (Domain) |

| Parameter Name | Value |
|---|---|
| Filter | Enter the search filter for the LDAP query. Use `%` to designate where the user's input is inserted in the search filter and `*` as the wildcard. For example, `givenName=%*`. |
| VirtualList | Enable or disable the use of a virtual list on the LDAP server. |
| SortBy | Sort search results by either Common Name, Given Name, or Surname. |

4 Select **Submit**.

5 Reboot your system when you complete your changes.

## Configure LDAP Handset Identity

Configure the contact attributes to populate on the Rove handset for each search result returned by the LDAP server.

Set up the contact attributes to populate on the Rove handset.

**Task**

1 In the system web interface, go to **Service Providers > Central Directory**.

2 Under **LDAP Handset Identity**, clear the check boxes in the **Default** column for the following settings:

- **Name**
- **Work**
- **Home**
- **Mobile**
- **UseLDAPName**

3 In the **Value** column, configure the following settings:

**LDAP Handset Identity**

| Parameter Name | Value |
|---|---|
| Name | Select the desired LDAP attribute for the name. Allowed values are `CN` (Common Name) or `sn + giveName` (Surname + First Name). |
| Work | Enter the desired LDAP attribute for work number. |
| Home | Enter the desired LDAP attribute for home number. |
| Mobile | Enter the desired LDAP attribute for mobile or cellular number. |
| UseLDAPName | Enable the handset to use the LDAP Caller ID Name of the incoming caller instead of the name signaled in the SIP signaling. |

4 Select **Submit**.

5 Reboot your system when you complete your changes.

# Configuring BroadWorks Server Features

Configure Poly Rove systems with BroadWorks server options.

## Enable BroadWorks XSI Features

Enable BroadWorks XSI features on the Poly Rove DECT IP phone.

Configure XSI features on a per service provider or SIP service, so you can configure as many independent sets of XSI services per system and one per service provider service.

**Task**

1. In the system web interface, go to **Service Providers > Common Settings**.
2. Under **XSI**, clear the check boxes in the **Default** column for **X_XsiServer** and **X_XsiServerPort**.
3. In the **Value** column, enter the hostname or IP address into the field for **X_XsiServer** and the server port into the field for **X_XsiServerPort**.
4. Select **Submit**.
5. In the system web interface, go to **Voice Services > SPN Service**.
6. Under **SIP Credentials**, clear the check boxes in the **Default** column for **X_XsiUserName** and **X_XsiPassword**.
7. In the **Value** column, enter the server credentials for **X_XsiUserName** and **X_XsiPassword**.
8. Select **Submit**.
9. Reboot your system when you complete your changes.

## BroadWorks Network Directories

With the Cisco BroadWorks platform, the Poly Rove system supports different BroadWorks directories.

The following BroadWorks directories are supported:

- Enterprise
- Enterprise Common
- Group
- Group Common
- Personal

For more information on setting up and managing the directories on a BroadWorks server, see the BroadWorks documentation.

### Connect to an Enterprise Directory

Connect Poly phones to an enterprise directory to enable users to search for enterprise contacts from a wireless handset.

After you set up an enterprise directory, users can search for contacts, place calls to contacts, and save enterprise contacts to the local contact directory.

**Task**

1. In the system web interface, go to **Service Providers > Central Directory**.
2. Under **Directory Service**, in the **Default** column, clear the check box for **DirectoryType**, then select **XSI Server** from the drop-down menu in the **Value** column.
3. Select **Submit**.
4. Under **XSI Directory Settings**, in the **Default** column, clear the check boxes for the BroadWorks directories that you would like to enable:
   - EnableEnterprise
   - EnableEnterpriseCommon
   - EnableGroup
   - EnableGroupCommon

- EnablePersonal

5 In the **Value** column, select the check boxes for the BroadWorks directories that you would like to enable:

- EnableEnterprise
- EnableEnterpriseCommon
- EnableGroup
- EnableGroupCommon
- EnablePersonal

6 If you want to change how any of the directory names appear in the Poly Rove handset, clear the check boxes for the BroadWorks directories that you want to rename:

- EnterpriseDirName
- EnterpriseCommonDirName
- GroupDirName
- GroupCommonDirName
- PersonalDirName

7 In the **Value** columns, enter the new display names for the BroadWorks directories that you are renaming.

- EnterpriseDirName
- EnterpriseCommonDirName
- GroupDirName
- GroupCommonDirName
- PersonalDirName

8 Select **Submit**.

9 Reboot your system when you complete your changes.

## BroadWorks AS-Feature-Event

The AS-Feature is a collection of network-provided features available on a BroadWorks application server.

Configure and execute these network-provided features in the context of a single SP service. View and change the settings from the system web interface.

### Activate BroadWorks AS-Features

Activate the BroadWorks AS-Feature set to access features available from your third-party server.

Activating the BroadWorks AS-Feature lets you configure the following network-provided services:

- Call Park
- Call Forward Always
- Call Forward Busy
- Call Forward No Answer
- Do Not Disturb

**Note:** Configure the BroadWorks AS-Feature set on a per-line basis only.

#### Task

1 In the system web interface, go to **Voice Services > SPN Service**.

2 Under **Calling Features**, clear the check box in the **Default** column for **X_ASFeatureEventSubscribe**.

3 Select the check box in the **Value** column for **X_ASFeatureEventSubscribe**.

4 Select **Submit**.

5 Reboot your system when you complete your changes.

# Configure E911

The Enhanced 911 (E911) feature enables the phone to retrieve location information to share with responders when users dial 911 to report an emergency. This information ensures that the operator dispatches emergency services to the correct location.

## Configure the List of Emergency Numbers

Enter a list of emergency numbers for your deployment.

**Task**

1. In the system web interface, go to **System Management > Device Admin**.
2. Under **Emergency Numbers**, in the **Default** column, clear the check boxes for the EmergencyNumberN parameter.
3. In the **Value** column, enter the list of emergency call numbers.

   **Caution:** When you configure EmergencyNumberN, the system doesn't recognize the default country-specific emergency number.
4. Select **Submit**.
5. Reboot your system when you complete your changes.

## Configure the Source of Location Information for E911

Define the preferred source of location information for Poly Rove phones. When the user makes an emergency call, the phone looks up the selected source of location information to collect the details needed for the call INVITE message.

**Task**

1. In the system web interface, go to **System Management > Device Admin > Location Information Service**.
2. Clear the check boxes for the Source and LocationID parameters.
3. Under **Source**, choose one of following location information sources from the drop-down menu:

| Option | Description |
|---|---|
| **ELIN** | Rove inserts the 10-digit Emergency Location ID Number (ELIN) in the P-Asserted-Identity (PAI) header of the outgoing SIP INVITE on emergency calls. |
| **Custom Location ID** | Rove appends the custom alpha-numeric string to the SIP URI in the From header of an outgoing SIP INVITE and in the PAI header of an outgoing 200 OK on emergency calls. |
| **Custom Location ID - PAI** | Rove inserts the custom alpha-numeric string in the PAI header of an outgoing SIP INVITE and an outgoing 200 OK on emergency calls. |
| **HELD** | Rove obtains location URIs from the HELD service and inserts the location URIs into the Geolocation header of an outgoing SIP INVITE on emergency calls.<br>**Note:** Currently, RedSky is the only supported HELD service. |

4. Under **Location**, specify one of the following values:

| Option | Description |
|---|---|
| **If Source is ELIN** | Specify the 10-digit number. |
| **If Source is Custom Location ID** | Specify the alpha-numeric string. |
| **If Source is Custom Location ID - PAI** | Specify the alpha-numeric string. |

5. Select **Submit**.
6. Reboot your system when you complete your changes.

## Confirm the Current Location for E911

Confirm the location for the Poly Rove handset based on the preferred source of location information. When the user makes an emergency call, the phone looks up the location information to collect the details needed for the call INVITE message.

**Task**

1. In the system web interface, go to **System Management > Device Admin**.
2. View the value in **CurrentLocation**.

## Configure the HELD protocol for E911

Define how to retrieve location information from the Location Information Server (LIS) using the HTTP-Enabled Location Delivery (HELD) protocol. You can choose to retrieve the phone's location information by value from the LIS or by reference.

**Task**

1. In the system web interface, go to **System Management > Device Admin**.
2. Under **HTTP-Enabled Location Delivery (HELD)**, in the **Default** column, clear the check boxes for all the parameters.
3. In the **Value** column, configure the following settings for the HELD parameters:

| Parameter | Description |
|---|---|
| CompanyID | Specify the value for the CompanyID attribute in the location request message. |
| PrimaryServer | Specify the URI of the primary location server. |
| SecondaryServer | Specify the URI of the secondary location server. |
| Username | Specify the username used to authenticate to the HELD service account. |
| Password | Specify the password used to authenticate to the HELD service account. |

4. Select **Submit**.
5. Reboot your system when you complete your changes.

# System Maintenance

You can perform several functions to keep your Poly Rove system running properly.

## Provision Automatic Firmware Updates

Provision Poly Rove DECT IP phones to regularly poll for firmware updates.

Before upgrading the Poly Rove devices, make sure that there are no calls in place and all wireless handsets are in their charging station. For best results, schedule firmware upgrades during a maintenance period when the devices aren't in use.

Paired wireless handsets update 10 handsets of the same model at a time until all handsets are upgraded.

**Important:** Do not change the .fwu firmware file names.

### Task

1. In the system web interface, go to **System Management > Auto Provisioning**.
2. In the **Default** column, clear the check boxes for the following settings:
   - **FirmwareServer**
   - **FirmwarePath**
   - **Method**
3. For **FirmwareServer**, enter the HTTP, HTTPS, or TFTP server address where the software is located.
4. For **FirmwarePath**, enter the file path where the software is stored. For example, `/firmware/rove/8.0.0/`.
5. For **Method**, select one of the following options from the drop-down list for when the phone should retrieve software updates:
   - **Disabled**
   - **Periodically**
   - **System Start**
   - **Time of Day**
6. Depending on the method you choose, do one of the following:
   - If you choose the **Disabled**, the phone doesn't update.

     **Tip:** You can easily disable updates using this setting.
   - If you choose the **Periodically** method, clear the check box in the **Default** column for **Interval**, then in the **Value** column, enter the time in seconds.
   - If you choose the **Time of Day** method, clear the check box in the **Default** column for **TimeofDay**, then in the **Value** column, enter at what time (in `hh:mm+rr` format) the phone searches for updates.
7. Under **Firmware Versions and Handset Images**, in the **Default** column, clear the check boxes for the following settings:
   - BaseFwVersion
   - BaseFwBranch
   - Rove20FwVersion
   - Rove20BranchVersion
   - Rove30FwVersion
   - Rove30BranchVersion
   - Rove40FwVersion
   - Rove40BranchVersion
   - RoveR8FwVersion
   - RoveR8BranchVersion
8. In the **Value** column, enter the desired firmware and branch versions in the following format:

| Option | Description |
|---|---|
| **FwVersion** | Enter the number after the *v* in the corresponding Rove device's .fwu file name. |
| **Branch, BranchVersion** | Enter the number after the *b* in the corresponding Rove device's .fwu file name. |

9 Select **Submit**.

## Backing Up and Restoring Your Base Station Configuration

Back up your base station configuration and restore it to any base station.

When you back up the current configuration of your base station, the system stores the backup file in XML format. The default storage location is your PC's Downloads folder, and the default name of the file is backupxxxxxxxxxxxx.xml, where *xxxxxxxxxxxx* represents the MAC address of your base station.

**Note:** Different web browsers may handle this function differently. If the security settings of your web browser block this operation, change the security settings temporarily to allow this operation to complete.

### Back Up Your Base Station Configuration

Back up your base station's configuration to restore it later or copy it to another base station.

**Note:** All passwords and PINs are excluded from the backup file, so you can't restore them.

#### Task

1 In the system web interface, go to **Service Providers > Common Settings**.

2 Under **Backup Configuration**, choose one of the following options:

| Option | Description |
|---|---|
| Incl. Running Status | Select this option to include the values of all status parameters in the backup file. Otherwise, the file excludes status parameters. |
| Incl. Default Value | Select this option to include the default values of parameters in the backup file. Otherwise, the file excludes default values. |
| Use OBi Version | Select this option to store the backup file in an OBi proprietary format where the XML tags aren't compliant with TR-104, but the file size is smaller and the file is more readable. Otherwise, the file uses XML tags that are compliant with the TR-104 standard. |
| Encrypt Content | Select this option to encrypt the contents of backup file using default encryption and use the file to restore only this device. Otherwise, the file is not encrypted, and you can use it to restore any base station. |
| Private | Select this option to include only private parameters in the backup file. Otherwise, the file excludes private parameters. |
| Shared | Select this option to include only shared parameters in the backup file. Otherwise, the file excludes shared parameters. |
| Non-default Only | Select this option to exclude factory default parameters in the backup file. Otherwise, the file contains all parameters. |

3 Select **Backup**.

4 Select **Save**.

You can change the file name and location to save the backup file from the default options.

### Restore Your Base Station Configuration

You can restore the base station configuration you previously backed up.

#### Task

1 In the system web interface, go to **Service Providers > Common Settings**.
2 Under **Restore Configuration**, choose a backup configuration file and select **Open**.
3 Select **Restore**.
Your system restarts.

### Upload Your Base Station Configuration to Other Base Stations

You can share base station configuration files with other base stations to quickly provision base stations on the same network.

You must have a backup of the configuration file for one of your other base stations before uploading it to a new base station.

**Task**

1 In the system web interface, go to **Service Providers > Common Settings**.
2 In the **Restore Configuration** section, choose the backup file you want to use and select **Restore**.

## Factory Reset a Poly Rove Base Station

Reset a Poly Rove base station to factory defaults from the device directly.

**Note:** You can't undo a factory reset for your base station. Poly recommends that you back up your base station before you factory reset it.

**Task**

» On the top of the base station, press and hold the **Pair** key for 20 seconds or more until the LED indicator turns solid red.
The LED indicator flashes red when the factory reset starts. When the reset is complete, the LED indicator turns solid green.

After your base station resets, you must reregister it with your service provider and reregister your handsets to the base station.

## Factory Reset a Poly Rove Base Station from the System Web Interface

You can reset your Poly Rove base station to factory default values in the system web interface.

**Note:** You can't undo a factory reset for your base station. Poly recommends that you back up your base station before you factory reset it.

**Task**

1 In the system web interface, go to **Service Providers > Common Settings**.
2 Under **Reset Configuration**, select **Reset**.

After your base station resets, you must reregister it with your service provider and reregister your handsets to the base station.

## Deregister Handsets and Repeaters through Provisioning

Use provisioning as a way to quickly deregister Poly Rove handsets or Rove repeaters from a base station.

**Task**

1 To deregister handsets or repeaters, add the following parameter to the configuration file:

| Option | Description |
|---|---|
| **Handset** | `VoiceService.1.X_HS.x.PresetIPEI="FFFFFFFFFF"` |

| Option | Description |
| --- | --- |
| **Handset - ConfigURL provisioning** | `<O>`<br>`<N>VoiceService.1.X_HS.`***X***`.</N>`<br>`<P><N>PresetIPEI</N><V>FFFFFFFFFF</V></P>`<br>`</O>` |
| **Repeater** | `VoiceService.1.X_Repeater.`***X***`.IPEI="FFFFFFFFFF"` |
| **Repeater - ConfigURL provisioning** | `<O>`<br>`<N>VoiceService.1.X_Repeater.`***X***`.</N>`<br>`<P><N>IPEI</N><V>FFFFFFFFFF</V></P>`<br>`</O>` |

2 Reboot the base station or wait for the base station to poll for configuration updates.

## Deregister Handsets and Repeaters from the System Web Interface

Use the system web interface to deregister Poly Rove handsets or Rove repeaters from a base station.

**Task**

1 In the system web interface, go to one of the following:

- **DECT Wireless > Handset Summary**
- **DECT Wireless > Repeaters**

2 Under **Handset Status** or **Repeaters Status Summary**, select the check box in the **Delete** column of the handset or repeater you want to deregister from the base station.

3 Select **Delete**.

## Disable Automated Configuration Updates

Poly Rove handsets can request configuration files from the provisioning server when they receive a check-sync event in a SIP Notify message. The X_AcceptResync parameter enables you to resync and push new configuration files to the handsets. The feature is enabled by default.

**Task**

1 In the system web interface, go to **Service Providers > Common Settings**.

2 Under **SIP**, in the **Default** column, clear the check box for **X_AcceptResync**.

3 Select **No** from the drop-down menu in the **Value** column.

4 To have Poly Rove reboot on receiving a check-sync SIP Notify message, in the **Default** column, clear the check box for **X_RebootOnResync**.

5 Select the check box in the **Value** column.

6 Select **Submit**.

## Call and System Statistics

The system web interface enables you to view real-time and overall statistics for each of your Poly Rove devices. You can also view call, DECT, RTP, and IP-stack statistics.

### View Base Station Statistics

View statistics for your Poly Rove base station to check the status of the system and assess any issues.

**Task**

1 In the system web interface, go to **Platform**.

2 Select **Statistics**.
The **System** statistics display with the following information:

- **Base Station Name** - The name and IP address for all connected base stations. If there is only one base station, then only the summary (Sum) row displays.
- **Operation/Duration** - The time since the last reboot occurred and the total runtime since the statistics reset or the last firmware update.
- **DECT Operation** - Displays when the DECT protocol was active.
- **Busy** - The amount of times the device was busy and rejected additional calls.
- **Busy Duration** - The total time the device was busy.
- **SIP Failed** - Displays the total number of times a SIP registration fails.
- **Handset Removed** - Displays the total of wireless handsets removed from the base station.

## View System Call Statistics

View call statistics for the Poly Rove system.

### Task

1 In the system web interface, go to **Platform**.

2 Select **Statistics > Calls**.
The following call statistics information displays:

- **Base Station Name** - The name and IP address for all connected base stations. If there is only one base station, then only the summary (Sum) row displays.
- **Operation/Duration** - The time since the last reboot occurred and the total runtime since the statistics reset or the last firmware update.
- **Calls** - Displays the total number of calls handled on the base station.
- **Dropped** - Displays the total number of active calls that were dropped.
- **No Response** - Displays the number of incoming calls that received no response due to hardware issues.
- **Duration** - Displays the total time of all active calls on the device.
- **Active** - Displays the number of wireless handsets with currently active calls.
- **Max Active** - Displays the total number of active calls at one time.
- **Codec G711U: G711A: G729: G722: G726: OPUS:** - Displays the total number of times each codec was used in calls.
- **Handover Attempt Success** - Displays the number of successful turnover attempts.
- **Handover Attempt Aborted** - Displays the number of failed handover attempts.
- **Audio Packetloss** - Displays the number of times when an audio connection wasn't established.

## View Repeater Statistics

View statistics for your repeater to check the status of the device and assess any issues.

### Task

1 In the system web interface, go to **Platform**.

2 Select **Statistics > Repeater**.
The following information displays for all connected repeaters:

- **Idx/Name** - Displays the name and IP address for all connected repeaters. If there is only one repeater, then only the summary (Sum) row displays.
- **Operation/Duration** - The time since the last reboot occurred and the total runtime since the statistics reset or the last firmware update.
- **Busy** - The amount of times the device was busy and rejected additional calls.
- **Busy Duration** - The total time the device was busy.
- **Max Active** - The total number of active calls at one time.
- **Searching** - Displays how many times the repeater searched for the sync source.
- **Recovery** - Displays how many times the repeater didn't connect with its sync source and synced with another base station or repeater.

- **Source Changed** - Displays how many times the repeater changed its sync source.
- **Wide Band** - Displays the number of wideband calls.
- **Narrow Band** - Displays the number of narrowband calls.

## View Call Quality Statistics

View statistics for the call quality of all calls placed on your Poly Rove devices.

**Task**

1. In the system web interface, go to **Platform**.
2. Select **Statistics > Call Quality**.
   The call quality statistics display by connected base station.

## View General DECT Statistics

View a generic set of statistics for different DECT components.

The system web interface displays a few generic statistics that you can view for assessing the operational quality of your Poly Rove DECT system.

**Task**

1. In the system web interface, go to **Platform**.
2. Select **Generic Statistics**.
3. Select **Expand all fields** or select any of the following fields to expand the options and view a breakdown of the statistics over 24 hours.

   The following information displays for **DECT Statistics**:

   - **Total number of DLC instances** - The lifetime total of Data Link Control (DLC) instances.
   - **Max concurrent DLC instances** - The highest lifetime concurrent count of DLC instances.
   - **Current number of DLC instances** - The current count of DLC instances.
   - **Total number of times in max DLC instances in use** - The number of times the system reached the current highest count of DLC instances.
   - **Total time spend in max DLC instances in use (H:M:S)** - The time spent in the highest concurrent number of DLC instances.
   - **Average frequency *N* usage this hour** - The average usage of the frequency option. If the frequency is used fully by a slot in the measured time frame, then the value is 100.
   - **Average even slot usage this hour** - The average use of the even-numbered slots.
   - **Average odd slot usage this hour** - The average use of the odd-numbered slots.
   - **Percentage time of *N* slots used this hour** - The percentage time usage for the DECT slots for the current hour.
   - **Total CHO success** - The number of times the connection handover is successful.
   - **Total number of forced PP moves** - The lifetime total of forced PP moves.

   The following information displays for **DECT Synchronization Statistics**:

   - **Current synchronization state** - The current sync state. For example, Master, Searching, or Free Running.
   - **Current synchronization chain** - The current sync source FP ID of the base station.
   - **Timestamp for the last changed synchronization chain** - The time stamp for the last time the base station's sync source changed.
   - **Hourly number of synchronization chain changes** - The number of times the base station's sync source changed in the current hour.
   - **Total time in sync state: *X*** - The time the base station spent in the sync state.
   - **Last reported sync information sent to the base** - The time when the system last received the base station's sync information.

   The following information displays for **RTP Statistics**

   - **Total RTP connections** - The life total of instantiated RTP streams.

- **Max concurrent RTP connections** - The highest lifetime total of concurrent instantiated RTP streams.
- **Total Time spent in max RTP connections in use** - The time spent in the highest concurrent instance of RTP streams.
- **Current RTP connections** - The current total of instantiated RTP streams.
- **Current local RTP connections** - The current total of instantiated local RTP streams.
- **Current local relay RTP connections** - The current total of instantiated local relay RTP streams.
- **Current remote relay RTP connections** - The current total of instantiated remote relay RTP streams.
- **Current recording RTP connections** - The current total of recorded instantiated RTP streams.

The following information displays for **IP-Stack Statistics**

- **Total connections open** - The lifetime total of used sockets.
- **Max concurrent connections open** - The highest lifetime concurrent number of used sockets.
- **Current connections open** - The current number of used sockets.
- **Total number of tx messages** - The lifetime total of transmitted IP packets.
- **Total number of rx messages** - The lifetime total of received IP packets.
- **Total number of tx errors** - The lifetime total of errors that occurred during IP packet transmission.

The following information displays for **System Statistics**

- **Up time** - The time the base station has been running consecutively.
- **Current CPU load** - The current CPU load percentage.
- **Current Heap usage** - The current heap usage in bytes.
- **Max Heap usage (%)** - The percentage of peak heap usage.
- **Mail queue ROS_SYSLOG** - The size of the internal mail queue for syslogs.
- **Mail queue ROS_*N*** - The size of the internal mail queue.

# Troubleshooting

Refer to the following topics to help you diagnose and fix issues with your system.

## Find the Phone's Serial Number

Use the handset serial number to help technical support troubleshoot issues with your Rove phone.

**Task**

1. Remove the battery from the phone.
   The serial number is on the label under the battery.
2. Make a note of the number.
3. Replace the battery.

## Find the Base Station or Repeater's Serial Number

Use the base station or repeater's serial number to help technical support troubleshoot issues with your device. You can find the serial number in one of the following ways.

**Task**

» Do one of the following:

- For your Rove base station or your Rove R8 repeater, you can locate the serial number on the label on the rear of the device. The label is behind the power socket.
- For your Rove base stations, in the system web interface, go to **Status > System Status**. You can see the serial number for the base station in the **Product Information** section.

## Test the Radio Signal Strength

Using unregistered Poly Rove wireless handsets, test the radio signal strength in different areas of your building.

The Poly Rove wireless handsets can connect with any nearby Poly Rove base stations to get general information, such as IP address and signal strength, before you register the handsets to a base station.

The signal strength varies depending on if the Poly Rove phone is set up outside or in a building. The following table provides a general reference of possible signal strengths.

**Signal Quality**

| RSSI | Signal Quality |
|---|---|
| 0 dBm to -30 dBm | Excellent |
| -31 dBm to -50 dBm | Good |
| -51 dBm to -70 dBm | Fair |
| -71 dBm to -80 dBm | Weak |
| -81 dBm to -95 dBm | Poor |
| -96 dBm and higher | Disconnected |

**Task**

1. Place a few Poly Rove base stations and wireless handsets in the areas where you are planning to set them up.
2. Power on the devices and connect the LAN cable to the base stations.
3. On a wireless handset, select **Menu** ☰, then press `* 47 *` on the keypad.

The IP search screen displays with a list of all the nearby base stations.

4 Select a base station from the list.
The signal strength displays next to RSSI.


As you walk around with the wireless handset, the RSSI automatically updates onscreen with the signal strength for that area.

## System Logs

Capture system logs to help troubleshoot your DECT IP phone.

To capture syslog messages, you must run a syslog server application at an IPv4 address that your DECT IP phone can reach.

### Activate Syslog Messaging

Enable your Poly Rove system to send syslog messages for troubleshooting.

#### Task

1 In the system web interface, go to **System Management > Device Admin > Syslog**.
2 In the **Default** column, clear the check boxes for **Server**, **Port**, and any **Level** settings you want to modify.
3 In the **Value** column, enter the hostname, FQDN, or IP address for your syslog server for Server.
4 Set the Port to 514.
5 Optional: For the **LevelX** settings, choose options from the drop-down menus for the reporting levels you require.
6 Optional: For the **ReportingX** settings, configure the options to enable the system to periodically upload buffered syslog files to a web server.
7 Select **Submit**.
8 Optional: To enable SIP messages to be sent to the syslog server, go to **Service Providers > Common Settings**.
   A Under **SIP**, in the **Default** column, clear the check box for **X_SipDebugOption**.
   B In the **Value** column, select **Log All Messages**.
   C Select **Submit**.
9 Optional: To enable multicell logging for Rove B2 and Rove B4 base stations, go to **DECT Wireless > System**.
   A Under **Dual-Cell (Multi-Cell) Unit Settings**, clear the **Default** check box for **Debug**.

B In the **Value** column, select the desired debug option.

C Select **Submit**.

10 Reboot your system when you complete your changes.

### View and Export the System Syslog

View the syslog for the system and export it for troubleshooting help.

**Task**

1 In the system web interface, go to **Platform**.

2 Select **Syslog**.
The syslog for the system's current state displays.

3 Select **Export**.

### View and Export the SIP Log

View an active log of SIP server messages in the system web interface.

**Task**

1 In the system web interface, go to **Platform**.

2 Select **SIP Log**.
The SIP messages for the system's current state displays.

3 Select **Export**.
The log downloads as a text file titled SipDebug.txt.

## System Status Information

The system web interface provides you with status information to help you monitor your Poly Rove devices.

### View Base Station Status Information

Get an overview of the base station's product information, system status, service provider status, and network settings in the system web interface.

**Task**

» In the system web interface, go to **Status > System Status**.

### View Wireless Handset Status Information

View status information, such as the firmware version, model type, and the battery level, for all registered wireless handsets.

**Task**

» In the system web interface, go to **DECT Wireless > Handset*N***.
Under **Status**, the information for the wireless handset displays.

### View the Handset Battery Status for all Registered Handsets

View the battery level for all handsets registered with a base station in the system web interface.

**Task**

» In the system web interface, go to **DECT Wireless > Handset Summary**.
Under **Status**, the battery level displays for each registered handset, and a plus sign (+) displays next to the battery level if the handset is currently charging.

### View Call Status Information

View current call activity on the base station and get an overview of the status of your registered lines.

**Task**

» In the system web interface, go to **Status > Service Status**.

### View SP*N* Service Status Messages

View the current state of your configured voice services for troubleshooting issues with SIP-based services.

If a problem exists with the registration or authentication of your system with a prescribed service, a SIP 4xx error message displays.

**Task**

» In the system web interface, go to **Status > System Status > SP*N* Service Status**.
The status for this service displays, including any error messages.

#### SP*N* Service Status Error Messages

The following table lists some of the SP*N* Service Status error messages you might encounter when a firmware upgrade fails.

**SPn Service Status Error Messages**

| Error Message | Description |
|---|---|
| 400 Bad Request | The server can't understand the request. |
| 401 Unauthorized | The request must perform authentication. |
| 402 Payment Required | Indicates that payment is required for further processing of request. |
| 403 Forbidden | Sent when the server understands the request and found the request to be formulated correctly, but isn't servicing the request. |
| 404 Not Found | The server hasn't found the SIP URI indicated by the user. |
| 405 Method Not Allowed | The request contains a list of methods that aren't allowed. |
| 406 Not Acceptable | The request can't be processed due to a requirement in the request message. |
| 407 Proxy Authentication Required | Indicates that the UAC first has to authenticate itself with the proxy before the request can be processed. |
| 408 Request Timeout | The specified time period in the Expires header field of INVITE request has passed. |
| 423 Interval Too Brief | Returned by a registrar that is rejecting a registration request because the requested expiration time on one or more Contacts is too brief. |
| 480 Temporarily Unavailable | Indicates that the request has reached the correct destination, but the called party isn't available for some reason. |
| 481 Dialog/Transaction Does Not Exist | Indicates that a response referencing an existing call or transaction has been received for which the server has no record or state information. |
| 483 Too Many Hops | Indicates that the request has been forwarded the maximum number of times as set by the Max-Forwards header. |
| 486 Busy Here | Indicates that the user agent is busy and can't accept the call. |
| 487 Request Terminated | Sent by a User Agent that has received a CANCEL request for a pending INVITE request. |

## System Diagnostics

The system web interface provides diagnostic information on Poly Rove devices to help you assess issues with the system.

### View Base Station Diagnostics

View basic diagnostic information for your Poly Rove base station.

**Task**

1. In the system web interface, go to **Platform**.
2. Select **Diagnostics > Base Stations**.
   The following information displays:
   - **Base Station Name** - The name and IP address for all connected base stations. If there is only one base station, then only the summary (Sum) row displays.
   - **Active DECT Ext (Mm/Ciss/CcOut/CcIn)** - The number of active connections to extensions registered on the base station.
     - Mm—Mobility Management
     - Ciss—Call Independent Supplementary Service
     - CcOut—Call Control Out
     - CcIn—Call Control In
   - **Active DECT Rep (Mm/Ciss/CcOut/CcIn)** - The number of connections to repeaters paired with the base station.
     - Mm—Mobility Management
     - Ciss—Call Independent Supplementary Service
     - CcOut—Call Control Out
     - CcIn—Call Control In
   - **Active RTP (Lcl/Rx BC)** - The number of active RTP streams.
     - Lcl—local RTP stream
     - Rx BC—broadcast receive RTP stream
   - **Active Relay RTP (Lcl/Remote)** - The number of active relay streams.
     - Lcl—Local RTP relay stream
     - Remote—remote RTP relay stream
   - **Latency [ms] (Avg.Min/Average/Avg.Max)** - The latency of ping between the base station.

### View Wireless Handset Extension Diagnostics

View diagnostic information on the wireless handsets registered to the base station.

**Task**

1. In the system web interface, go to **Platform**.
2. Select **Diagnostics > Extensions**.
   The following information displays:

| Column | Description |
|---|---|
| **Idx** | The index number for the wireless handset. |
| **No of HS Restarts** | The total number of times the wireless handset restarted |
| **Last HS restart** | The previous date when the wireless handset restarted |

## Packet Capture

Poly Rove includes a built-in packet capture (PCAP) tool to troubleshoot issues.

## Enable Packet Capture

Enable the packet capture tool to start a packet capture from a Poly Rove base station.

**Task**

1. In the system web interface, go to **Platform**.
2. Select **Diagnostics > Logging**.
3. Under **PCAP internal tracing**, select the desired packet trace options.
4. Select **Save.**

## Download Packet Capture

Download the packet capture from the Poly Rove base station.

**Task**

1. In the system web interface, go to **Platform**.
2. Select **Diagnostics > Logging**.
3. Under **Download tracing from**, select the desired option:

| Option | Description |
|---|---|
| **Current Basestation** | Downloads the captured logging information from the current base station |
| **All Basestations** | Downloads the captured logging information from all base stations |

Packet capture files are compressed and downloaded to your **Downloads** directory.

## Disable Packet Capture

Once you have completed troubleshooting, disable the packet capture tool.

**Task**

1. In the system web interface, go to **Platform**.
2. Select **Diagnostics > Logging**.
3. Under **PCAP internal tracing**, clear all check boxes for the packet trace options.
4. Select **Save.**

# Support

## NEED MORE HELP?

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