



RING CENTRAL CONFIGURATION GUIDE: V3.1 SIP-ENABLED AMPLIFIERS

Document Part #931041B

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RingCentral Configuration Guide: V3.1 SIP-Enabled Amplifiers Document #931041B

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Revision Information

Revision 931041A was released on January 26, 2015.

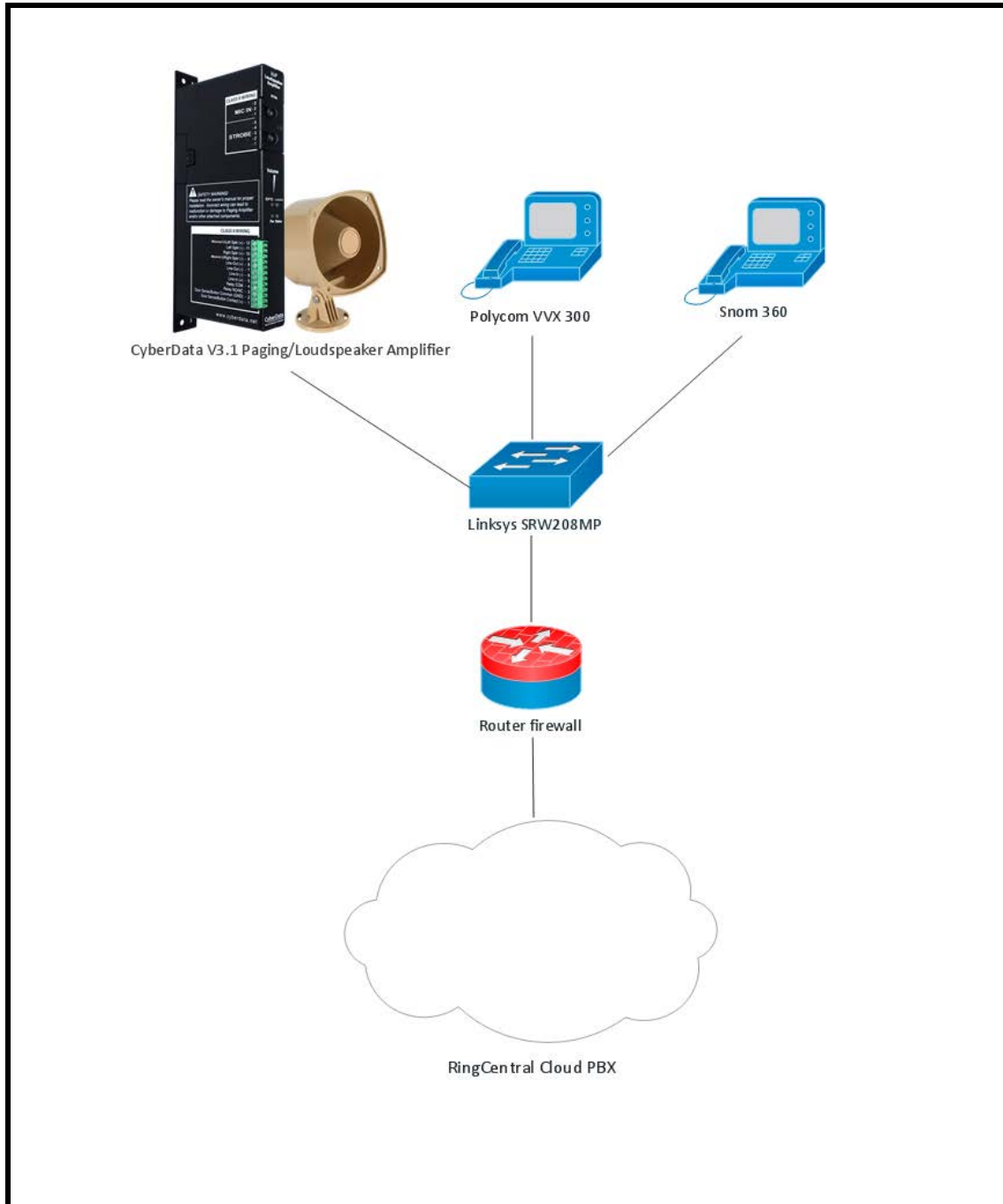
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1.0 Setup Diagram

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	FIRMWARE VERSION
CYBERDATA V2 PAGING/LOUDSPEAKER AMPLIFIER	011324 011404 011405	V11.6.4
POLYCOM	VVX 300	5.2.0.8330
SNOM	360	snom360-SIP 8.4.31
LINKSYS	SRW208MP	1.0.4

3.0 Before You Start

This configuration guide documents the integration process of a CyberData V3.1 SIP-enabled Paging Amplifier or V3.1 SIP-enabled Loudspeaker Amplifier.

Network Advisories

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

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

The amplifier will need to traverse the public internet in order to operate with RingCentral in the cloud.

The amplifier's paging 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 extension are configurable on the **SIP Configuration** page of the web interface. Use the **Nightringer Configuration** page to configure SIP ports for the Nightringer extension.

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

Product Documentation and Utilities

Before you start, download the Operation and Quick Start guides from the amplifier's product webpage:

<http://www.cyberdata.net/voip/011324/>

The CyberData Discovery Utility can be used to locate CyberData devices on your network. You may download it from the following web address:

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

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

4.0 Configuration Procedure: Auto-Answer Paging

RingCentral Office Editions now provide free native support for CyberData SIP-enabled paging endpoints to enhance your organization's overhead paging solution!

The RingCentral Paging feature delivers real-time broadcasts to your desk phones and/or paging devices. CyberData amplifiers can be added to *Paging Only* groups supporting a combination of CyberData paging endpoints and RingCentral Polycom and Cisco desk phones.

CyberData V3.1 Paging/Loudspeaker Amplifiers are ideal for one-way, auto-answer paging in indoor environments and offer external or digital volume control.

Add a Free Paging Device

To provision the amplifier's paging extension, add a RingCentral Paging Device to a *Paging Only* group through the RingCentral Admin Portal.

Note: RingCentral Paging Devices cannot originate calls, receive DTMF tones, or send audio back to the caller when used in *Paging Only* groups.

Use the following steps to add a free Paging Device through the RingCentral Admin Portal.

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

Figure 4-1. RingCentral Admin Portal Login

Log in to RingCentral

Phone Number: (831) 223-4700 Extension (optional): Extension

Password: Enter your password

> Forgot your password?

Remember me on this computer

Log In

Single Sign-on

Protect your account from identity theft and phishing

Meet, share and conference with RingCentral Meetings™
Included on select Office plans. [Learn More.](#)

1. From the **Phones & Devices** menu, click **Add Device**.

Figure 4-2. Add Device

The screenshot shows the RingCentral Admin Portal interface. At the top, there is a navigation bar with the RingCentral logo, 'Admin Portal', 'My Extension', and user information 'CyberData | (811) 223-4700 Ext. 101'. Below this is a secondary navigation bar with 'Phone System', 'Reports', 'Call Log', 'Billing', and 'Tools'. The main content area is divided into three columns. The left column contains 'Company Numbers and Info (811) 223-4700', 'Auto-Receptionist', '9 Groups', '19 Users', and a highlighted 'Phones & Devices' menu item. The middle column, titled 'Phones & Devices', has tabs for 'User Phones', 'Devices', and 'Unassigned'. It features a search bar, a 'Sort by: First Name' dropdown, and a list of devices including 'Cameron Device, EXT. 934', 'Cameron Nightringer, EXT. 935', 'Cameron Snom, EXT. 932', 'CyberData Corporation, EXT. 101', and 'Dave RingCentral, EXT. 102'. The 'Add Device' button at the bottom of this list is highlighted with a red box. The right column, titled 'Video Tutorials', shows a video player for 'Overview: Phones' with a 'Watch video' link. At the bottom left, there is a 'Legal' section with copyright information: '© 1999 - 2015 RingCentral Intellectual Property. All rights reserved. RingCentral and the RingCentral logo are trademarks of RingCentral, Inc.'

2. A popup window labeled **Select Device Type** will appear. Select **Paging Device** and click **Next**.

Figure 4-3. Select Device Type

Select Device Type [X]

What device would you like to add?

User Phone
An activated IP phone assigned to a user.

Unassigned Phone
An IP phone in your account that is not yet activated or assigned to a user.

Paging Device
A special device that supports overhead paging e.g. CyberData Paging Speaker.

Cancel Next >

3. A popup window labeled **Add Paging Device** will appear. Enter a meaningful device nickname and click **Next**.

Figure 4-4. Add Paging Device

Add Paging Device [X]

Only the following paging devices are supported by RingCentral:

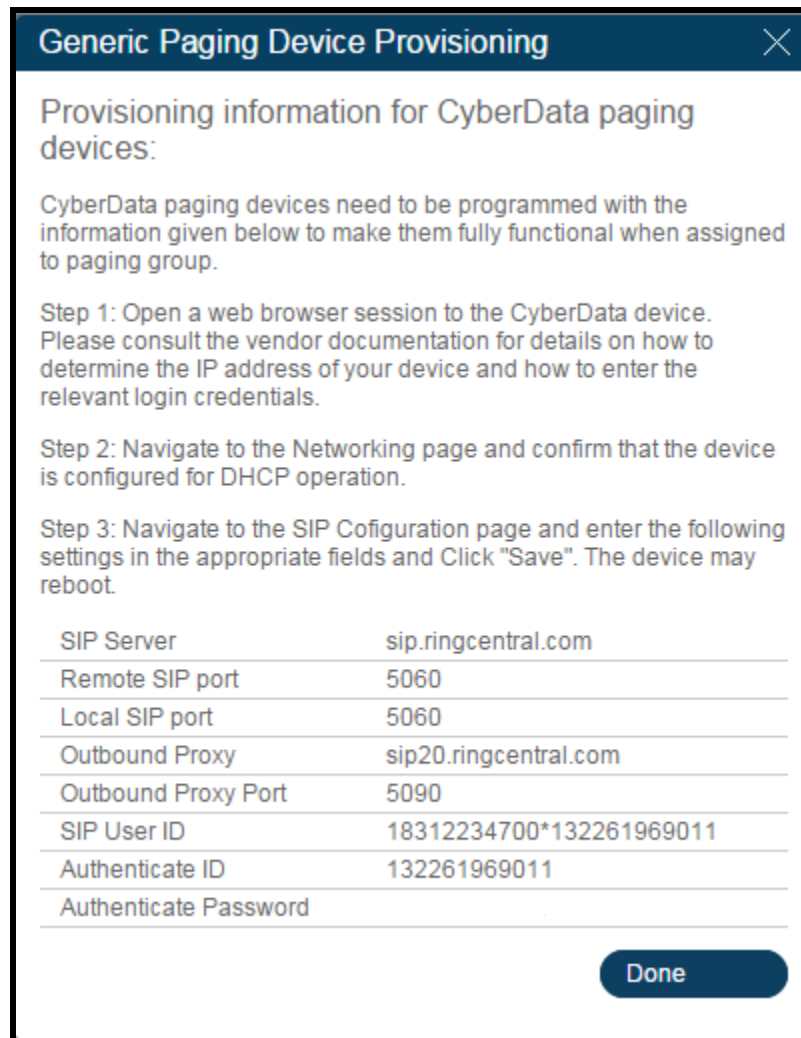
- CyberData SIP-enabled IP V2 Paging Speaker
- CyberData SIP-enabled IP V2 Paging Amplifier

Device Nickname:

Cancel Next >

4. A popup window labeled **Generic Paging Device Provisioning** will appear. You will use the provisioning information to register the amplifier’s paging extension with RingCentral.

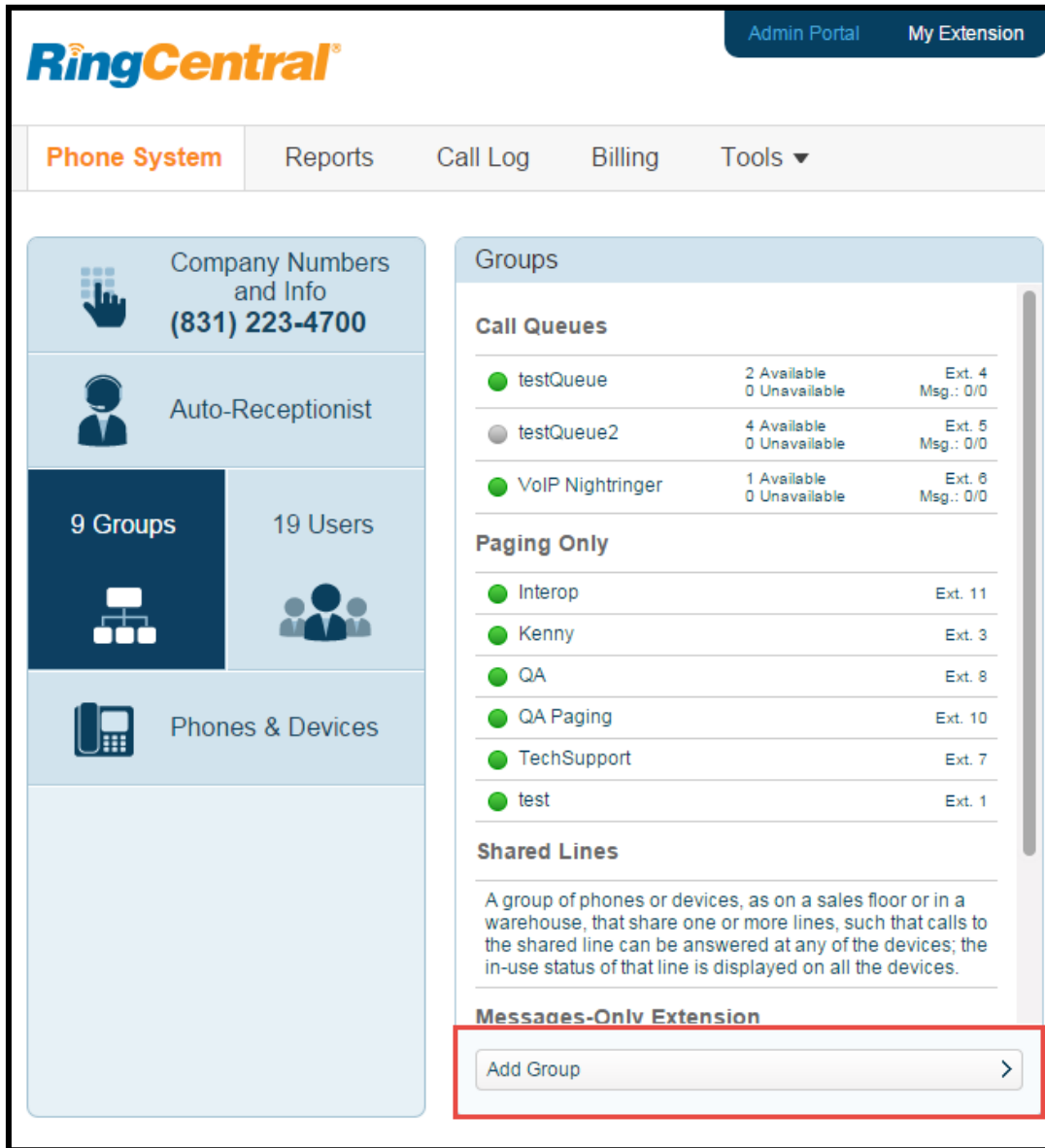
Figure 4-5. Paging Device Provisioning Information



Note: The values in the left of the table are the name of the CyberData SIP fields as they appear in the amplifier’s web interface. The Authenticate Password has been obscured. These values are published only for reference.

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

Figure 4-6. Add Group



6. A popup labeled **Add Group** will appear. Select **Paging Only** and click **Next**.

Figure 4-7. Paging Only

Add Group [Close]

Call Queue
A group of users/extensions, as in a call queue, which receive and queue calls to be answered by the next available member of the group.

Paging Only
A group of deskphones or overhead speakers used to broadcast pages.

Shared Lines
A group of phones or devices, as on a sales floor or in a warehouse, that share one or more lines, such that calls to the shared line can be answered at any of the devices; the in-use status of that line is displayed on all the devices.

Add Special Extension

Message-Only Extension
Extension to receive messages only.

Announcement-Only Extension
Extension to play announcements.

Cancel **Next** >

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

Figure 4-8. Add Paging Group

Add Paging Group [Close]

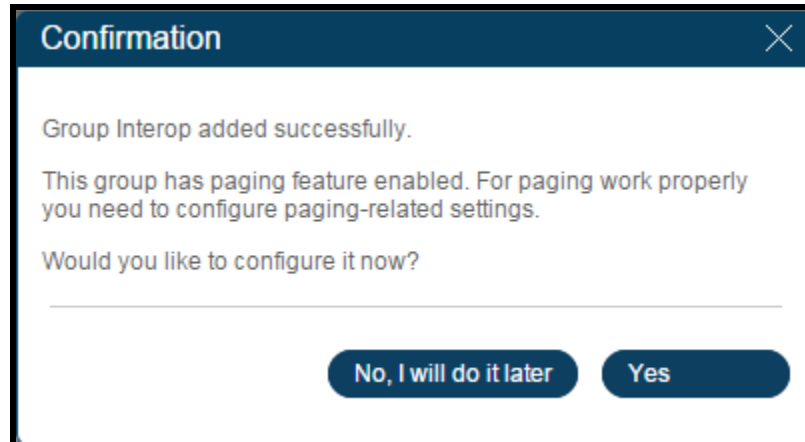
Extension Number:

Group Name:

Cancel **Save** >

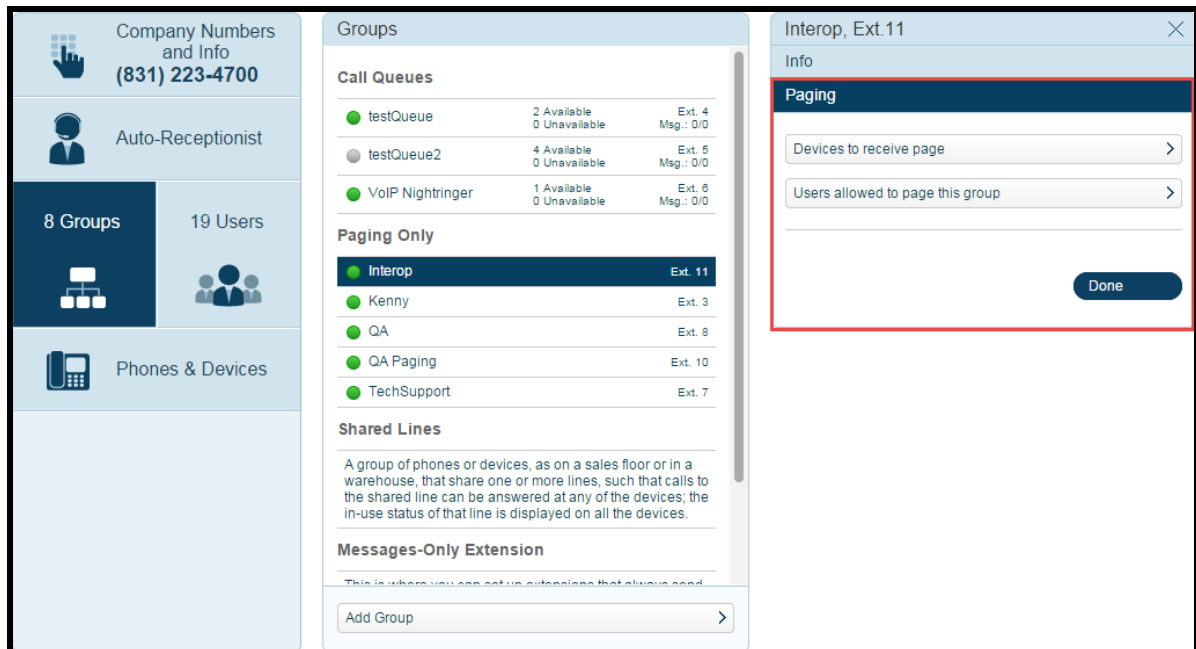
- A confirmation screen will confirm the paging group has been created. Select **Yes** to configure paging settings.

Figure 4-9. Confirmation



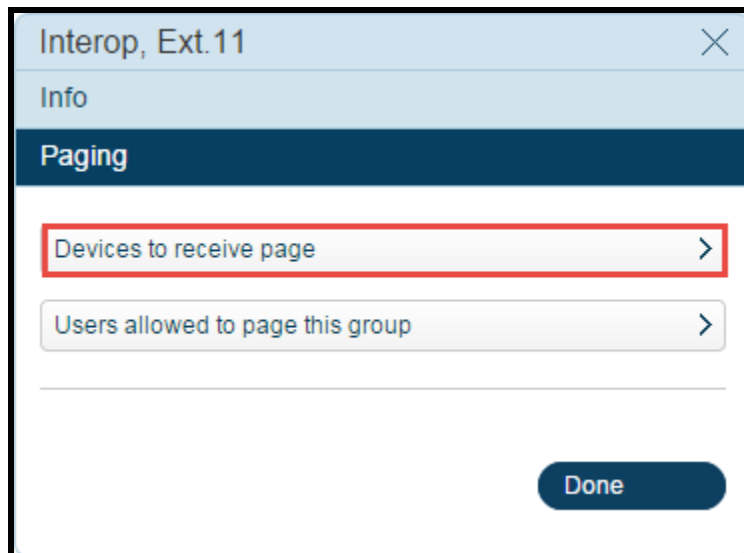
- Verify the new paging group appears in the **Groups** list. Select the paging group and a menu will appear to the far right of the screen. From this menu, select **Paging**.

Figure 4-10. Group Paging Menu



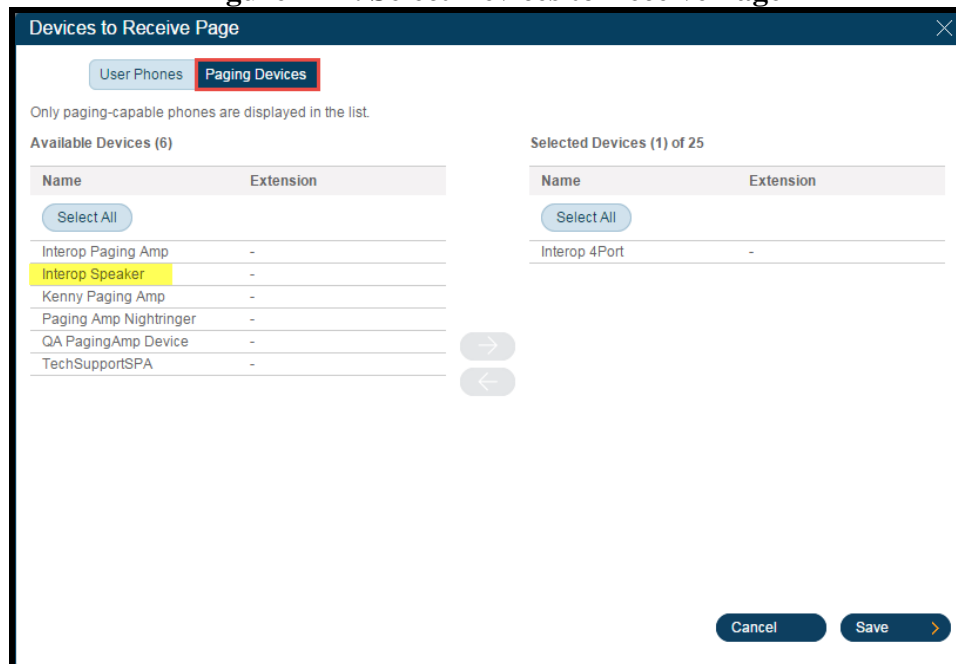
10. From the **Paging** menu, select **Devices to receive page**.

Figure 4-11. Devices to Receive Page



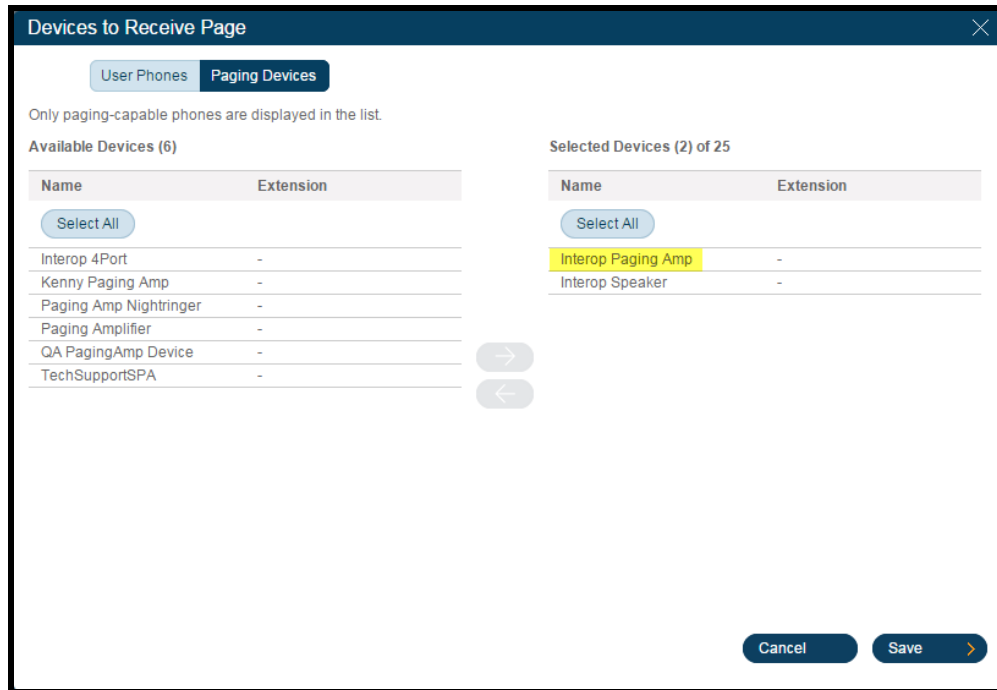
11. A popup labeled **Devices to receive page** will appear. Select **Paging Devices** to view paging-capable devices that can be added to the paging group. Verify the device appears.

Figure 4-12. Select Devices to Receive Page



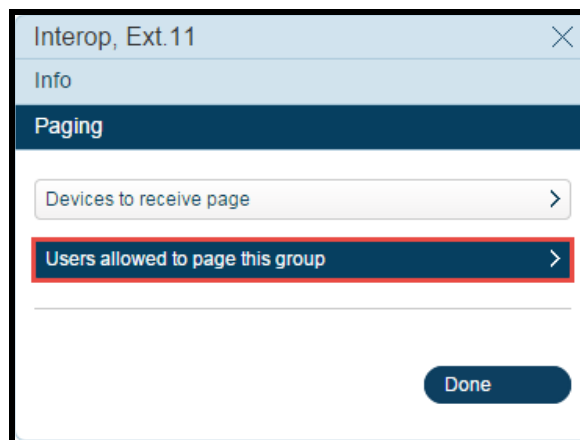
12. Select the new Paging Device and use the right arrow to move the Paging Device to the **Selected Devices** table. Then, click **Save**.

Figure 4-13. Selected Devices



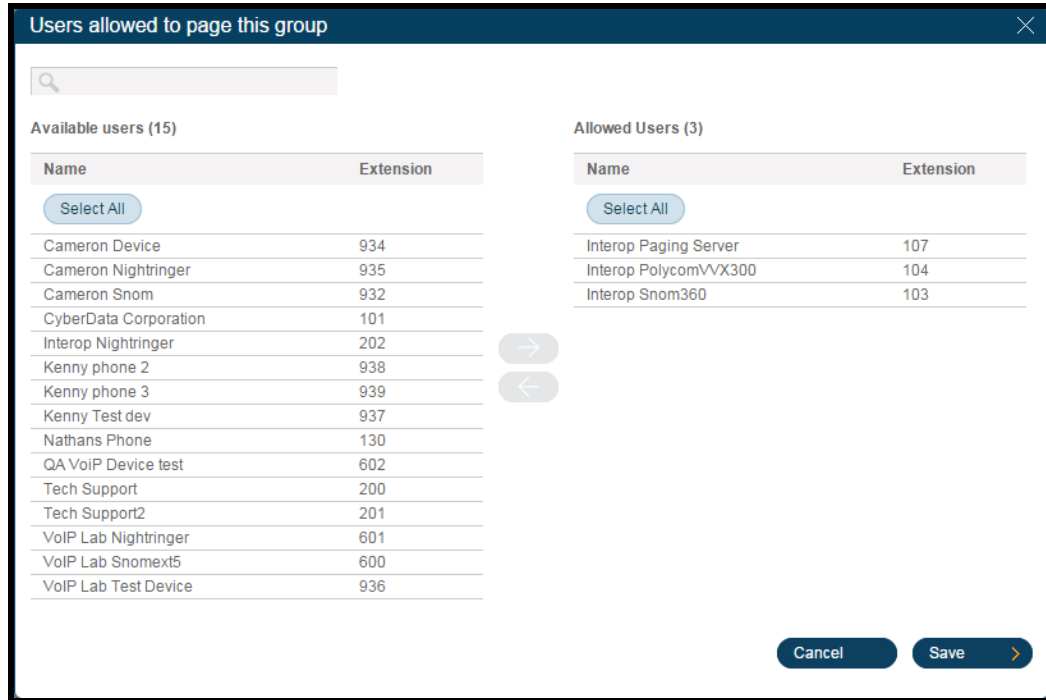
13. The page redirects back to the group’s paging menu after clicking **Save**. Next, select **Users allowed to page this group** to designate users with paging privileges.

Figure 4-14. Users Allowed to Page This Group



14. Select users from **Available Users (n)** list and move them to the **Allowed Users (n)** list using the right arrow, then click **Save**.

Figure 4-15. Select Users Allowed to Page This Group



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

Configure SIP Parameters

You 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 amplifier's operation guide for complete information on configuration through the web interface and CyberData's "autoprovisioning" method using templates via HTTP and TFTP protocols.

If you are configuring through the web interface, use the following steps to login to the web interface of your CyberData device.

1. Click **Launch Browser** from the CyberData Discovery Utility or point your 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 4-16. Web Interface Login

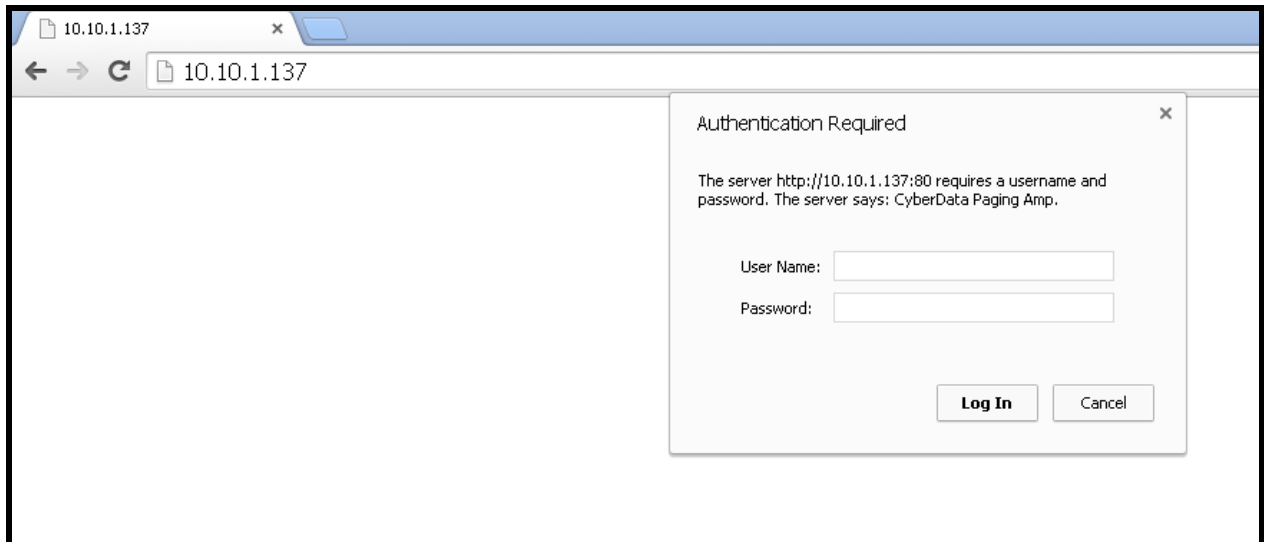
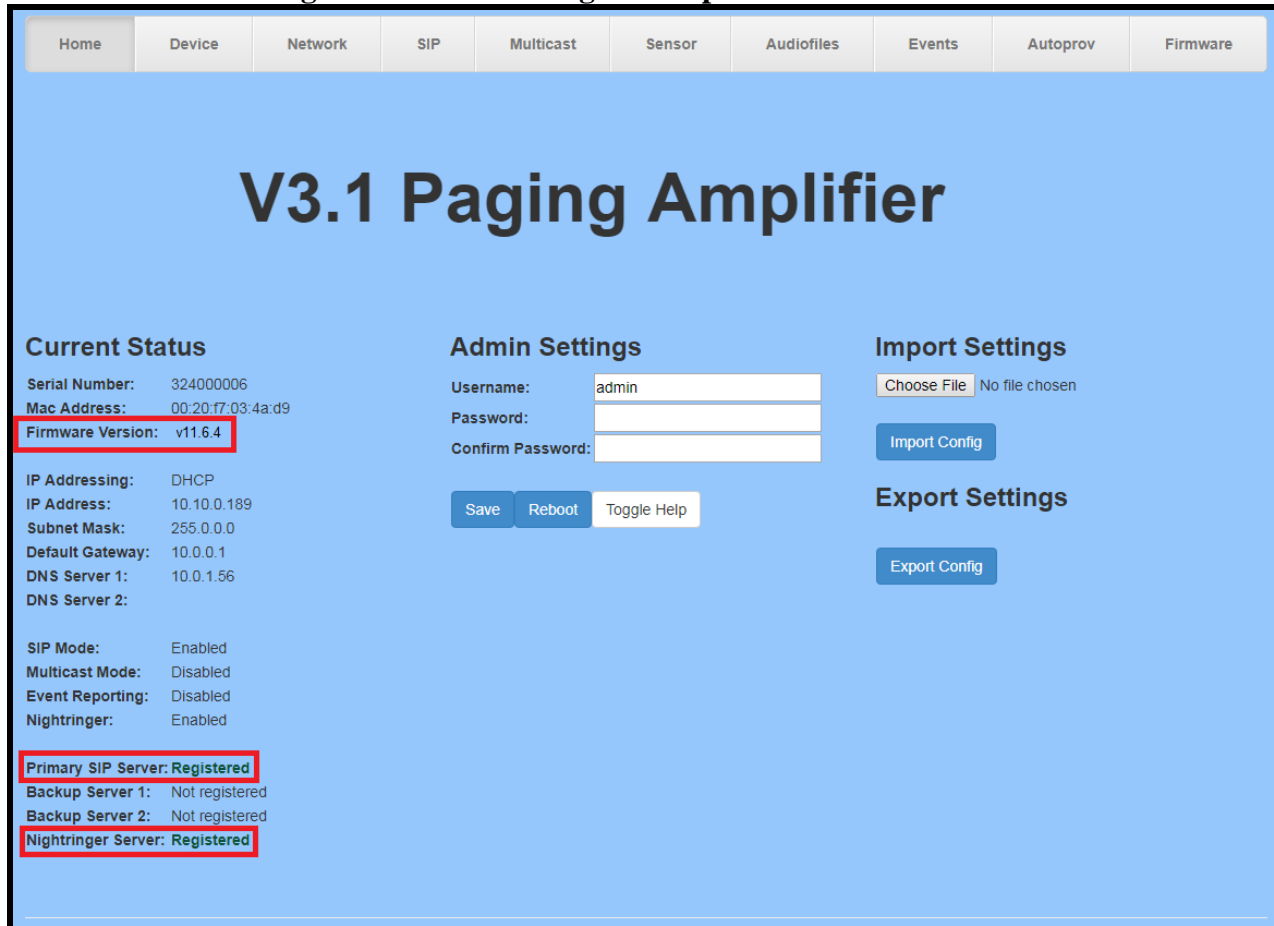


Figure 4-17. Home Page of Amplifier Web Interface



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

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

4. Enter the provisioning information from the [Generic Paging Device Provisioning](#) popup window. Note the *Local SIP Port* is set to 5060 on default and is used by the amplifier as its source port for the auto-answer 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 4-18. SIP Configuration

V3.1 Paging Amplifier

SIP Settings

Enable SIP operation:

Register with a SIP Server:

Use Cisco SRST:

Primary SIP Server: sip.ringcentral.com

Primary SIP User ID: 18312755997

Primary SIP Auth ID: 32007731010

Primary SIP Auth Password:

Backup SIP Server 1:

Backup SIP User ID 1:

Backup SIP Auth ID 1:

Backup SIP Auth Password 1:

Backup SIP Server 2:

Backup SIP User ID 2:

Backup SIP Auth ID 2:

Backup SIP Auth Password 2:

Remote SIP Port: 5060

Local SIP Port: 5060

Outbound Proxy: sip20.ringcentral.com

Outbound Proxy Port: 5090

Disable rport Discovery:

Buffer SIP Calls:

Re-registration Interval (in seconds): 30

Unregister on Boot:

Keep Alive Period: 0

Nightringer Settings

Enable Nightringer:

SIP Server: sip.ringcentral.com

Remote SIP Port: 5060

Local SIP Port: 5061

Outbound Proxy: sip20.ringcentral.com

Outbound Proxy Port: 5090

User ID: 18315088809

Authenticate ID: 38077373010

Authenticate Password:

Re-registration Interval (in seconds): 30

RTP Settings

RTP Port (even): 10500

Jitter Buffer: 50

Call Disconnection

Terminate Call after delay: 0

Codec Selection

Force Selected Codec:

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

Save Reboot Toggle Help

Autoprovisioning

If you are autoprovisioning the amplifier, use the SIP Settings in the autoprovisioning template to register the amplifier with RingCentral.

An autoprovisioning template is provided in the respective firmware folder available on the **Downloads** tab of the product webpage here:

<http://www.cyberdata.net/voip/011324/>

Be sure to use the autoprovisioning template for the firmware version running on the amplifier. 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 4-19. Autoprovisioning Template Example – SIP Settings

```

<SIPSettings>
  <EnableSIPOperation>Yes</EnableSIPOperation>
  <SIPServer>sip.ringcentral.com</SIPServer>
  <BackupSIPServer1></BackupSIPServer1>
  <BackupSIPServer2></BackupSIPServer2>
  <UseCiscoSRST>No</UseCiscoSRST>
  <RemoteSIPPort>5060</RemoteSIPPort>
  <LocalSIPPort>5060</LocalSIPPort>
  <OutboundProxy>sip20.ringcentral.com</OutboundProxy>
  <OutboundProxyPort>5090</OutboundProxyPort>
  <SIPUserID>18312234700*132261969011</SIPUserID>
  <SIPAuthID>132261969011</SIPAuthID>
  <SIPAuthPassword>*****</SIPAuthPassword>
  <SIPRegistrationTimeout>30</SIPRegistrationTimeout>
  <SIPUnregisterOnBoot>No</SIPUnregisterOnBoot>
  <DisableRportDiscovery>No</DisableRportDiscovery>
  <CallTimeout>0</CallTimeout>
  <RTPPort>10500</RTPPort>
</SIPSettings>

```

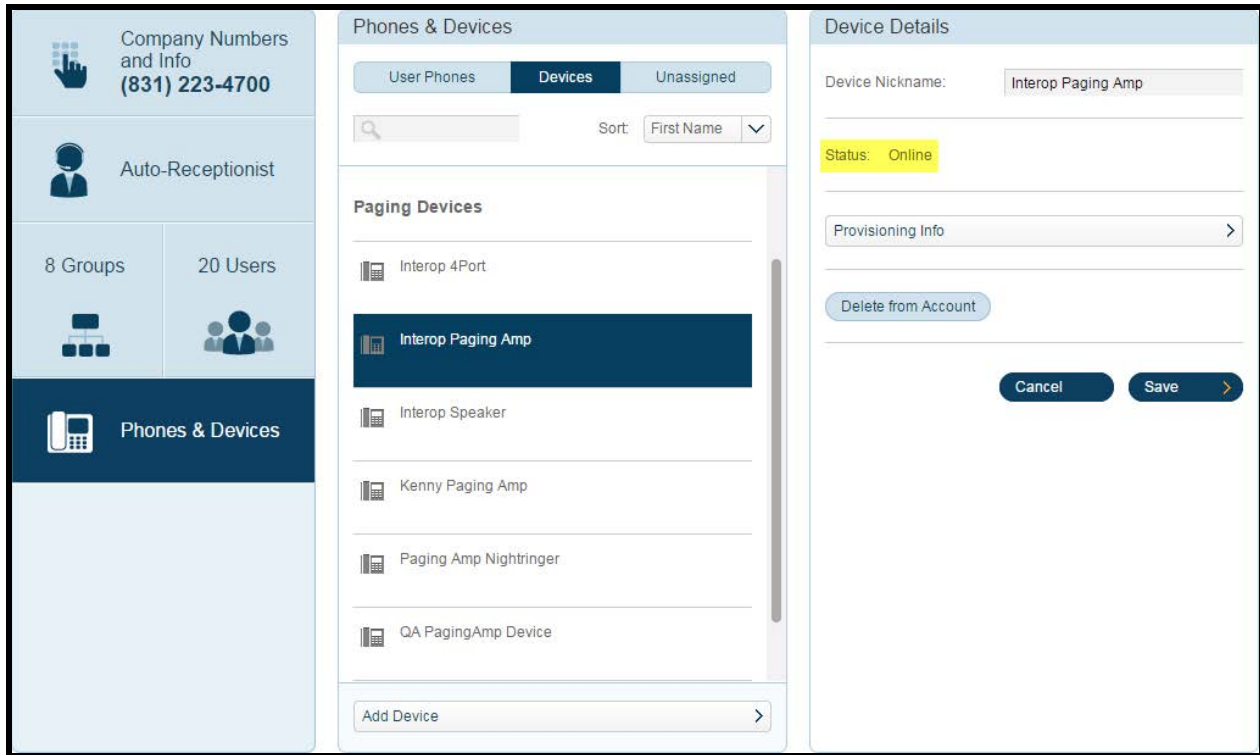
Note: These example values are published only for reference. The SIPAuthPassword value should be the actual value from the [Generic Paging Device Provisioning](#) popup window.

Verify the Amplifier is Registered

After the device has rebooted and initialized, refresh the [Home page of the web interface](#). Your 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 SIP Configuration page next to *Primary SIP Server*. See [Figure 4-17](#) and [Figure 4-18](#).

Additionally, you may verify the amplifier is registered with RingCentral through the admin portal. From the **Phones & Devices** menu, select **Devices** and the Paging Device you just created for the amplifier. The status should show as “online” in the **Device Details**.

Figure 4-20. Device Details – Status



Make a Test Call

Once your device has registered with RingCentral, you may use a phone associated with an [Allowed User](#) to dial the extension of the paging group.

Refer to [RingCentral Article Number 5983](#) for instructions on paging a group from your IP phone.

5.0 Configuration Procedure: Voice-Prompted Paging

When an installation requires more flexibility than auto-answer live paging, the amplifier's paging extension can be provisioned as an IP phone associated with a user extension.

Provisioning as a Paging ~~Devices~~Device does not allow the caller to receive audio from the amplifier to hear voice prompts from the amplifier's paging menu or enter DTMF digits for stored message selections.

Provision the amplifier's extension as an IP phone to enable the following features:

- Playing up to 9 configurable stored messages
- Security code

Add an IP Phone

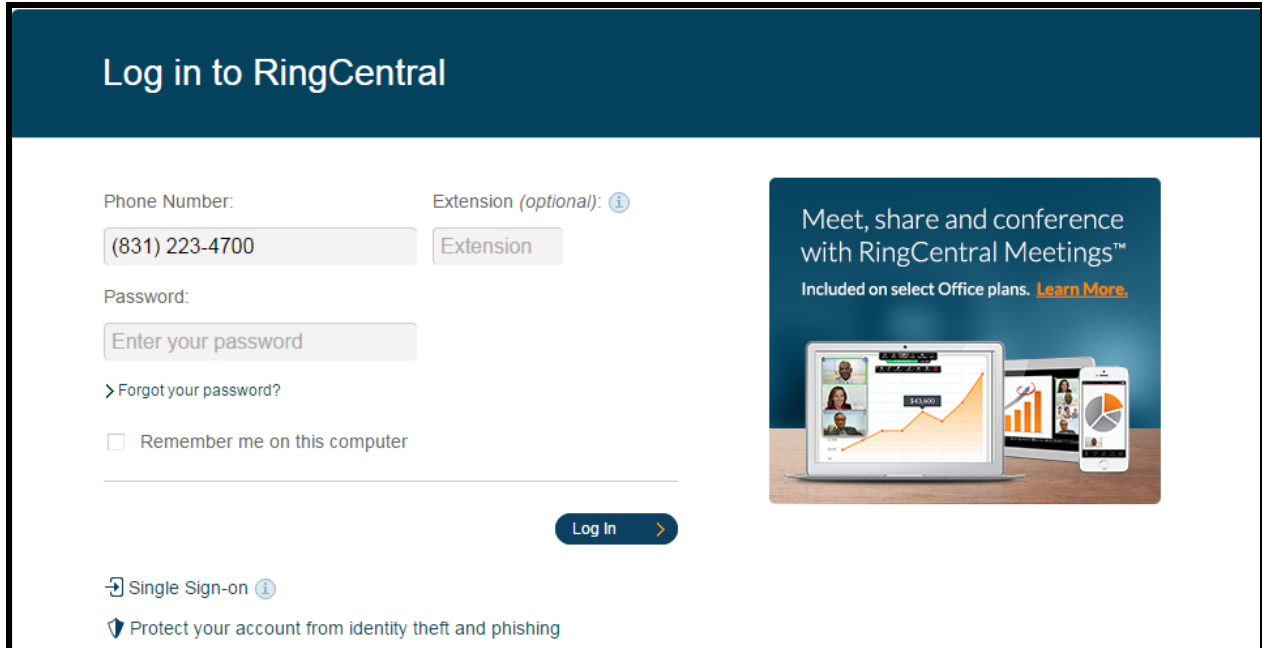
This section describes the process of creating a user, provisioning an IP phone, and registering the paging extension that you will use for paging with RingCentral. First, you must designate a RingCentral User for the paging amplifier.

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

1. ~~Add New User~~

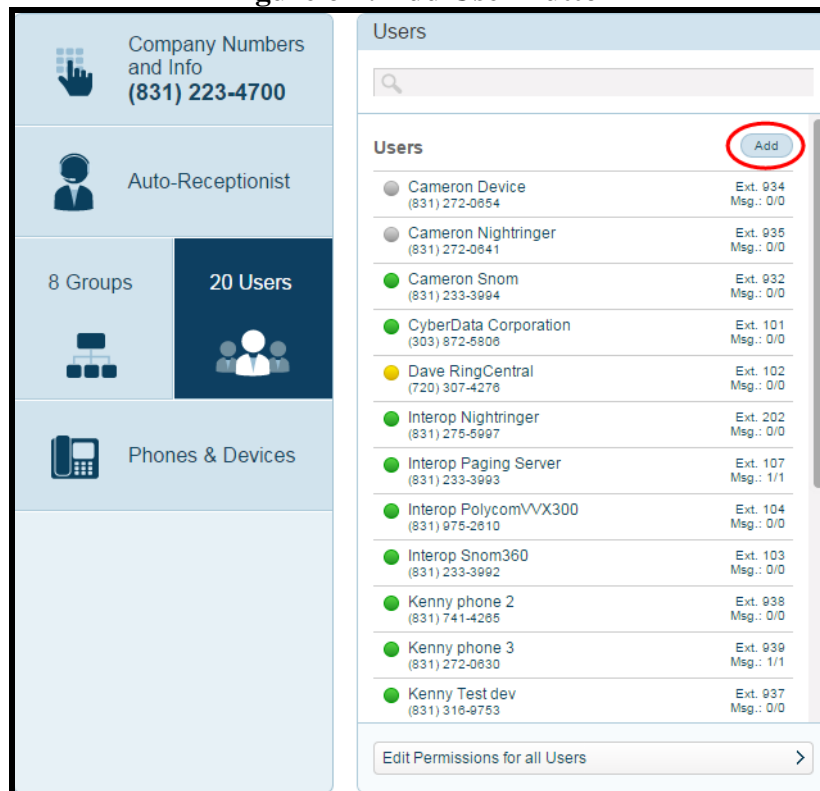
Login to the RingCentral Admin Portal at <https://service.ringcentral.com>.

Figure 6-1. RingCentral Admin Portal Login



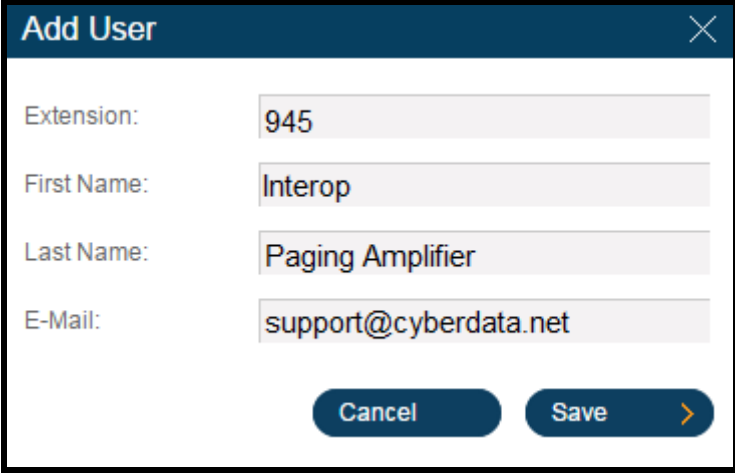
2. From the [n] Users menu, click the Add button.

Figure 6-2. Add User Button



3. A popup window labeled **Add User** will appear. Complete the fields and click **Save**.

Figure 6-3. Add User Popup



Add User

Extension: 945

First Name: Interop

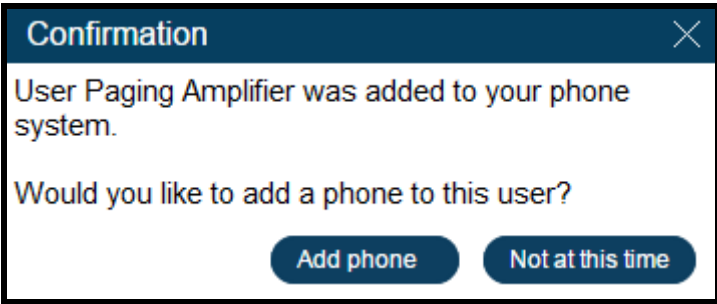
Last Name: Paging Amplifier

E-Mail: support@cyberdata.net

Cancel Save

4. A confirmation popup labeled **Confirmation** will appear. Click the **Add Phonephone** button to associate an IP phone for the amplifier and proceed to the next step.

Figure 6-4. Add User Confirmation



Confirmation

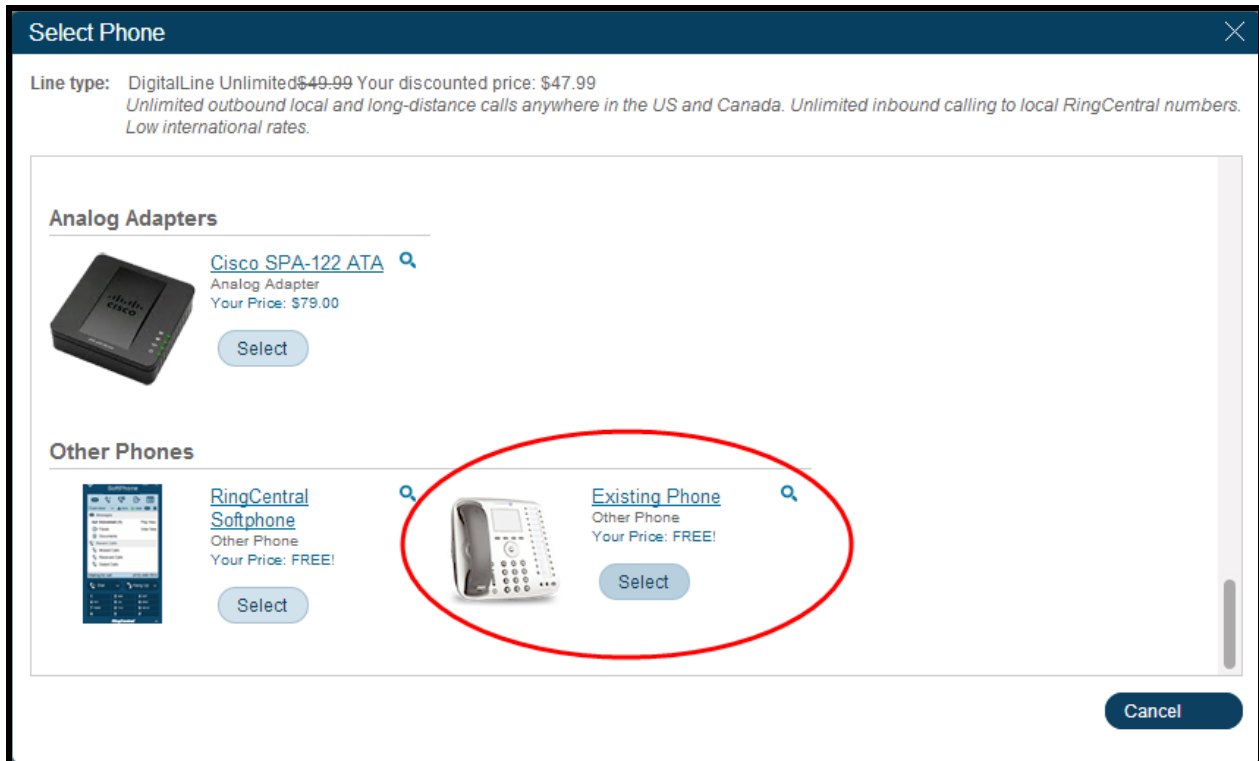
User Paging Amplifier was added to your phone system.

Would you like to add a phone to this user?

Add phone Not at this time

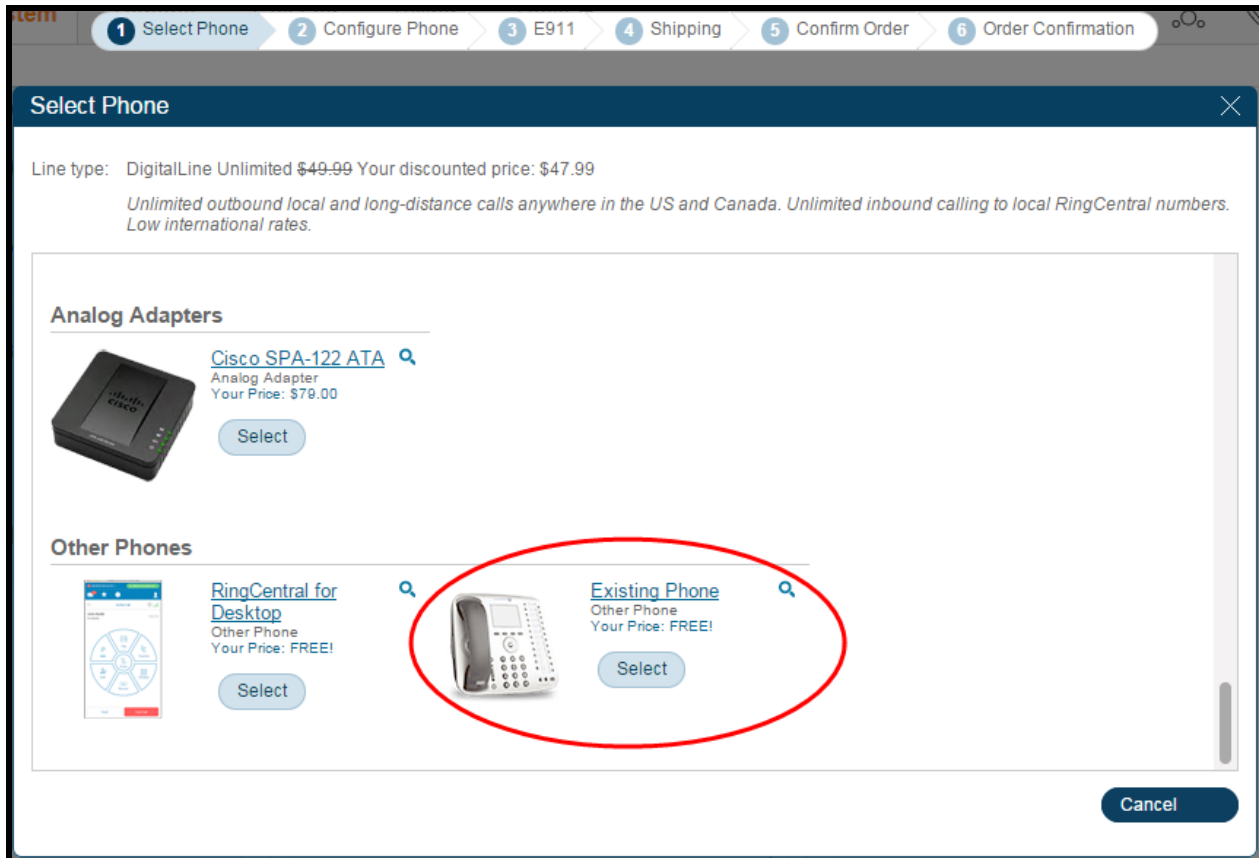
5. A Welcome email will be sent to the email address from the Add User popup. Be sure to follow the instructions in the Welcome email to activate the extension.
6. You will be asked to select a phone type. Click the **Select** button to choose an **Existing Phone**.

Figure 6-5. Select Phone Type



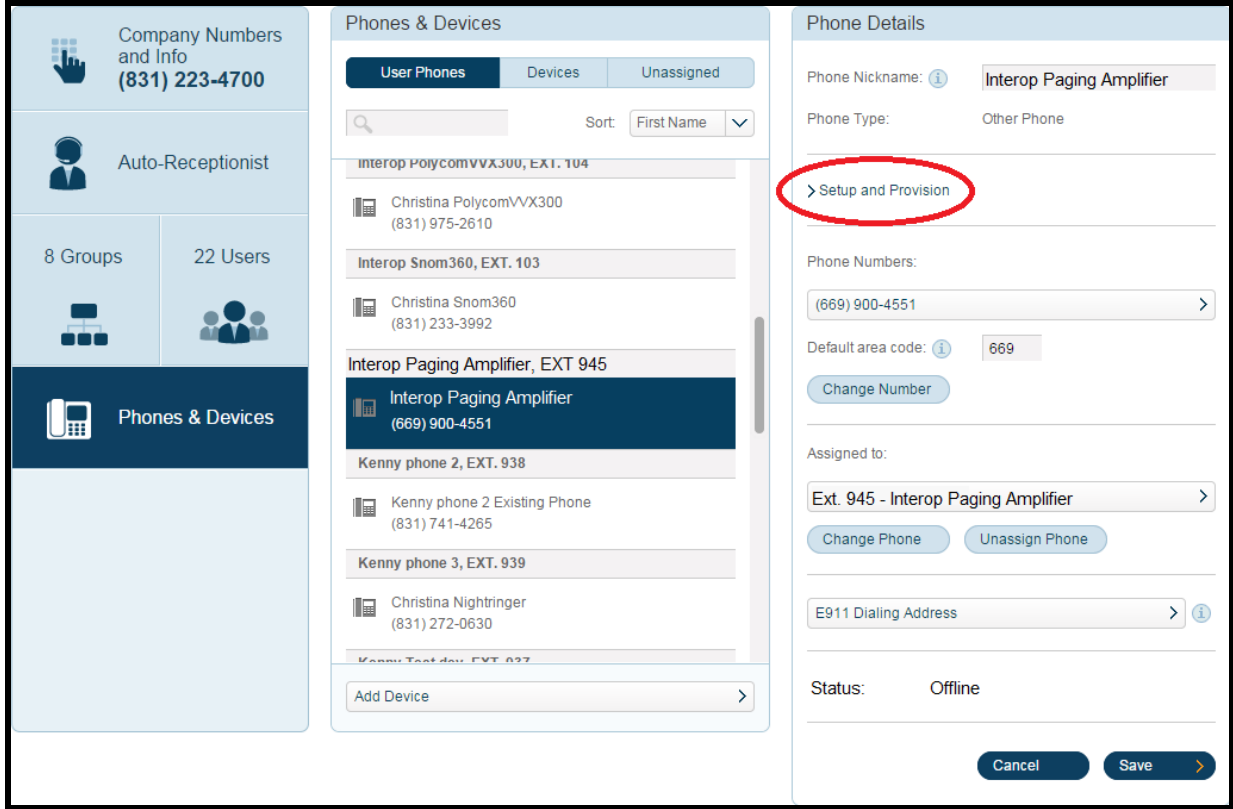
7. Next, you will be taken to a six-step ordering process to set up a RingCentral DigitalLine. Click the **Select** button to choose an **Existing Phone** and follow the steps in the ordering window to complete your order.

Figure 6-6. Select Phone Type – Order Processing



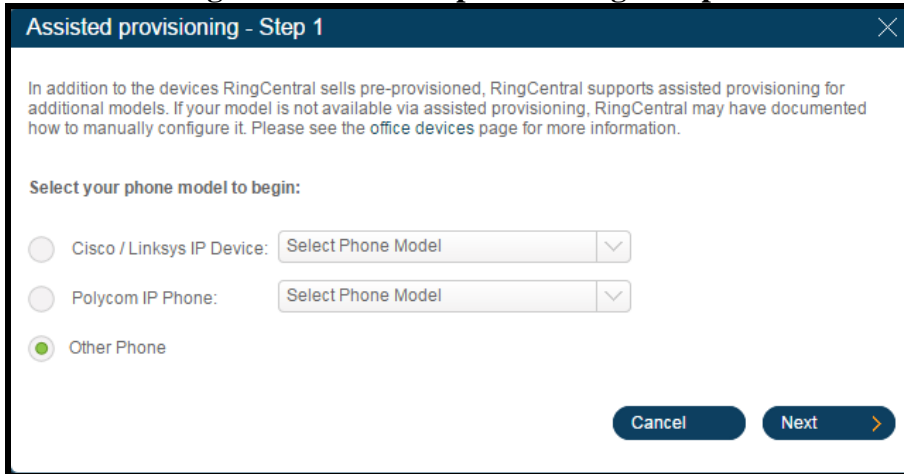
8. From the [\[n\]](#) Phones & Devices menu, select **User Phones** and select the user phone designated for the paging server. Click **Setup and Provision**.

Figure 6-7. Setup and Provision



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

Figure 6-8. Assisted provisioning – Step 1



10. A popup window labeled **Assisted Generic IP Phone/Adaptor Provisioning** will appear. You will use the provisioning information to register the paging extension with RingCentral.

Figure 6-9. 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. SIP Fields Table

CyberData SIP Field	RingCentral SIP Field
SIP Server	SIP Domain (without colon and port number)
SIP User ID	User Name
Authenticate ID	Authorization ID
Authenticate Password	Password
Outbound Proxy	Outbound Proxy address before colon
Outbound Proxy Port	Port number following colon in Outbound Proxy address

Configure SIP Parameters

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

1. Click **Launch Browser** from the CyberData Discovery Utility or point your 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 Config** on the left-hand side of your screen to access the SIP Configuration page.
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 amplifier 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 6-10. SIP Configuration

V3.1 Paging Amplifier

SIP Settings

Enable SIP operation:

Register with a SIP Server:

Use Cisco SRST:

Primary SIP Server: sip.ringcentral.com

Primary SIP User ID: 18312755997

Primary SIP Auth ID: 32007731010

Primary SIP Auth Password:

Backup SIP Server 1:

Backup SIP User ID 1:

Backup SIP Auth ID 1:

Backup SIP Auth Password 1:

Backup SIP Server 2:

Backup SIP User ID 2:

Backup SIP Auth ID 2:

Backup SIP Auth Password 2:

Remote SIP Port: 5060

Local SIP Port: 5060

Outbound Proxy: sip20.ringcentral.com

Outbound Proxy Port: 5090

Disable rport Discovery:

Buffer SIP Calls:

Re-registration Interval (in seconds): 30

Unregister on Boot:

Keep Alive Period: 0

Nightringer Settings

Enable Nightringer:

SIP Server: sip.ringcentral.com

Remote SIP Port: 5060

Local SIP Port: 5061

Outbound Proxy: sip20.ringcentral.com

Outbound Proxy Port: 5090

User ID: 18315088809

Authenticate ID: 38077373010

Authenticate Password:

Re-registration Interval (in seconds): 30

RTP Settings

RTP Port (even): 10500

Jitter Buffer: 50

Call Disconnection

Terminate Call after delay: 0

Codec Selection

Force Selected Codec:

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

Save Reboot Toggle Help

Autoprovisioning

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

Figure 6-11. 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>18312333993</SIPUserID>
  <SIPAuthID>17422862010</SIPAuthID>
  <SIPAuthPassword>*****</SIPAuthPassword>
  <SIPRegistrationTimeout>30</SIPRegistrationTimeout>
  <SIPUnregisterOnBoot>No</SIPUnregisterOnBoot>
  <SIPRegisterOnBoot>Yes</SIPRegisterOnBoot>
  <BufferSIPCalls>No</BufferSIPCalls>
  <RTPPort>10500</RTPPort>
  <CallTimeout>0</CallTimeout>
  <UseCiscoSRST>No</UseCiscoSRST>
  <DisableRportDiscovery>No</DisableRportDiscovery>
  <KeepAlive>0</KeepAlive>
</SIPSettings>

```

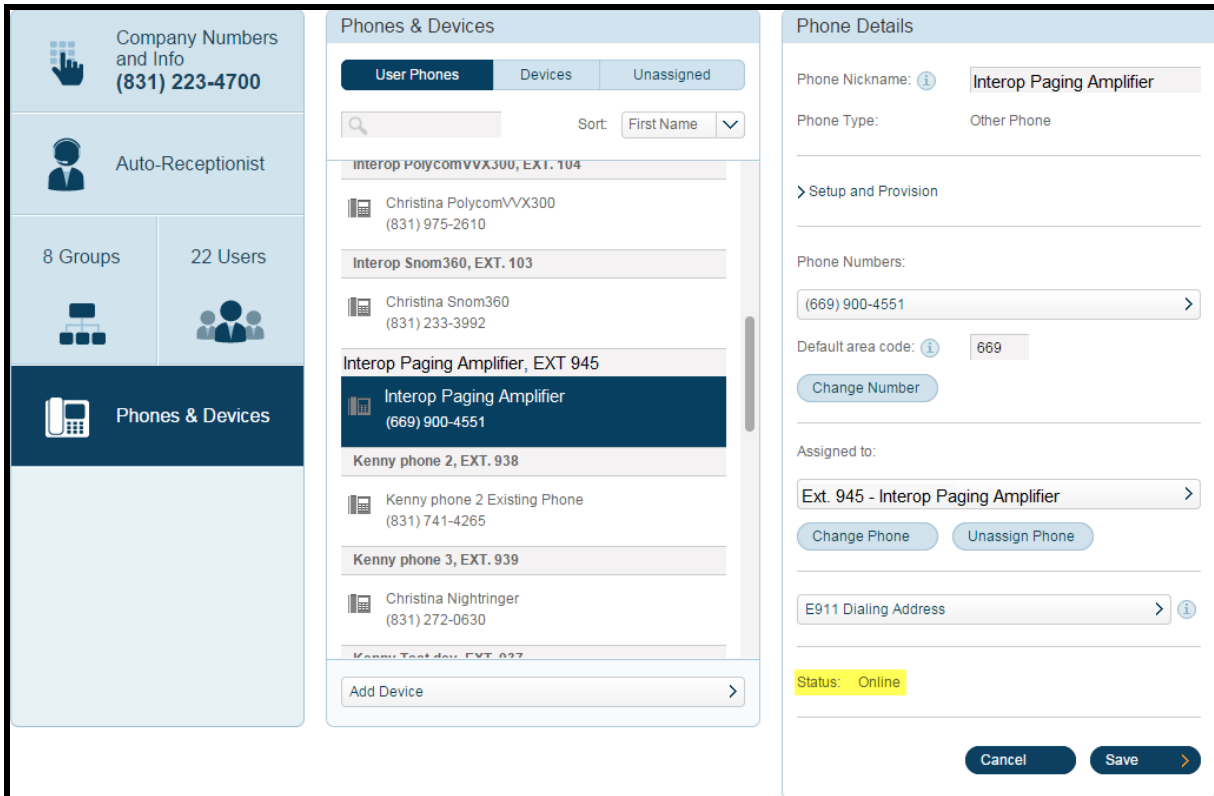
Note: These example values are published only for reference. The SIPAuthPassword value should be the actual value from the [Assisted Generic IP Phone Provisioning](#) popup window.

Verify the Paging Extension Is Registered

After the amplifier has rebooted and initialized to store changes, refresh the Home page of the web interface. Your 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 SIP Configuration page next to *Enable SIP Operation*. See [Figure 5-17](#) and [Figure 6-10](#).

Additionally, you may verify the paging extension is registered with RingCentral through the Admin Portal. From the **Phones & Devices** menu, select **User Phones** and the IP Phone you just created for the amplifier. The status should show as “online” in the **Phone Details**.

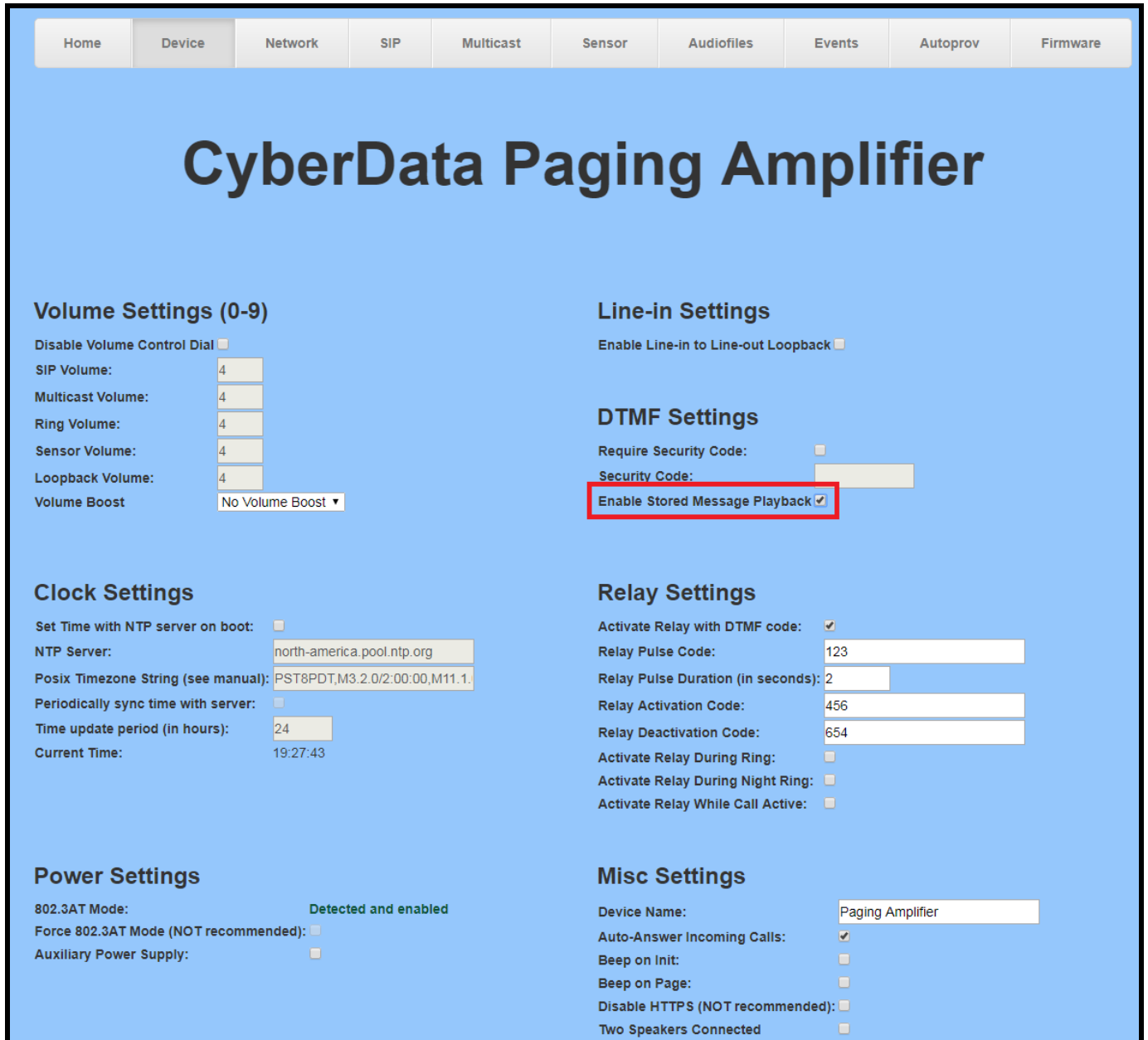
Figure 6-12. Phone Details – Status



Verify Stored Message Menu Is Enabled

Before making a test call, be sure to verify the stored message menu is enabled. The setting *Enable Stored Message Playback* is located on the **Device Configuration** page of the web interface. Make sure this setting is checked. On default, *Stored Message Playback* is disabled.

Figure 6-13. Enabled Paging Menu



If you are autoprovisioning the amplifier, set *Enable Stored Message Playback* to **Yes** under **DeviceSettings** in the autoprovisioning template.

Figure 6-14. Autoprovisioning Example – Enabled Paging Menu

```

<DeviceSettings>
  <AdminName>admin</AdminName>
  <AdminPassword>admin</AdminPassword>

  <UseDigitalVolume>No</UseDigitalVolume>
  <SpeakerVolume>4</SpeakerVolume>    <!-- This is the volume for SIP calls -->
  <MulticastVolume>4</MulticastVolume>
  <RingVolume>4</RingVolume>
  <SensorVolume>4</SensorVolume>
  <LoopbackVolume>4</LoopbackVolume>
  <BoostLevel>0</BoostLevel>          <!-- Speaker boost -->
  <MicGain>4</MicGain>
  <MicBoost1>No</MicBoost1>
  <MicBoost2>No</MicBoost2>
  <DualSpeaker>No</DualSpeaker>

  <ActivateRelayWithDTMF>Yes</ActivateRelayWithDTMF>
  <DTMFActivationCode>456</DTMFActivationCode>
  <DTMFDeactivationCode>654</DTMFDeactivationCode>
  <DTMFPulseCode>123</DTMFPulseCode>
  <DTMFPulseDuration>2</DTMFPulseDuration>

  <ActivateRelayDuringRing>No</ActivateRelayDuringRing>
  <ActivateRelayDuringNightRing>No</ActivateRelayDuringNightRing>
  <ActivateRelayDuringCall>No</ActivateRelayDuringCall>

  <ActivateRelayDuringButtonPress>No</ActivateRelayDuringButtonPress>
  <RelayOnButtonPressTimeout>3</RelayOnButtonPressTimeout>

  <BeepOnInitialization>No</BeepOnInitialization>
  <BeepBeforePage>No</BeepBeforePage>

  <UseSecurityCode>No</UseSecurityCode>
  <PageSecurityCode></PageSecurityCode>

  <AutoAnswerIncomingCalls>Yes</AutoAnswerIncomingCalls>
  <ButtonLitWhenIdle>Yes</ButtonLitWhenIdle>
  <EnablePushToTalk>No</EnablePushToTalk>
  <PWMBrightness>255</PWMBrightness>
  <DisableHTTPS>No</DisableHTTPS>
  <HighPowerMode>No</HighPowerMode>
  <AuxPowerMode>No</AuxPowerMode>

  <EnableLineLoopback>No</EnableLineLoopback>
  <EnableStoredMessagePlayback>Yes</EnableStoredMessagePlayback>
</DeviceSettings>

```

Make a Test Call

Once your paging extension has registered with RingCentral and you have configured the appropriate Device settings for the installation, you may use any RingCentral phone to dial the paging extension.

6.0 Configuration Procedure: Nightringer

What is a Nightringer?

CyberData V3.1 SIP-enabled Amplifiers offer a secondary SIP extension called **Nightringer** in addition to the primary extension used for auto-answer 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 differs from provisioning the auto-answer paging extension.

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

When integrating with RingCentral, the Nightringer extension must be provisioned as an IP phone rather than a Paging Device in order to 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 on your account.

Note: For voice paging, use the provision the paging extension as a Paging Device following the instructions in [Section 4.0 “Configuration Procedure: Auto-answer Paging.”](#)

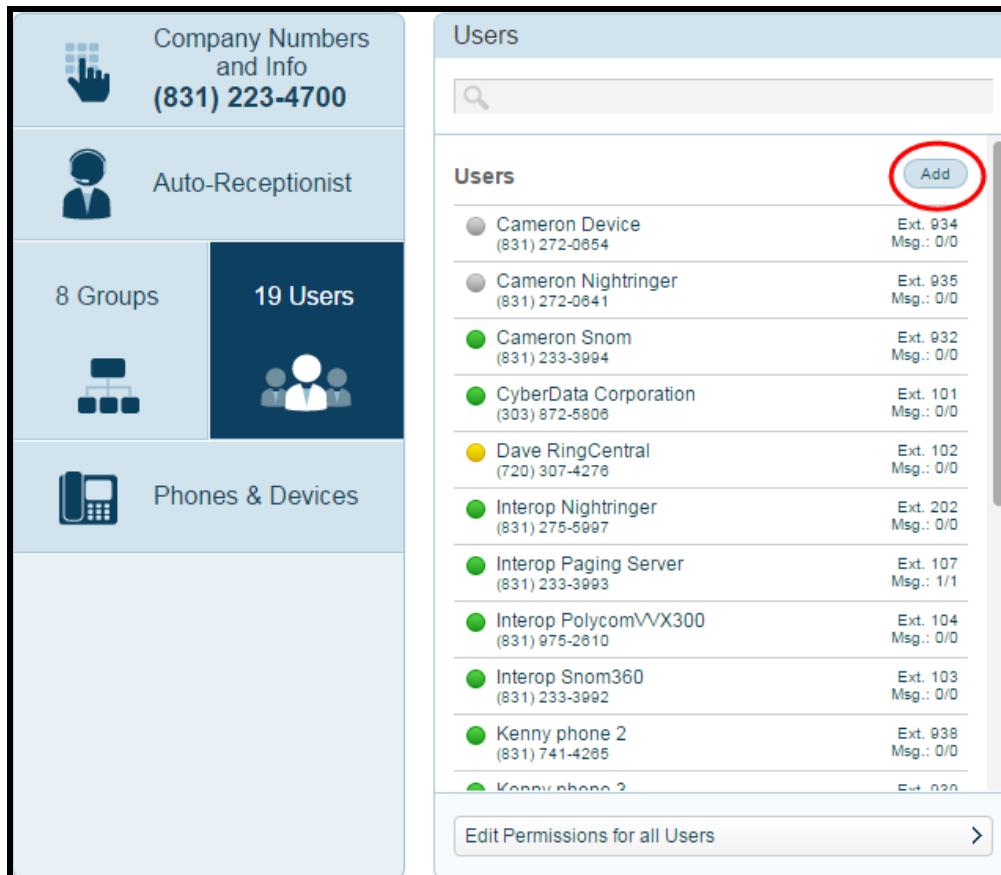
Add an IP Phone

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

First, you must designate a RingCentral User for the Nightringer.

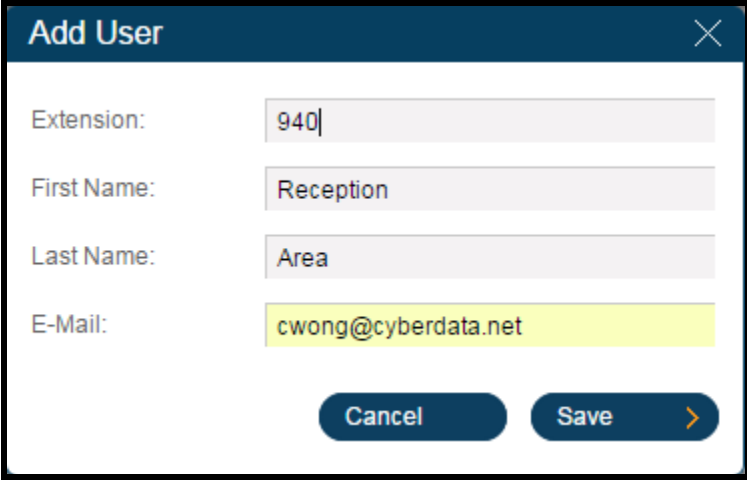
1. From the [n] Users menu, click the **Add** button.

Figure 5-1. Add User Button



2. A popup window labeled **Add User** will appear. Complete the fields and click **Save**.

Figure 5-2. Add User Popup



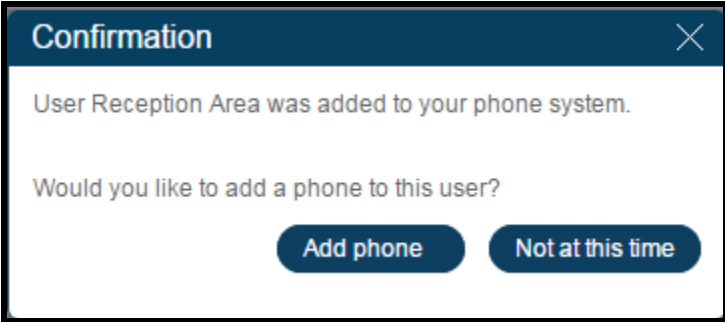
The screenshot shows a modal window titled "Add User" with a close button in the top right corner. The form contains the following fields and values:

- Extension: 940
- First Name: Reception
- Last Name: Area
- E-Mail: cwong@cyberdata.net

At the bottom of the form, there are two buttons: "Cancel" and "Save" with a right-pointing arrow.

3. A confirmation popup labeled **Confirmation** will appear. Click the **Add Phone** button to associate an IP phone for the Nightringer to use and proceed to the next step.

Figure 5-3. Add User Confirmation



The screenshot shows a modal window titled "Confirmation" with a close button in the top right corner. The text inside the window reads:

User Reception Area was added to your phone system.

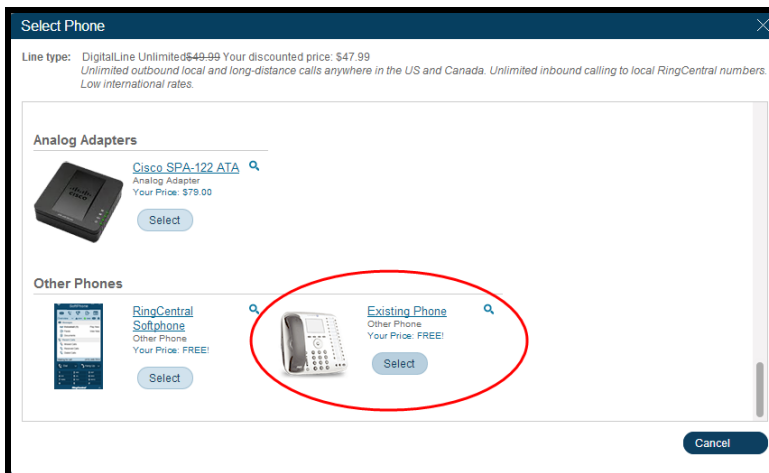
Would you like to add a phone to this user?

At the bottom of the window, there are two buttons: "Add phone" and "Not at this time".

4. A Welcome email will be sent to the email address from the Add User popup. Be sure to follow the instructions in the Welcome email to activate the extension.

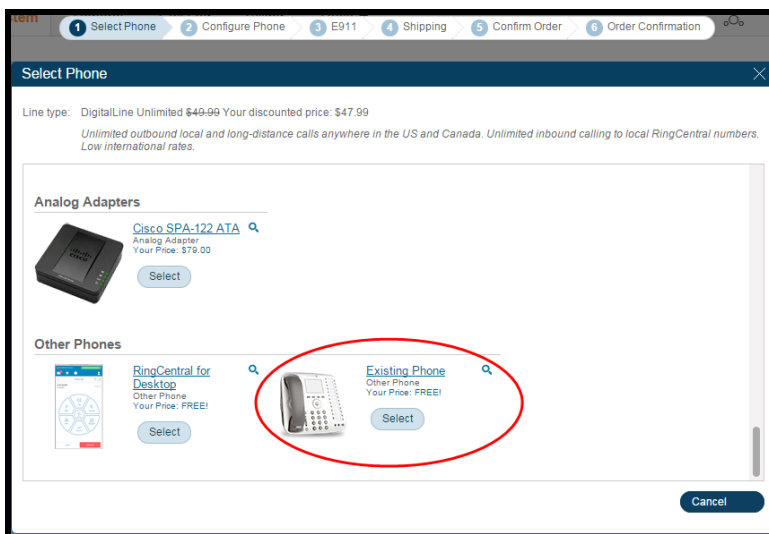
5. You will be asked to select a phone type. Click the **Select** button to choose an **Existing Phone**.

Figure 5-4. Select Phone Type



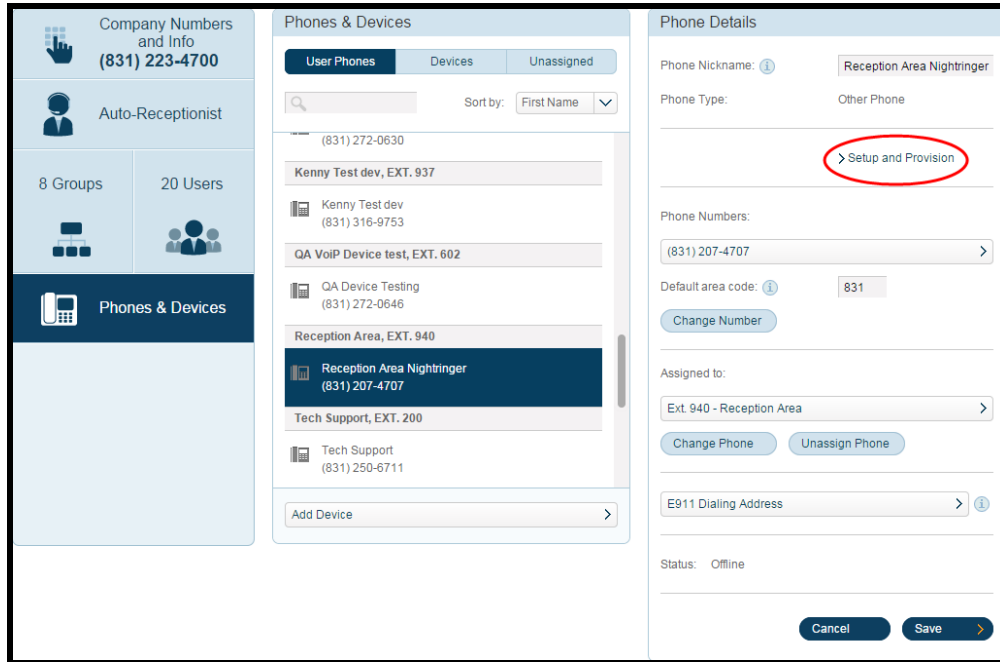
6. Next, you will be taken to a six-step ordering process to set up a RingCentral DigitalLine. Click the **Select** button to choose an **Existing Phone** and follow the steps in the screen to ordering window to complete your order.

Figure 5-5. Select Phone Type – Order Processing



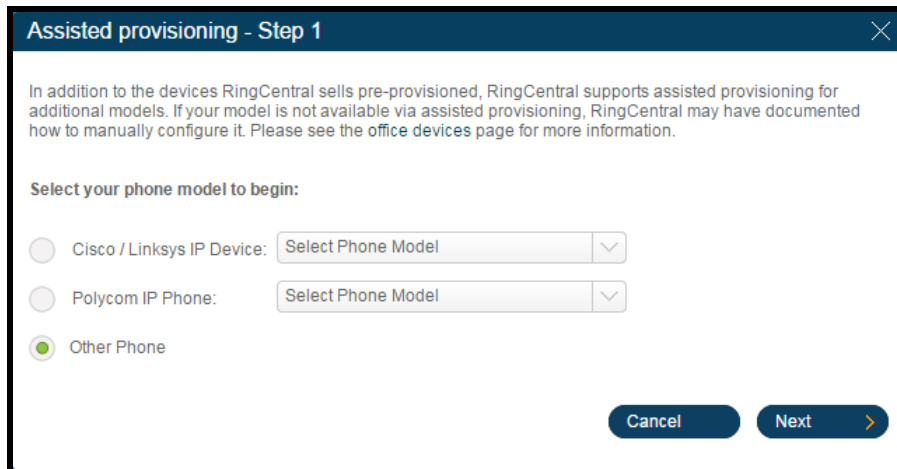
7. From the **Phones & Devices** menu, select **User Phones** and the select the user phone designated for the Nightringer. Click **Setup and Provision**.

Figure 5-6. Setup and Provision



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

Figure 5-7. Assisted Provisioning – Step 1



9. A popup window labeled **Assisted Generic IP Phone/Adaptor Provisioning** will appear. You will use the provisioning information to register the amplifier’s paging extension with RingCentral.

Figure 5-8. 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 5-1. SIP Fields Table

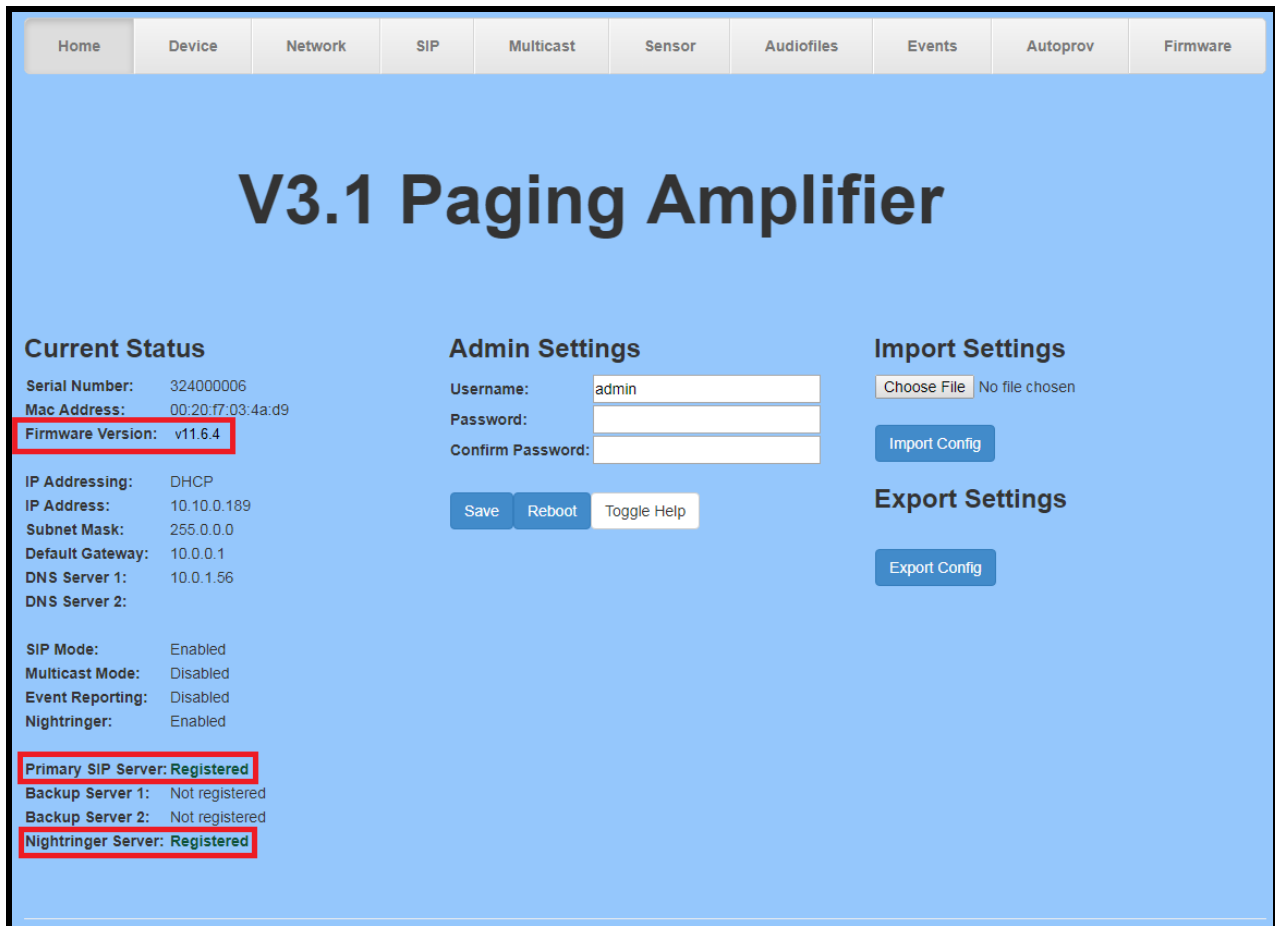
CyberData SIP Field	RingCentral SIP Field
SIP Server	SIP Domain (without colon and port number)
User ID	User Name
Authenticate ID	Authorization ID
Authenticate Password	Password
Outbound Proxy	Outbound Proxy address before colon
Outbound Proxy Port	Port number following colon in Outbound Proxy address

Configure Nightringer SIP Parameters

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

1. Review [Configure the SIP Parameters](#).
2. From the Home page of the web interface, click **SIP** from the top toolbar of the screen.

Figure 5-9. Home Page of the Web Interface – Nightringer Button



3. Enter the provisioning information from the [Assisted Generic IP Phone/Adaptor Provisioning](#) popup. Note the *Local SIP Port* is set to 5061 on default and is used by the amplifier as its source port for the Nightringer extension configured on this page.

4. Set the *Re-registration Interval (in seconds)* to **30 seconds**.
5. Set the keep alive period to **0**.
6. Enable Force Codec Selection and select **PCMU**.
7. Click **Save** and **Reboot** to store changes.

Figure 5-10. Nightringer Configuration Page of the Web Interface

V3.1 Paging Amplifier

SIP Settings

Enable SIP operation:

Register with a SIP Server:

Use Cisco SRST:

Primary SIP Server:

Primary SIP User ID:

Primary SIP Auth ID:

Primary SIP Auth Password:

Backup SIP Server 1:

Backup SIP User ID 1:

Backup SIP Auth ID 1:

Backup SIP Auth Password 1:

Backup SIP Server 2:

Backup SIP User ID 2:

Backup SIP Auth ID 2:

Backup SIP Auth Password 2:

Remote SIP Port:

Local SIP Port:

Outbound Proxy:

Outbound Proxy Port:

Disable rport Discovery:

Buffer SIP Calls:

Re-registration Interval (in seconds):

Unregister on Boot:

Keep Alive Period:

Nightringer Settings

Enable Nightringer:

SIP Server:

Remote SIP Port:

Local SIP Port:

Outbound Proxy:

Outbound Proxy Port:

User ID:

Authenticate ID:

Authenticate Password:

Re-registration Interval (in seconds):

RTP Settings

RTP Port (even):

Jitter Buffer:

Call Disconnection

Terminate Call after delay:

Codec Selection

Force Selected Codec:

Codec:

Autoprovisioning

If you are autoprovisioning the amplifier, use the Nightringer Settings in the autoprovisioning template to register the Nightringer with RingCentral.

Figure 5-11. Autoprovisioning Template Example – Nightringer Settings

```
<NightringerSettings>
  <EnableNightringer>Yes</EnableNightringer>
  <NightringerSIPServer>sip.ringcentral.com</NightringerSIPServer>
  <NightringerRemotePort>5060</NightringerRemotePort>
  <NightringerLocalPort>5061</NightringerLocalPort>
  <NightringerOutboundProxy>sip20.ringcentral.com</NightringerOutboundProxy>
  <NightringerOutboundProxyPort>5090</NightringerOutboundProxyPort>
  <NightringerUserID>18312074707</NightringerUserID>
  <NightringerAuthID>191437726011</NightringerAuthID>
  <NightringerAuthPassword>*****</NightringerAuthPassword>
  <NightringerRegistrationTimeout>30</NightringerRegistrationTimeout>
</NightringerSettings>
```

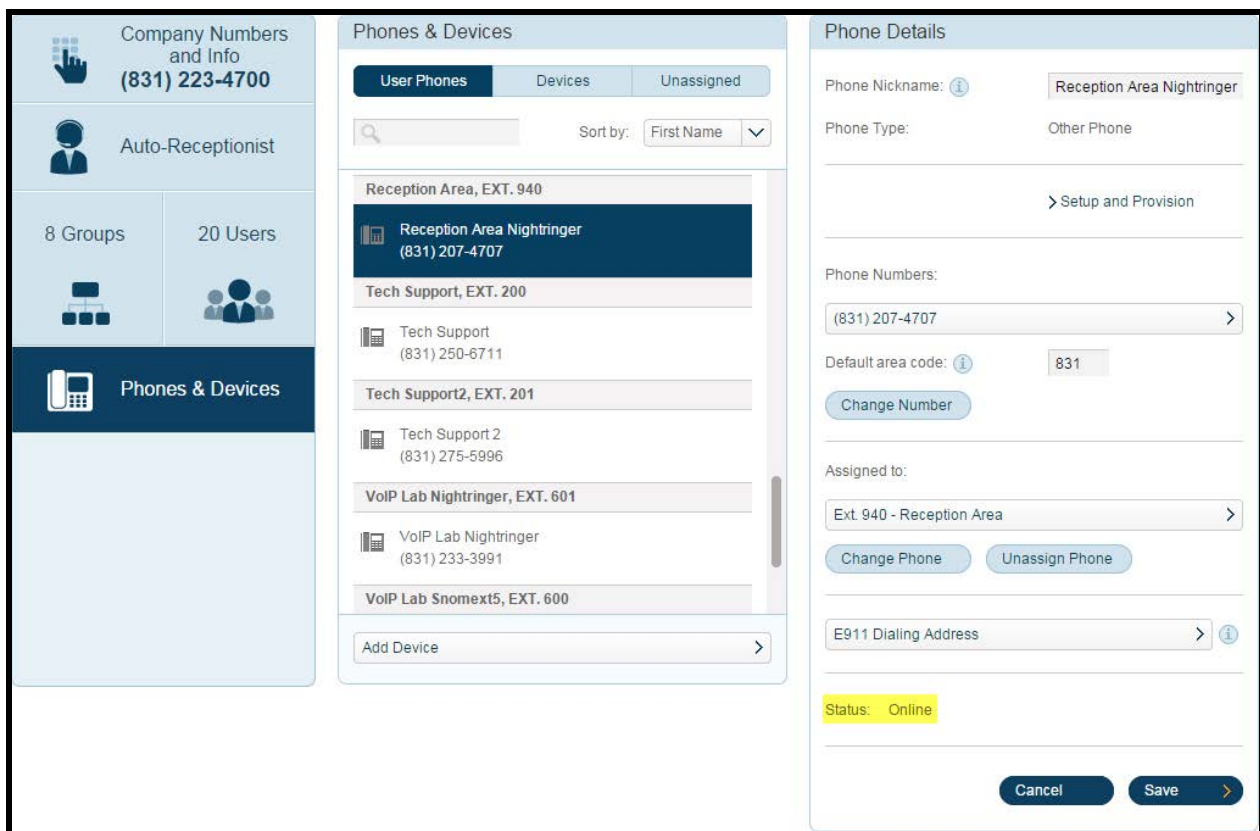
Note: These example values are published only for reference. The NightringerAuthID value should be the actual value from the [Assisted Generic IP Phone/Adaptor Provisioning](#) popup.

Verify the Nightringer is Registered

After the device has rebooted and initialized, refresh the [Home page of the web interface](#). Your 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 5-9](#) and [Figure 5-10](#).

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

Figure 5-12. Phone Details – Status



Make a Test Call

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

7.0 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.