



RING CENTRAL CONFIGURATION GUIDE: SIP-ENABLED IP INTERCOMS

Document Part #931105E

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RingCentral Configuration Guide: SIP-Enabled IP Intercoms Document #931105E

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Revision Information

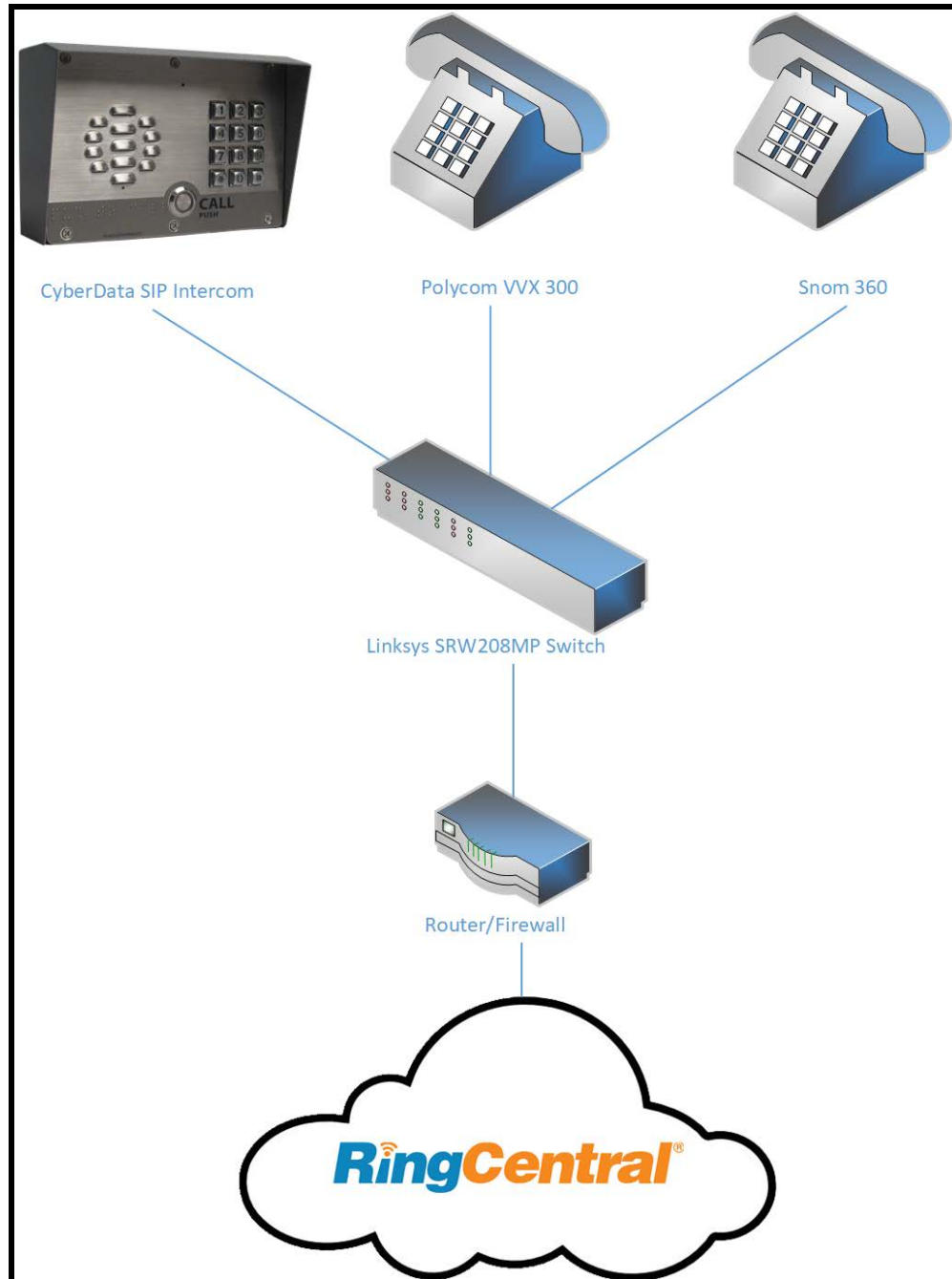
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1.0 Setup Diagram

Figure 1-1. Interoperability Test Infrastructure



2.0 Test Setup Equipment

This section describes the products used for interoperability testing with RingCentral.

Table 2-1. Setup Equipment

EQUIPMENT	MODEL or PART NUMBER	SERIAL NUMBER RANGE FIRMWARE VERSION
CYBERDATA SIP OUTDOOR INTERCOM	011186	(1861xxxxx) 11.8.0 (1862xxxxx) 20.2.1
CYBERDATA SIP OUTDOOR KEYPAD INTERCOM	011214	(2141xxxxx) 11.9.3 (2142xxxxx) 20.0.0
CYBERDATA SIP INDOOR INTERCOM	011211	(2111xxxxx) 11.8.0 (2112xxxxx) 20.0.0
CYBERDATA SIP INDOOR KEYPAD INTERCOM	011113	(1131xxxxx) 11.9.2 (1132xxxxx) 20.0.0
CYBERDATA SIP INDOOR INTERCOM FLUSH MOUNT	011272	(2721xxxxx) 11.8.0 (2722xxxxx) 20.0.0
CYBERDATA SIP INDOOR KEYPAD INTERCOM FLUSH MOUNT	011123	(1231xxxxx) 11.9.3 (1232xxxxx) 20.0.0
CYBERDATA SIP EMERGENCY INTERCOM	011209	(2091xxxxx) 11.8.0 (2092xxxxx) 20.0.0
CYBERDATA SIP H.264 VIDEO INTERCOM*	011410	(410xxxxxx) 1.4.1
CYBERDATA SIP H.264 VIDEO INTERCOM WITH KEYPAD*	011414	(414xxxxxx) 1.4.1
POLYCOM	VVX 300	5.2.0.8330
SNOM	360	snom360-SIP 8.4.31
LINKSYS	SRW208MP	1.0.4

***RingCentral does not currently support video in standard SIP calls at the time of writing this document, June 2020. It will not be possible to take advantage of the video stream from a video intercom.**

3.0 Before You Start

This configuration guide documents the integration process of a CyberData SIP-enabled IP Intercom.

Network Advisories

RingCentral uses a Fully Qualified Domain Name (FQDN) for the SIP server and Outbound Proxy addresses. The CyberData intercom needs to perform a DNS A query to resolve the IP address of RingCentral's Outbound Proxy FQDN. It is necessary to ensure the configured DNS server(s) have an A record for the Outbound Proxy address.

In addition, be sure to verify the following ports are available for the intercom to use:

- UDP 5060-5061, 5090 (SIP)
- UDP 10500 (RTP)

The intercom will need to traverse the public internet to operate with RingCentral.

The Intercom's primary extension uses SIP port 5060 to receive SIP messages. The Nightringer extension uses SIP port 5061 to receive SIP messages. Both extensions will send SIP messages to port 5090, the port used by RingCentral's Outbound Proxy.

SIP ports 5060-5061 and RTP port 10500 are the default values on all noted firmware levels.

Alternatively, SIP ports for the both extensions are configurable on the **SIP** page of the web interface. Use the *Nightringer Settings* on the right side of the page to configure SIP ports for the Nightringer extension.

The RTP port setting on the **SIP** page is used for both extensions.

Product Documentation and Utilities

Before starting, download the Operation and Quick Start guides from the product webpage. A directory of SIP-enabled IP products is located here:

<https://www.cyberdata.net/collections/sip>

The CyberData Discovery Utility can be used to locate CyberData devices on the local network. It may be downloaded from the following web address:

<http://files.cyberdata.net/assets/common/discovery.zip>

Note: DHCP addressing mode is enabled by default on all noted firmware levels.

4.0 Configuration Procedure: Intercom Extension

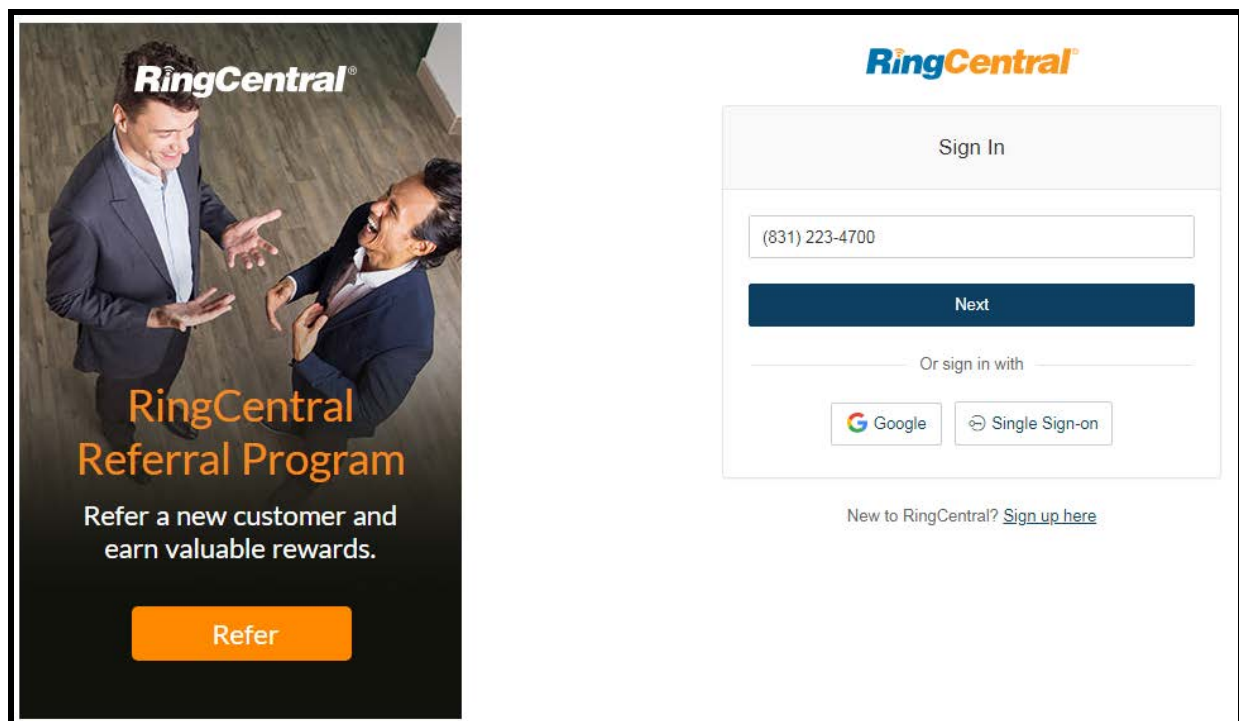
The intercom extension is configured using the SIP parameters for full duplex or half duplex (Push to Talk) communications. Most of the relay activation options are specific to the intercom extension. For example, during a call with the intercom, a phone user can enter the digits of an activation code into their phone to open a door.

Create a User and Add an IP Phone

Use the following steps to create a user and provision an IP phone for the intercom extension through the RingCentral Admin Portal.

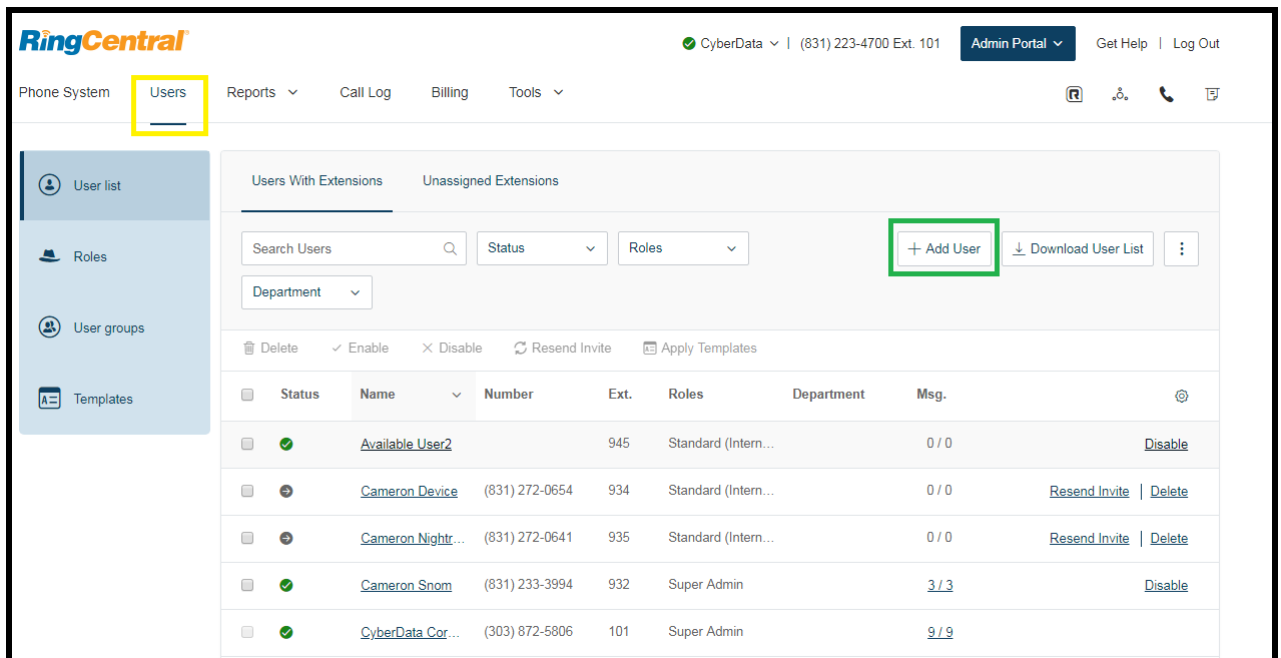
1. Login to the RingCentral Admin Portal at <https://service.ringcentral.com>.

Figure 4-1. RingCentral Admin Portal Login



- From the [n] Users menu, click the **Add User** button.

Figure 4-2. Add User Button



- A popup window labeled **Add User** will appear. Choose the user location then press **next**.

Figure 4-3. Add User Popup

The screenshot shows a modal window titled "Add Users" with a close button (X) in the top right corner. Below the title is a progress bar with four steps: "1 Location", "2 Add Users", "3 Shipping Address", and "4 Confirmation". The "1 Location" step is currently active. The main content area is titled "Select a Location" and contains two radio buttons: "Domestic" (which is selected) and "International". At the bottom right of the modal, there are two buttons: "Cancel" and "Next". The "Next" button is highlighted with a green rectangular border.

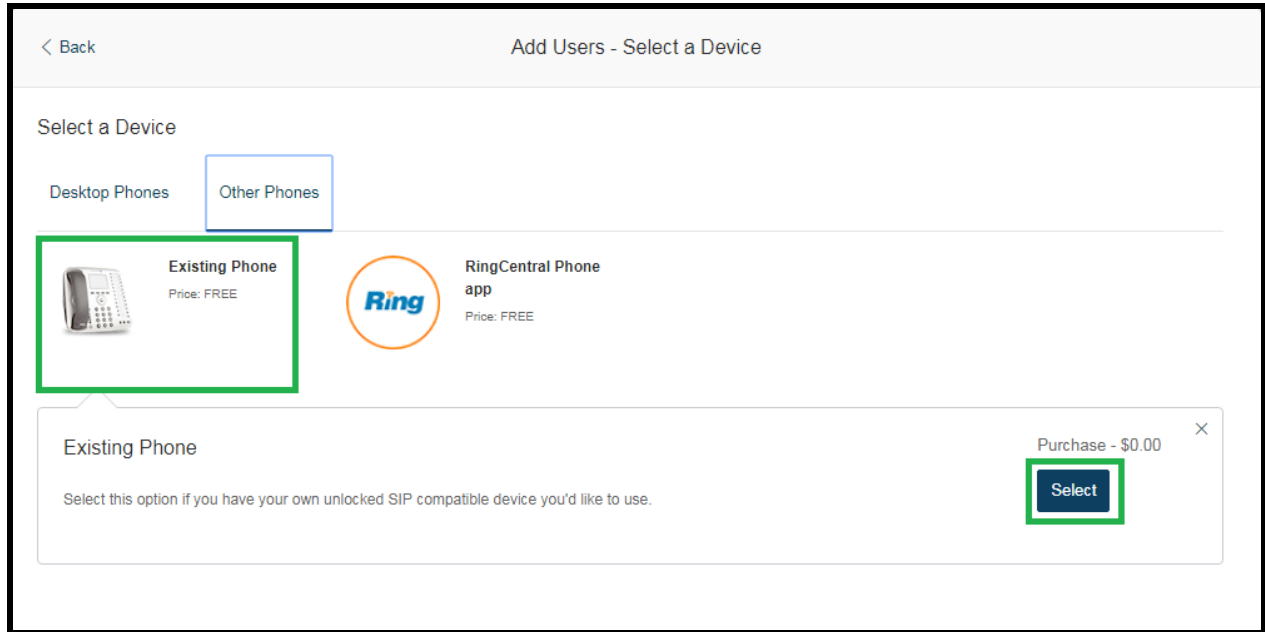
4. In the subsection **Add Users with Phones**, select the number of users, state, area code, and device.

Figure 4-4. Add User Phone Number

The screenshot shows the same "Add Users" modal window, but now at step "2 Add Users". The progress bar shows "1 Location" as completed with a green checkmark, and "2 Add Users" as the current step. Below the progress bar are two tabs: "Add Users With Phones" (which is selected) and "Add Users Without Phones". The main content area is titled "Account Status" and displays the following information: "Your plan: 20 - 99 Users", "Used: 25", "Available: 0", and "Available for purchase: 74". Below this, a message states: "You can add multiple users at a time if they will all use the same area code. [Learn More](#)". At the bottom, there is a form with four fields: "Number of Users" (containing the value "1"), "State" (a dropdown menu with "Select" visible), "Area Code" (a dropdown menu with "Select" visible), and "Device" (a dropdown menu with "Select a Device... >" visible). The "Number of Users", "State", and "Area Code" fields are grouped together and highlighted with a yellow rectangular border. The "Device" field is highlighted with a green rectangular border. To the right of these fields is a grey "Add" button. At the bottom right of the modal, there are two buttons: "Back" and "Next".

5. A prompt will appear to select a phone type. Click the **Other Phones** tab and select **Existing Phone**. Press **Select** to confirm the selection.

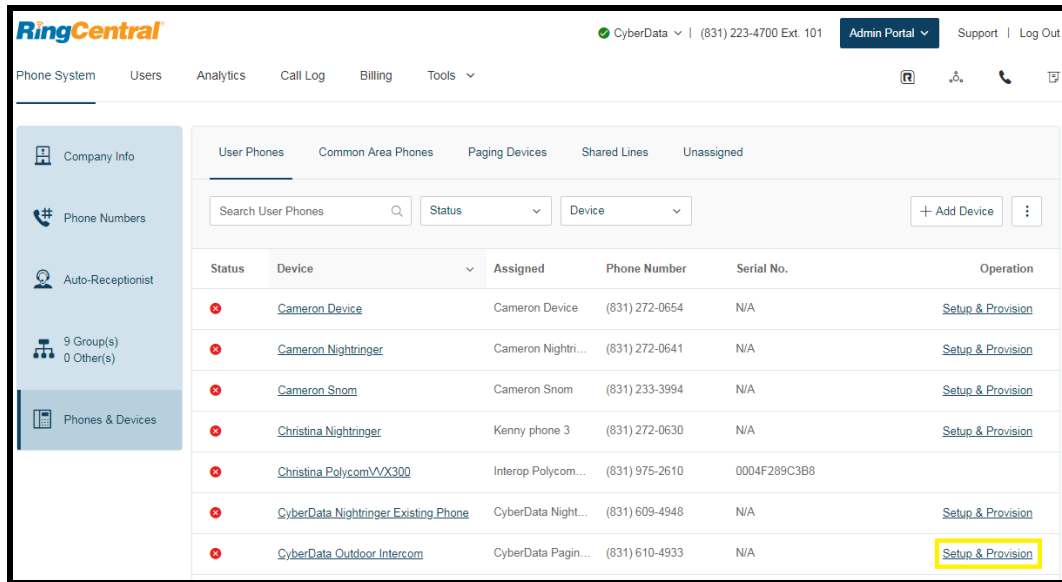
Figure 4-5. Select Phone Type



6. Follow the steps in the ordering window to complete the order.

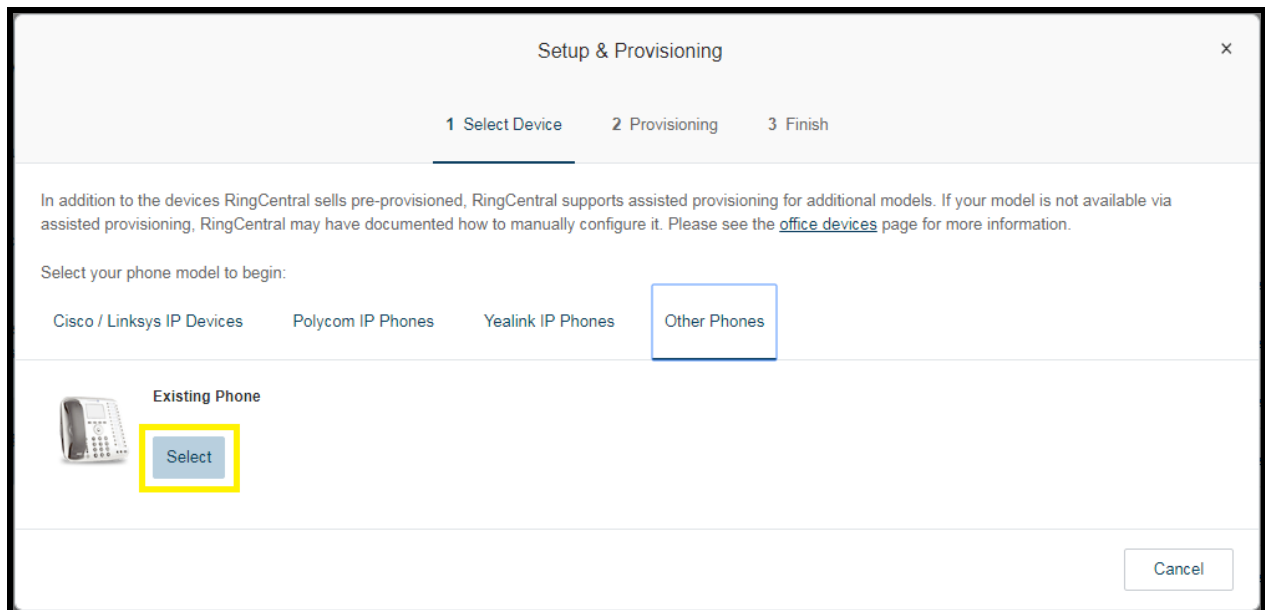
7. From the **Phones & Devices** menu, select **User Phones** and then select the user phone designated for the intercom. Click **Setup and Provision**.

Figure 4-6. Setup and Provision



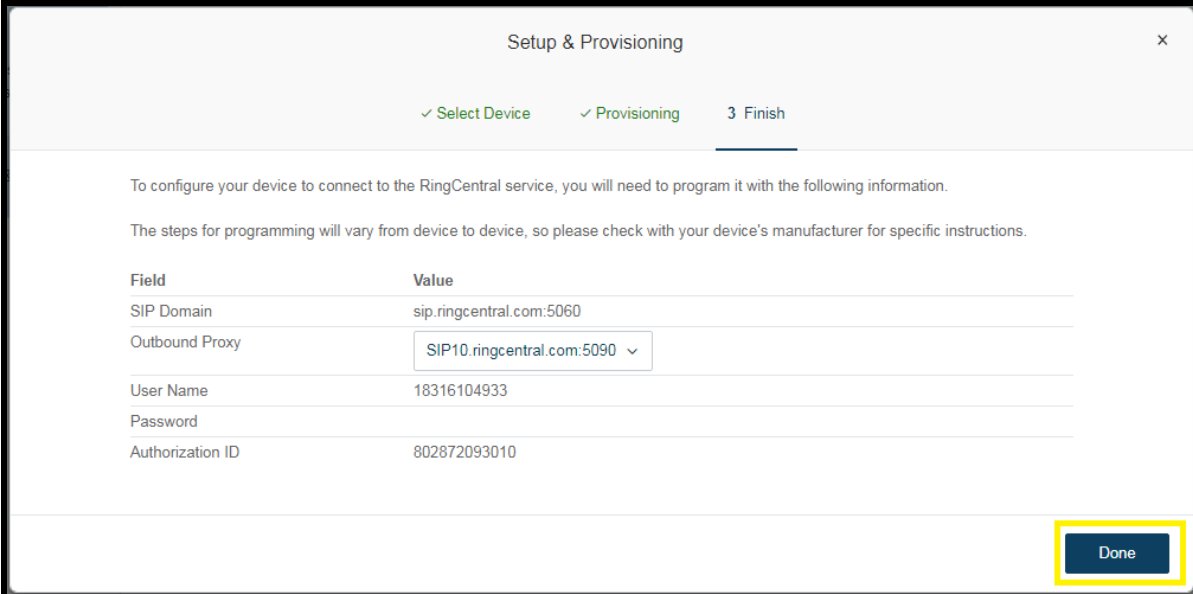
8. A popup window labeled **Assisted provisioning – Step 1** will appear. Select **Other Phones** and then select **Existing Phone**.

Figure 4-7. Assisted Provisioning – Step 1



9. A popup window labeled **Assisted Generic IP Phone/Adaptor Provisioning - Finish** will appear. The provisioning information to register the Intercom's primary extension with RingCentral.

Figure 4-8. Assisted Generic IP Phone/Adaptor Provisioning - Finish



Setup & Provisioning

✓ Select Device ✓ Provisioning **3 Finish**

To configure your device to connect to the RingCentral service, you will need to program it with the following information.

The steps for programming will vary from device to device, so please check with your device's manufacturer for specific instructions.

Field	Value
SIP Domain	sip.ringcentral.com:5060
Outbound Proxy	SIP10.ringcentral.com:5090 ▾
User Name	18316104933
Password	
Authorization ID	802872093010

Done

***Note:** The Password has been obscured. These values are published only for reference.*

SIP Fields Table

Use the following table to determine how the RingCentral SIP field values above correlate to the CyberData SIP field values.

Table 4-1. SIP Fields Table

Primary SIP Server field	From the Digital Line Provisioning Information popup: SIP Server
Primary SIP User ID field	From the Digital Line Provisioning Information popup: SIP User ID
Primary SIP Auth ID field	From the Digital Line Provisioning Information popup: Authenticate ID
Primary SIP Auth Password field	From the Digital Line Provisioning Information popup: Authenticate Password
Outbound Proxy field	From the Digital Line Provisioning Information popup: Outbound Proxy
Outbound Proxy Port field	From the Digital Line Provisioning Information popup: Outbound Proxy Port
Re-registration Interval (in seconds) field	30
Keep Alive Period field	0
Force Selected Codec checkbox	Yes
Codec dropdown	PCMU (G.711, u-law)

Configure SIP Parameters

One may feel more comfortable with web-based configuration or configuration using templates. Both methods are documented in this configuration guide. Be sure to review the Intercom's operation guide for complete information on configuration through the web interface, importing a configuration file, and CyberData's "autoprovisioning" method using configuration files via HTTP, HTTPS, and TFTP protocols.

If configuring through the web interface, use the following steps to login to the CyberData device.

1. Click **Launch Browser** from the CyberData Discovery Utility or point a browser to the CyberData device's IP address to access the Home Page of the web interface.
2. Enter the default credentials when prompted and click the **Log In** button.

Username: admin

Password: admin

Figure 4-9. Web Interface Login

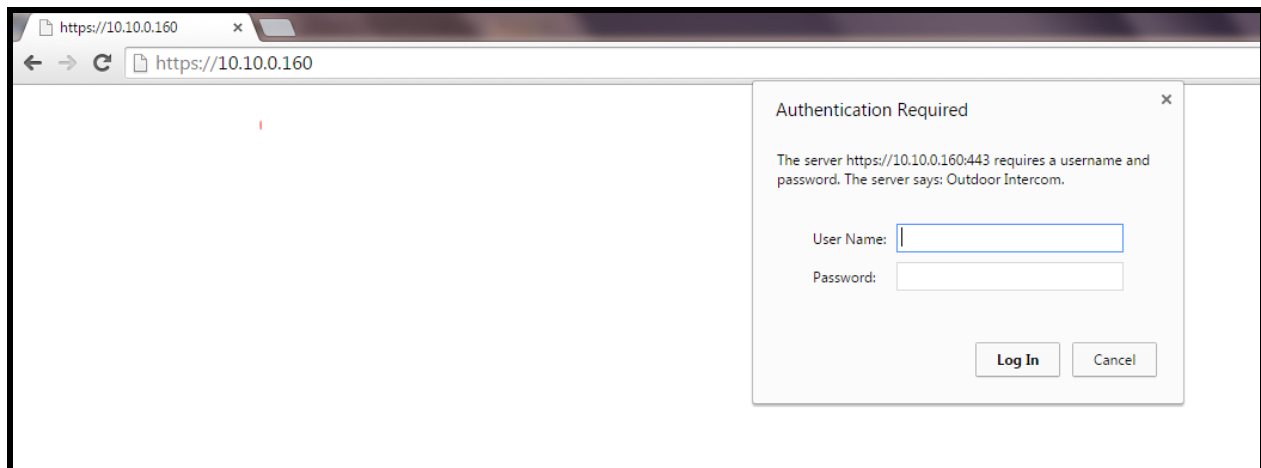


Figure 4-10. Home Page of Intercom Web Interface

Current Status

Serial Number:	186200669
Mac Address:	00:20:f7:03:11:13
Firmware Version:	v20.0.1
Partition 2:	v20.0.1
Partition 3:	v20.0.1
Booting From:	partition 2

[Boot From Other Partition](#)

IP Addressing:	DHCP
IP Address:	10.10.1.134
Subnet Mask:	255.0.0.0
Default Gateway:	10.0.0.1
DNS Server 1:	10.0.1.56
DNS Server 2:	

SIP Volume:	4
Multicast Volume:	4
Ring Volume:	4
Sensor Volume:	4
Push to Talk Volume:	4
Microphone Gain:	4
Push to Talk Microphone Gain:	4

SIP Mode:	Enabled
Multicast Mode:	Disabled
Event Reporting:	Disabled
Nightringer:	Disabled

Primary SIP Server:	Not registered
Backup Server 1:	Not registered
Backup Server 2:	Not registered
Nightringer Server:	Not registered

Intrusion Sensor: Triggered

Admin Settings

Username: admin

Password:

Confirm Password:

[Save](#) [Reboot](#) [Toggle Help](#)

Import Settings

[Choose File](#) No file chosen

[Import Config](#)

Export Settings

[Export Config](#)

Note: The firmware version and SIP registration statuses for the intercom extension and Nightringer extension appear here.

Note: The web interface may appear different between different serial number range devices (ex. 1861xxxxx and 1862xxxxxx)

3. On the Home Page, click the **SIP tab** on the top of the screen to access the SIP configuration page.
4. Enter the provisioning information from the [Assisted Generic IP Phone/Adaptor Provisioning - Finish](#) popup window.

***Note:** The Local SIP Port is set to 5060 on default and is used by the intercom as its source port for the intercom extension configured on this page.*

5. Set the *Re-registration Interval (in seconds)* to **30 seconds**.
6. Set the *Keep Alive Period* to **0**.
7. Enable *Force Codec Selection* and select **PCMU**.
7. Set **Dial out Extension** as the number to call when pressed.
8. Set **Extension ID** as what should appear on the caller ID of the called party.
9. **Save** and **Reboot** for changes to take effect.

Figure 4-11. SIP Configuration

Home
Device
Network
SIP
SSL
Multicast
Sensor
Audiofiles
Events
DSR
Autoprov
Firmware

CyberData Outdoor Intercom

SIP Settings

Enable SIP operation: ☒

Register with a SIP Server: ☒

Primary SIP Server: sip.ringcentral.com

Primary SIP User ID: 18316104933

Primary SIP Auth ID: 802872093010

Primary SIP Auth Password: *****

Re-registration Interval (in seconds): 30

Backup SIP Server 1:

Backup SIP User ID:

Backup SIP Auth ID:

Backup SIP Auth Password:

Re-registration Interval (in seconds): 360

Backup SIP Server 2:

Backup SIP User ID:

Backup SIP Auth ID:

Backup SIP Auth Password:

Re-registration Interval (in seconds): 360

Remote SIP Port: 5060

Local SIP Port: 5060

SIP Transport Protocol: UDP

TLS Version: 1.2 only (recommended)

Verify Server Certificate: ☐

Outbound Proxy: sip10.ringcentral.com

Outbound Proxy Port: 5090

Use Cisco SRST: ☐

Disable rport Discovery: ☐

Unregister on Boot: ☐

Keep Alive Period: 0

Nightringer Settings

SIP Server:

SIP User ID:

SIP Auth ID:

SIP Auth Password:

Re-registration Interval (in seconds): 360

Dial Out Settings

Dial out Extension: 935

Extension ID: Outdoor Intercom

Send Multicast Audio: ☐

Multicast Address: 224.5.5.5

Multicast Port: 5050

Repeat Message: 1

Call Disconnection

Terminate Call after delay: 0

Audio Codec Selection

Codec: PCMU (G.711, u-law)

RTP Settings

RTP Port (even): 10500

Jitter Buffer: 50

Save
Reboot
Toggle Help

Autoprovisioning/Importing Configuration

If autoprovisioning or manually importing a configuration file, use the SIP Settings in the autoprovisioning template or configuration file to register the intercom with RingCentral.

An autoprovisioning template is provided in the respective firmware folder available on the **Downloads** tab of the product webpage. Additionally, the template may be downloaded from the Autoprov page of the web interface of the device.

Be sure to use the autoprovisioning template for the firmware version running on the intercom. The firmware version can be verified on the [Home page of the web interface](#).

An autoprovisioning template can be imported via the Home page of the web interface. The current configuration may also be exported into a file that can be edited.

Refer to the Operations Guide for instructions on autoprovisioning and importing/exporting configuration files.

Figure 4-12. Autoprovisioning Template Example – SIP Settings

```
<SIPSettings>
  <EnableSIPOperation>Yes</EnableSIPOperation>
  <SIPServer>sip.ringcentral.com</SIPServer>
  <RemoteSIPPort>5060</RemoteSIPPort>
  <BackupSIPServer1></BackupSIPServer1>
  <BackupSIPServer2></BackupSIPServer2>
  <LocalSIPPort>5060</LocalSIPPort>
  <OutboundProxy>sip20.ringcentral.com</OutboundProxy>
  <OutboundProxyPort>5090</OutboundProxyPort>
  <SIPUserID>18315088809</SIPUserID>
  <SIPAuthID>199804884011</SIPAuthID>
  <SIPAuthPassword>*****</SIPAuthPassword>
  <SIPUserID2></SIPUserID2>
  <SIPAuthID2></SIPAuthID2>
  <SIPAuthPassword2></SIPAuthPassword2>
  <SIPUserID3></SIPUserID3>
  <SIPAuthID3></SIPAuthID3>
  <SIPAuthPassword3></SIPAuthPassword3>
  <SIPRegistrationTimeout>30</SIPRegistrationTimeout>
  <SIPRegisterOnBoot>Yes</SIPRegisterOnBoot>
  <RTTPPort>10500</RTTPPort>
  <CallTimeout>0</CallTimeout>
  <UseCiscoSRST>No</UseCiscoSRST>
  <DisableRportDiscovery>No</DisableRportDiscovery>
  <DialoutExtension0>103</DialoutExtension0>
  <DialoutID0>one-button intercom</DialoutID0>
  <KeepAlive>10000</KeepAlive>
</SIPSettings>
```

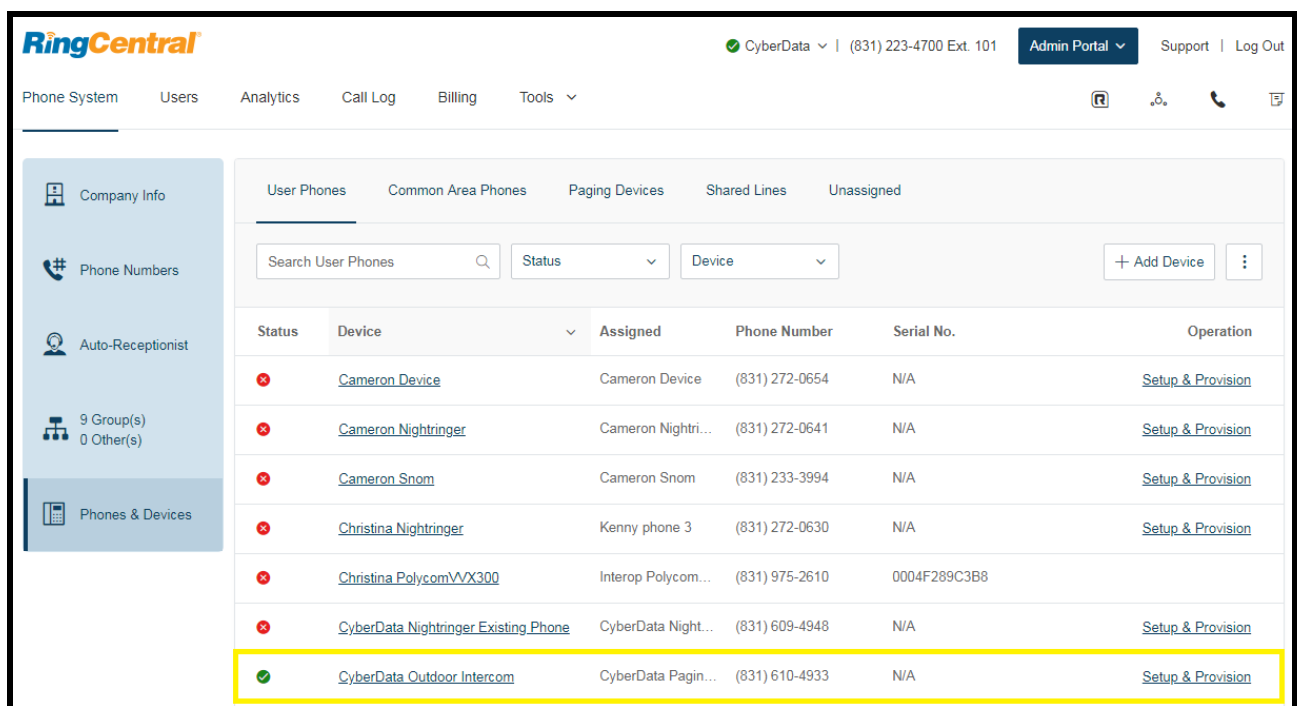
Note: These example values are published only for reference. The SIPAuthPassword value should be the actual value from the [Assisted Generic IP Phone/Adaptor Provisioning - Finish](#) popup window.

Verify the Intercom is Registered

After the device has rebooted and initialized, refresh the [Home page of the web interface](#). The device should show as **[Registered]** in green text on the bottom of the page next to *Primary SIP Server*. See [Figure 4-10](#).

Additionally, the registration status may be verified with RingCentral through the RingCentral admin portal. From the **Phones & Devices** menu, make sure **User Phones** are displayed and select the Phone just created for the intercom. The status should show as “online” in the **Phone Details** when the intercom is registered.

Figure 4-13. Phone Details – Status



Status	Device	Assigned	Phone Number	Serial No.	Operation
✖	Cameron Device	Cameron Device	(831) 272-0654	N/A	Setup & Provision
✖	Cameron Nightringer	Cameron Nightri...	(831) 272-0641	N/A	Setup & Provision
✖	Cameron Snom	Cameron Snom	(831) 233-3994	N/A	Setup & Provision
✖	Christina Nightringer	Kenny phone 3	(831) 272-0630	N/A	Setup & Provision
✖	Christina Polycom VVX300	Interop Polycom...	(831) 975-2610	0004F289C3B8	
✖	CyberData Nightringer Existing Phone	CyberData Night...	(831) 609-4948	N/A	Setup & Provision
✔	CyberData Outdoor Intercom	CyberData Pagin...	(831) 610-4933	N/A	Setup & Provision

Useful settings

If the onboard relay of the intercom is going to be used to for access control, click on the **Device** tab.

Figure 4-14. Device Tab

The screenshot displays the 'Device' tab configuration for a CyberData Outdoor Intercom. The interface includes a top navigation bar with tabs: Home, Device, Network, SIP, SSL, Multicast, Sensor, Audiofiles, Events, DSR, Autoprovisioning, and Firmware. The main content area is titled 'CyberData Outdoor Intercom' and contains several sections of settings:

- Volume Settings (0-9):** SIP Volume, Multicast Volume, Ring Volume, Sensor Volume, and Push to Talk Volume, all set to 4.
- Microphone Settings (0-9):** Microphone Gain and Push to Talk Microphone Gain, both set to 4.
- Clock Settings:** Enable NTP (checked), NTP Server (north-america.pool.ntp.org), Timezone (America/Los_Angeles), and Current Time (Sat, 13 Apr 2019 10:39:39).
- Relay Settings:**
 - Activate Relay with DTMF code: ☒
 - Relay Pulse Code: 123 (highlighted with a yellow box)
 - Relay Pulse Duration (in seconds): 2 (highlighted with a yellow box)
 - Relay Activation Code: 456
 - Relay Deactivation Code: 654
 - Play tone during DTMF Activation: ☐ (highlighted with a green box)
 - Activate Relay During Ring: ☐
 - Activate Relay During Night Ring: ☐
 - Activate Relay While Call Active: ☐
 - Activate Relay On Button Press: ☐
 - Relay On Button Press Duration: 3
- Misc Settings:**
 - Device Name: Outdoor Intercom
 - Auto-Answer Incoming Calls: ☒
 - Button Lit when Idle: ☒
 - Button Brightness (0-255): 255
 - Play Ringback Tone: ☐
 - Enable Push to Talk: ☐
 - Enable DTMF Push to Talk: ☐
 - Prevent Call Termination: ☐
 - Disable HTTPS (NOT recommended): ☐

At the bottom, there are buttons for 'Save' (highlighted with a yellow box), 'Reboot', and 'Toggle Help'. Below these are three buttons: 'Test Audio', 'Test Microphone', and 'Test Relay'.

Relay Pulse Code: This code is used to temporarily activate the onboard relay.

Relay Pulse Duration (In seconds): This controls how long the **Relay Pulse Code** will activate the onboard relay.

Play tone during DTMF Activation: This setting will play a tone when the relay is active.

Make sure to **Save** and **Reboot** for the changes to take effect.

5.0 Configuration Procedure: Nightringer

What is a Nightringer?

CyberData SIP-enabled IP Intercom products offer a secondary SIP extension called **Nightringer** in addition to the primary extension used as an intercom.

The Nightringer plays a customizable ring tone when an incoming call is detected. The Nightringer extension can be added to ring groups for simultaneous ringing. When added to a ring group, the Nightringer will ring until a ring group member picks up the call. The Nightringer stops ringing when the call is answered by a ring group member or when the caller disconnects before a ring group member picks up the call. The Nightringer extension cannot answer a call.

Provisioning Nightringer with RingCentral

Provisioning a Nightringer extension with RingCentral requires creating a user and provisioning an IP phone in the same manner as the intercom extension in [Section 4.0 “Configuration Procedure: Intercom Extension.”](#) Therefore, if planning to use the Nightringer extension a total of two RingCentral users associated with IP Phones.

It is important to note the intercom extension and Nightringer extension must use separate sets of SIP extension parameters. That is, each must be assigned their own SIP extension. The Nightringer cannot use the same provisioning information already in use by the intercom extension (and vice versa).

Once a user has been created and associated an IP phone for the Nightringer extension, proceed to configure the Nightringer SIP Parameters.

Refer to the popup window labeled [Assisted Generic IP Phone/Adaptor Provisioning - Finish](#) after following assisted provisioning steps for the Nightringer. The provisioning information will be used to register the Nightringer extension with RingCentral.

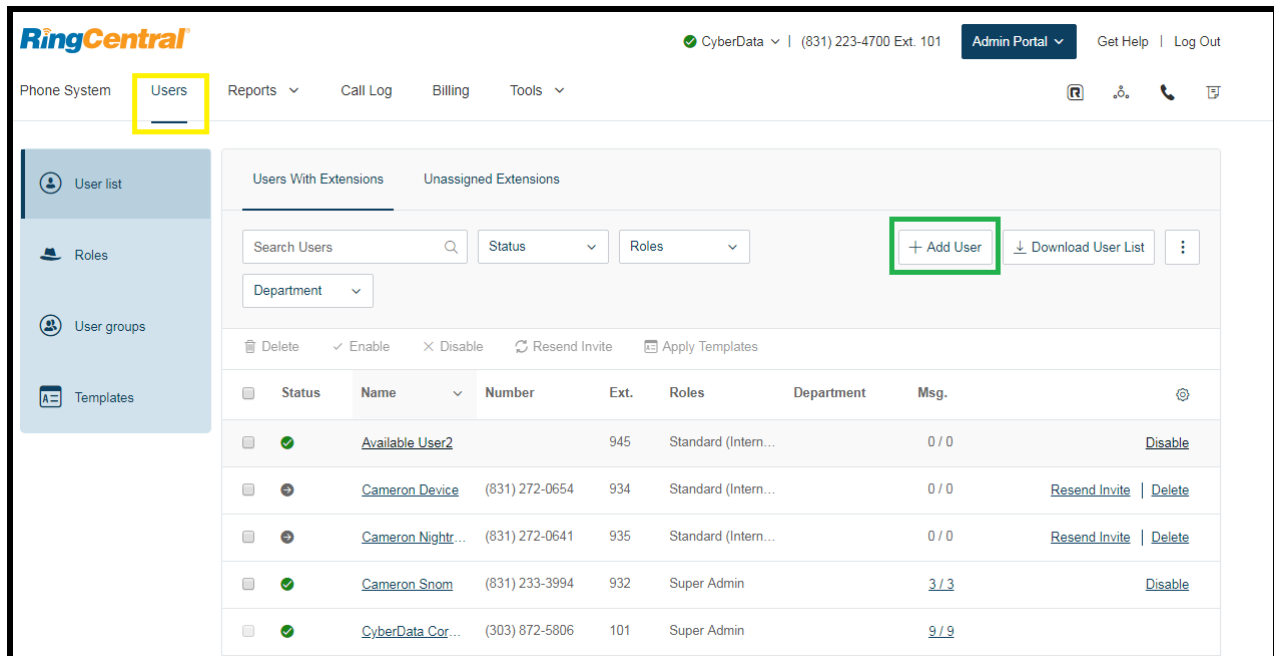
Add an IP Phone

To provision the Intercoms' Nightringer extension, add a RingCentral Existing Phone through the RingCentral Admin Portal.

First, a RingCentral User must be created for the Nightringer.

1. From the [n] Users menu, click the **Add** button.

Figure 5-1. Add User Button



2. A popup window labeled **Add User** will appear. Choose the user location then press **next**.

Figure 5-2. Add User Location

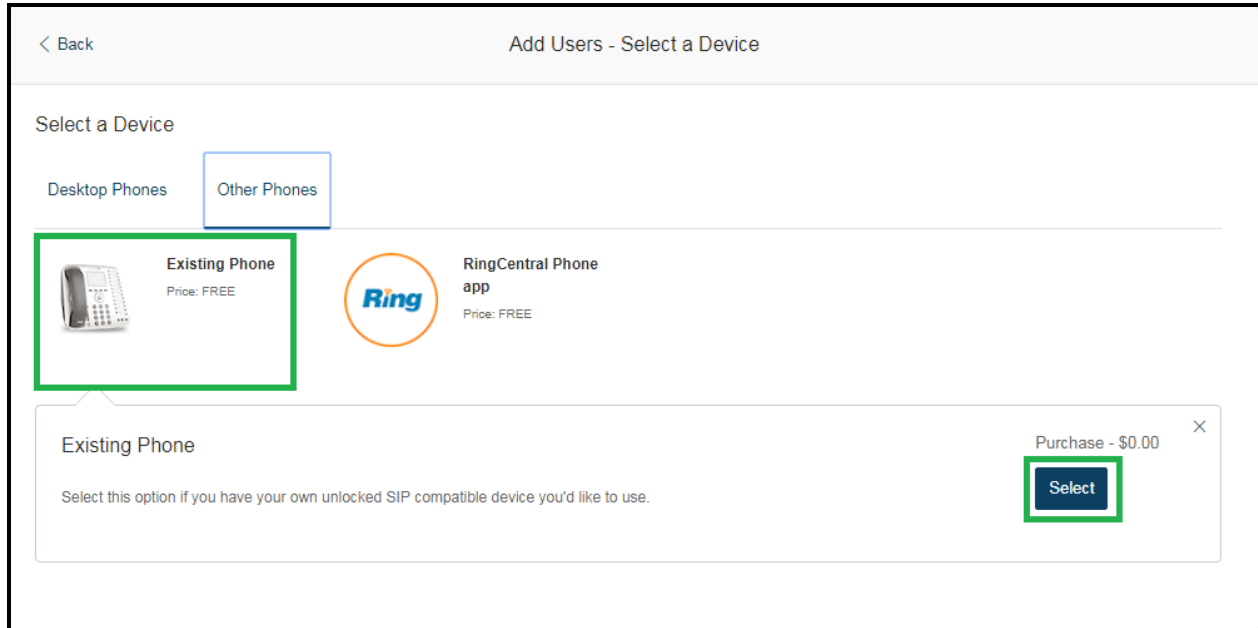
3. In the subsection **Add Users with Phones**, select the number of users, state, area code, and device.

Figure 5-3. Add User Phone Number

Learn More'. At the bottom, there are four input fields: 'Number of Users' (text box with '1'), 'State' (dropdown menu with 'Select'), 'Area Code' (dropdown menu with 'Select'), and 'Device' (dropdown menu with 'Select a Device... >'). The 'Number of Users' and 'State' fields are highlighted with a yellow border, and the 'Device' field is highlighted with a green border. At the bottom right are 'Back' and 'Next' buttons."/>

4. A prompt will ask to select a phone type. Click the **Other Phones** tab and choose **Existing Phone**. Press **Select** to confirm the selection.

Figure 5-4. Select Phone Type



- From the **Phones & Devices** menu, select **User Phones** and the select device designated for the Nightringer. Click **Setup and Provision**.

Figure 5-5. Setup and Provision

The screenshot shows the RingCentral Admin Portal interface. The left sidebar contains navigation options: Company Info, Phone Numbers, Auto-Receptionist, 8 Group(s) / 0 Other(s), and Phones & Devices. The main content area is titled 'User Phones' and includes a search bar, status filter, and device filter. A table lists several devices, each with a 'Setup & Provision' link. The link for 'CyberData Nightringer Existing Phone' is highlighted with a yellow box.

Status	Device	Assigned	Phone Number	Serial No.	Setup & Provision
✖	Cameron Device	Cameron Device	(831) 272-0654	N/A	Setup & Provision
✖	Cameron Nightringer	Cameron Nightri...	(831) 272-0641	N/A	Setup & Provision
✖	Cameron Snom	Cameron Snom	(831) 233-3994	N/A	Setup & Provision
✖	Christina Nightringer	Kenny phone 3	(831) 272-0630	N/A	Setup & Provision
✖	Christina PolycomVX300	Interop Polycom...	(831) 975-2610	0004F289C3B8	
✖	CyberData Nightringer Existing Phone	CyberData Night...	(831) 609-4948	N/A	Setup & Provision

6. A popup window labeled **Assisted provisioning – Step 1** will appear. Select **Other Phones**, then **Existing Phone** and click **Select**.

Figure 5-6. Assisted Provisioning – Step 1

Setup & Provisioning

1 Select Device 2 Provisioning 3 Finish

In addition to the devices RingCentral sells pre-provisioned, RingCentral supports assisted provisioning for additional models. If your model is not available via assisted provisioning, RingCentral may have documented how to manually configure it. Please see the [office devices](#) page for more information.

Select your phone model to begin:

Cisco / Linksys IP Devices Polycom IP Phones Yealink IP Phones Other Phones

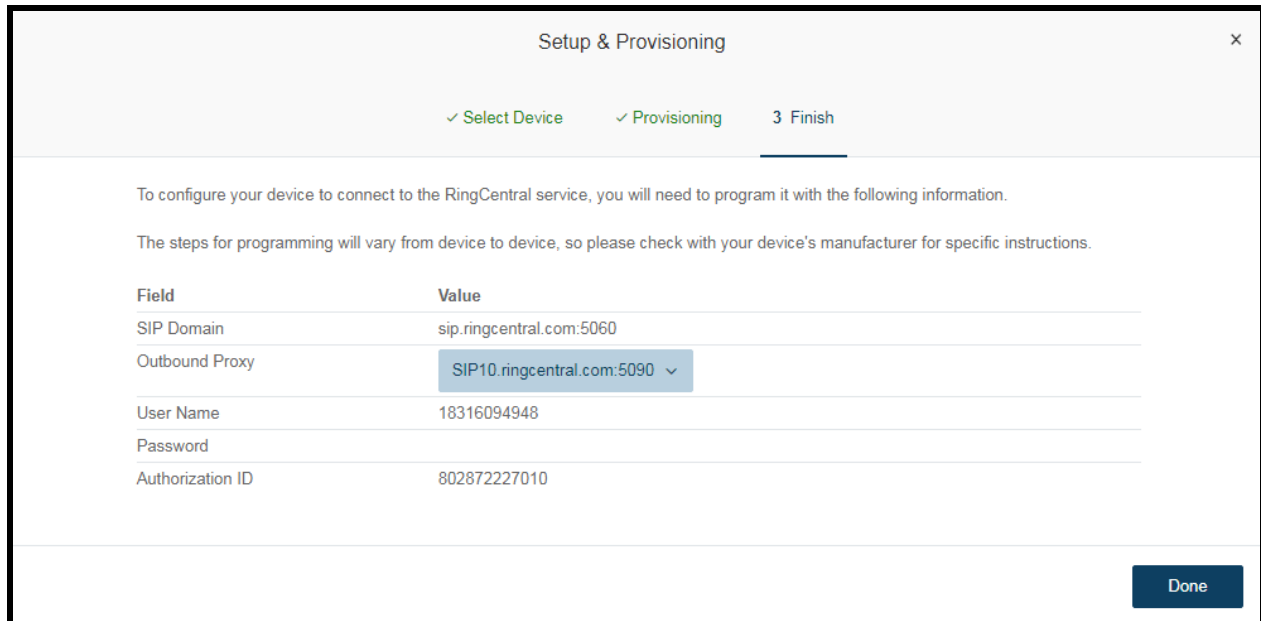
Existing Phone

Select

Cancel

7. A popup window labeled **Assisted Generic IP Phone/Adaptor Provisioning** will appear. The provisioning information will be used to register the Intercom's Nightringer extension with RingCentral.

Figure 5-7. IP Phone Provisioning Information



The screenshot shows a 'Setup & Provisioning' window with a progress bar at the top indicating three steps: 'Select Device' (checked), 'Provisioning' (checked), and '3 Finish' (active). Below the progress bar, there is instructional text and a table of configuration values.

To configure your device to connect to the RingCentral service, you will need to program it with the following information.

The steps for programming will vary from device to device, so please check with your device's manufacturer for specific instructions.

Field	Value
SIP Domain	sip.ringcentral.com:5060
Outbound Proxy	SIP10.ringcentral.com:5090
User Name	18316094948
Password	[Obscured]
Authorization ID	802872227010

A 'Done' button is located at the bottom right of the window.

***Note:** The Password has been obscured. These values are published only for reference.*

SIP Fields Table

Use the following table to determine how the RingCentral SIP field values above correlate to the CyberData SIP field values.

Table 5-1. CyberData Configuration Settings

Primary SIP Server field	From the Digital Line Provisioning Information popup: SIP Server
Primary SIP User ID field	From the Digital Line Provisioning Information popup: SIP User ID
Primary SIP Auth ID field	From the Digital Line Provisioning Information popup: Authenticate ID
Primary SIP Auth Password field	From the Digital Line Provisioning Information popup: Authenticate Password
Outbound Proxy field	From the Digital Line Provisioning Information popup: Outbound Proxy
Outbound Proxy Port field	From the Digital Line Provisioning Information popup: Outbound Proxy Port
Re-registration Interval (in seconds) field	30
Keep Alive Period field	0
Force Selected Codec checkbox	Yes
Codec dropdown	PCMU (G.711, u-law)

Configure Nightringer SIP Parameters

If configuring the Nightringer extension through the web interface, use the following steps to register Nightringer with RingCentral.

1. From the Home page of the web interface, click **SIP** on the toolbar on the top side of the screen.

Figure 5-8. Home Page of the Web Interface – Nightringer Button

CyberData Outdoor Intercom

Current Status

Serial Number:	186200669
Mac Address:	00:20:f7:03:f1:13
Firmware Version:	v20.0.1
Partition 2:	v20.0.1
Partition 3:	v20.0.1
Booting From:	partition 2

[Boot From Other Partition](#)

IP Addressing:	DHCP
IP Address:	10.10.1.134
Subnet Mask:	255.0.0.0
Default Gateway:	10.0.0.1
DNS Server 1:	10.0.1.56
DNS Server 2:	

SIP Volume: 4
Multicast Volume: 4
Ring Volume: 4
Sensor Volume: 4
Push to Talk Volume: 4
Microphone Gain: 4
Push to Talk Microphone Gain: 4

SIP Mode: Enabled
Multicast Mode: Disabled
Event Reporting: Disabled
Nightringer: Disabled

Primary SIP Server:	Not registered
Backup Server 1:	Not registered
Backup Server 2:	Not registered
Nightringer Server:	Not registered

Intrusion Sensor: Triggered

Admin Settings

Username: admin
Password: *****
Confirm Password: *****

[Save](#) [Reboot](#) [Toggle Help](#)

Import Settings

[Choose File](#) No file chosen
[Import Config](#)

Export Settings

[Export Config](#)

2. Enter the provisioning information from the [Nightringer's Assisted Generic IP Phone/Adaptor Provisioning](#) popup.

***Note:** The Local SIP Port is set to 5061 on default and is used by the Intercom as its source port for the Nightringer extension configured on this page.*

3. Set the *Re-registration Interval (in seconds)* to 30 seconds.
4. Set the *Keep Alive Period* to 0.
5. Enable *Force Codec Selection* and select **PCMU**.
6. Click **Save** and **Reboot** to store changes.

Figure 5-9. Nightringer Configuration Page of the Web Interface

Home	Device	Network	SIP	SSL	Multicast	Sensor	Audiofiles	Events	DSR	Autoprov	Firmware
------	--------	---------	-----	-----	-----------	--------	------------	--------	-----	----------	----------

CyberData Outdoor Intercom

SIP Settings

Enable SIP operation: ☒
 Register with a SIP Server: ☒
 Primary SIP Server: sip.ringcentral.com
 Primary SIP User ID: 18316104933
 Primary SIP Auth ID: 802872093010
 Primary SIP Auth Password: *****
 Re-registration Interval (in seconds): 30

 Backup SIP Server 1:
 Backup SIP User ID:
 Backup SIP Auth ID:
 Backup SIP Auth Password:
 Re-registration Interval (in seconds): 360

 Backup SIP Server 2:
 Backup SIP User ID:
 Backup SIP Auth ID:
 Backup SIP Auth Password:
 Re-registration Interval (in seconds): 360

 Remote SIP Port: 5060
 Local SIP Port: 5060

 SIP Transport Protocol: UDP
 TLS Version: 1.2 only (recommended)
 Verify Server Certificate: ☐

 Outbound Proxy: sip10.ringcentral.com
 Outbound Proxy Port: 5090

 Use Cisco SRST: ☐
 Disable rport Discovery: ☐
 Unregister on Boot: ☐
 Keep Alive Period: 0

Nightringer Settings

SIP Server: sip.ringcentral.com
 SIP User ID: 18316094948
 SIP Auth ID: 802872227010
 SIP Auth Password: *****
 Re-registration Interval (in seconds): 30

Dial Out Settings

Dial out Extension: 935
 Extension ID: Outdoor Intercom
 Send Multicast Audio: ☐
 Multicast Address: 224.5.5.5
 Multicast Port: 5050
 Repeat Message: 1

Call Disconnection

Terminate Call after delay: 0

Audio Codec Selection

Codec: PCMU (G.711, u-law)

RTP Settings

RTP Port (even): 10500
 Jitter Buffer: 50

Autoprovisioning

If autoprovisioning the intercom, use the Nightringer Settings in the autoprovisioning template to register the Nightringer with RingCentral.

Figure 5-10. Autoprovisioning Template Example – Nightringer Settings

```
<NightringerSettings>
  <EnableNightringer>Yes</EnableNightringer>
  <NightringerSIPServer>sip.ringcentral.com</NightringerSIPServer>
  <NightringerRemotePort>5060</NightringerRemotePort>
  <NightringerLocalPort>5061</NightringerLocalPort>
  <NightringerOutboundProxy>sip10.ringcentral.com</NightringerOutboundProxy>
  <NightringerOutboundProxyPort>5090</NightringerOutboundProxyPort>
  <NightringerUserID>18312333993</NightringerUserID>
  <NightringerAuthID>17422862010</NightringerAuthID>
  <NightringerAuthPassword>*****</NightringerAuthPassword>
  <NightringerRegistrationTimeout>30</NightringerRegistrationTimeout>
  <NightringerEnableMulticast>No</NightringerEnableMulticast>
  <NightringerMulticastAddress>224.1.2.32</NightringerMulticastAddress>
  <NightringerMulticastPort>2020</NightringerMulticastPort>
</NightringerSettings>
```

Note: These example values are published only for reference. The *NightringerAuthPassword* value should be the actual value from the [Nightringer's Assisted Generic IP Phone/Adaptor Provisioning](#) popup.

Verify the Nightringer is Registered

After the intercom has rebooted and initialized, refresh the [Home page of the web interface](#). The device should show as **[Registered with SIP Server]** in green text on the bottom of the Home Page of the web interface.

Additionally, the registration status may be verified with RingCentral through the admin portal. From the **Phones & Devices** menu, select **User Phones** and the IP Phone just created for the Nightringer. The status should show as “online” in the **Phone Details**.

Figure 5-11. Nightringer Phone Details – Status

The screenshot shows the RingCentral Admin Portal interface. The left sidebar contains navigation links: Company Info, Phone Numbers, Auto-Receptionist, 9 Group(s) 0 Other(s), and Phones & Devices. The main content area is titled 'User Phones' and includes a search bar, status filter, and device filter. A table lists the following user phones:

Status	Device	Assigned	Phone Number	Serial No.	Operation
✖	Cameron Device	Cameron Device	(831) 272-0654	N/A	Setup & Provision
✖	Cameron Nightringer	Cameron Nightri...	(831) 272-0641	N/A	Setup & Provision
✖	Cameron Snom	Cameron Snom	(831) 233-3994	N/A	Setup & Provision
✖	Christina Nightringer	Kenny phone 3	(831) 272-0630	N/A	Setup & Provision
✖	Christina PolycomV VX300	Interop Polycom...	(831) 975-2610	0004F289C3B8	
✔	CyberData Nightringer Existing Phone	CyberData Night...	(831) 609-4948	N/A	Setup & Provision

Make a Test Call

Once the device has registered with RingCentral, use any RingCentral phone to dial the Nightringer extension.

6.0 Contact CyberData Corporation

Sales

For sales-related questions, please visit our [Contact CyberData Sales](#) web page for more information.

Technical Support

For Technical Support, please submit a ticket through our helpdesk at support.cyberdata.net.

Documentation Feedback

We realize changes to the software or hardware of the RingCentral Cloud PBX solution may render this document obsolete. We welcome and encourage documentation feedback to ensure continued applicability.