CyberData
The IP Endpoint Company

RING CENTRAL CONFIGURATION GUIDE: SIP PAGING SERVER

Document Part #931042F

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Revision Information

Revision 931042C was released on March 17th, 2015, and has the following changes:

- Added Polycom Paging sub-section to Section 3.0 "Installation Options."

Revision 931042D was released on September 18th, 2017 with the following changes:

- Updated Device photos and registration process

Revision 931042E was released on April 1st, 2019 with the following changes:

- Updated RingCentral Screenshots and added phone extension registration process
- Removed FAQ section due to redundant information.
- Added 'Digital Line' Registration process.

Revision 931042F was released on June 8th, 2020.

- Corrected mistakes with nomenclature.

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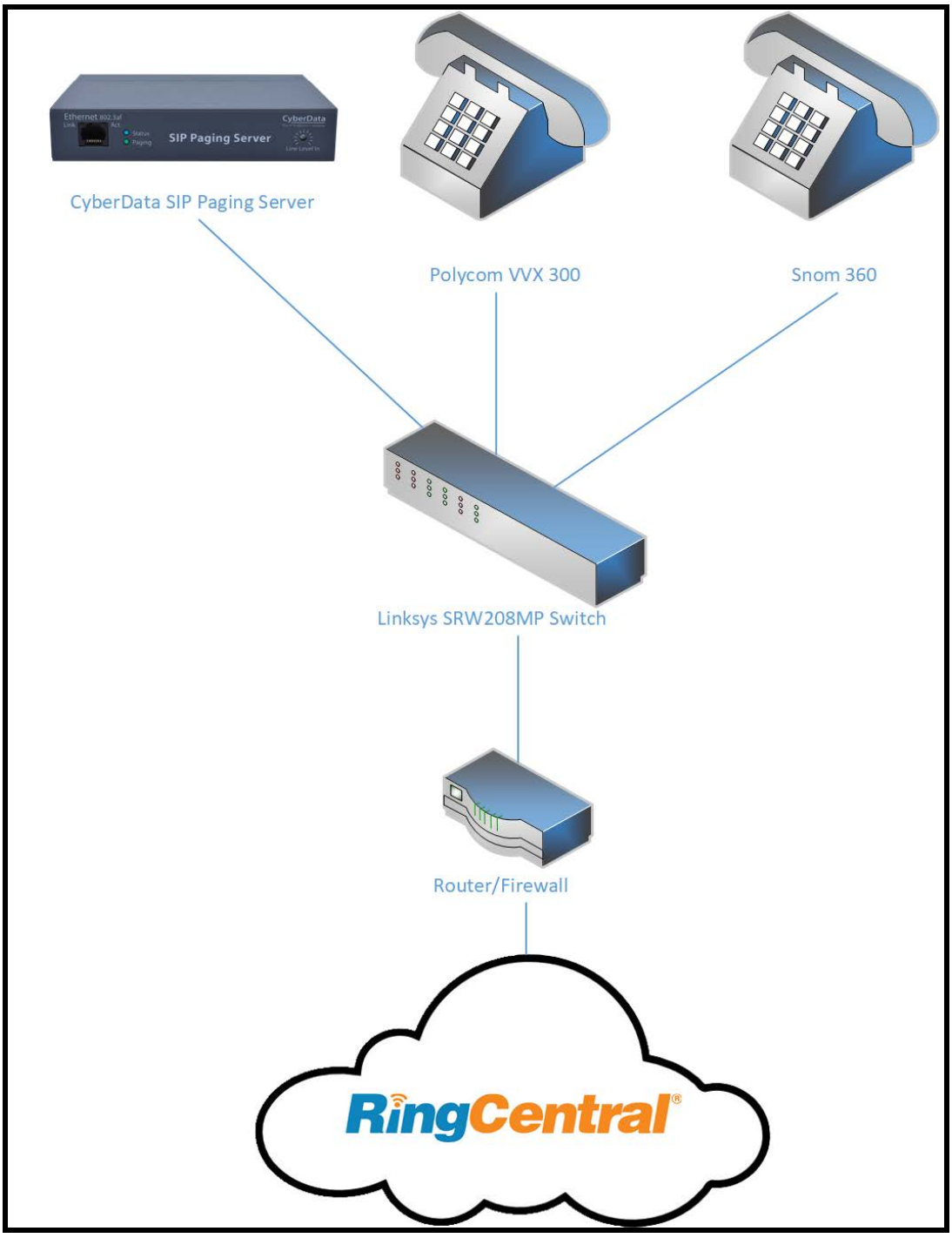


2.0 Test Setup Equipment

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

Table 2-1. Setup Equipment

EQUIPMENT	MODEL or PART NUMBER	FIRMWARE VERSION
CYBERDATA PAGING SERVER	011146	v12.2.0
POLYCOM	VVX 300	5.2.0.8330
SNOM	360	snom360-SIP 8.4.31
LINKSYS	SRW208MP	1.0.4

3.0 Installation Options

This section describes two possible types of paging using a CyberData SIP Paging Server in a RingCentral installation:

- IP Paging
- IP to Analog Paging

Each solution is an example and not an exhaustive list of all possible installation options. It is common to install a SIP Paging Server for the purpose of aggregating multicast-supported IP phones, IP paging devices, and analog paging equipment or any combination thereof.

The CyberData SIP Paging Server offers a robust feature set by serving both IP and analog pages to a combination of multicast-enabled IP paging endpoints in addition to legacy analog amplifiers and zone controllers that may already be installed in a particular location. The SIP Paging Server facilitates a versatile and scalable overhead paging solution.

IP Paging is supported by accepting audio from a SIP call and serving the page as a multicast to up to 100 configurable multicast addresses. Each group, consisting of a unique multicast address and port number, can be password controlled for added security. Page menu options are voice prompted and can be selected by entering digits into a RingCentral IP phone.

Additionally, the SIP Paging Server supports Polycom Group Paging mode and can transmit multicast pages to Polycom IP phones using UC Software 4.0.0 and higher.

When a multicast page is sent to the multicast-enabled endpoints on the network in a page group, such as CyberData IP speakers and Paging Amplifiers. The group page may also be forwarded to the analog Page Port and RCA Line Level outputs connected to legacy analog amplifiers and zone controllers. The Paging Server also supports dry relay contacts for contact closure to initiate a page where required for Page Port or RCA Line Level input connections to analog devices.

Our VoIP Technical Support team maintains a matrix of compatible analog amplifiers on our website that may be used to verify compatibility and view/download sample wiring diagrams for connections from a SIP Paging Server. The CyberData “Connecting to Compatible Analog Amplifiers” matrix is available on our website here:
https://www.cyberdata.net/pages/connecting-to-analog-amplifiers/

Please Contact CyberData VoIP Technical Support for assistance with verifying connections from a SIP Paging Server to a specific analog amplifier or zone controller before purchasing a device.

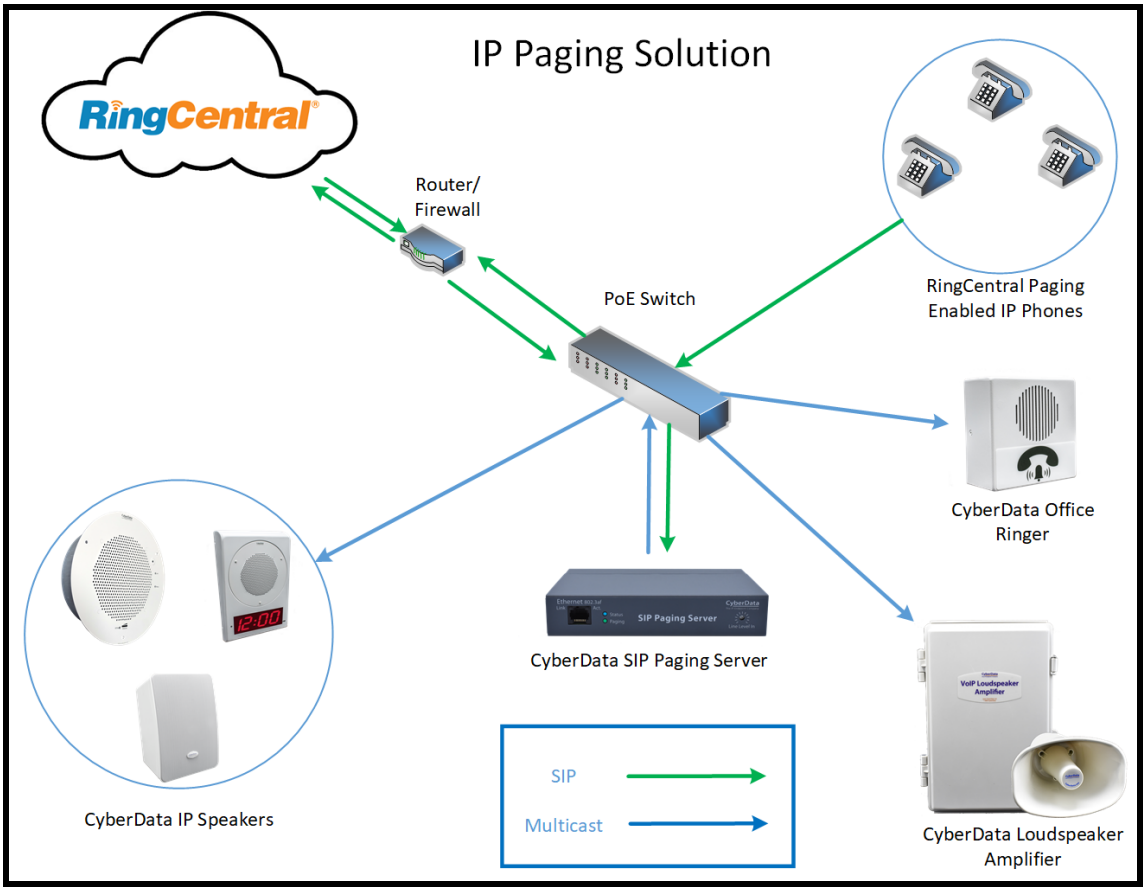
Need to tie in background music? Incorporating background music from an analog RCA Line Level source can be realized using the RCA Level Input on the SIP Paging Server with an option to loop audio from the input to the analog Page Port or RCA Line Level outputs. All CyberData IP endpoints can join multicast groups and prioritize broadcasts based on configurable prioritized groups.

The paramount advantage to choosing a CyberData SIP Paging Server is the ability to aggregate paging endpoints, whether analog, digital, or both, using only one RingCentral user extension for a cost-effective and comprehensive overhead paging solution.

IP Paging Solution

There is no better time like the present to install an IP Paging solution using SIP and multicast technologies on a computer network. Eliminate messy, complicated wiring by installing a SIP Paging Server and any of PoE, multicast-enabled IP paging endpoints from CyberData.

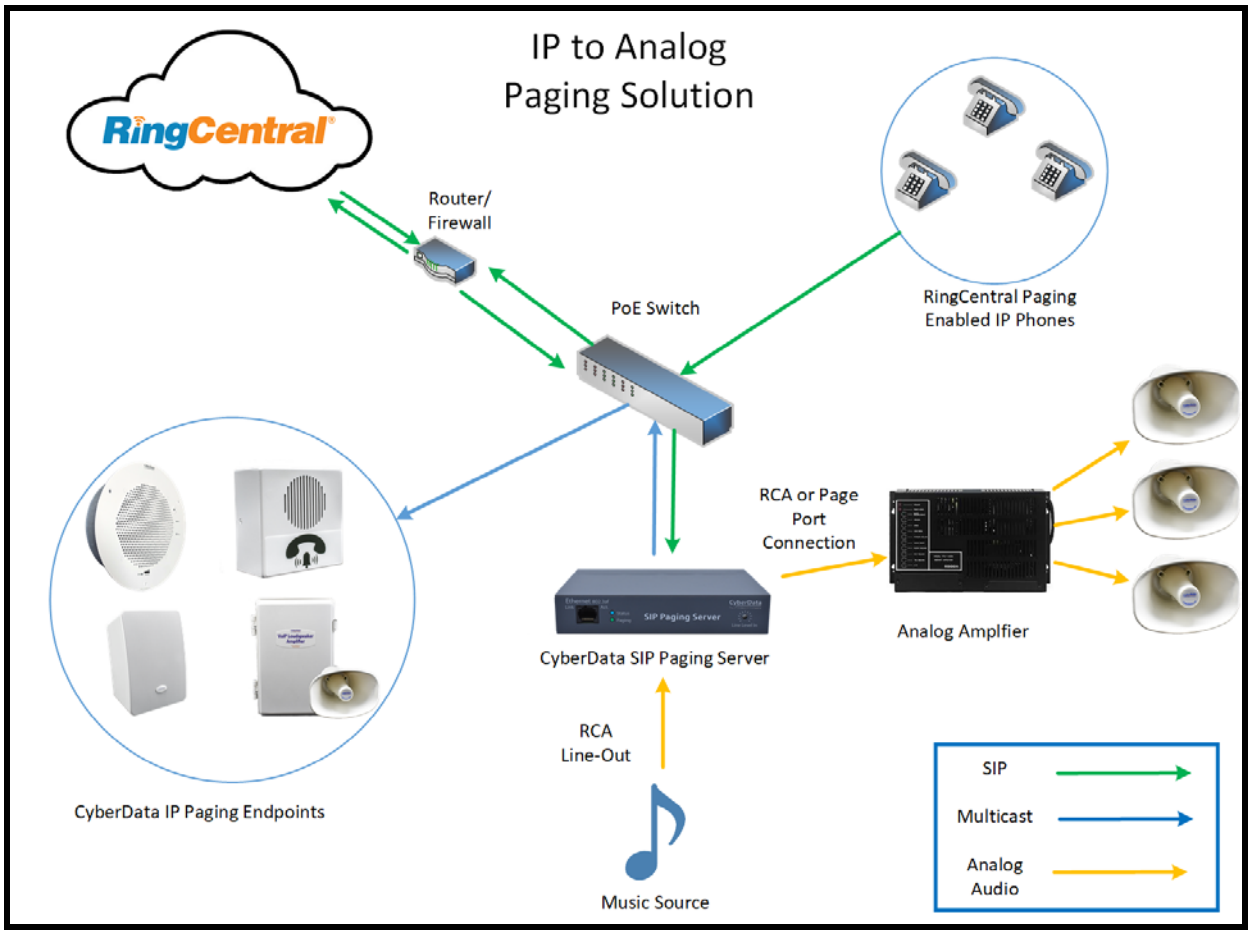
Figure 3-1. IP Paging Solution



IP to Analog Paging

Extend the longevity of an analog paging infrastructure and convert to IP Paging simply by adding a flexible and scalable CyberData SIP Paging Server for an IP to Analog Paging solution.

Figure 3-2. IP to Analog Paging Solution



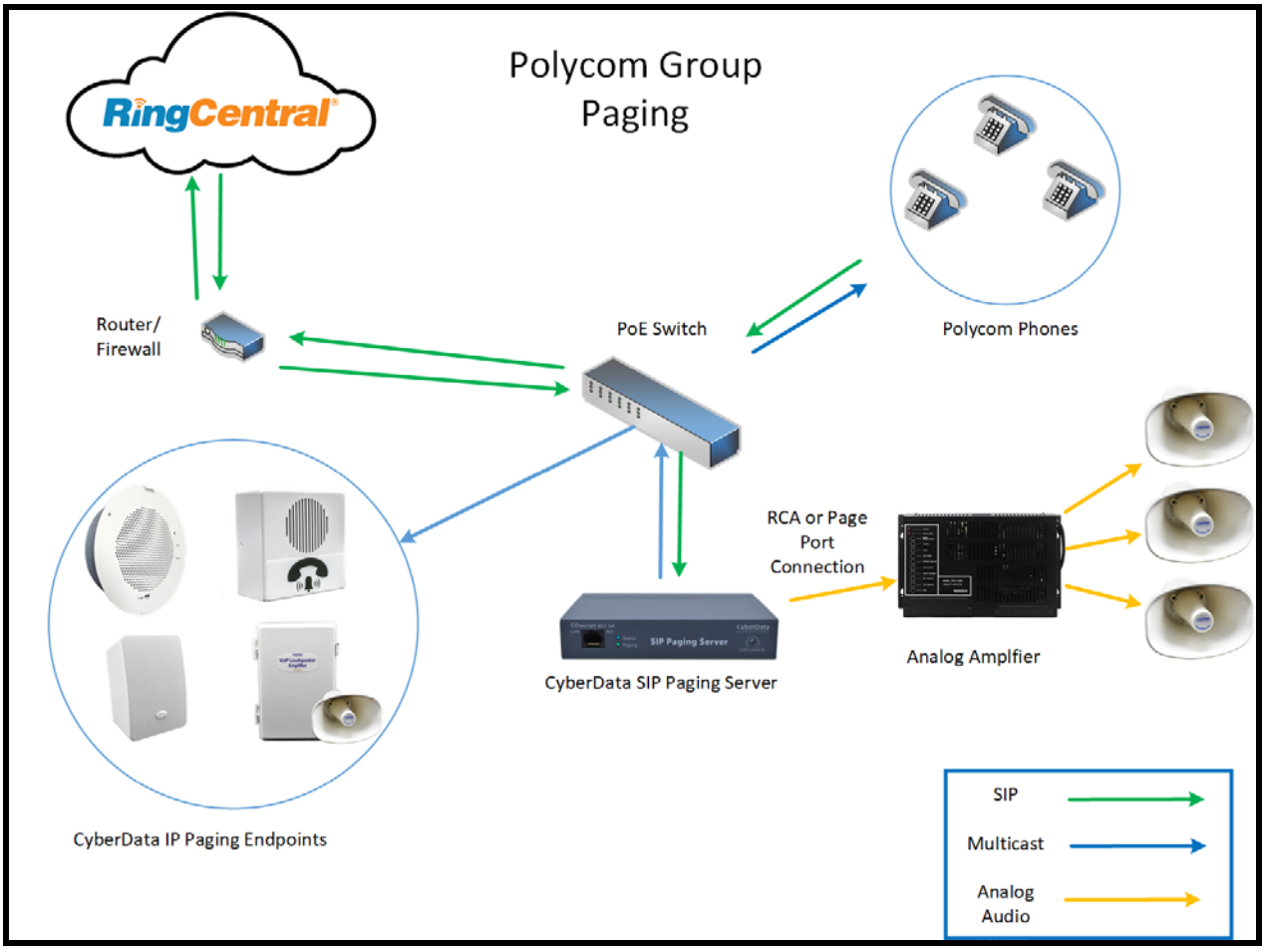
Polycom Group Paging

Expand the IP paging solution by aggregating a legacy analog overhead paging infrastructure with Polycom IP phones using the CyberData SIP Paging Server.

The SIP Paging Server sends multicast pages to CyberData IP Paging Endpoints and Polycom IP phones in addition to forwarding pages and background music to a flexible analog interface for a comprehensive paging solution.

A single phone call to the SIP Paging Server's extension can reach all multicast-enabled devices on the local network and overhead speakers at the same time.

Figure 3-3. Polycom Group Paging



Features

- Voice prompted paging menu
- Up to 100 configurable, password-controlled zones or “paging groups”
- DTMF zone selection for IP zone control
- DTMF pass-through for analog zone control
- Dry relay contact closure for page initiation
- Delayed paging
- Web-based graphical user interface or TFTP/HTTP remote configuration
- RCA Line Level input connection for background music
- RCA Line Level output (10k Ohms @ 2 VPP)
- Page Port output (600 Ohms @ 5 VPP)

Caveats

Please be advised only multicast-supported IP phones may be aggregated into a multicast paging group. Currently, other than Polycom IP Phones capable of running UC Software version 4.0.0 and higher, RingCentral sells the following models tested for compatibility through a CyberData reseller:

- Yealink T42S
- Yealink T46S
- Cisco SPA 514G *
- Cisco SPA 525G *

*These models support up to 2 multicast groups (multicast address and port number) when running firmware version 3.2.2. Refer to Cisco documentation for configuration details.

CyberData has a list of multicast-supported IP Phones on our website here: http://www.cyberdata.net/assets/011146/930631C_SIP_PAGING_SERVER_COMPATIBILITY_GUIDE.pdf

A complete list of IP phones tested with RingCentral is published in RingCentral Knowledge Article 3619.

4.0 Before You Start

This configuration guide documents the integration process of a CyberData SIP Paging Server.

Network Advisories

RingCentral uses a Fully Qualified Domain Name (FQDN) for the SIP server and Outbound Proxy addresses. The CyberData Paging Server 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 Paging Server to use:

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

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

The Paging Server'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 paging and Nightringer extension are configurable on the **SIP Configuration** page of the web interface.

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

Product Documentation and Utilities

Before starting, download the Operation and Quick Start guides from the Paging Server's product webpage:
https://www.cyberdata.net/collections/sip/products/011146

The CyberData Discovery Utility can be used to locate CyberData devices on the local network. It may be downloaded from CyberData's website with the following link:
http://www.cyberdata.net/assets/common/discovery.zip

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

5.0 Configuration Procedure: Paging Extension

When integrating with RingCentral, the Paging Server can be provisioned as a paging device. Provisioning as a Paging Device does not allow the caller to receive audio from the paging server to hear voice prompts from the page menu or enter DTMF digits for page menu selections, group passwords, or pass-through to an analog amplifier or zone controller for analog zone control. However, the Paging Device extension is included free with an account and does not add an additional charge per month.

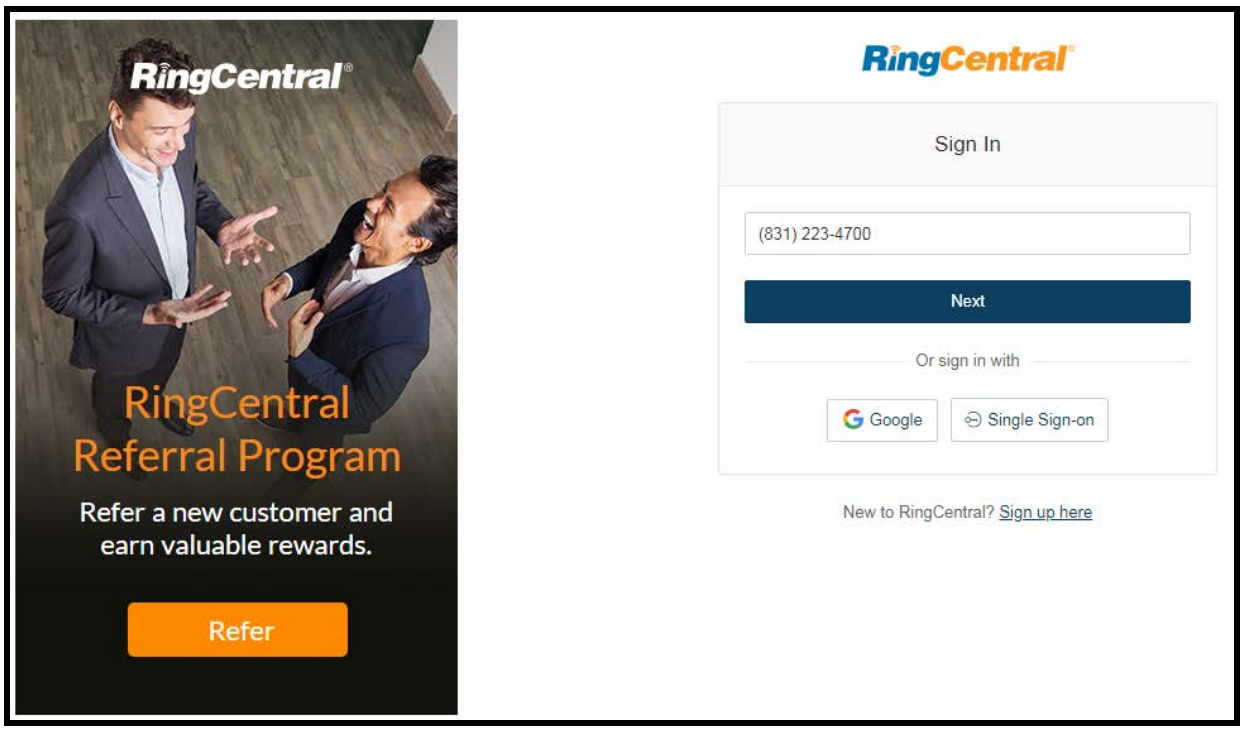
Add a Paging Device

This section describes the process of creating a user, provisioning a paging device, and registering the Primary extension used for paging with RingCentral. First, a user must be created for the Paging Server.

Use the following steps to create a user and provision a paging device extension for the Paging Server's primary extension through the RingCentral Admin Portal.

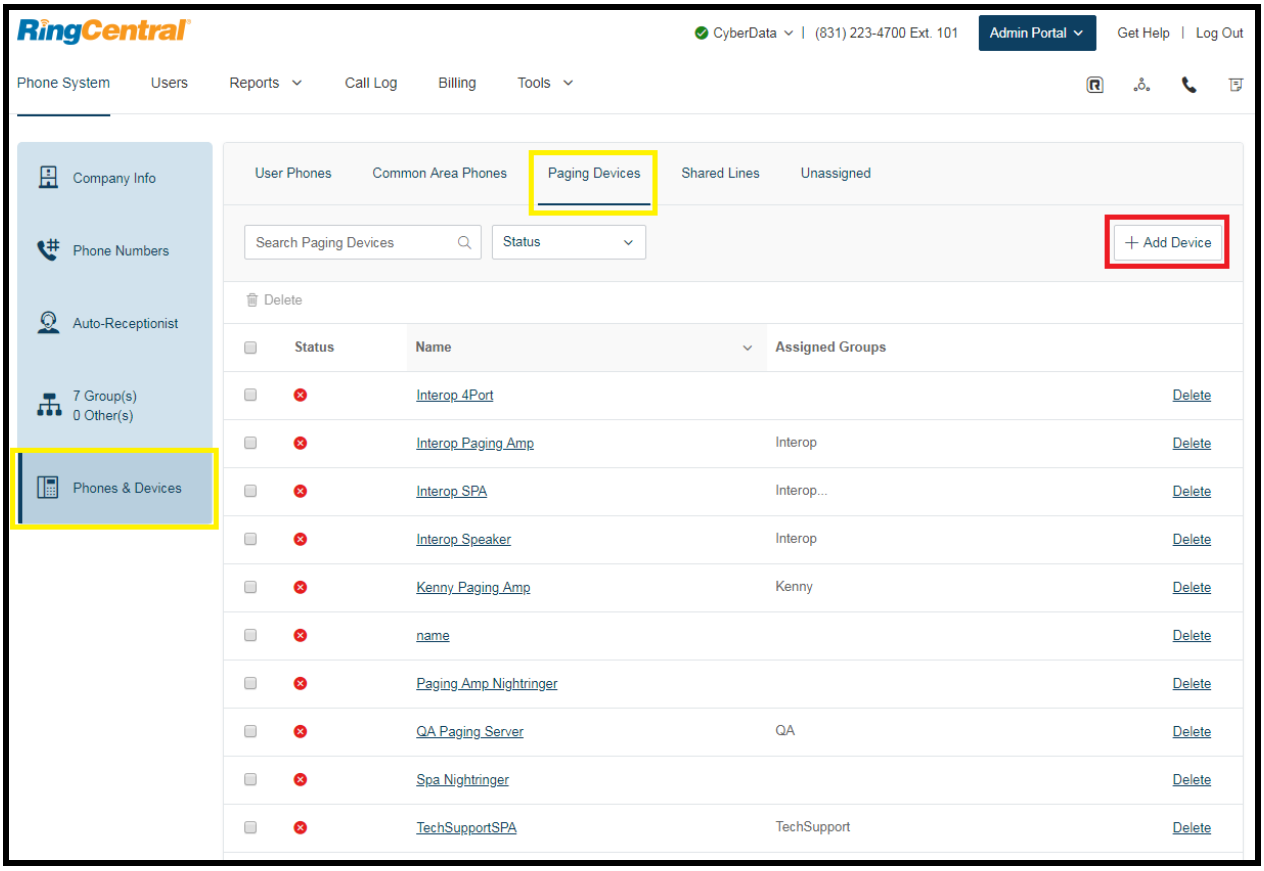
1. Login to the RingCentral Admin Portal at https://service.ringcentral.com.

Figure 5-1. RingCentral Admin Portal Login



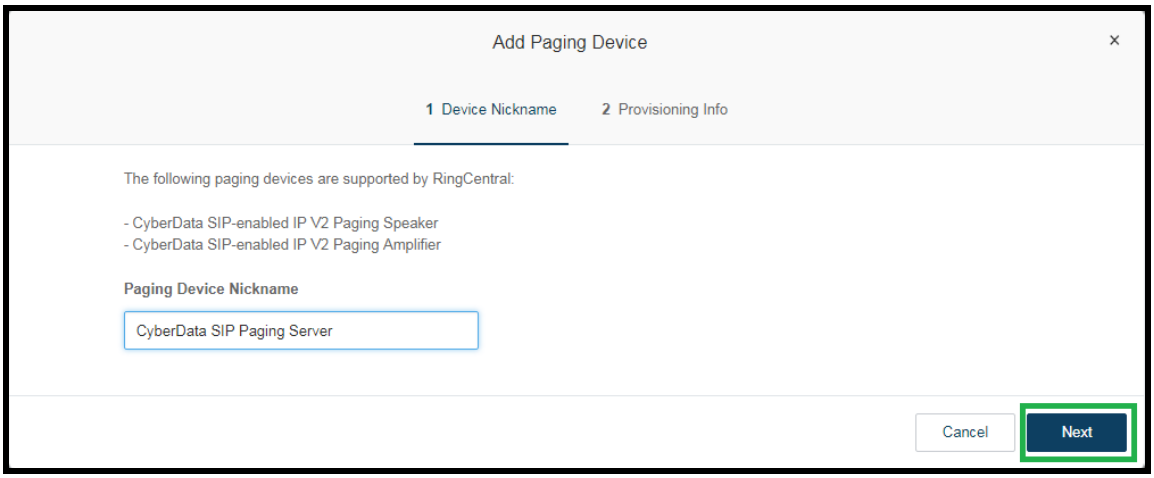
2. From the **Phones & Devices** menu, select **Paging Devices**, and then click **Add Device**.

Figure 5-2. Add Device



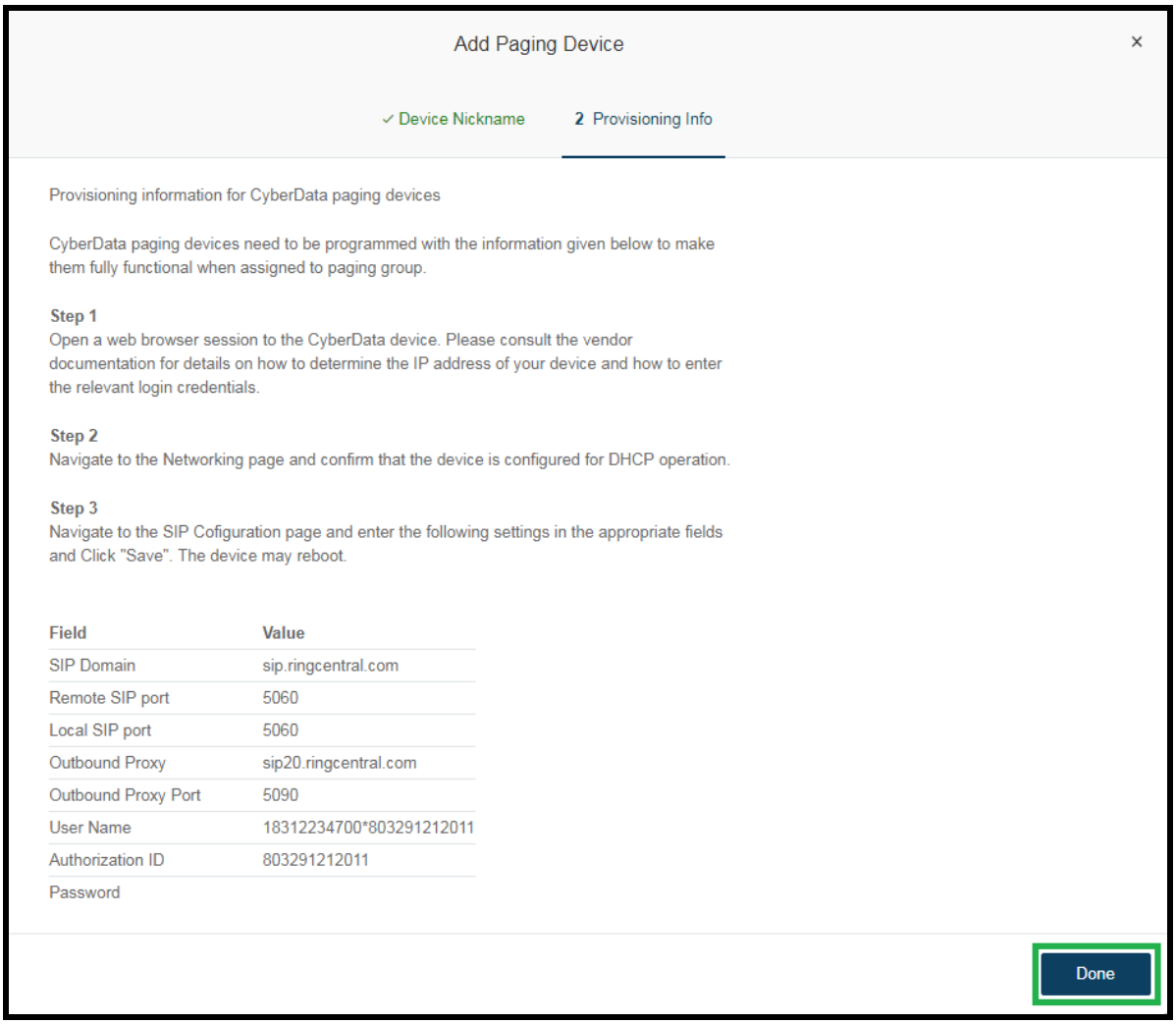
3. A popup window labeled **Add Paging Device** will appear. Set the **Paging Device Nickname**, and then click **Next**.

Figure 5-3. Add Paging Device - Nickname



4. A popup window labeled **Generic Paging Device Provisioning** will appear. Use the provisioning information to register the paging server's primary extension with RingCentral.

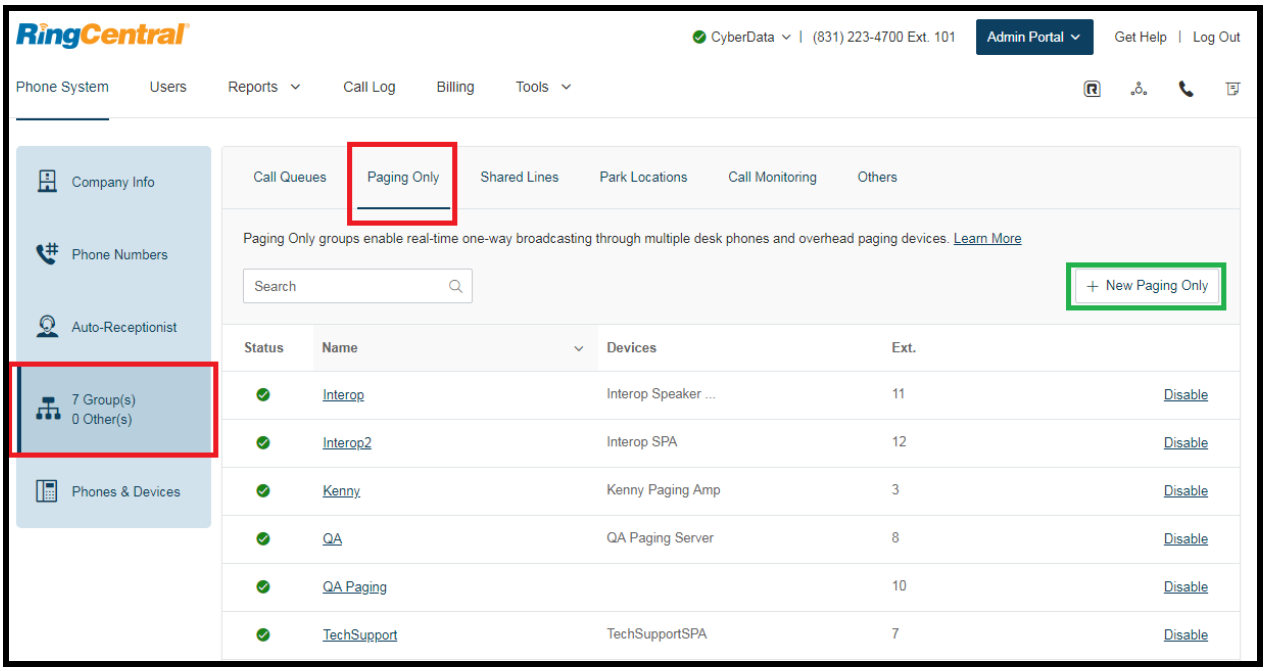
Figure 5-4. Provisioning Information



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

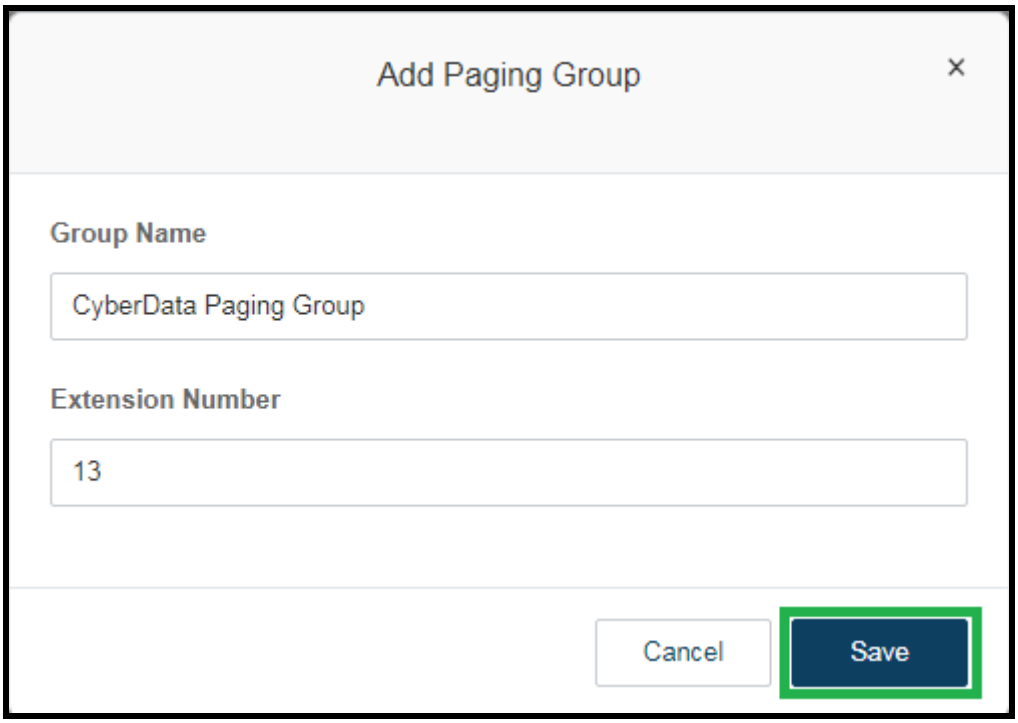
5. Next, add the new Paging Device to a *Paging Only* group. From the **[n] Groups** menu, select **Paging Only**, then click **New Paging Group**.

Figure 5-5. Add Group



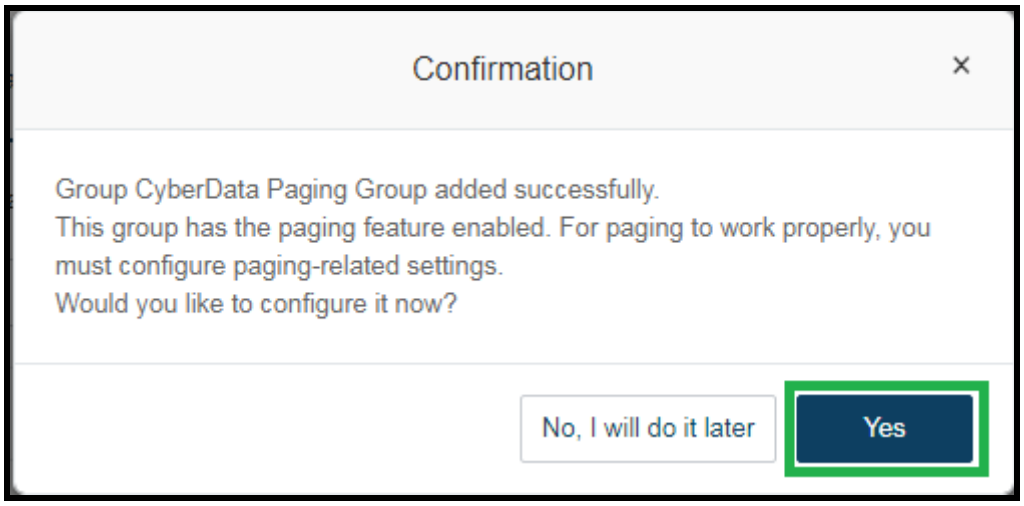
6. A popup window labeled **Add Paging Group** will appear. Enter an available extension number and name for the *Paging Only* group, then click **Save**.

Figure 5-6. Add Paging Group



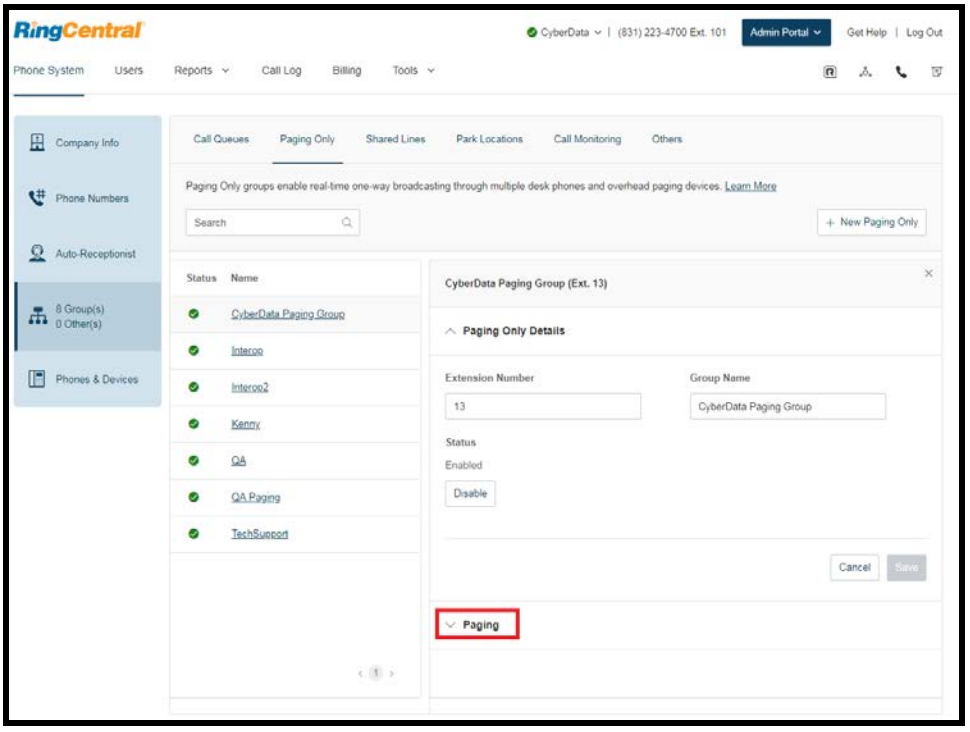
7. A confirmation screen will confirm the paging group has been created. Select **Yes** to configure paging settings.

Figure 5-7. Confirmation



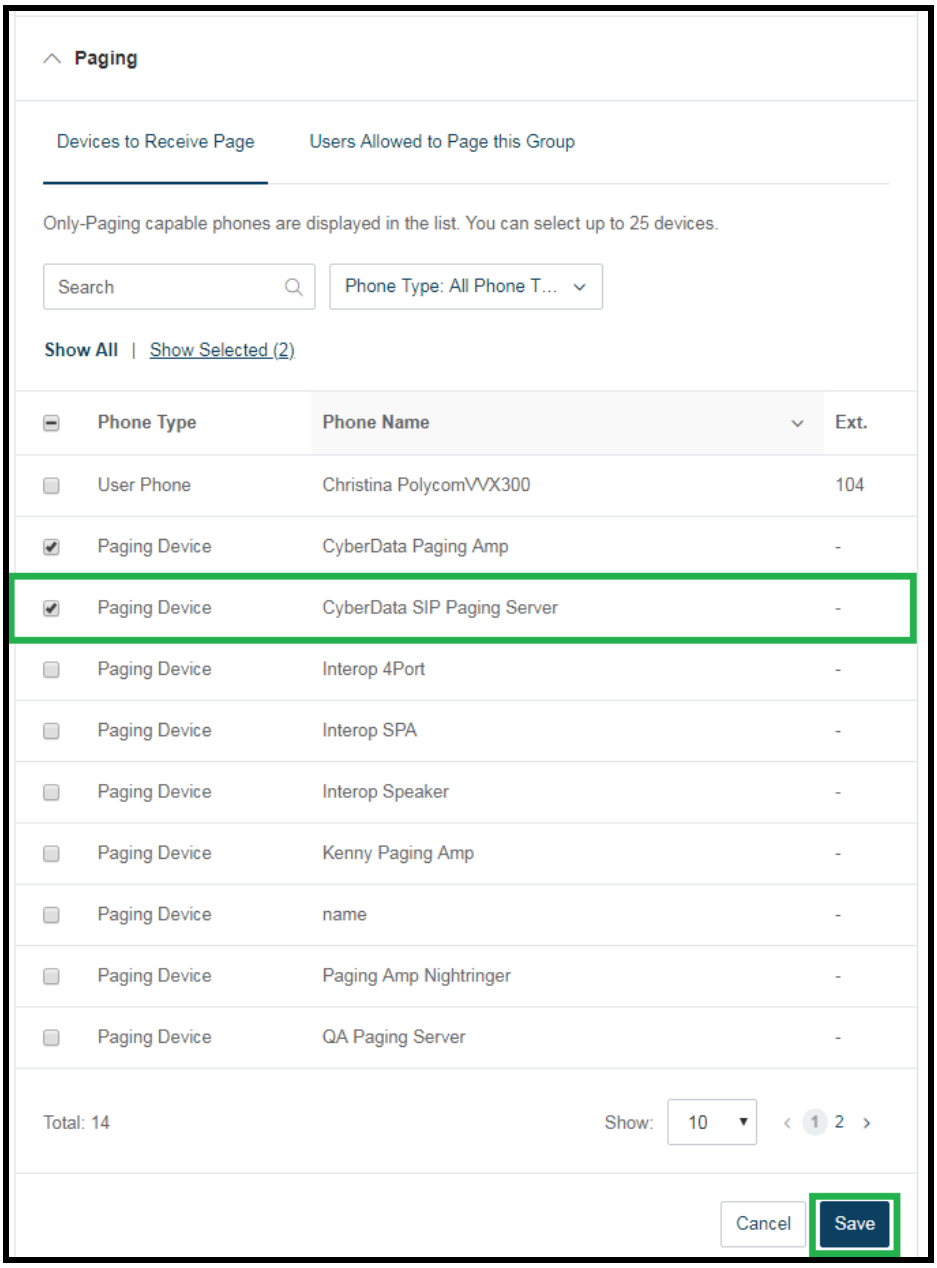
8. Verify the new paging group appears in the **Groups** list. Select the paging group and a menu will appear to the far right of the screen. From this menu, select **Paging**.

Figure 5-8. Group Paging Menu



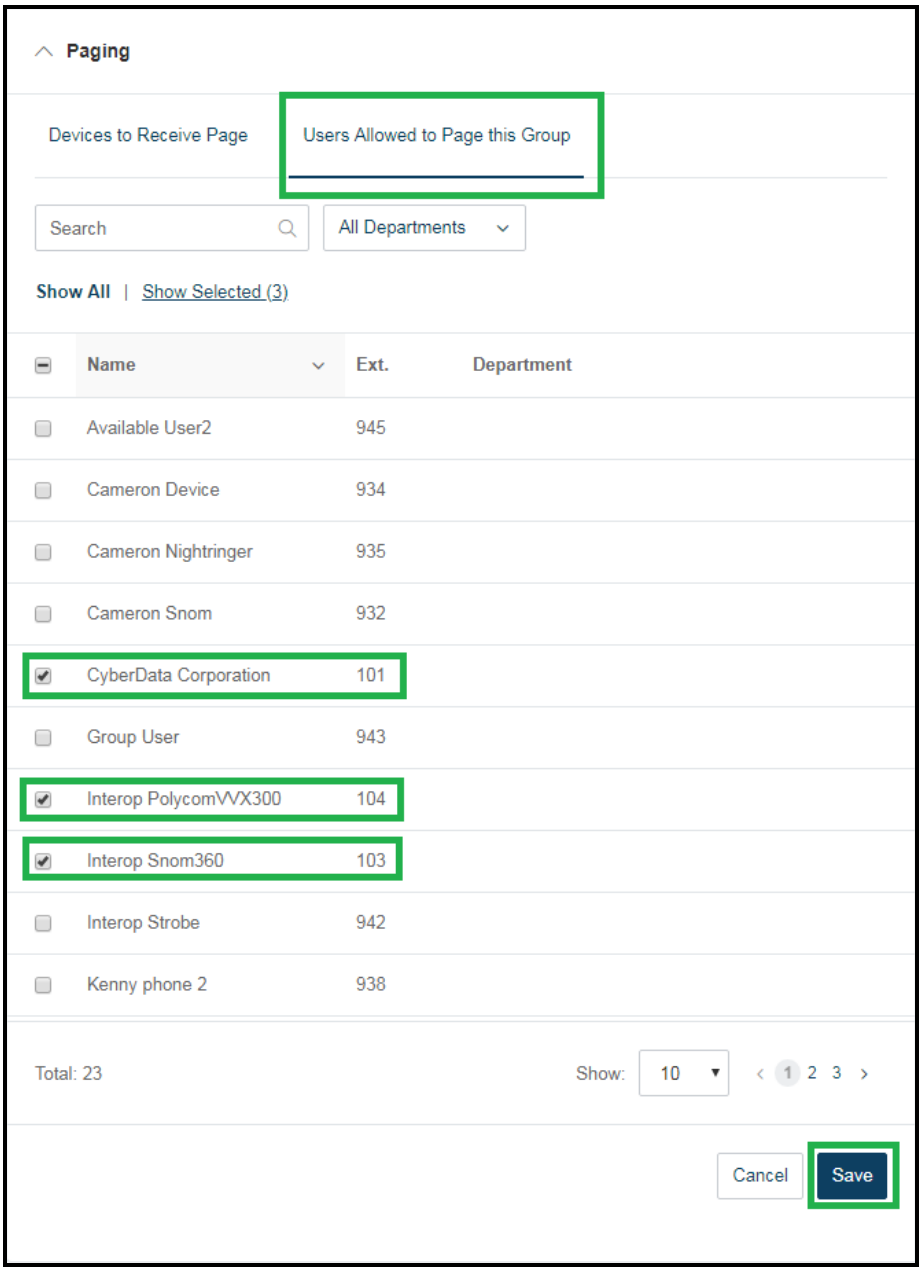
9. From the **Paging** menu, select **Devices to Receive Page**, then check the devices to add to the group and press **Save**.

Figure 5-9. Devices to Receive Page



10. Next, select **Users Allowed to Page this Group** to designate users with paging privileges. Check the box next to the users desired then press **Save**.

Figure 5-10. Users Allowed to Page This Group



11. The page redirects back to the group's paging menu after clicking **Save.** Proceed to **Configure SIP Parameters**.

Configure SIP Parameters

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

Table 5-1. CyberData Configuration Settings

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

Web Configuration

If configuring through the web interface, use the following steps to login to the web interface of 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 5-11. Web Interface Login

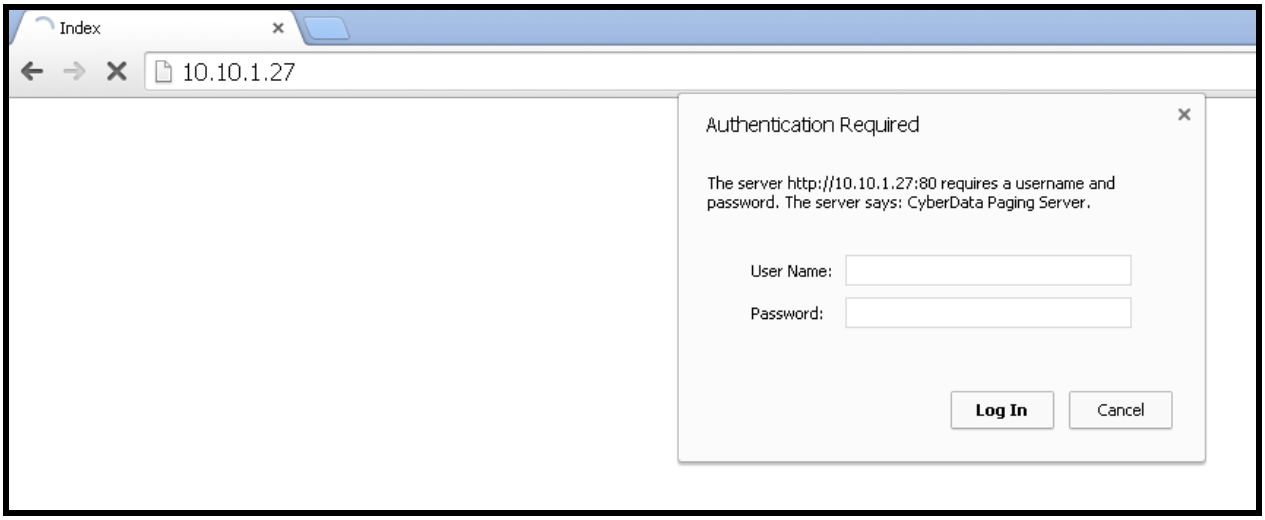


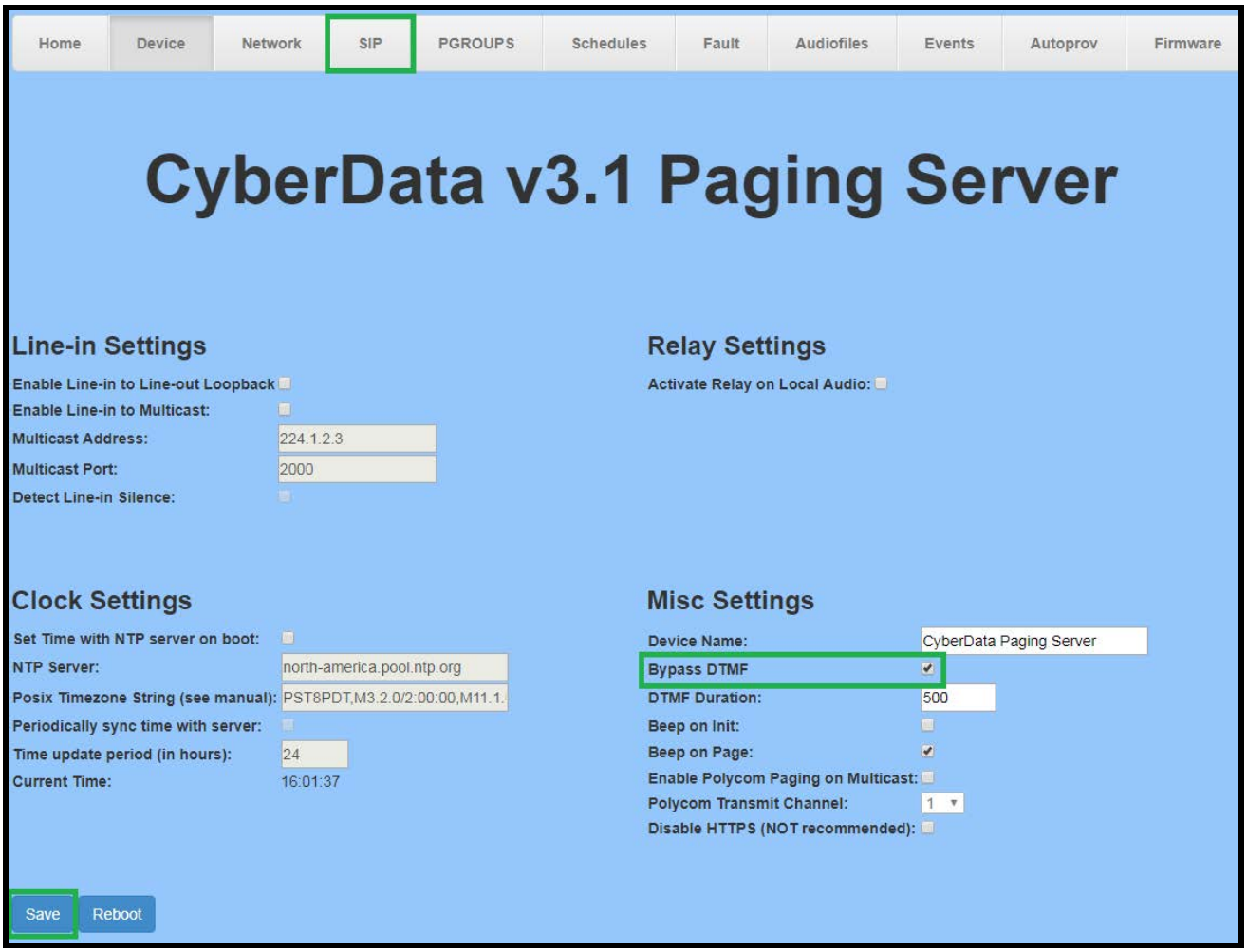
Figure 5-12. Home Page of Paging Server Web Interface

3. On the Home Page, click **Device** on the top toolbar of the screen to access the Device Configuration page.

Note: *The firmware version and registration status for the paging extension and Nightringer extensions appear here.*

4. On the Device tab, check the box for **Bypass DTMF** in the **Misc. Settings** section.

Figure 5-13. Device Tab – Bypass DTMF



5. Then press **Save**. Once the page has reloaded press **SIP** to go to the SIP Configuration Tab.

6. Enter the provisioning information from the **Assisted Generic IP Phone Provisioning** popup window.

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

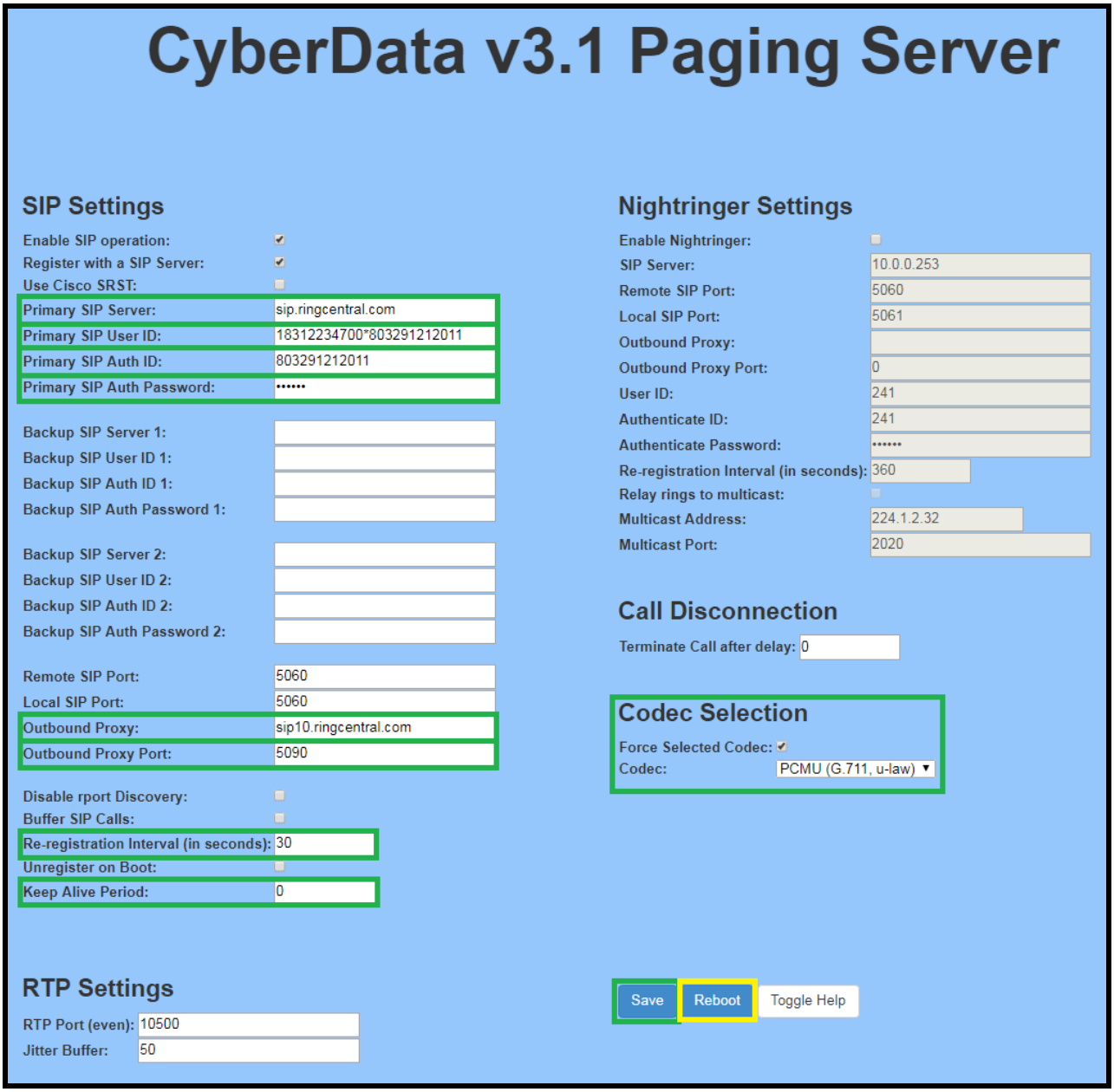
7. Set the *Re-registration Interval (in seconds)* to **30 seconds**.

8. Set the *Keep Alive Period* to **0.**

9. Enable *Force Codec Selection* and use **PCMU.**

10. Click **Save** and then **Reboot** to store the changes.

Figure 5-14. SIP Configuration



Autoprovisioning

If autoprovisioning the paging server, use the SIP Settings in the autoprovisioning template to register the paging extension with RingCentral.

An autoprovisioning template is provided in the respective firmware folder available on the **Downloads** tab of the product webpage here:
https://www.cyberdata.net/collections/sip/products/011146

Be sure to use the autoprovisioning template for the firmware version running on the paging server. The firmware version can be verified on the **Home** page of the web interface.

Refer to the Operations Guide for instructions on autoprovisioning configuration.

Figure 5-15. Autoprovisioning Template Example – SIP Settings

```
<SIPSettings>
    <EnableSIPOperation>Yes</EnableSIPOperation>
    <SIPServer>sip.ringcentral.com</SIPServer>
    <RemoteSIPPort>5060</RemoteSIPPort>
    <LocalSIPPort>5060</LocalSIPPort>
    <OutboundProxy>sip10.ringcentral.com</OutboundProxy>
    <OutboundProxyPort>5090</OutboundProxyPort>
    <SIPUserID>18312234700*803291212011</SIPUserID>
    <SIPAuthID>803291212011</SIPAuthID>
    <SIPAuthPassword>*****</SIPAuthPassword>
    <SIPRegistrationTimeout>30</SIPRegistrationTimeout>
    <SIPRegisterOnBoot>Yes</SIPRegisterOnBoot>
    <BufferSIPCalls>No</BufferSIPCalls>
    <RTPPort>10500</RTPPort>
    <JitterBuffer>50</JitterBuffer>
    <CallTimeout>0</CallTimeout>
    <UseCiscoSRST>No</UseCiscoSRST>
    <DisableRportDiscovery>No</DisableRportDiscovery>
    <NatPingOptions>No</NatPingOptions>
    <KeepAlive>0</KeepAlive>
    <DefaultCodec>1</DefaultCodec>
</SIPSettings>

<MulticastSettings>
    <PolycomDefaultGroup>1</PolycomDefaultGroup>
</MulticastSettings>

<PagingGroupSettings>
    <BypassDTMF>Yes</BypassDTMF>
    <SendPolycom>No</SendPolycom>
    <PagingGroup00Addr>234.2.1.1</PagingGroup00Addr>
    <PagingGroup00Port>2000</PagingGroup00Port>
    <PagingGroup00Name>PagingGroup00</PagingGroup00Name>
    <PagingGroup00TTL>255</PagingGroup00TTL>
    <PagingGroup00LineOut>Yes</PagingGroup00LineOut>
    <PagingGroup00Code></PagingGroup00Code>
    <PagingGroup00PlayStoredMessage>No</PagingGroup00PlayStoredMessage>
    <PagingGroup00TimesToPlay>1</PagingGroup00TimesToPlay>
    <PagingGroup00AudioFile></PagingGroup00AudioFile>
```

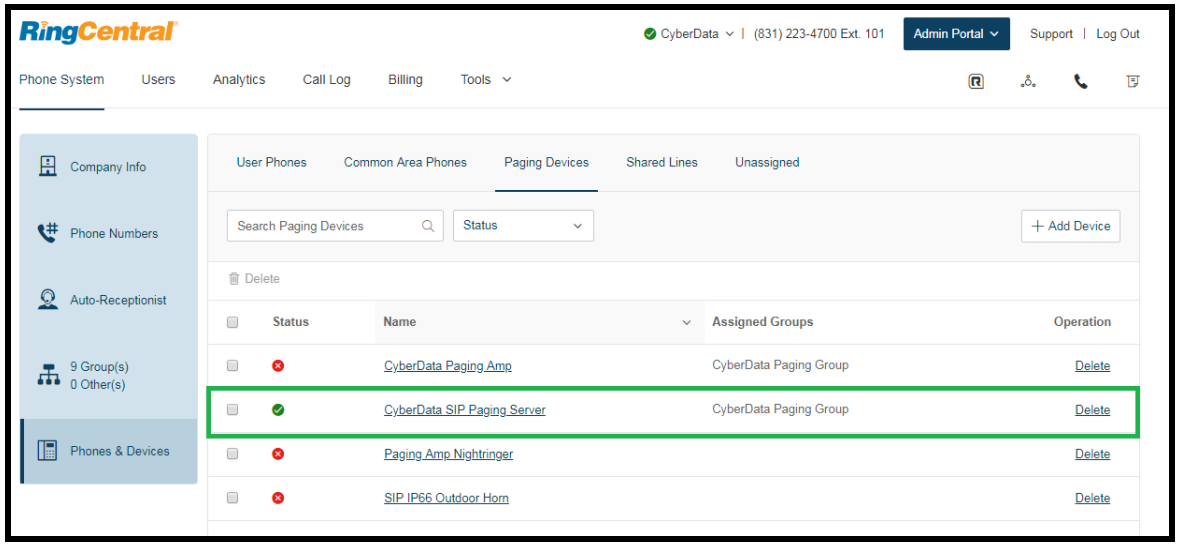
Note: *These example values are published only for reference. The SIPAuthPassword value should be the actual value from the* ***Assisted Generic IP Phone Provisioning*** *popup window.*

Verify the Paging Extension is Registered

After the paging server 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; See Figure 5-11.

Additionally, the registration status may be verified with RingCentral through the admin portal. From the **Phones & Devices** menu, select **Paging Devices** and the Paging Device just created for the paging server. The status should show as "online" or a Green Checkmark in the **Status** column.

Figure 5-16. Device Details – Status



Make a Test Call

Once the paging server has registered with RingCentral, any RingCentral phone may be used to dial the paging extension.

Refer to this RingCentral Knowledge article 5925 for instructions on paging a group from an IP phone.

6.0 Configuration Procedure: Voice-Prompted Paging

When an installation requires more than one paging group the SIP Paging Server, can be provisioned as an IP phone associated with a user extension. Provisioning as an IP Phone allows the user to hear menu prompts and enter DTMF codes to select different multicast zones. Provisioning as an IP Phone does have a monthly reoccurring cost.

Provision the Paging Server's primary extension as an IP phone to enable the following features:

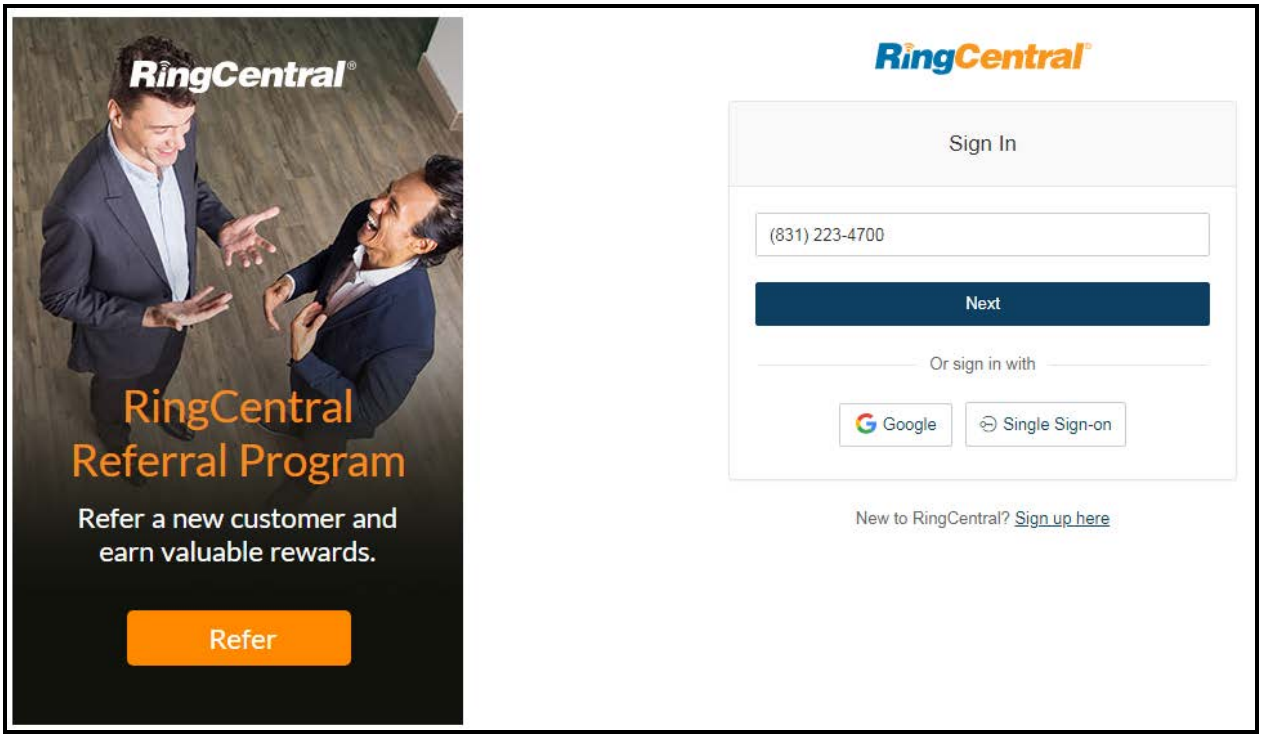
- Use of up to 100 Multicast Zones
- Security code protection for multicast zones

Add an IP Phone

This section describes the process of creating a user, provisioning an IP phone, and registering the primary extension that will be used for paging with RingCentral. First, a user must be created for the paging server.

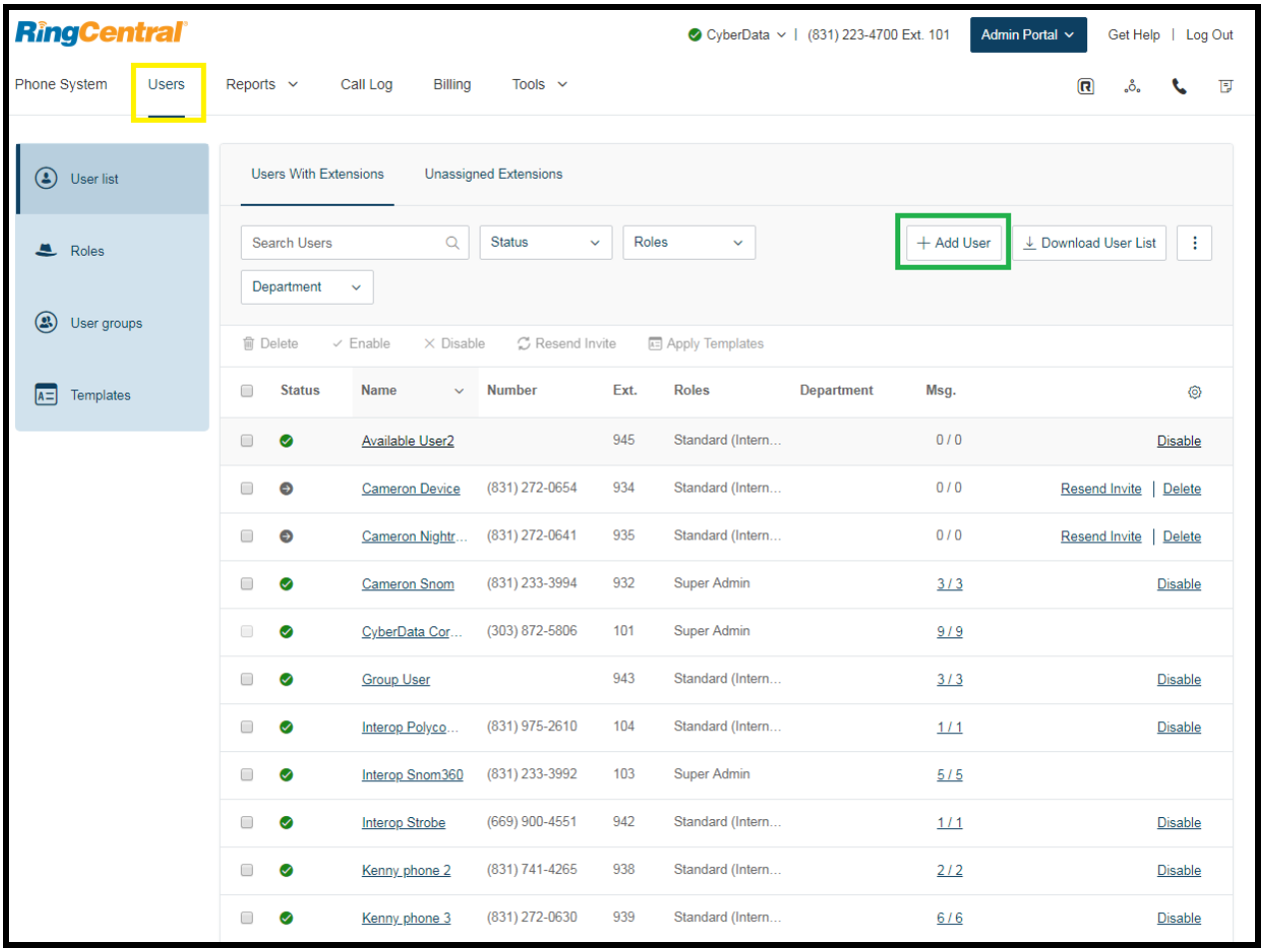
1. Login to the RingCentral Admin Portal at https://service.ringcentral.com.

Figure 6-1. RingCentral Admin Portal Login



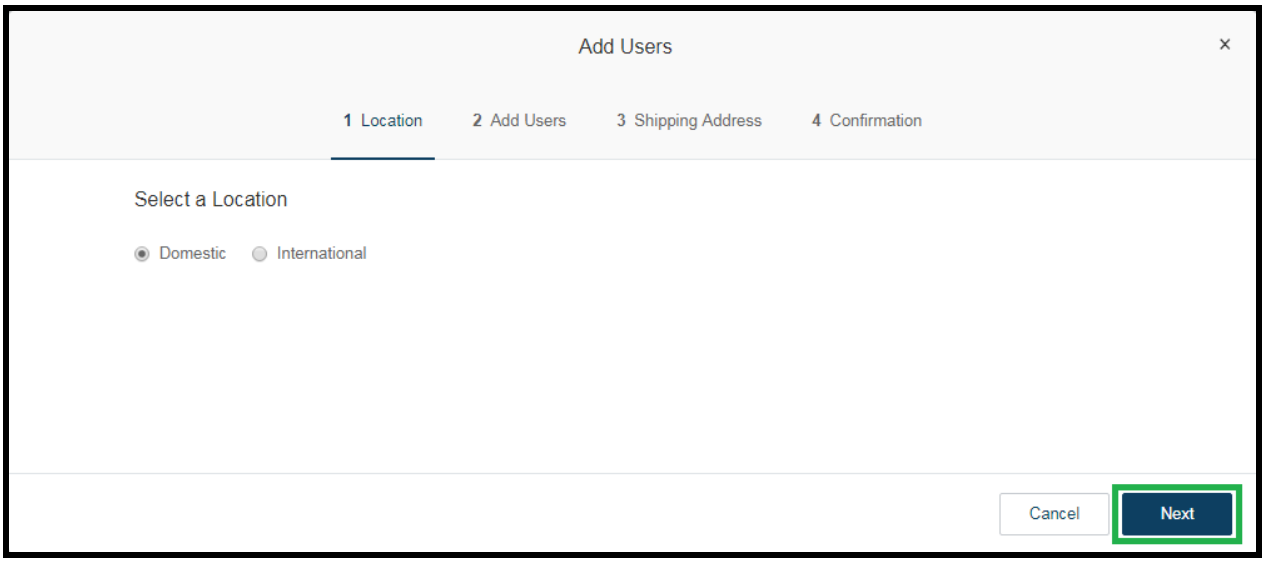
2. Select **Users**, and then press the **Add User** button.

Figure 6-2. Add User Button



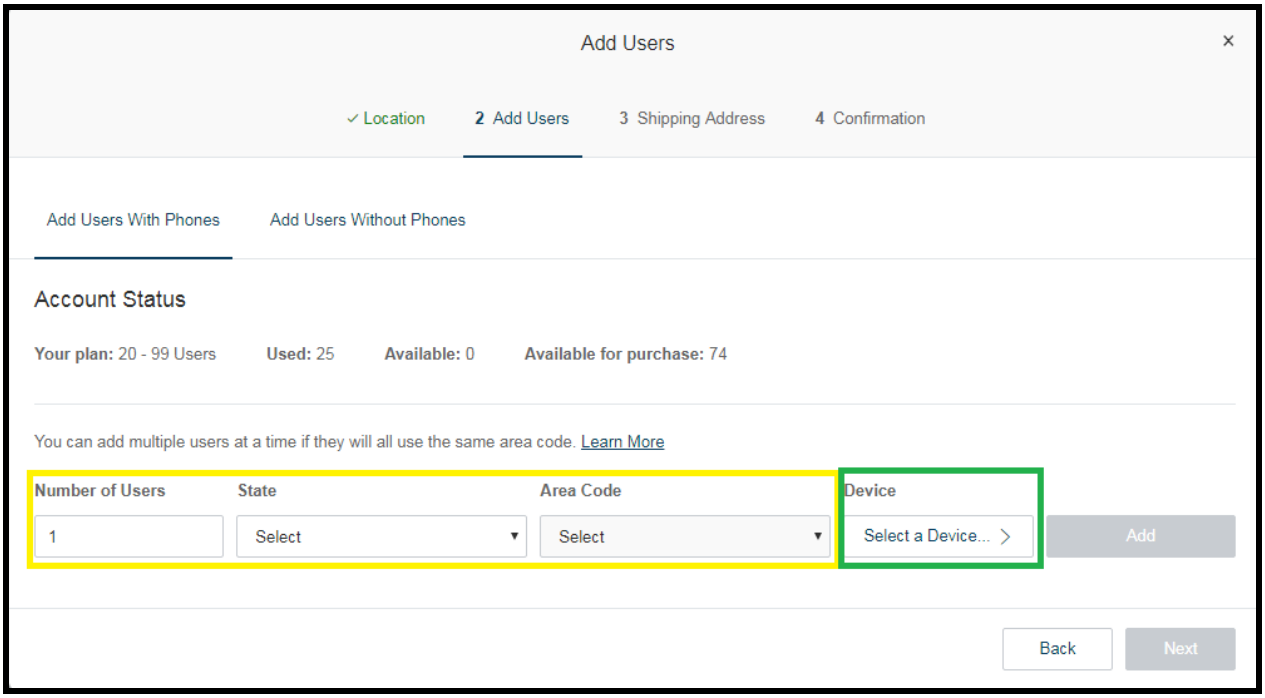
3. A popup window labeled **Add User** will appear. Select a location then press **Next**.

Figure 6-3. Add User Popup



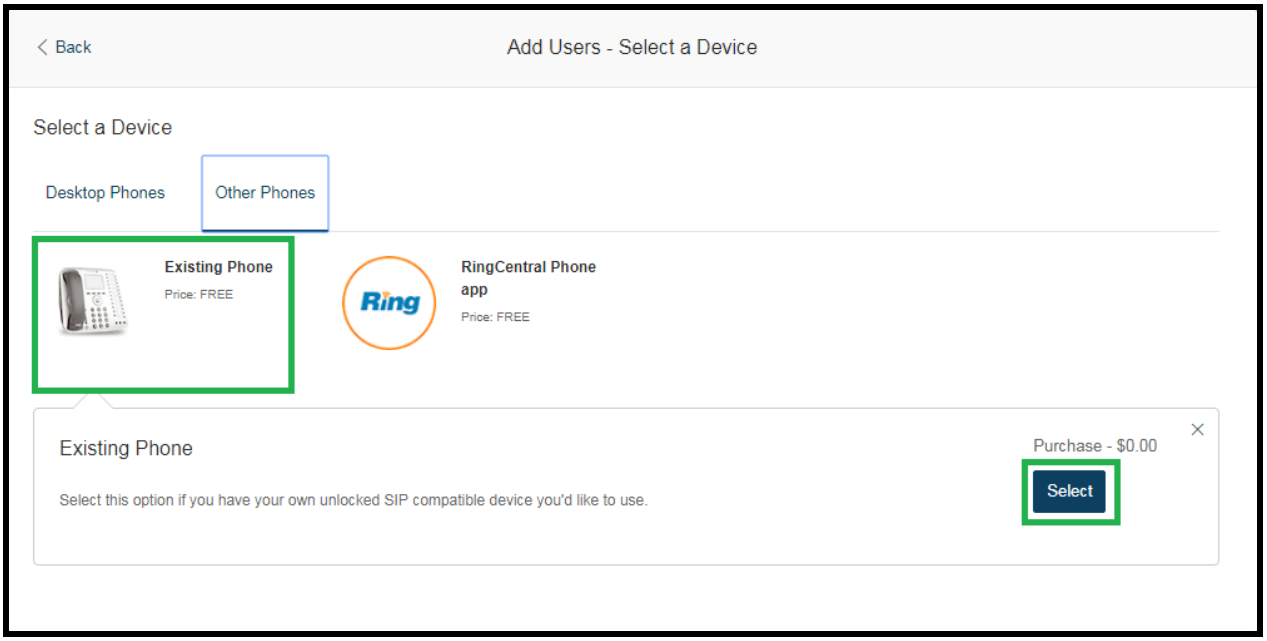
4. In the subsection **Add Users with Phones**, select the number of users, state, area code, and device.

Figure 6-4. Pick a Phone Number



5. Next, select a phone type. Choose **Other Phones**, and then make sure **Existing Phone** is selected. Press **Select**.

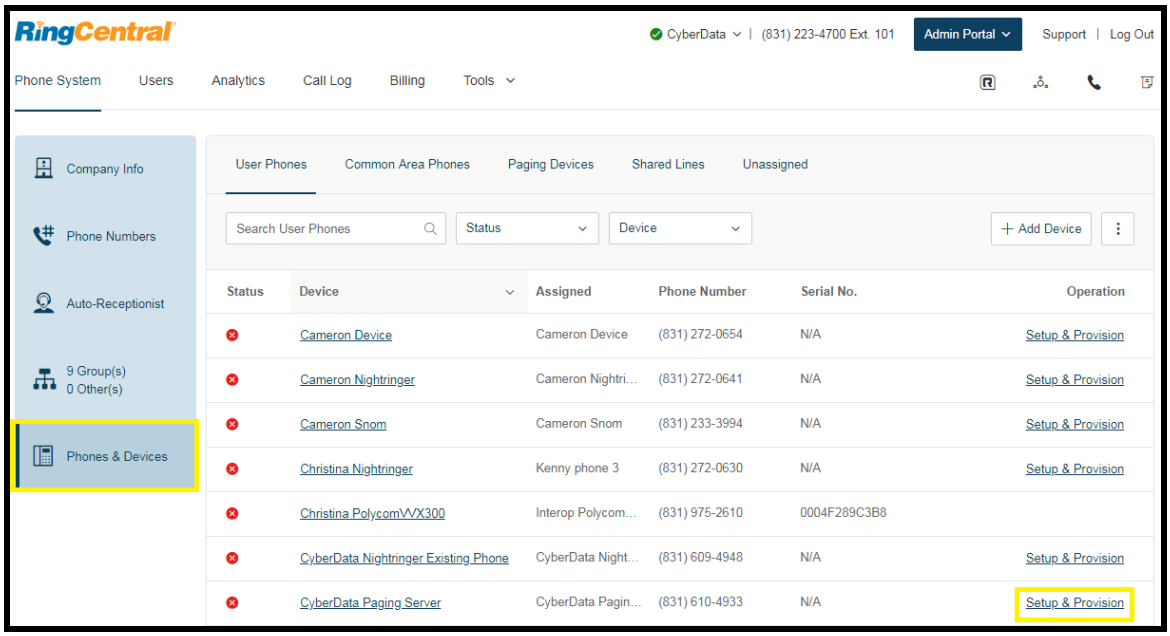
Figure 6-5. Select Phone Type



6. This will then lead to a six-step ordering process to set up a RingCentral Digital Line. Click the **Select** button to choose an **Existing Phone** and follow the steps in the ordering window to complete an order.

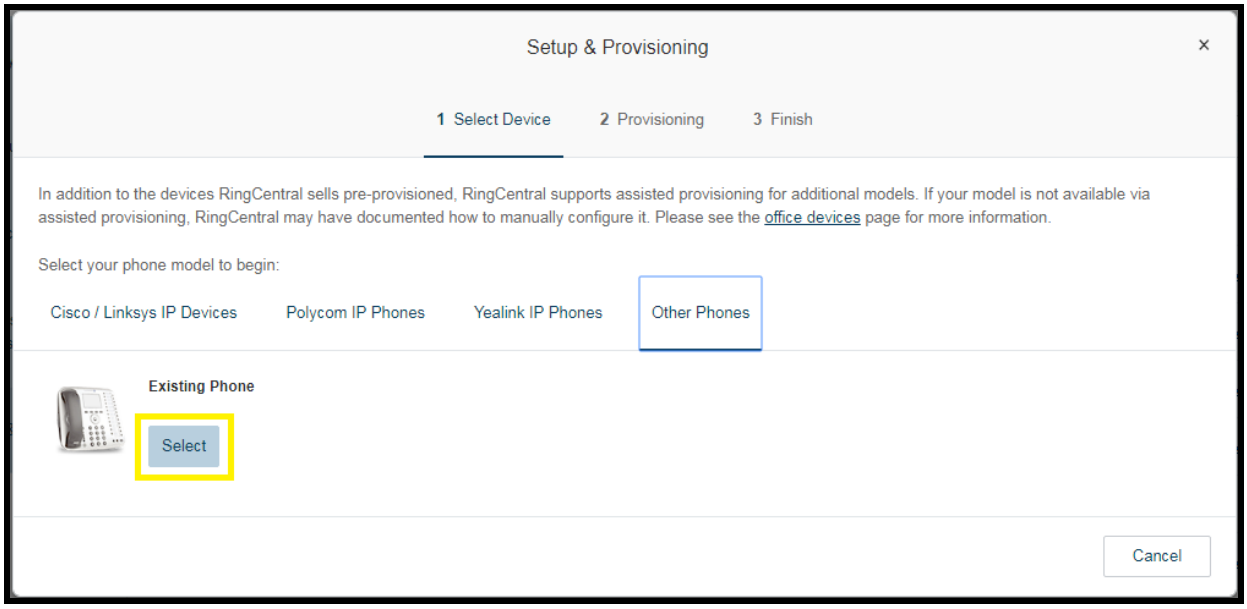
7. From the **Phones & Devices** menu, select **User Phones** and select the user phone designated for the paging server. Click **Setup and Provision**.

Figure 6-6. Setup and Provision



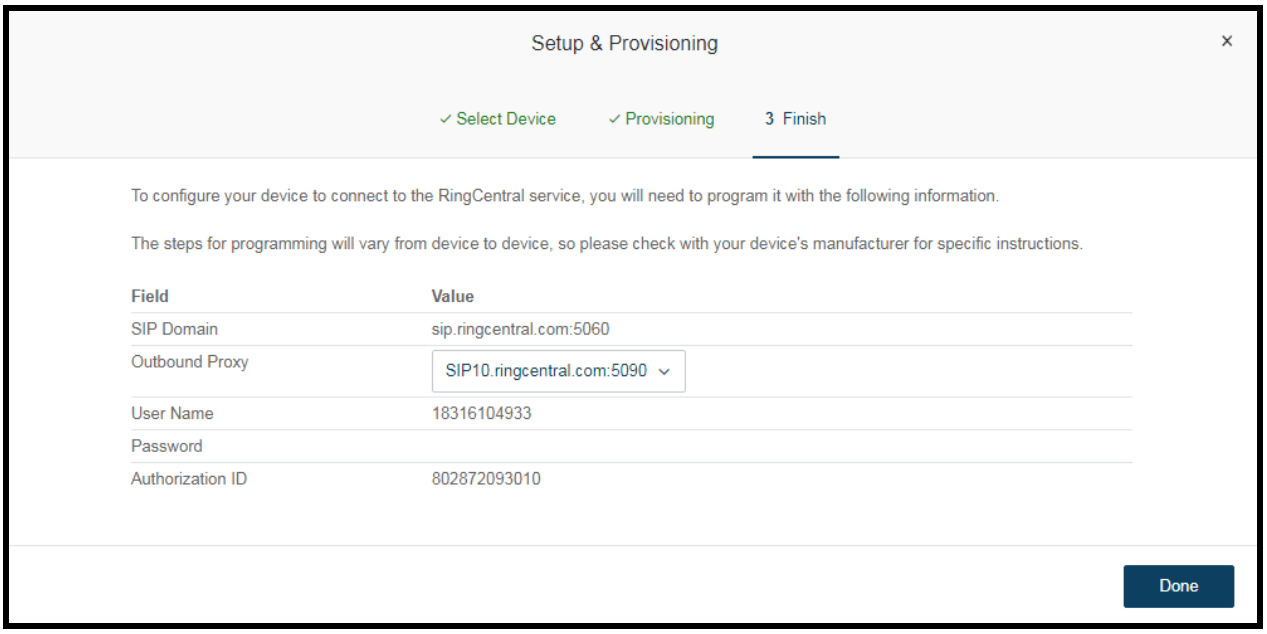
8. A popup window labeled **Setup & Provisioning** will appear. Select **Other Phones** and click **Select**.

Figure 6-7. Setup & Provisioning - Other Phones



9. A popup window labeled **Setup & Provisioning** will appear. This information will be used to register the device with RingCentral.

Figure 6-8. IP Phone Provisioning Information



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 6-1. CyberData Configuration Settings

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

Configure SIP Parameters

If configuring through the web interface, use the following steps to login to the web interface of the paging server and register the extension with RingCentral.

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 web login credentials when prompted and click the **Log In** button.

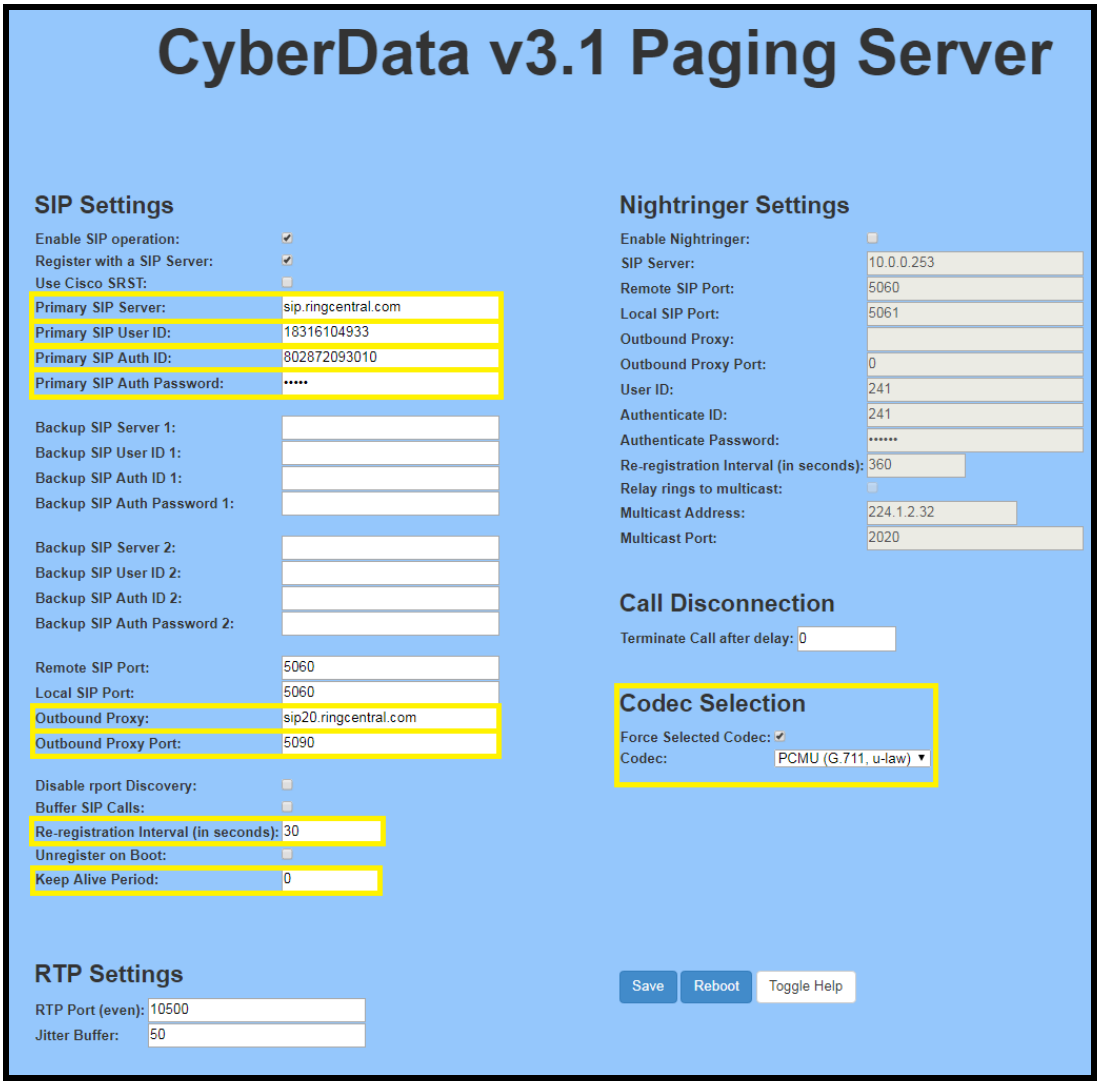
3. On the Home Page, click **SIP** on the top toolbar of the screen to access the SIP tab.

4. Enter the provisioning information from the **Assisted Generic IP Phone Provisioning** popup window. Use Table 6-1 to enter RingCentral SIP values into the proper CyberData SIP fields.

Note: *The Local SIP Port is set to 5060 on default and is used by the Paging Server as its source port for the paging 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 use **PCMU.**
8. Click **Save** and **Reboot** to store changes.

Figure 6-9. SIP Configuration



Autoprovisioning

If autoprovisioning the Paging Server, use the SIP Settings in the autoprovisioning template to register the primary extension with RingCentral.

Figure 6-10. 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>18316104933</SIPUserID>
    <SIPAuthID>802872093010</SIPAuthID>
    <SIPAuthPassword>*****</SIPAuthPassword>
    <SIPUserID2></SIPUserID2>
    <SIPAuthID2></SIPAuthID2>
    <SIPAuthPassword2></SIPAuthPassword2>
    <SIPUserID3></SIPUserID3>
    <SIPAuthID3></SIPAuthID3>
    <SIPAuthPassword3></SIPAuthPassword3>
    <SIPRegistrationTimeout>30</SIPRegistrationTimeout>
    <SIPRegisterOnBoot>Yes</SIPRegisterOnBoot>
    <BufferSIPCalls>No</BufferSIPCalls>
    <RTPPort>10500</RTPPort>
    <JitterBuffer>50</JitterBuffer>
    <CallTimeout>0</CallTimeout>
    <UseCiscoSRST>No</UseCiscoSRST>
    <DisableRportDiscovery>No</DisableRportDiscovery>
    <NatPingOptions>No</NatPingOptions>
    <KeepAlive>0</KeepAlive>
    <DefaultCodec>1</DefaultCodec>
</SIPSettings>
```

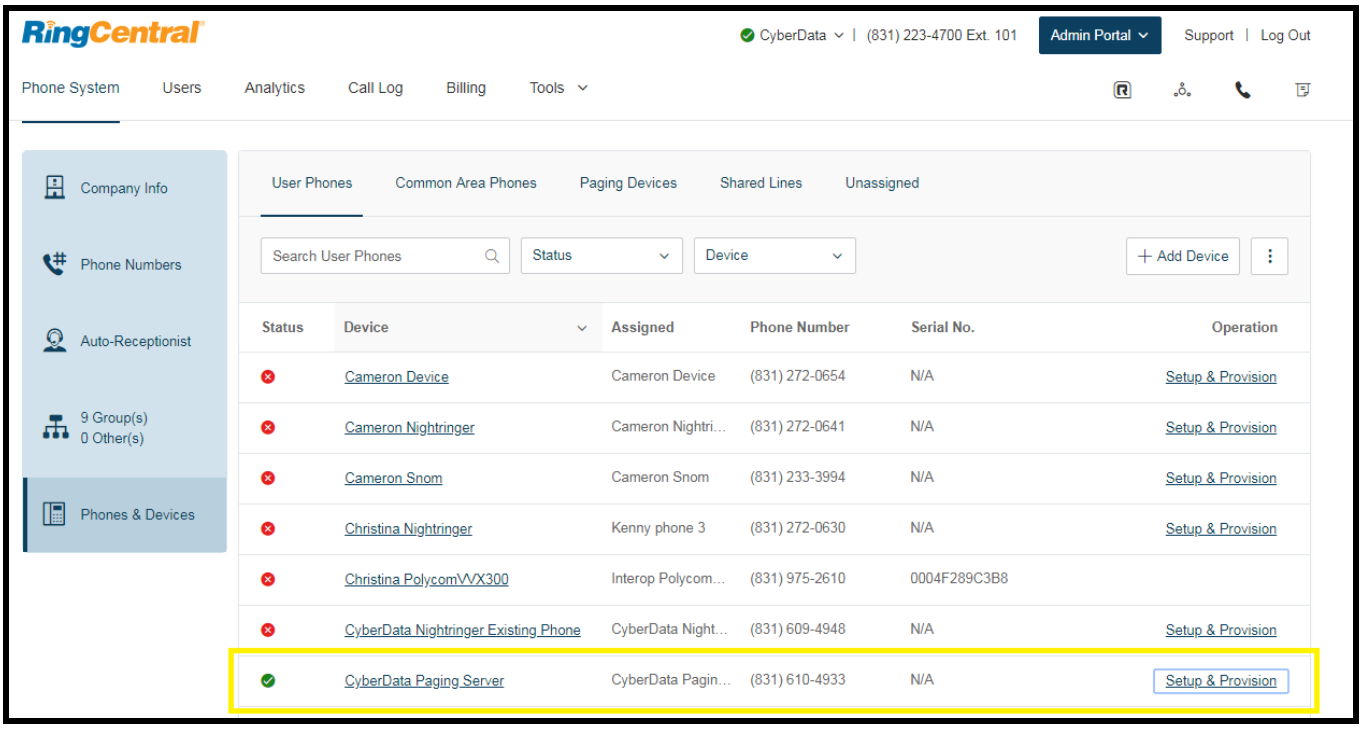
Note: *These example values are published only for reference. The SIPAuthPassword value should be the actual value from the* ***Assisted Generic IP Phone Provisioning*** *popup window.*

Verify the Paging Extension Is Registered

After the paging server has rebooted and initialized to store changes, 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 paging server. The status should show as "online" in the **Phone Details**.

Figure 6-11. Phone Details – Status



Make a Test Call

Once the paging server has registered with RingCentral and the appropriate Device settings for the installation have been configured, any RingCentral phone may be used to dial the extension.

7.0 Configuration Procedure: Nightringer

What is a Nightringer?

The CyberData SIP Paging Server offers a secondary SIP extension called **Nightringer** in addition to the primary extension used for paging.

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 primary extension in Section 6.0 "Configuration Procedure: Voice Prompted Paging."

It is important to note the Primary 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 Primary Extension (and vice versa).

To be clear, when integrating with RingCentral the Nightringer extension must be provisioned as an IP phone rather than a Paging Device which will allow the Nightringer to ring.

If the Nightringer is provisioned and registered as a Paging Device, the Nightringer will only ring for 2 seconds before the call is cancelled by the RingCentral server. Thus, it is necessary to provision the Nightringer as an IP phone for full functionality. Please consult with RingCentral for costs associated with IP phone provisioning for the account.

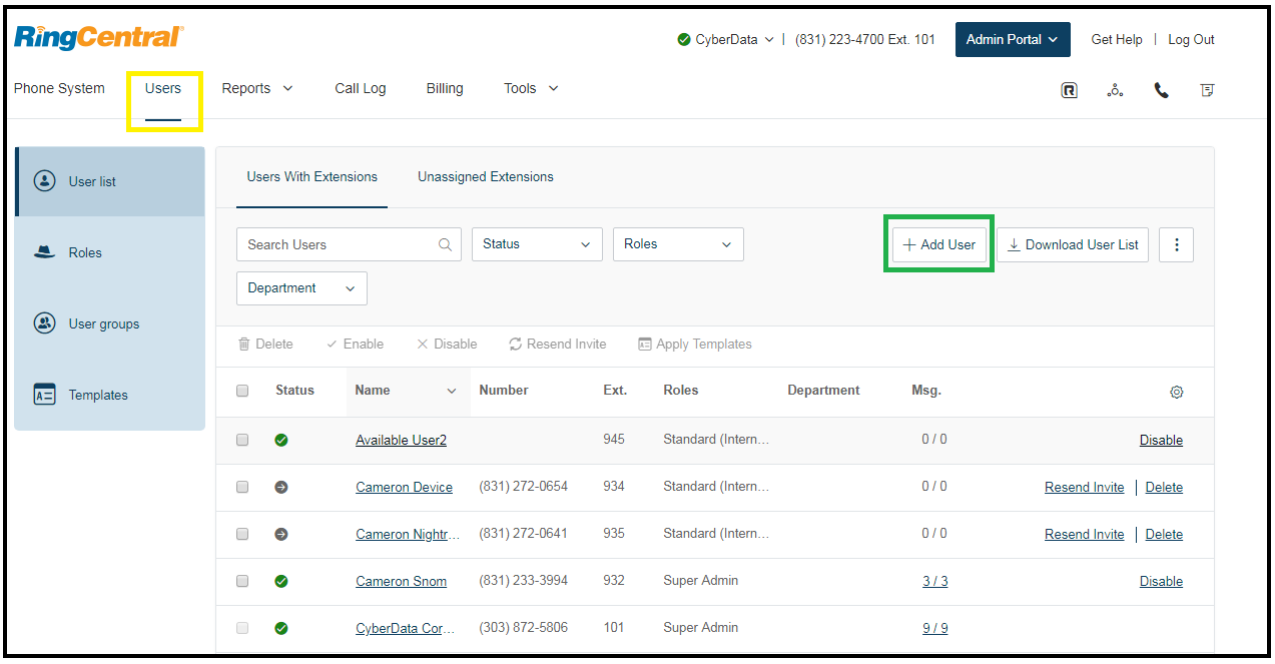
Add an IP Phone

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

First, a user must be created for use by the Nightringer.

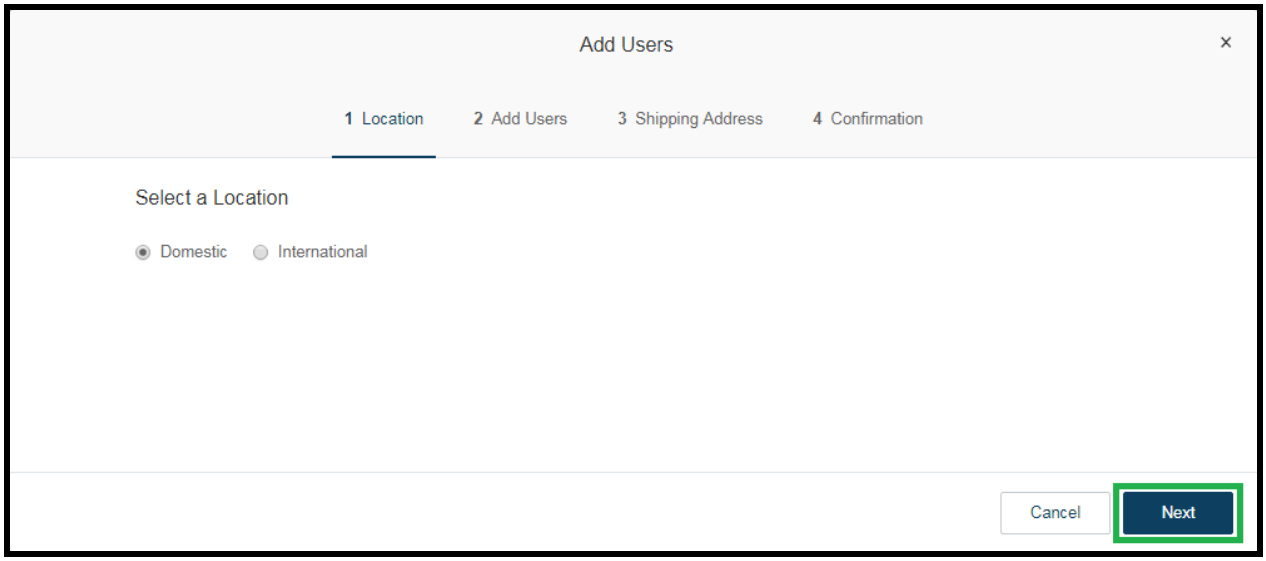
1. From the **[n] Users** menu, click the **Add** button.

Figure 7-1. Add User Button



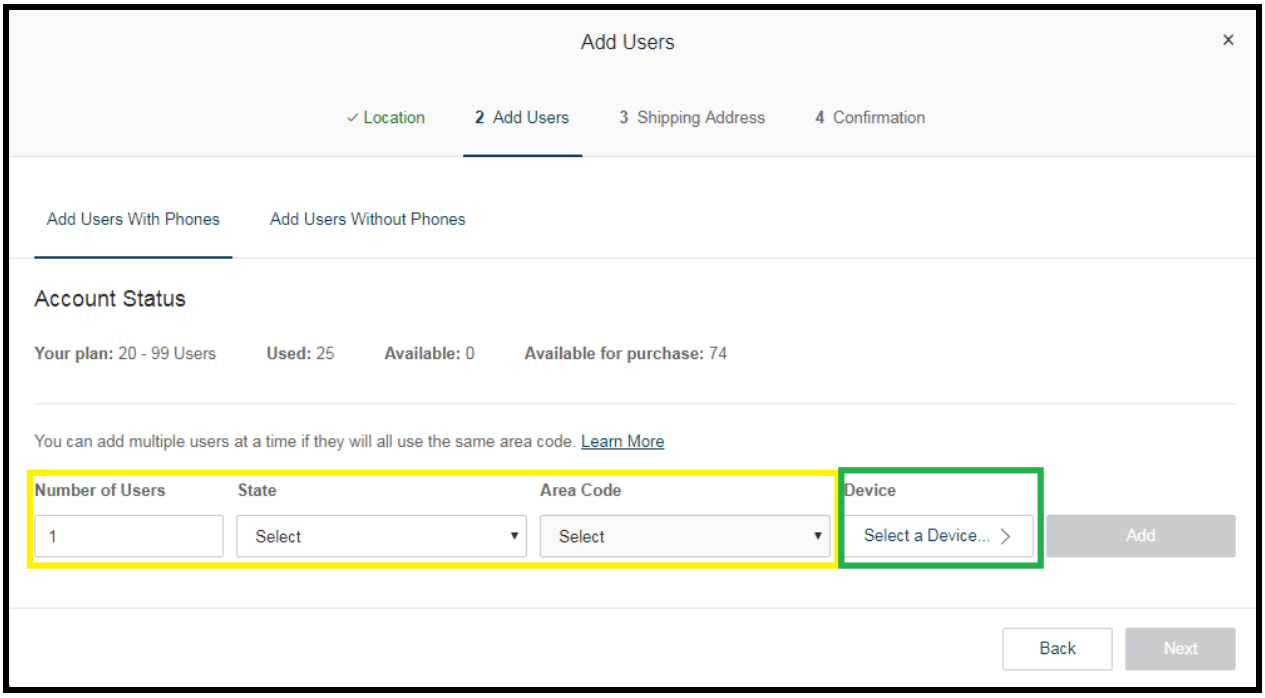
2. A popup window labeled **Add User** will appear. Choose the user location then press **Next**.

Figure 7-2. Add User Location



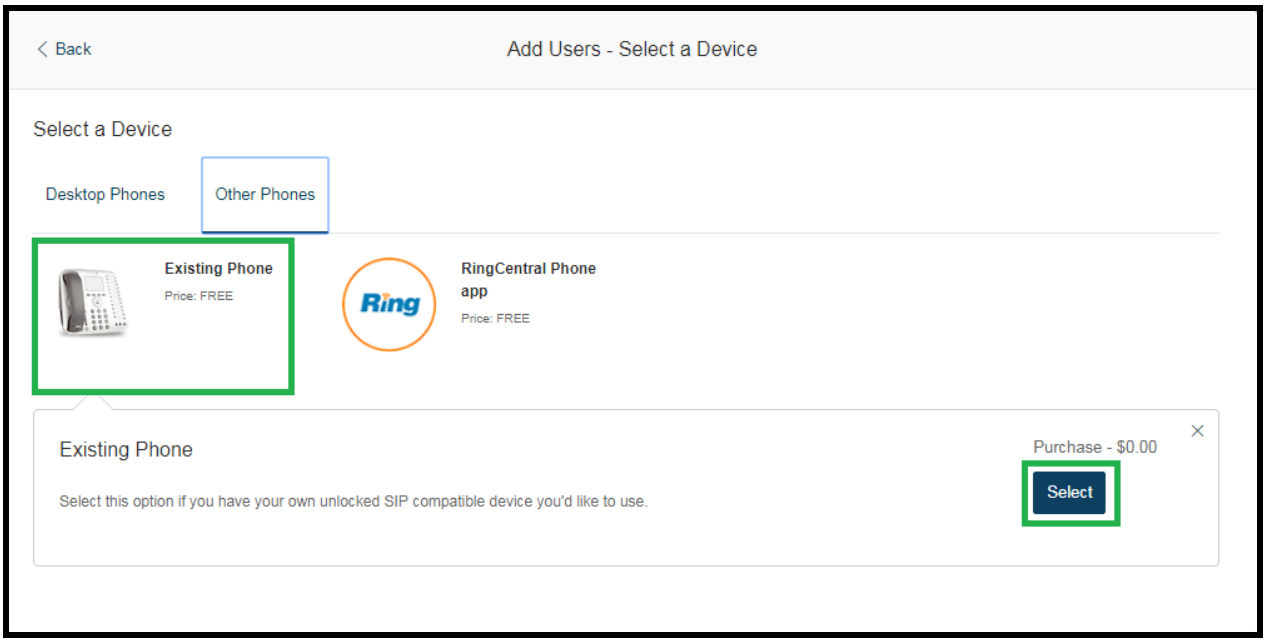
3. In the subsection **Add Users with Phones**, select the number of users, state, area code, and device.

Figure 7-3. Add User Phone Number



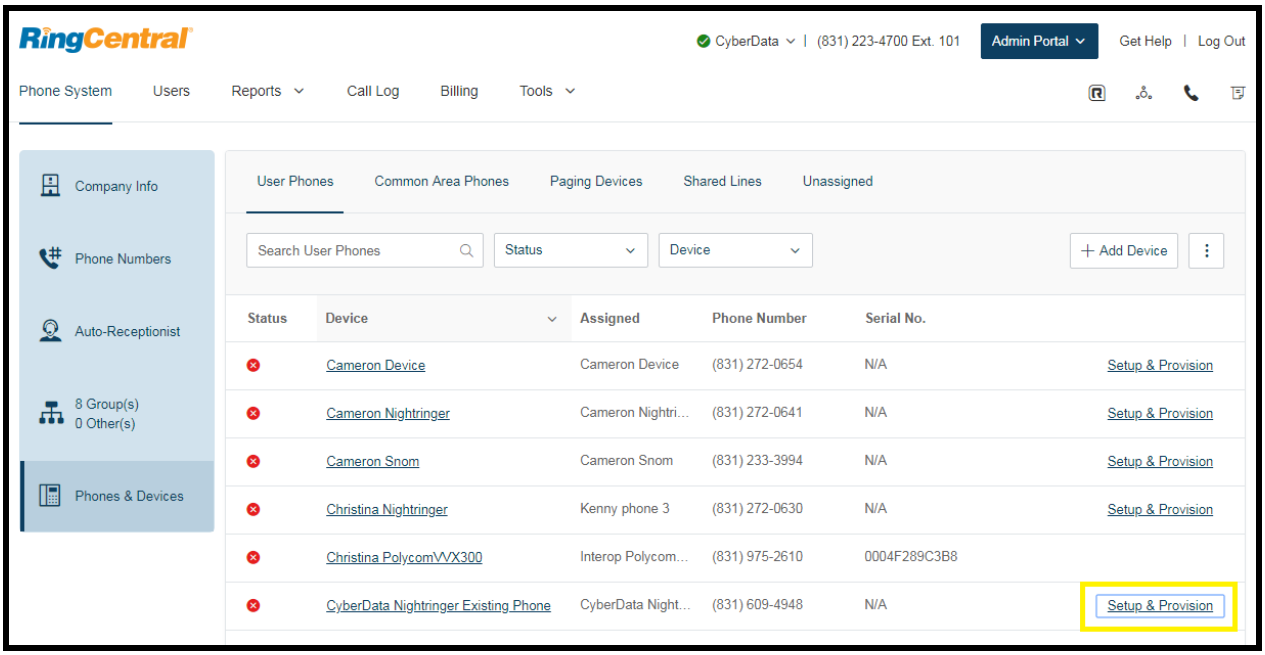
4. From the Select a Device menu pick **Other Phones**. Then select **Existing Phone**. Press Select to confirm the selection.

Figure 7-4. Select Phone Type



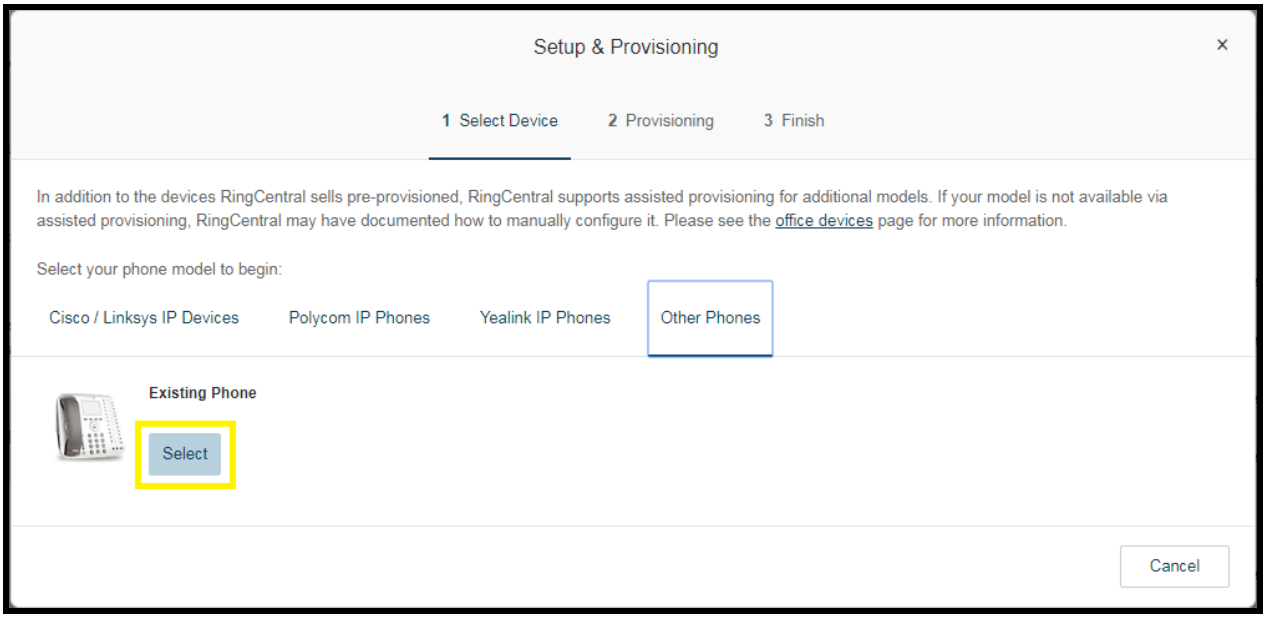
5. From the **Phones & Devices** menu, select **User Phones** and the select the user phone created for the Nightringer. Click **Setup and Provision**.

Figure 7-5. Setup and Provision



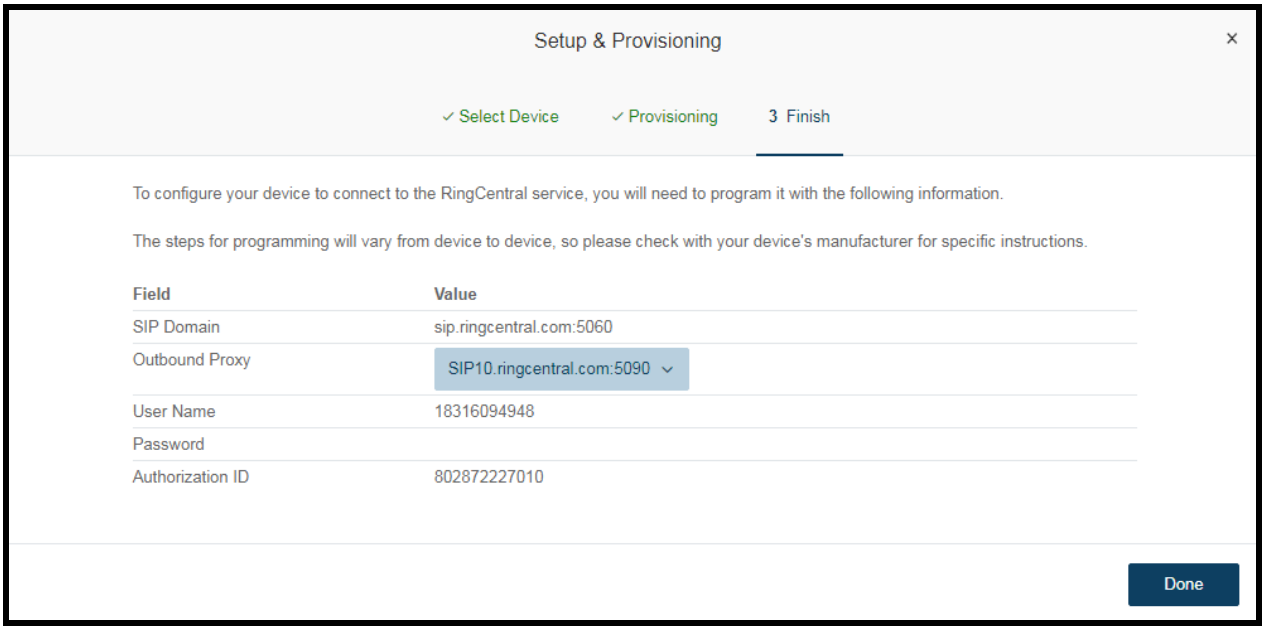
6. A popup window labeled **Assisted provisioning – Step 1** will appear. Select **Other Phones** and click **Next**.

Figure 7-6. Assisted Provisioning – Step 1



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

Figure 7-7. IP Phone Provisioning Information



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 7-1 CyberData Configuration Settings

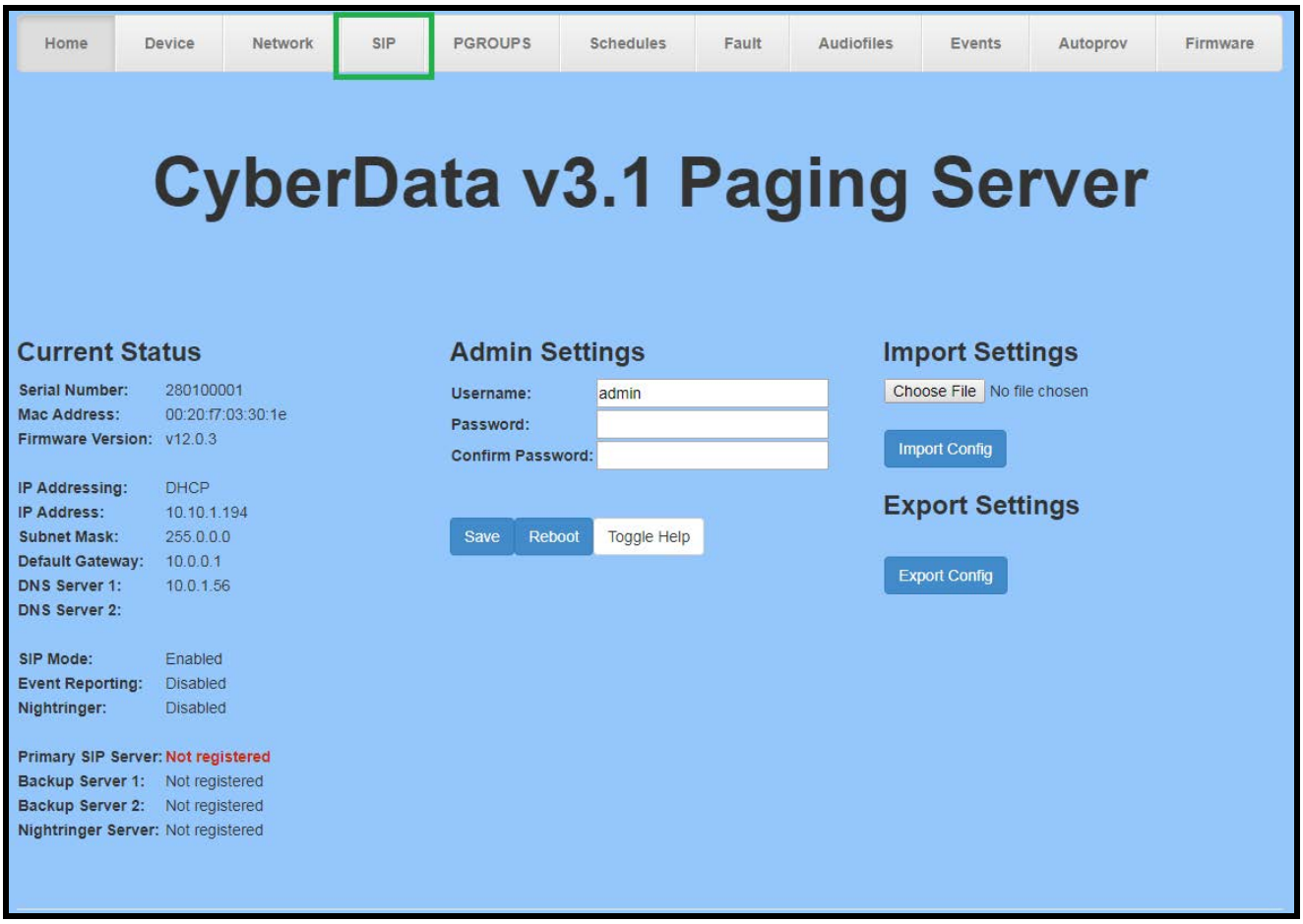
Primary SIP Server field	From the Paging Device Provisioning Information popup: **SIP Server**
Primary SIP User ID field	From the Paging Device Provisioning Information popup: **SIP User ID**
Primary SIP Auth ID field	From the Paging Device Provisioning Information popup: **Authenticate ID**
Primary SIP Auth Password field	From the Paging Device Provisioning Information popup: **Authenticate Password**
Outbound Proxy field	From the Paging Device Provisioning Information popup: **Outbound Proxy**
Outbound Proxy Port field	From the Paging Device Provisioning Information popup**: Outbound Proxy Port**
Re-registration Interval (in seconds) field	**30**
Keep Alive Period field	**0**
Force Selected Codec checkbox **Codec** dropdown	**Yes** **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 top toolbar.

Figure 7-8. Home Page of the Web Interface – Nightringer Button



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 Paging Server as its source port for the Nightringer extension configured on this page.*

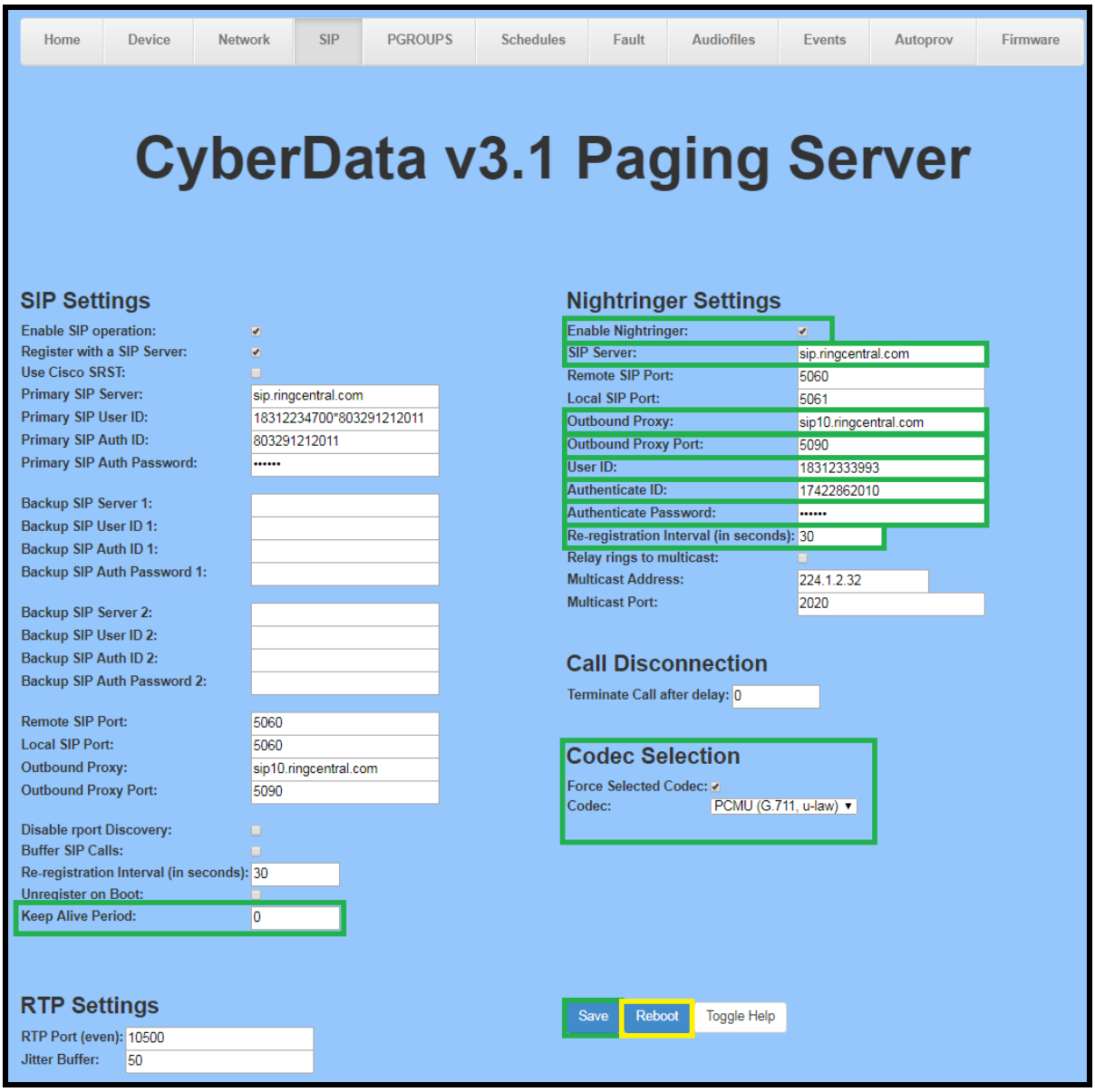
3. Set the *Re-registration Interval (in seconds)* to 30 seconds.

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 7-9. Nightringer Configuration Page of the Web Interface



Autoprovisioning

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

Figure 7-10. 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>
```

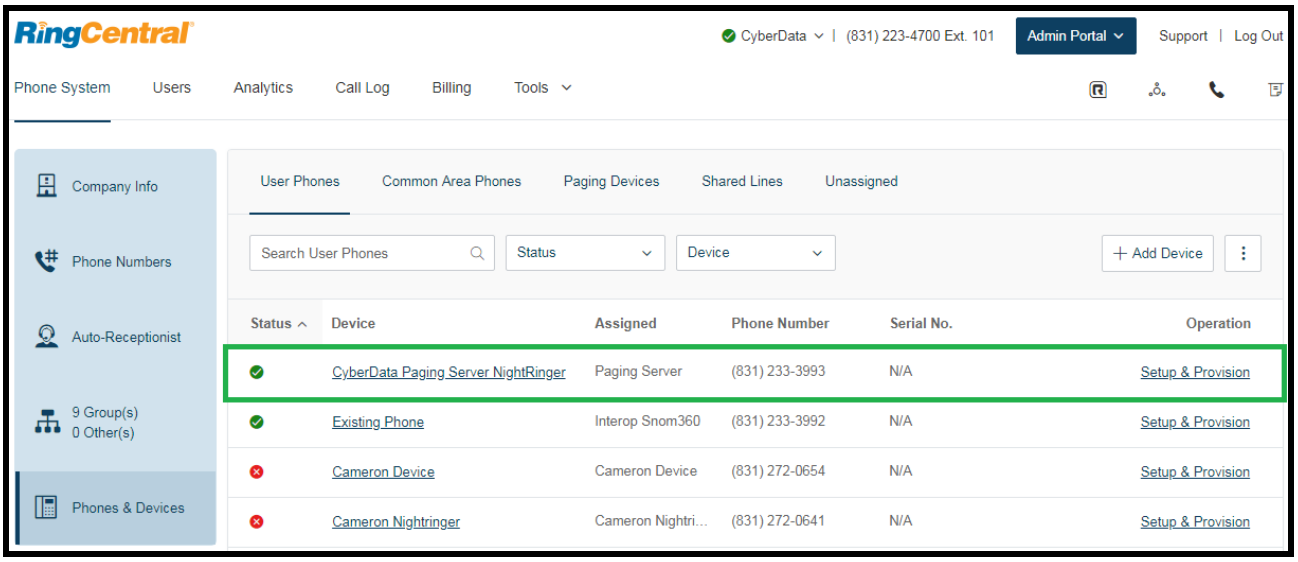
Note: *These example values are published only for reference. The "NightringerAuthPassword" value should be the actual value from the* ***Nightringer's Assisted Generic IP Phone/Adaptor Provisioning*** *popup.*

Verify the Nightringer is Registered

After the paging server 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 as well as at the top of the Nightringer Configuration page next to *Enable Nightringer*. See Figure 6-2 and Figure 6-3.

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 7-11. Nightringer Phone Details – Status



Make a Test Call

Once the device has registered with RingCentral, any phone may be used to dial the Nightringer extension.

8.0 Contact CyberData Corporation

Sales

For sales-related questions, please visit our Contact CyberData Sales web page for more information.

Technical Support

For CyberData Technical Support, please submit a Contact CyberData VoIP Technical Support form on our website.

The CyberData VoIP Technical Support Contact form initiates a troubleshooting ticket which CyberData uses for quality assurance purposes.

Additionally, the Contact VoIP Tech Support form tells us which phone system you are using, the make and model of the network switch, and other essential troubleshooting information we need to efficiently assist with a resolution. Please also include as much detail as possible in the Describe Problem section of the form. Your installation is extremely important to us.

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.