



RING CENTRAL CONFIGURATION GUIDE: SIP PAGING SERVER

Document Part #931042G

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RingCentral Configuration Guide: SIP Paging Server Document #931042G

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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.

Revision 931042G was released on May 4th, 2021

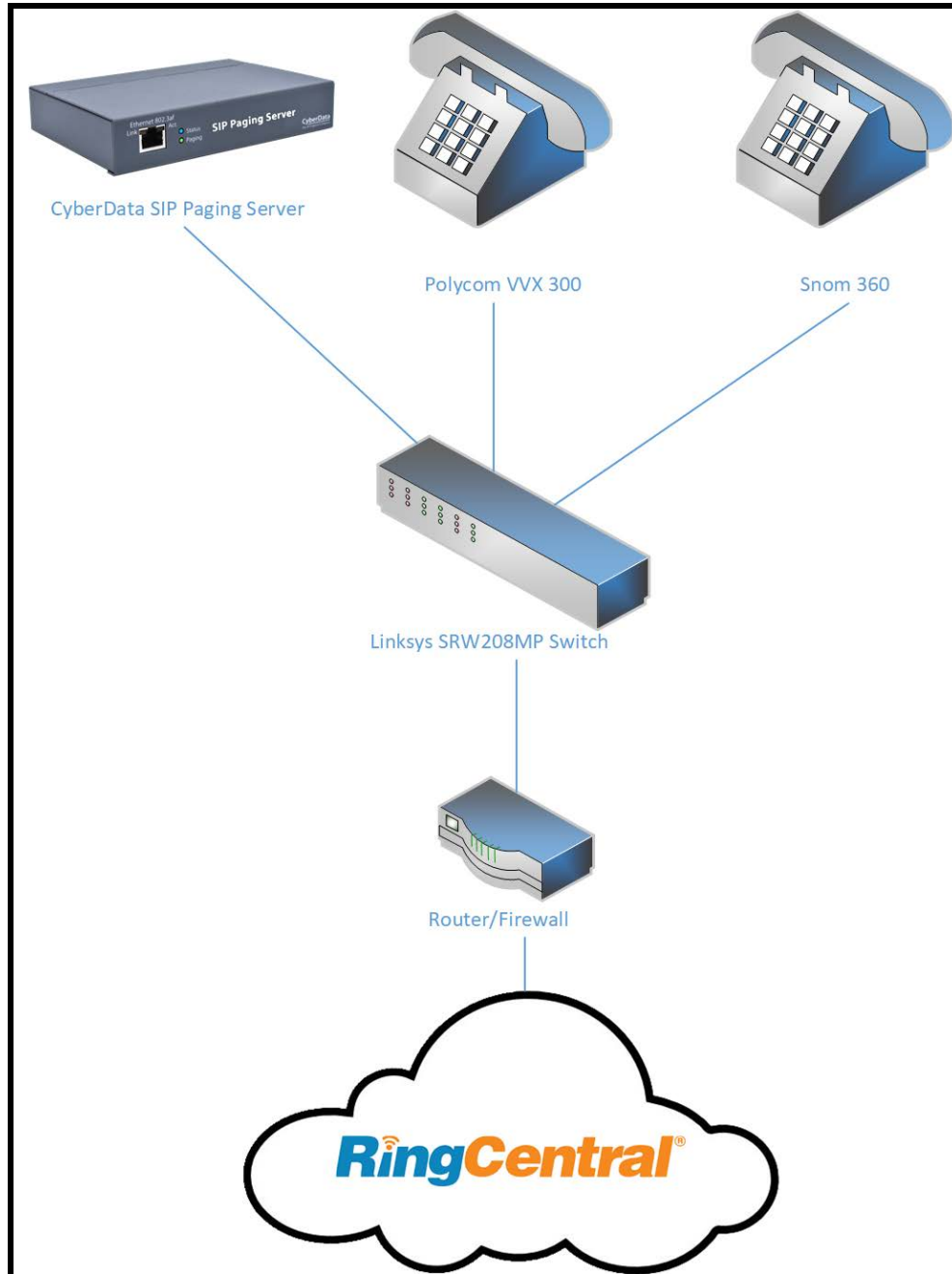
- Adds new section detailing TLS and SRTP setup

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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 SIP PAGING SERVER	011146F	v12.2.0
CYBERDATA SIP PAGING SERVER	011146G	v20.0.0
POLYCOM	VVX 300	5.2.0.8330
YEALINK	T49G	
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 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)
- TCP 5060, 5096 (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** 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.*

4.0 Configuration Procedure: TLS and SRTP

RingCentral has been recently updated and added support for TLS and SRTP for SIP and RTP transmission to better protect conversations. TLS and SRTP use encryption to protect the call setup process and audio from those that may wish to intercept traffic and spy on conversations. Therefore, using TLS and SRTP is recommended when all VoIP equipment supports both features.

This section will extension creation (Auto-Answer Paging and Voice Prompted Paging) and how to setup the CyberData SIP Paging Server for use with TLS and SRTP.

4.1 TLS and SRTP: Auto-Answer Paging

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

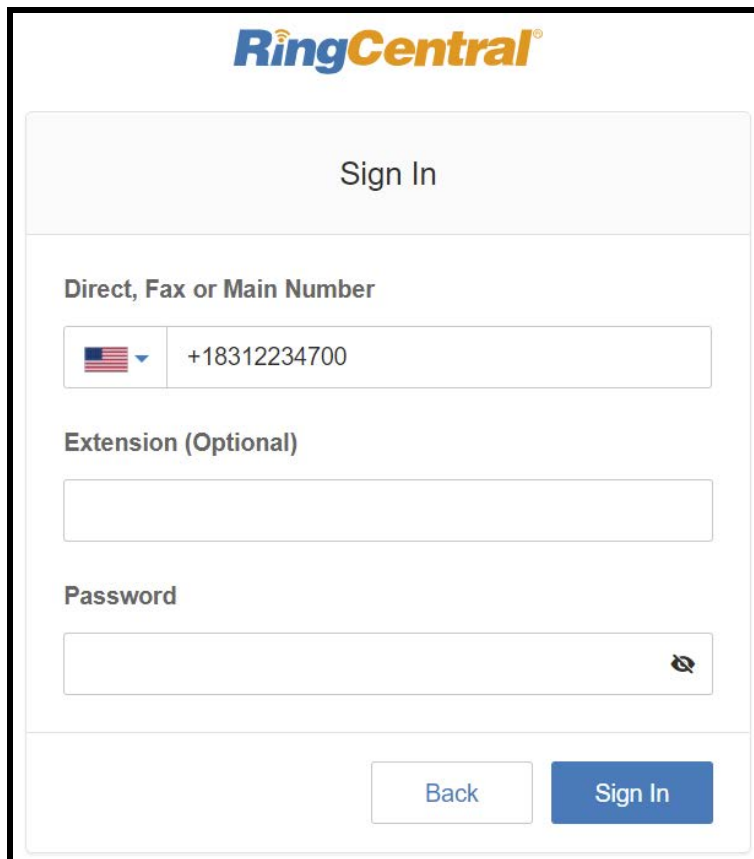
Add a Paging Extension

This section describes the process of creating a user, provisioning a paging device, and registering the paging extension that will be 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 for the paging server's primary extension through the RingCentral Admin Portal.

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

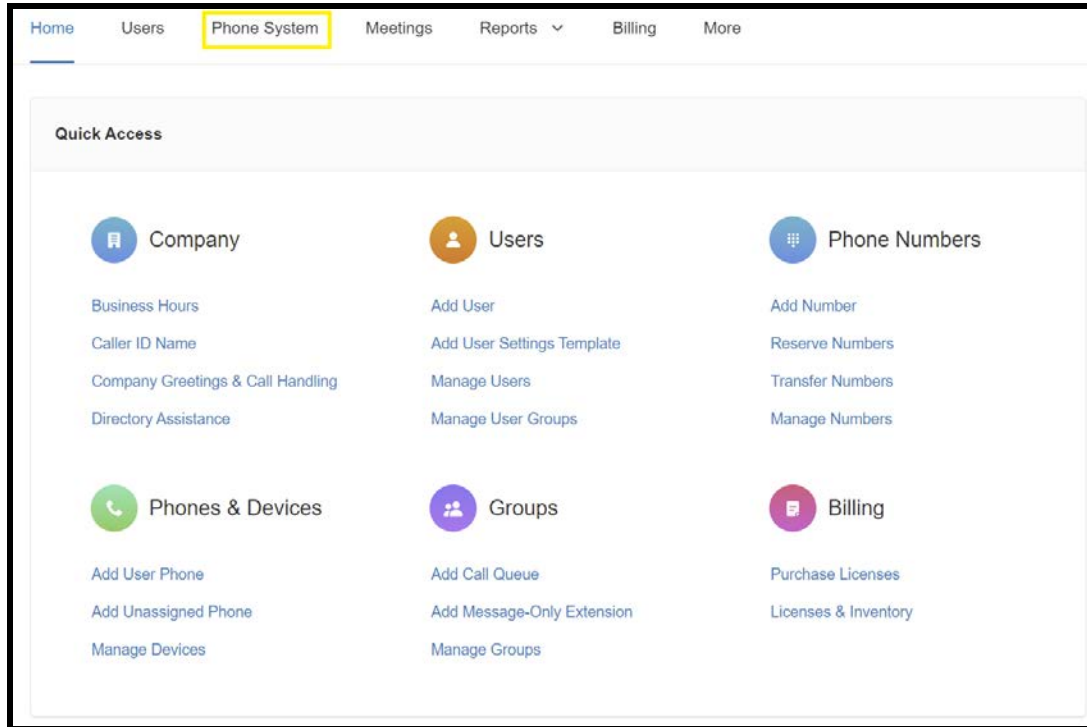
Figure 4-1: RingCentral Admin Portal Login



The image shows the RingCentral Admin Portal login page. At the top is the RingCentral logo. Below it is a 'Sign In' header. The form contains three main input sections: 'Direct, Fax or Main Number' with a country dropdown (USA) and a text field containing '+18312234700'; 'Extension (Optional)' with an empty text field; and 'Password' with an empty password field and a toggle icon. At the bottom right are 'Back' and 'Sign In' buttons.

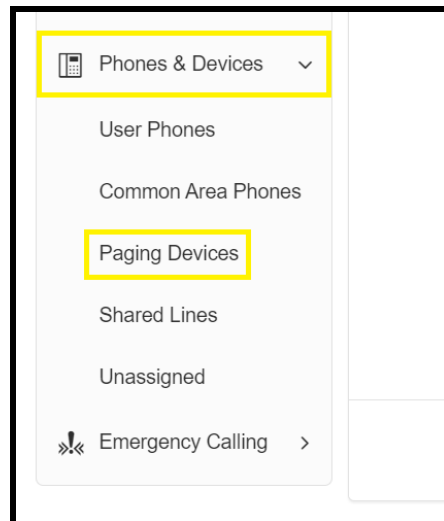
2. From the login page select **Phone System**.

Figure 4-2: Phone System



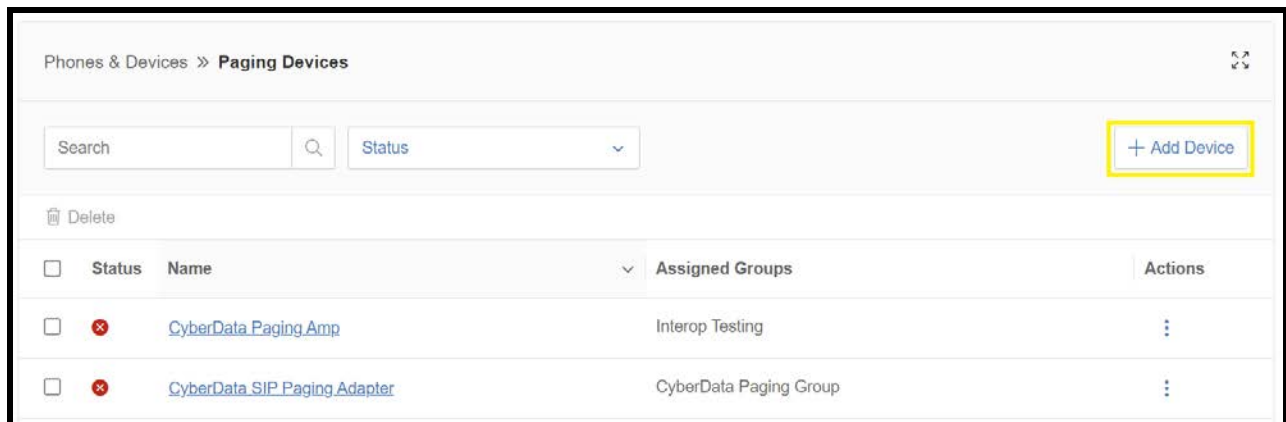
3. From the Phone System page select **Phones & Devices** and then **Paging Devices**.

Figure 4-3: Phones & Devices → Paging devices



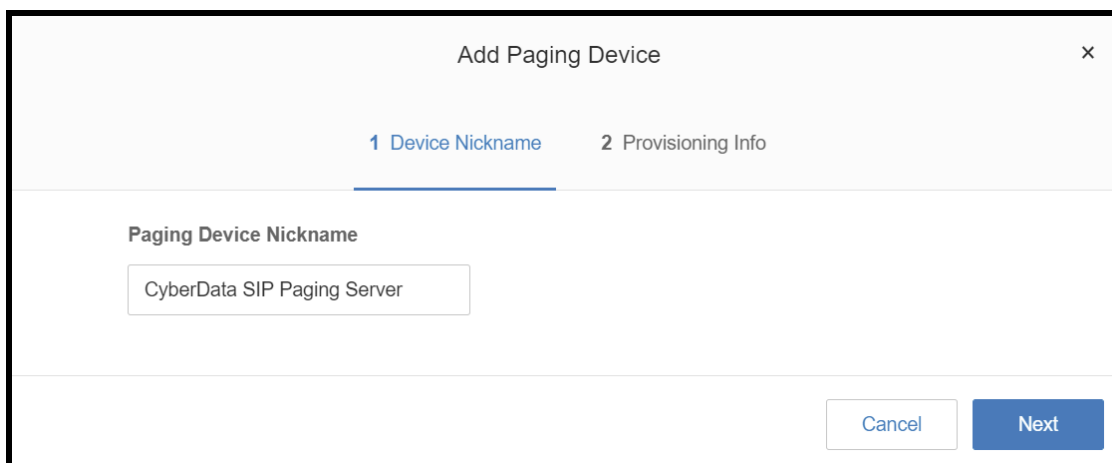
4. From the Paging Device page press **Add Device** to make a new paging device.

Figure 4-4: Add Device



5. A pop-up will appear that allows the Paging Device to be named.

Figure 4-5: Name Paging Device



6. After naming the device press **Next**.

7. The pop-up will now display configuration information to setup the CyberData device. Make sure to select an Outbound Proxy in your area.

Figure 4-6: Configuration details

Add Paging Device
×

✓ Device Nickname
2 Provisioning Info

Copy

Provisioning Information

Paging devices need to be programmed with the information given below to make them fully functional when assigned to paging group. Configuration for each device may vary, please check with your device's manufacturer for specific instructions.

Step 1: Will you be using secure voice transport on this device?

☒ Yes - The device must support Transport Protocol version TLS 1.2 [Learn More](#)

☐ No

Step 2: Set TLS on your device's Transport Protocol

Step 3: Enable Offer and Answer on the device's SRTP (Secure Real-Time Transport Protocol)

Step 4: Configure SIP information

Field	Value
SIP Domain	sip.ringcentral.com:5060
Remote SIP port	5060
Local SIP port	5060
Outbound Proxy	<input type="text" value="sip10.ringcentral.com:5096"/>
Outbound Proxy Port	5096
User Name	18312234700*803836578011
Password	
Authorization ID	803836578011

Done

Note: For the purposes of this document the password has been obscured.

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 SIP 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 4-1: 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	Yes
Codec dropdown	PCMU (G.711, u-law)
SIP Transport Protocol	TLS
TLS Version	1.2 only (recommended)
Verify Server Certificate	Enabled
Enable NTP	Enabled
SRTP	Enabled

Web Configuration

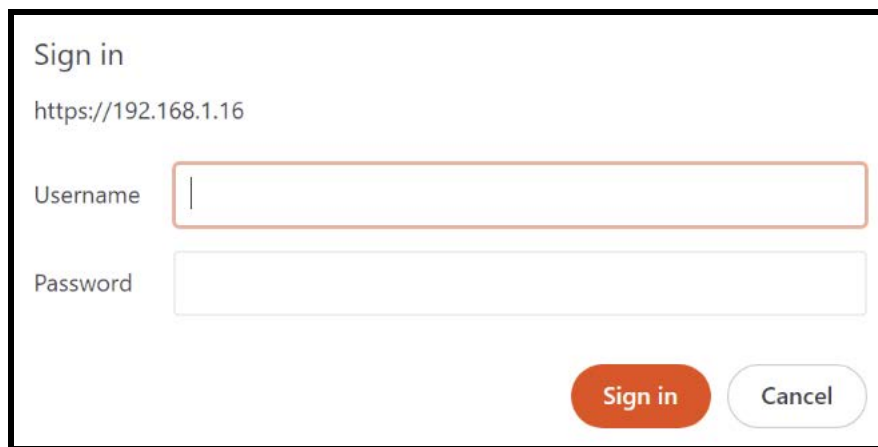
If configuring through the web interface, use the following steps to login to the web interface of the CyberData device.

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 4-7: Web Interface Login

A screenshot of a web interface login form. The form is titled "Sign in" and shows the URL "https://192.168.1.16". It contains two input fields: "Username" and "Password". The "Username" field has a red border and a vertical cursor. Below the input fields are two buttons: "Sign in" (orange) and "Cancel" (white with a grey border).

Sign in

https://192.168.1.16

Username

Password

Figure 4-8: Home Page

Home Device Network SIP PGROUPS SSL Schedules Fault Audiofiles Events Autoprovisioning Firmware

CyberData Paging Server

Current Status

Serial Number: 146200125
Mac Address: 00:20:f7:04:80:05
Firmware Version: v20.0.0
Partition 2: v20.0.0
Partition 3: v20.0.0
Booting From: partition 2
[Boot From Other Partition](#)

IP Addressing: DHCP
IP Address: 192.168.1.16
Subnet Mask: 255.255.255.0
Default Gateway: 192.168.1.1
DNS Server 1: 192.168.1.1
DNS Server 2:

SIP Mode: Enabled
Event Reporting: Disabled
Nightringer: Disabled

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

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 registration status for the paging extension and Nightringer extensions appear here.

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

Figure 4-9: NTP Settings

The screenshot shows the 'CyberData Paging Server' configuration web interface. At the top is a navigation bar with tabs: Home, Device, Network, SIP, PGROUPS, SSL, Schedules, Fault, Audiofiles, Events, Autopro, and Firmware. The main content area has a light blue background with the title 'CyberData Paging Server'. Below the title are four settings sections: 'Line-in Settings', 'Relay Settings', 'Clock Settings', and 'Misc Settings'. The 'Clock Settings' section is highlighted with a yellow border and contains the following fields: 'Enable NTP' (checked), 'NTP Server' (north-america.pool.ntp.org), 'Timezone' (America/Los_Angeles), and 'Current Time' (Tue, 04 May 2021 15:33:13). The 'Misc Settings' section also has a yellow highlight around the 'Bypass DTMF Menus' checkbox, which is checked. Other settings in 'Misc Settings' include 'Device Name' (Paging Server), 'Beep on Init', 'Beep Before Page', 'Enable Polycom Paging on Multicast', 'Polycom Transmit Channel' (1), and 'Disable HTTPS (NOT recommended)'. At the bottom of the interface are buttons for 'Test Audio', 'Test Relay', 'Test Multicast', 'Save', 'Reboot', and 'Toggle Help'.

4. Ensure **Enable NTP** is enabled.
5. Adjust the **NTP Server**, as necessary.
6. Adjust the **Timezone**, as necessary.
7. Enable **Bypass DTMF Menus**.
8. **Save**.
9. Press **SIP** to navigate to the SIP configuration page.
10. Enter the provisioning information from the **Generic Paging Device Provisioning** popup window.
11. Set the **SIP Transport Protocol** to **TLS**.

Note: NTP enabled should appear in green next to SIP Transport Protocol.

12. Verify that **TLS Version** is set to **1.2** and **Verify Server Certificate** is checked.
13. Set the **Re-registration interval** to **30**.
14. Set the **Keep Alive Period** to **0**.
15. Set **SRTP** to **Enabled**.
16. **Save and Reboot**.

Figure 4-10: SIP Configuration

SIP Settings	Nightringer Settings
Enable SIP operation: <input checked="" type="checkbox"/>	SIP Server: <input type="text"/>
Register with a SIP Server: <input checked="" type="checkbox"/>	SIP User ID: <input type="text"/>
Buffer SIP Calls: <input type="checkbox"/>	SIP Auth ID: <input type="text"/>
Primary SIP Server: <input type="text" value="sip.ringcentral.com"/>	SIP Auth Password: <input type="text"/>
Primary SIP User ID: <input type="text" value="18312234700*803836578011"/>	Re-registration Interval (in seconds): <input type="text" value="360"/>
Primary SIP Auth ID: <input type="text" value="803836578011"/>	Relay rings to multicast: <input type="checkbox"/>
Primary SIP Auth Password: <input type="text" value="*****"/>	Multicast Address: <input type="text" value="224.1.2.32"/>
Re-registration Interval (in seconds): <input type="text" value="30"/>	Multicast Port: <input type="text" value="2020"/>
Backup SIP Server 1: <input type="text"/>	
Backup SIP User ID: <input type="text"/>	
Backup SIP Auth ID: <input type="text"/>	
Backup SIP Auth Password: <input type="text"/>	
Re-registration Interval (in seconds): <input type="text" value="360"/>	
Backup SIP Server 2: <input type="text"/>	
Backup SIP User ID: <input type="text"/>	
Backup SIP Auth ID: <input type="text"/>	
Backup SIP Auth Password: <input type="text"/>	
Re-registration Interval (in seconds): <input type="text" value="360"/>	
Remote SIP Port: <input type="text" value="5060"/>	
Local SIP Port: <input type="text" value="5060"/>	
SIP Transport Protocol: <input type="text" value="TLS"/> <input checked="" type="checkbox"/> NTP enabled	
TLS Version: <input type="text" value="1.2 only (recommended)"/>	
Verify Server Certificate: <input type="checkbox"/>	
Outbound Proxy: <input type="text" value="sip10.ringcentral.com"/>	
Outbound Proxy Port: <input type="text" value="5096"/>	
Use Cisco SRST: <input type="checkbox"/>	
Disable rport Discovery: <input type="checkbox"/>	
Unregister on Boot: <input type="checkbox"/>	
Keep Alive Period: <input type="text" value="0"/>	

Call Disconnection	Audio Codec Selection	RTP Settings
Terminate Call after delay: <input type="text" value="0"/>	Codec: <input type="text" value="Auto Select"/>	RTP Port (even): <input type="text" value="10500"/>
		Asymmetric RTP: <input type="checkbox"/>
		Jitter Buffer: <input type="text" value="50"/>
		RTP Encryption (SRTP): <input type="text" value="Mandatory"/>

Autoprovisioning

If autoprovisioning the device, use the SIP Settings in the autoprovisioning template to register 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 device. 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 4-11: Autoprovisioning Template Example – SIP Settings

```
<SIPSettings>
  <sip_enable>1</sip_enable>
  <sip_register>1</sip_register>
  <sip_unregister>0</sip_unregister>
  <sip_proxy>sip10.ringcentral.com</sip_proxy>
  <sip_proxy_port>5096</sip_proxy_port>
  <use_cisco_srst>0</use_cisco_srst>
  <local_sip_port>5060</local_sip_port>
  <keepalive>0</keepalive>
  <call_timeout>0</call_timeout>
  <disable_rport_discovery>0</disable_rport_discovery>
  <rtp_port>10500</rtp_port>
  <asymmetric_rtp>0</asymmetric_rtp>
  <jitterbuffer>50</jitterbuffer>
  <default_codec>0</default_codec>
  <sip_transport>2</sip_transport>
  <sip_tls_version>0</sip_tls_version>
  <sip_verify_server_cert>0</sip_verify_server_cert>
  <sip_rtp_encryption>2</sip_rtp_encryption>
  <buffer_sip_page>0</buffer_sip_page>
  <nightringer_multicast_enable>0</nightringer_multicast_enable>
  <nightringer_multicast_address>224.1.2.32</nightringer_multicast_address>
  <nightringer_multicast_port>2020</nightringer_multicast_port>
</SIPSettings>

<!--
SIPServerSettings

index0 is the primary sip server
index1 is the backup sip server 1
index2 is the backup sip server 2
index3 is the nightringer
-->
<SIPServerSettings>
  <index0>
    <server>sip.ringcentral.com</server>
    <port>5060</port>
    <userid>18312234700*803836578011</userid>
    <authid>803836578011</authid>
    <password>*****</password>
    <registration_timeout>30</registration_timeout>
  </index0>
  <index1>
  </index1>
  <index2>
  </index2>
  <index3>
  </index3>
</SIPServerSettings>
```

Note: These example values are published only for reference. The password value should be the actual value from the **Generic Paging Device 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 can be verified with RingCentral through the Admin Portal. From the **Phones & Devices** menu, select **Devices** and the Paging Device just created for the paging server. The status should show as “online” in the **Device Details**.

Figure 4-12: Device Details – Status

Phones & Devices » Paging Devices			
Search		Status	+ Add Device
<input type="checkbox"/>	Delete		
<input type="checkbox"/>	Status	Name	Assigned Groups Actions
<input type="checkbox"/>	✖	CyberData Paging Amp	Interop Testing ⋮
<input type="checkbox"/>	✖	CyberData SIP Paging Adapter	⋮
<input type="checkbox"/>	✔	CyberData SIP Paging Server	⋮

Make a Test Call

Once the device has registered with RingCentral, 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 an IP phone.

4.2 TLS and SRTP: Voice Prompted Paging

When an installation requires more flexibility than auto-answer live paging, the SIP Paging Server's primary extension can be provisioned as an IP phone associated with a user extension. Provisioning as a Paging Device does not allow the paging server to transmit audio back to the calling phone AND does not allow for sending of DTMF characters for stored paging group selection. Provision the paging server's paging extension as an IP phone to enable the following features:

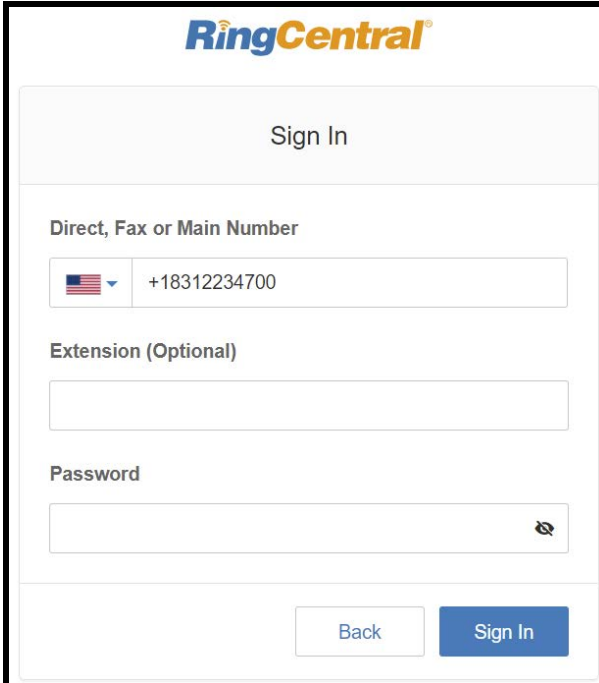
- Use of up to 100 Multicast Zones
- Security code protection for multicast zones

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 RingCentral user must be designated for the SIP Paging Server. Use the following steps to create a user and provision an IP phone for the primary extension through the RingCentral Admin Portal.

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

Figure 4-13: RingCentral Admin Portal Login

The image shows a screenshot of the RingCentral Admin Portal login page. At the top is the RingCentral logo. Below it is a 'Sign In' header. The form contains three main input sections: 'Direct, Fax or Main Number' with a dropdown menu showing a US flag and the number '+18312234700'; 'Extension (Optional)' with an empty text box; and 'Password' with an empty text box and a toggle icon. At the bottom are two buttons: 'Back' and 'Sign In'.

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

Figure 4-14: Add User Button

The screenshot shows the RingCentral Admin Portal interface. The top navigation bar includes 'Phone System', 'Users' (highlighted), 'Reports', 'Call Log', 'Billing', and 'Tools'. The left sidebar contains 'User list', 'Roles', 'User groups', and 'Templates'. The main content area is titled 'Users With Extensions' and 'Unassigned Extensions'. It features a search bar, filters for 'Status' and 'Roles', and a '+ Add User' button (highlighted with a green box). Below the button is a table of users with columns for 'Status', 'Name', 'Number', 'Ext.', 'Roles', 'Department', and 'Msg.'. The table lists several users, including 'Available User2', 'Cameron Device', 'Cameron Night...', 'Cameron Snom', 'CyberData Cor...', 'Group User', 'Interop.Polyco...', 'Interop.Snom360', 'Interop.Strobe', 'Kenny.phone.2', and 'Kenny.phone.3'.

Status	Name	Number	Ext.	Roles	Department	Msg.	
Available	Available User2		945	Standard (Intern...		0 / 0	Disable
Device	Cameron Device	(831) 272-0654	934	Standard (Intern...		0 / 0	Resend Invite Delete
Night	Cameron Night...	(831) 272-0641	935	Standard (Intern...		0 / 0	Resend Invite Delete
Snom	Cameron Snom	(831) 233-3994	932	Super Admin		3 / 3	Disable
Cor	CyberData Cor...	(303) 872-5806	101	Super Admin		9 / 9	
User	Group User		943	Standard (Intern...		3 / 3	Disable
Polyco	Interop.Polyco...	(831) 975-2610	104	Standard (Intern...		1 / 1	Disable
Snom360	Interop.Snom360	(831) 233-3992	103	Super Admin		5 / 5	
Strobe	Interop.Strobe	(669) 900-4551	942	Standard (Intern...		1 / 1	Disable
phone.2	Kenny.phone.2	(831) 741-4265	938	Standard (Intern...		2 / 2	Disable
phone.3	Kenny.phone.3	(831) 272-0630	939	Standard (Intern...		6 / 6	Disable

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

Figure 4-15: Add User Popup

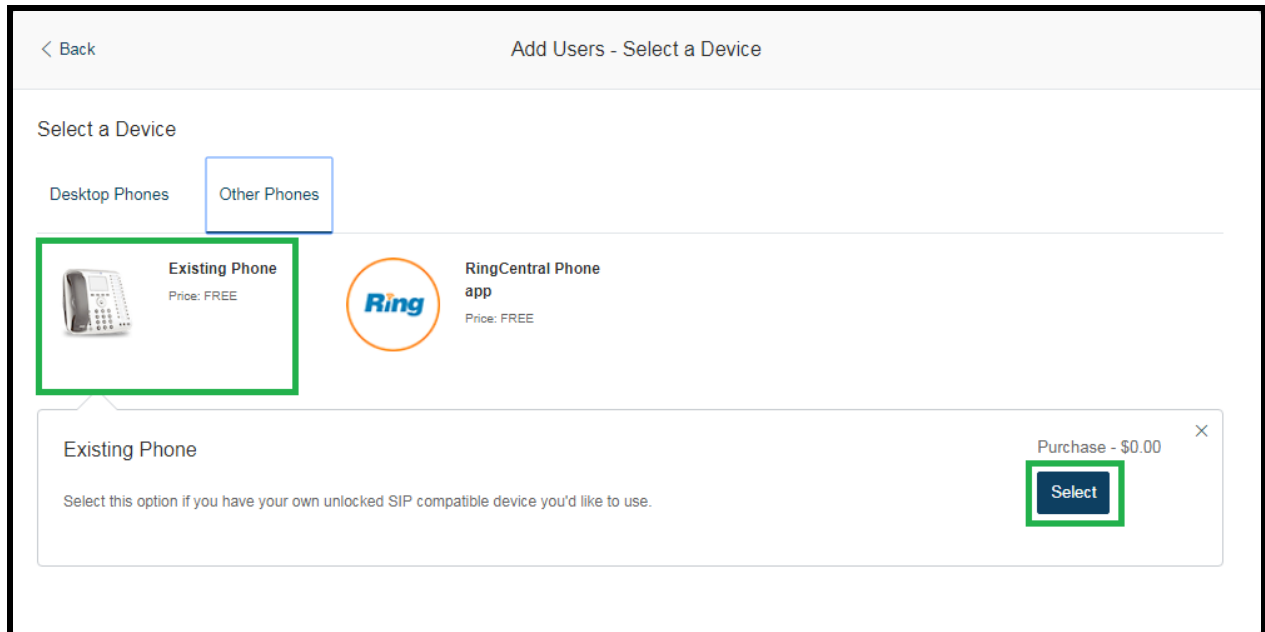
4. In the subsection **Add Users with Phones**, select the number of users, state, area code, and device.

Figure 4-16: Pick a Phone Number

Learn More'. Below this is a form with four fields: 'Number of Users' (text input 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', 'State', and 'Area Code' fields are highlighted with a yellow box, and the 'Device' field is highlighted with a green box. To the right of the 'Device' field is an 'Add' button. At the bottom right are 'Back' and 'Next' buttons."/>

4. A prompt will ask to select a phone type. Choose **Other Phones**, and then make sure **Existing Phone** is selected. Press **Select**.

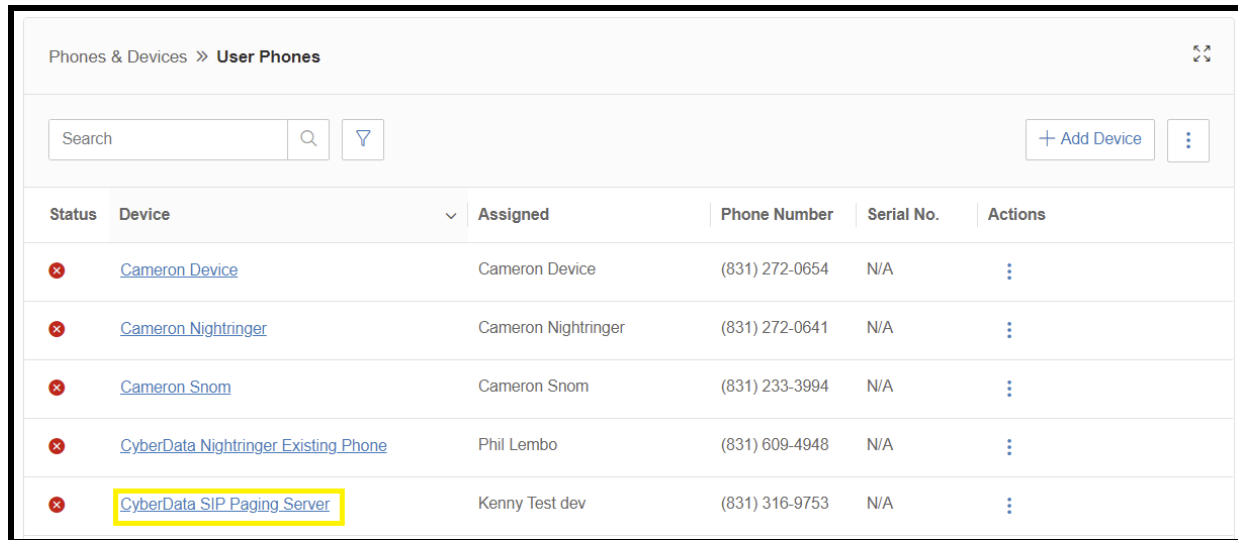
Figure 4-17: Select Phone Type



5. The process will lead through 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 the order.

- From the **Phones & Devices** menu, select **User Phones** and select the user phone designated for the SIP Paging Server.

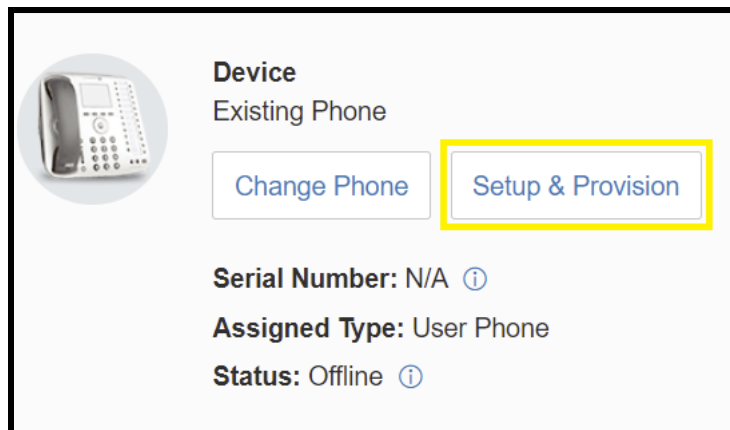
Figure 4-18: Select User




Status	Device	Assigned	Phone Number	Serial No.	Actions
✖	Cameron Device	Cameron Device	(831) 272-0654	N/A	⋮
✖	Cameron Nightringer	Cameron Nightringer	(831) 272-0641	N/A	⋮
✖	Cameron Snom	Cameron Snom	(831) 233-3994	N/A	⋮
✖	CyberData Nightringer Existing Phone	Phil Lembo	(831) 609-4948	N/A	⋮
✖	CyberData SIP Paging Server	Kenny Test dev	(831) 316-9753	N/A	⋮

- From the Device's page press the **Setup & Provision** button.

Figure 4-19: Setup & Provision





Device
Existing Phone

[Change Phone](#) [Setup & Provision](#)

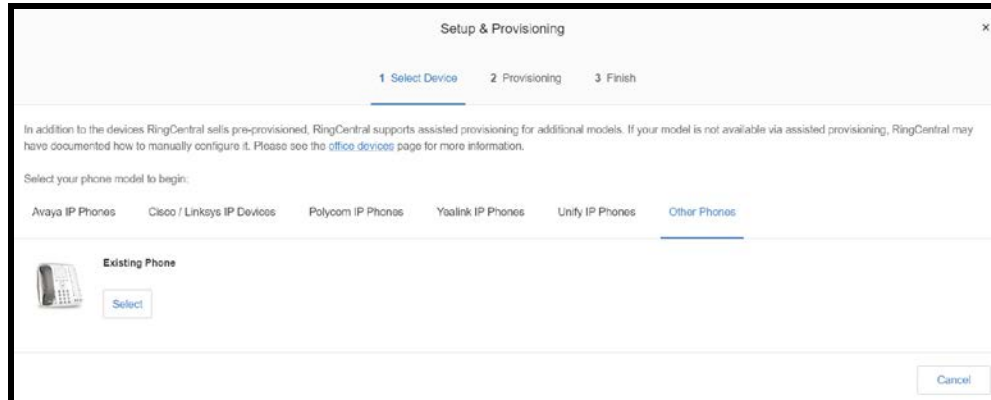
Serial Number: N/A ⓘ

Assigned Type: User Phone

Status: Offline ⓘ

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

Figure 4-20: Existing Phone



9. A popup window labeled **Assisted Generic IP Phone/Adaptor Provisioning** will appear. The provisioning information to register the primary extension with RingCentral. Make sure to select an Outbound proxy in your area.

Figure 4-21: IP Phone Provisioning Information

Manual Provisioning

To connect your device with RingCentral services, setup your device following the steps below. Configuration for each device may vary, please check with your device's manufacturer for specific instructions.

Step 1: Will you be using secure voice transport on this device?

☒ Yes - The device must support Transport Protocol version TLS 1.2 [Learn More](#)

☐ No

Step 2: Set TLS on your device's Transport Protocol

Step 3: Enable Offer and Answer on the device's SRTP (Secure Real-Time Transport Protocol)

Step 4: Configure SIP information

Field	Value
SIP Domain	sip.ringcentral.com:5080
Remote SIP port	5060
Local SIP port	5060
Outbound Proxy	sip10.ringcentral.com:5096
Outbound Proxy Port	5096
User Name	18313169753
Password	[Obscured]
Authorization ID	163829449011

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 4-2: 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	Yes
Codec dropdown	PCMU (G.711, u-law)
SIP Transport Protocol	TLS
TLS Version	1.2 only (recommended)
Verify Server Certificate	Enabled
Set Time with NTP Server on boot	Enabled
SRTP	Enabled

Configure SIP Parameters

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 4-22: Web Interface Login

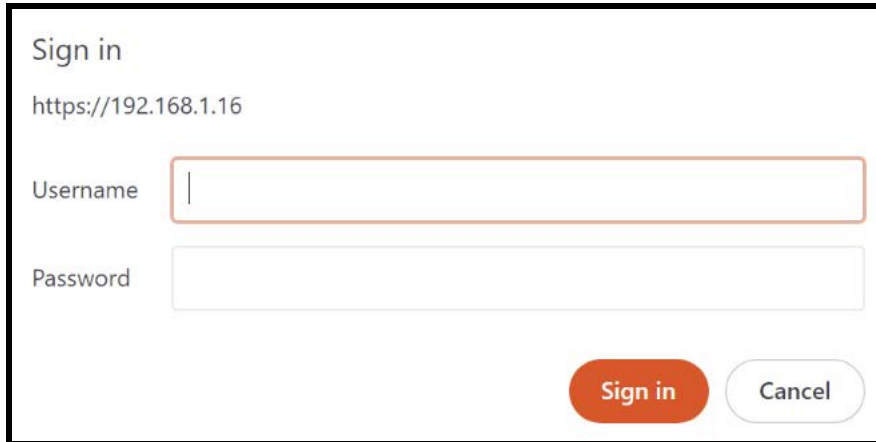
A screenshot of a web interface login form. The form is titled "Sign in" and shows the URL "https://192.168.1.16". It contains two input fields: "Username" and "Password". The "Username" field has a vertical cursor inside. At the bottom right, there are two buttons: "Sign in" (orange) and "Cancel" (white with a grey border).

Figure 4-23: Home Page

Home Device Network SIP PGROUPS SSL Schedules Fault Audiofiles Events Autoprov Firmware

CyberData Paging Server

Current Status

Serial Number: 146200125
Mac Address: 00:20:f7:04:80:05
Firmware Version: v20.0.0
Partition 2: v20.0.0
Partition 3: v20.0.0
Booting From: partition 2
[Boot From Other Partition](#)

IP Addressing: DHCP
IP Address: 192.168.1.16
Subnet Mask: 255.255.255.0
Default Gateway: 192.168.1.1
DNS Server 1: 192.168.1.1
DNS Server 2: 192.168.1.1

SIP Mode: Enabled
Event Reporting: Disabled
Nightringer: Disabled

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

Admin Settings

Username: admin
Password: ****
Confirm Password: ****
[Save](#) [Reboot](#) [Toggle Help](#)

Import Settings

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

Export Settings

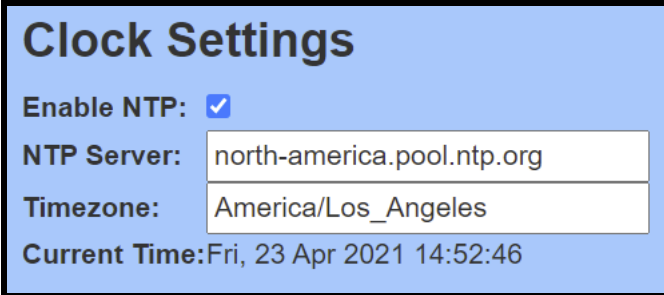
[Export Config](#)

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

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

4. On the **Device** page scroll to the **Clock Settings** section.

Figure 4-24: NTP Settings



Clock Settings

Enable NTP: ☒

NTP Server: north-america.pool.ntp.org

Timezone: America/Los_Angeles

Current Time: Fri, 23 Apr 2021 14:52:46

17. Check the box for **Enable NTP**.
18. Adjust the **NTP Server** as necessary.
19. Adjust the **Timezone** as necessary.
20. **Save**.
21. Press **SIP** to navigate to the SIP configuration page.
22. Set the **SIP Transport Protocol** to **TLS**.

Note: NTP enabled should appear in green.

23. Enter the provisioning information from the **Setup & Provisioning** popup window.
24. Verify that **TLS Version** is set to **1.2** and **Verify Server Certificate** is checked.
25. Set the **Re-registration interval** to **30**.
26. Set the **Keep Alive Period** to **0**.
27. Set **SRTP** to **Enabled**.
28. **Save and Reboot**.

Figure 4-25: SIP Configuration

SIP Settings		Nightringer Settings	
Enable SIP operation:	<input checked="" type="checkbox"/>	SIP Server:	<input type="text"/>
Register with a SIP Server:	<input checked="" type="checkbox"/>	SIP User ID:	<input type="text"/>
Buffer SIP Calls:	<input type="checkbox"/>	SIP Auth ID:	<input type="text"/>
Primary SIP Server:	<input type="text" value="sip.ringcentral.com"/>	SIP Auth Password:	<input type="text"/>
Primary SIP User ID:	<input type="text" value="18313169753"/>	Re-registration Interval (in seconds):	<input type="text" value="360"/>
Primary SIP Auth ID:	<input type="text" value="163829449011"/>	Relay rings to multicast:	<input type="checkbox"/>
Primary SIP Auth Password:	<input type="text" value="*****"/>	Multicast Address:	<input type="text" value="224.1.2.32"/>
Re-registration Interval (in seconds):	<input type="text" value="30"/>	Multicast Port:	<input type="text" value="2020"/>
Backup SIP Server 1:	<input type="text"/>	Call Disconnection	
Backup SIP User ID:	<input type="text"/>	Terminate Call after delay:	<input type="text" value="0"/>
Backup SIP Auth ID:	<input type="text"/>	Audio Codec Selection	
Backup SIP Auth Password:	<input type="text"/>	Codec:	<input type="text" value="Auto Select"/>
Re-registration Interval (in seconds):	<input type="text" value="360"/>	RTP Settings	
Backup SIP Server 2:	<input type="text"/>	RTP Port (even):	<input type="text" value="10500"/>
Backup SIP User ID:	<input type="text"/>	Asymmetric RTP:	<input type="checkbox"/>
Backup SIP Auth ID:	<input type="text"/>	Jitter Buffer:	<input type="text" value="50"/>
Backup SIP Auth Password:	<input type="text"/>	RTP Encryption (SRTP):	<input type="text" value="Mandatory"/>
Re-registration Interval (in seconds):	<input type="text" value="360"/>	<input type="button" value="Save"/> <input type="button" value="Reboot"/> <input type="button" value="Toggle Help"/>	
Remote SIP Port:	<input type="text" value="5060"/>		
Local SIP Port:	<input type="text" value="5060"/>		
SIP Transport Protocol:	<input type="text" value="TLS"/> NTP enabled		
TLS Version:	<input type="text" value="1.2 only (recommended)"/>		
Verify Server Certificate:	<input type="checkbox"/>		
Outbound Proxy:	<input type="text" value="sip10.ringcentral.com"/>		
Outbound Proxy Port:	<input type="text" value="5096"/>		
Use Cisco SRST:	<input type="checkbox"/>		
Disable rport Discovery:	<input type="checkbox"/>		
Unregister on Boot:	<input type="checkbox"/>		
Keep Alive Period:	<input type="text" value="0"/>		

Autoprovisioning

If autoprovisioning the device, use the SIP Settings in the autoprovisioning template to register 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/011393>

Be sure to use the autoprovisioning template for the firmware version running on the device. 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 4-26: Autoprovisioning Template Example – SIP Settings

```
<SIPSettings>
  <EnableSIPOperation>Yes</EnableSIPOperation>
  <SIPTransportProtocol>TLS</SIPTransportProtocol>
  <SIPTLSVersion>TLSv1.2</SIPTLSVersion>
  <VerifyServerCert>Yes</VerifyServerCert>
  <SIPServer>sip.ringcentral.com</SIPServer>
  <SIPUserID>18313169753</SIPUserID>
  <SIPAuthID>163829449011</SIPAuthID>
  <SIPAuthPassword>*****</SIPAuthPassword>

  <UseCiscoSRST>No</UseCiscoSRST>
  <RemoteSIPPort>5060</RemoteSIPPort>
  <LocalSIPPort>5060</LocalSIPPort>
  <OutboundProxy>sip10.ringcentral.com</OutboundProxy>
  <OutboundProxyPort>5096</OutboundProxyPort>

  <SIPRegisterOnBoot>Yes</SIPRegisterOnBoot>
  <SIPRegistrationTimeout>30</SIPRegistrationTimeout>
  <SIPUnregisterOnBoot>No</SIPUnregisterOnBoot>
  <NatPingOptions>No</NatPingOptions>

  <CallTimeout>0</CallTimeout>

  <DisableRportDiscovery>No</DisableRportDiscovery>
  <BufferSIPCalls>No</BufferSIPCalls>
  <RTPPort>10500</RTPPort>
  <JitterBuffer>50</JitterBuffer>
  <KeepAlive>0</KeepAlive>
  <DefaultCodec>0</DefaultCodec>
  <!-- DefaultCodec:
  0 - use default list
  1 - G711Ulaw only
  2 - G711Alaw only
  3 - G722 only
  4 - G729 only -->

  <SIPRTPEncryption>1</SIPRTPEncryption>
  <!--SIPRTPEncryption:0 - disabled, 1 - enabled-->
</SIPSettings>

<ClockSettings>
  <NTPServer>north-america.pool.ntp.org</NTPServer>
  <NTPTimezone>PST8PDT,M3.2.0/2:00:00,M11.1.0/2:00:01</NTPTimezone>
  <NTPOnBoot>Yes</NTPOnBoot>
  <NTPAutoupdate>Yes</NTPAutoupdate>
  <NTPAutoupdateDelay>1</NTPAutoupdateDelay>
</ClockSettings>
```

Note: These example values are published only for reference. The SIPAuthPassword value should be the actual value from the **Setup & Provisioning** popup window.

Verify the 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.

Figure 4-27: Phone Details – Status

CyberData SIP Speaker

Current Status

Serial Number: 398001862
 Mac Address: 00:20:f7:04:5d:ce
 Firmware Version: v12.1.1

IP Addressing: DHCP
 IP Address: 192.168.1.15
 Subnet Mask: 255.255.255.0
 Default Gateway: 192.168.1.1
 DNS Server 1: 192.168.1.1
 DNS Server 2:

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

Primary SIP Server: **Registered**
 Backup Server 1: Not registered
 Backup Server 2: Not registered
 Nightringer Server: Not registered
 Monitor SIP Server: **Not registered**

Admin Settings

Username: admin
 Password:
 Confirm Password:

Save Reboot Toggle Help

Import Settings

Choose File No file chosen
 Import Config

Export Settings

Export Config

Once the Primary extension has registered with RingCentral and has been configured with the appropriate Device settings for the installation, a RingCentral phone may be used to dial the extension.

5.0 Configuration Procedure: Paging Extension

When integrating with RingCentral, the SIP 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.

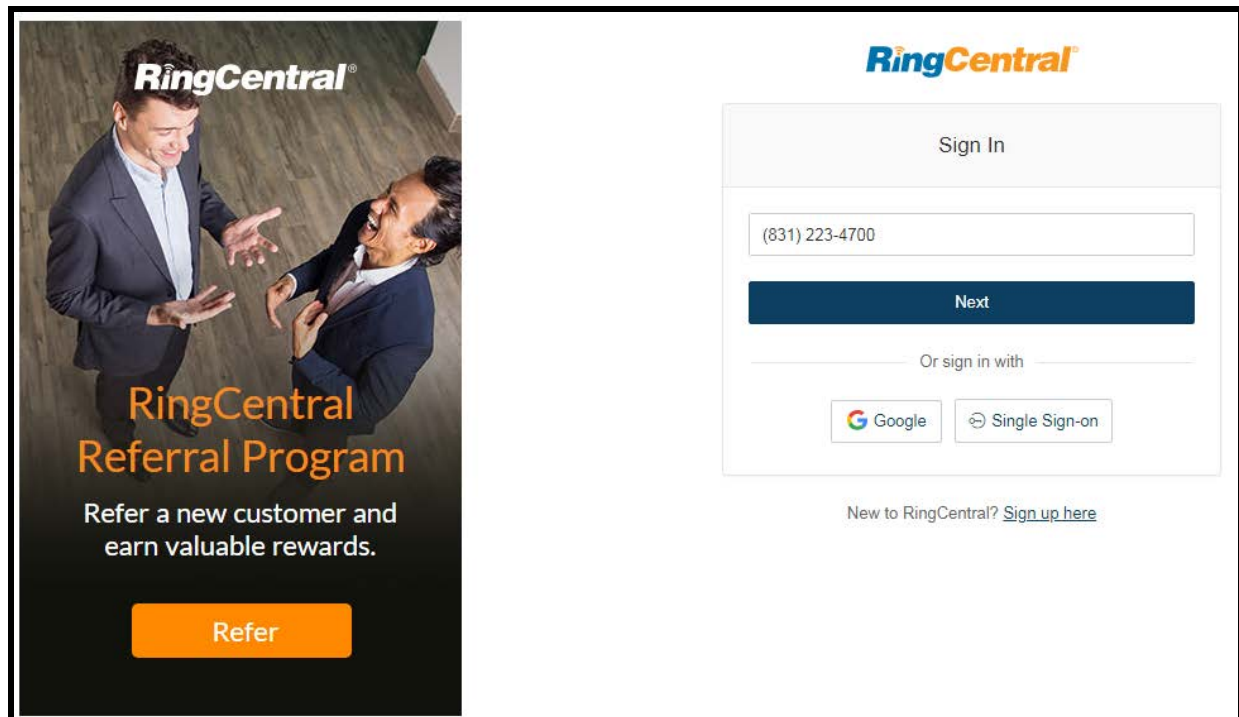
Add a Paging Device

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.

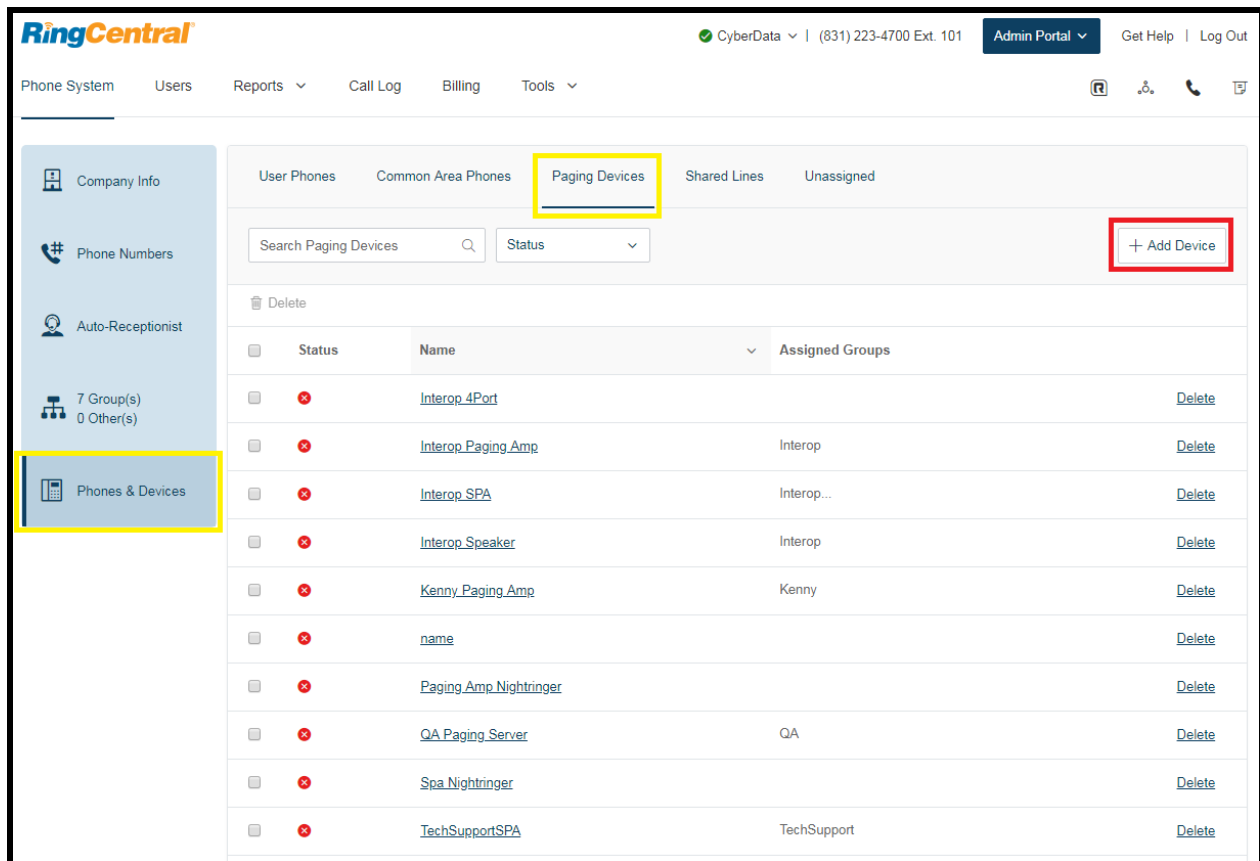
1. Login to the RingCentral Admin Portal at <https://service.ringcentral.com>.

Figure 5-1. RingCentral Admin Portal Login



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

Figure 5-2: Add Device



- 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

The screenshot shows a dialog box titled "Add Paging Device" with a close button (X) in the top right corner. Below the title bar, there are two tabs: "1 Device Nickname" (which is selected and underlined) and "2 Provisioning Info". The main content area of the dialog box contains the following text: "The following paging devices are supported by RingCentral:" followed by a bulleted list: "- CyberData SIP-enabled IP V2 Paging Speaker" and "- CyberData SIP-enabled IP V2 Paging Amplifier". Below this list, there is a label "Paging Device Nickname" and a text input field containing the text "CyberData SIP Paging Server". At the bottom right of the dialog box, there are two buttons: "Cancel" and "Next". The "Next" button is highlighted with a green rectangular border.

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

×

✓ Device Nickname
2 Provisioning Info

Provisioning information for CyberData paging devices

CyberData paging devices need to be programmed with the information given below to make them fully functional when assigned to paging group.

Step 1
Open a web browser session to the CyberData device. Please consult the vendor documentation for details on how to determine the IP address of your device and how to enter the relevant login credentials.

Step 2
Navigate to the Networking page and confirm that the device is configured for DHCP operation.

Step 3
Navigate to the SIP Configuration page and enter the following settings in the appropriate fields and Click "Save". The device may reboot.

Field	Value
SIP Domain	sip.ringcentral.com
Remote SIP port	5060
Local SIP port	5060
Outbound Proxy	sip20.ringcentral.com
Outbound Proxy Port	5090
User Name	18312234700*803291212011
Authorization ID	803291212011
Password	

Done

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

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

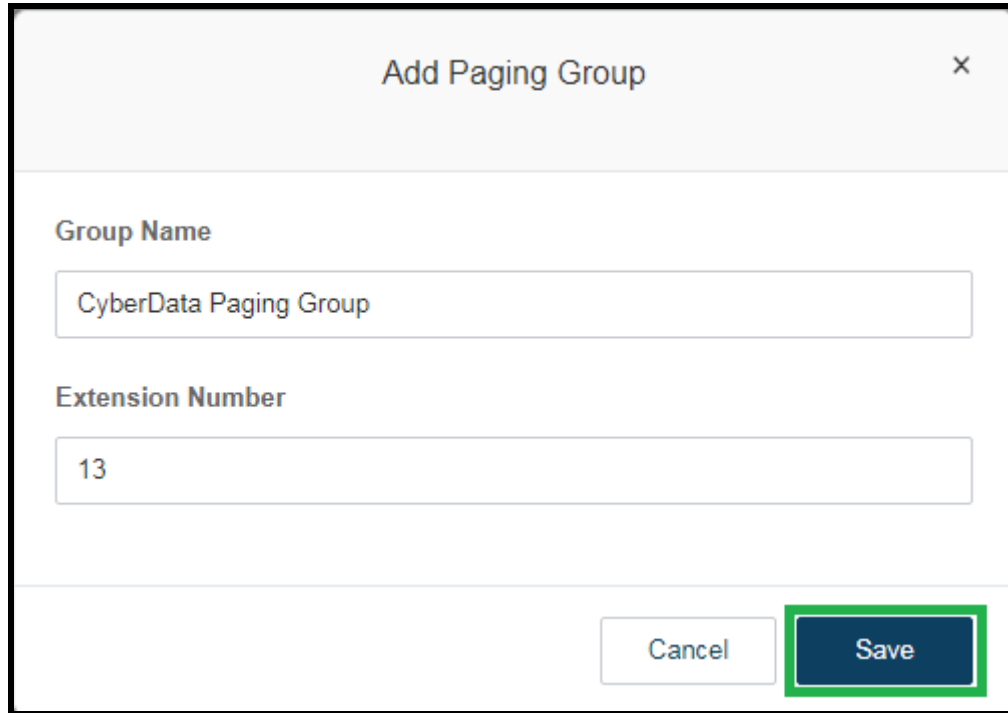
Figure 5-5: Add Group

The screenshot shows the RingCentral Admin Portal interface. The top navigation bar includes 'Call Queues', 'Paging Only' (highlighted), 'Shared Lines', 'Park Locations', 'Call Monitoring', and 'Others'. The left sidebar shows 'Company Info', 'Phone Numbers', 'Auto-Receptionist', and 'Groups' (highlighted with a red box, showing '7 Group(s)' and '0 Other(s)'). The main content area has a search bar and a '+ New Paging Only' button (highlighted with a green box). Below the search bar is a table of existing paging groups.

Status	Name	Devices	Ext.	
✓	Interop	Interop Speaker ...	11	Disable
✓	Interop2	Interop SPA	12	Disable
✓	Kenny	Kenny Paging Amp	3	Disable
✓	QA	QA Paging Server	8	Disable
✓	QA Paging		10	Disable
✓	TechSupport	TechSupportSPA	7	Disable

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

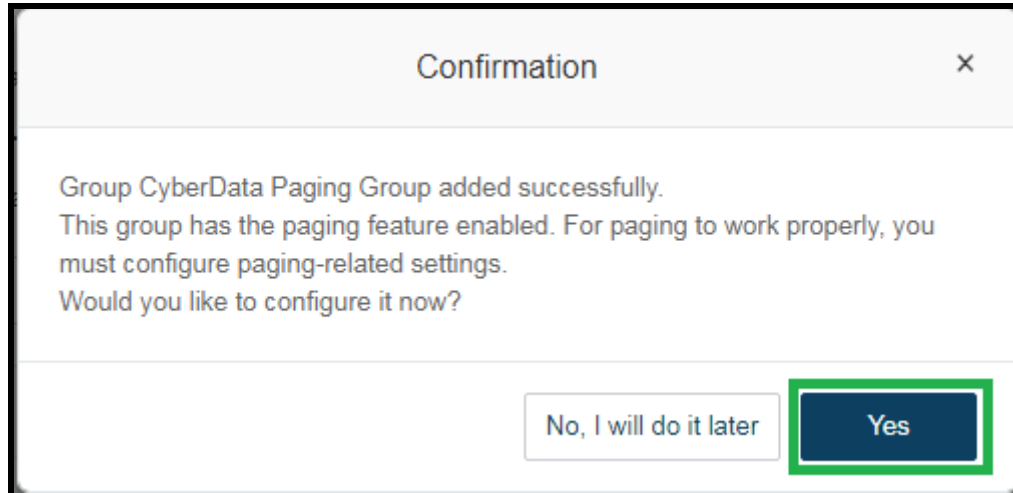
Figure 5-6: Add Paging Group



The screenshot shows a web-based dialog box titled "Add Paging Group". It features a close button (X) in the top right corner. Below the title bar, there are two labeled input fields. The first is "Group Name" with the text "CyberData Paging Group" entered. The second is "Extension Number" with the text "13" entered. At the bottom right of the dialog, there are two buttons: "Cancel" and "Save". The "Save" button is highlighted with a green rectangular border.

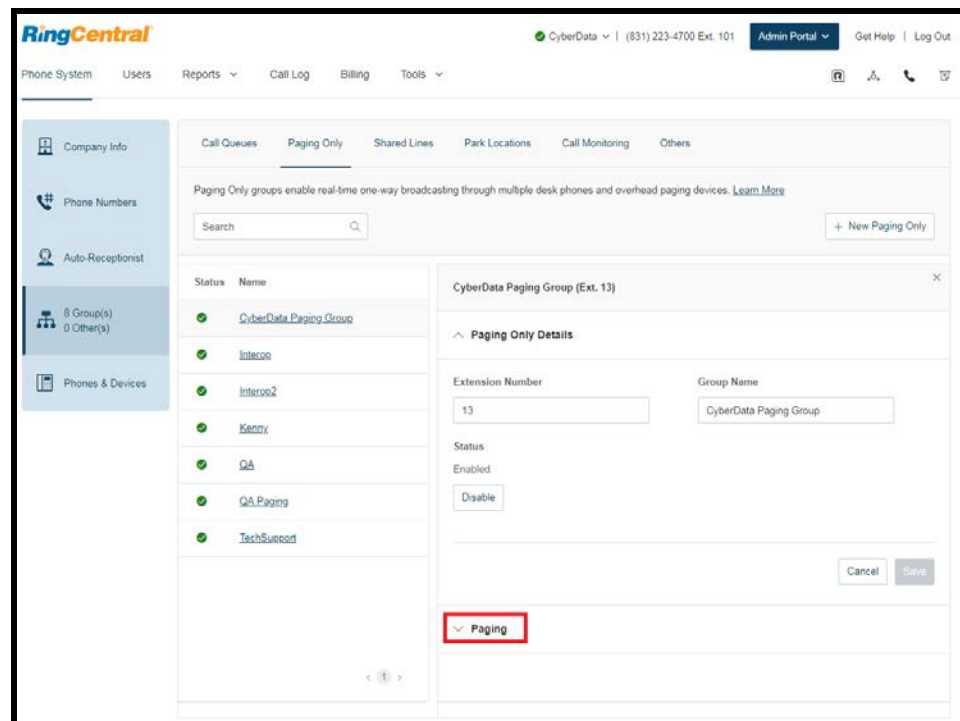
10. A confirmation screen will confirm the paging group has been created. Select **Yes** to configure paging settings.

Figure 5-7: Confirmation



11. 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



12. 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

^ **Paging**

Devices to Receive Page

Users Allowed to Page this Group

Only-Paging capable phones are displayed in the list. You can select up to 25 devices.

[Show All](#) | [Show Selected \(2\)](#)

<input type="checkbox"/>	Phone Type	Phone Name	Ext.
<input type="checkbox"/>	User Phone	Christina PolycomVWX300	104
<input checked="" type="checkbox"/>	Paging Device	CyberData Paging Amp	-
<input checked="" type="checkbox"/>	Paging Device	CyberData SIP Paging Server	-
<input type="checkbox"/>	Paging Device	Interop 4Port	-
<input type="checkbox"/>	Paging Device	Interop SPA	-
<input type="checkbox"/>	Paging Device	Interop Speaker	-
<input type="checkbox"/>	Paging Device	Kenny Paging Amp	-
<input type="checkbox"/>	Paging Device	name	-
<input type="checkbox"/>	Paging Device	Paging Amp Nightringer	-
<input type="checkbox"/>	Paging Device	QA Paging Server	-

Total: 14
Show: 10 < 1 2 >

- 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

^
Paging

Devices to Receive Page

Users Allowed to Page this Group

[Show All](#) | [Show Selected \(3\)](#)

<input type="checkbox"/>	Name	Ext.	Department
<input type="checkbox"/>	Available User2	945	
<input type="checkbox"/>	Cameron Device	934	
<input type="checkbox"/>	Cameron Nightringer	935	
<input type="checkbox"/>	Cameron Snom	932	
<input checked="" type="checkbox"/>	CyberData Corporation	101	
<input type="checkbox"/>	Group User	943	
<input checked="" type="checkbox"/>	Interop PolycomVWX300	104	
<input checked="" type="checkbox"/>	Interop Snom360	103	
<input type="checkbox"/>	Interop Strobe	942	
<input type="checkbox"/>	Kenny phone 2	938	

Total: 23
Show: 10
< 1 2 3 >

- 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

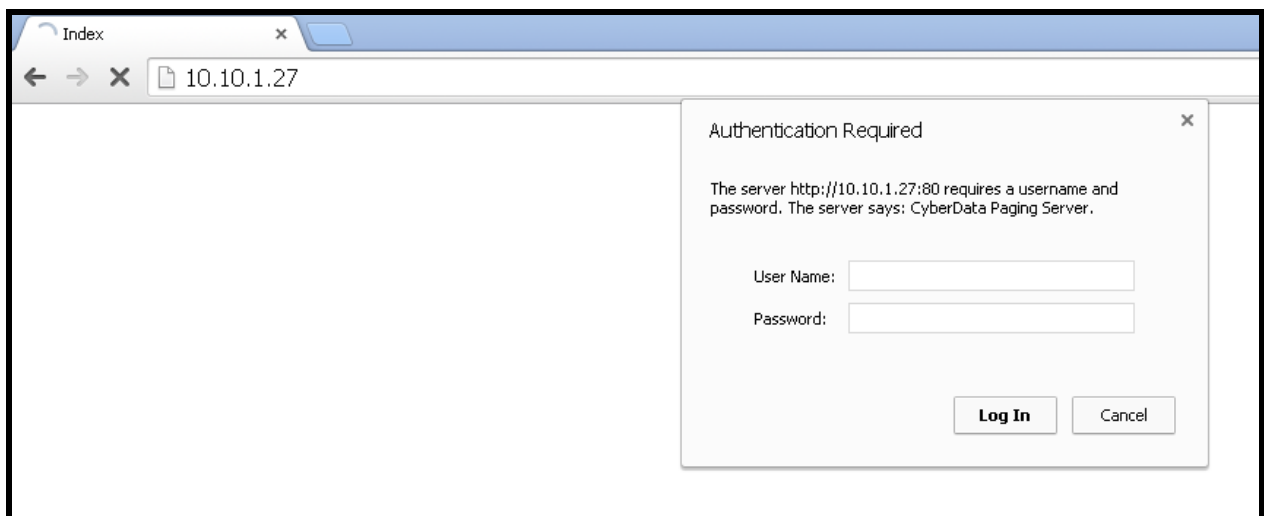


Figure 5-12: Home Page of Paging Server Web Interface

Current Status

Serial Number: 280100001
 Mac Address: 00:20:f7:03:30:1e
 Firmware Version: v12.0.3
 IP Addressing: DHCP
 IP Address: 10.10.1.194
 Subnet Mask: 255.0.0.0
 Default Gateway: 10.0.0.1
 DNS Server 1: 10.0.1.56
 DNS Server 2:
 SIP Mode: Enabled
 Event Reporting: Disabled
 Nightringer: Disabled
 Primary SIP Server: Registered
 Backup Server 1: Not registered
 Backup Server 2: Not registered
 Nightringer Server: Not registered

Admin Settings

Username: admin
 Password:
 Confirm Password:
 Save Reboot Toggle Help

Import Settings

Choose File No file chosen
 Import Config

Export Settings

Export Config

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

The screenshot displays the CyberData v3.1 Paging Server configuration web interface. The top navigation bar includes tabs for Home, Device, Network, SIP (highlighted), PGROUPS, Schedules, Fault, Audiofiles, Events, Autoprovisioning, and Firmware. The main content area is titled 'CyberData v3.1 Paging Server' and is divided into four settings sections:

- Line-in Settings:** Includes checkboxes for 'Enable Line-in to Line-out Loopback' and 'Enable Line-in to Multicast'. It also features input fields for 'Multicast Address' (224.1.2.3) and 'Multicast Port' (2000), and a checkbox for 'Detect Line-in Silence'.
- Relay Settings:** Includes a checkbox for 'Activate Relay on Local Audio'.
- Clock Settings:** Includes a checkbox for 'Set Time with NTP server on boot', an 'NTP Server' field (north-america.pool.ntp.org), a 'Posix Timezone String' field (PST8PDT,M3.2.0/2:00:00,M11.1), a checkbox for 'Periodically sync time with server', a 'Time update period (in hours)' field (24), and a 'Current Time' field (16:01:37).
- Misc Settings:** Includes a 'Device Name' field (CyberData Paging Server), a 'Bypass DTMF' checkbox (checked and highlighted with a green box), a 'DTMF Duration' field (500), checkboxes for 'Beep on Init' and 'Beep on Page', a checkbox for 'Enable Polycom Paging on Multicast', a 'Polycom Transmit Channel' dropdown (1), and a checkbox for 'Disable HTTPS (NOT recommended)'.

At the bottom left, there are two buttons: 'Save' (highlighted with a green box) and 'Reboot'.

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

CyberData v3.1 Paging Server

SIP Settings

Enable SIP operation: ☒

Register with a SIP Server: ☒

Use Cisco SRST: ☐

Primary SIP Server:	sip.ringcentral.com
Primary SIP User ID:	18312234700*803291212011
Primary SIP Auth ID:	803291212011
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:	sip10.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:	10.0.0.253
Remote SIP Port:	5060
Local SIP Port:	5061
Outbound Proxy:	
Outbound Proxy Port:	0
User ID:	241
Authenticate ID:	241
Authenticate Password:	*****
Re-registration Interval (in seconds):	360
Relay rings to multicast:	<input type="checkbox"/>
Multicast Address:	224.1.2.32
Multicast Port:	2020

Call Disconnection

Terminate Call after delay: 0

Codec Selection

Force Selected Codec: ☒

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

RTP Settings

RTP Port (even):	10500
Jitter Buffer:	50

Save

Reboot

Toggle Help

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:

<http://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>
  <RTSPPort>10500</RTSPPort>
  <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>
</PagingGroupSettings>
```

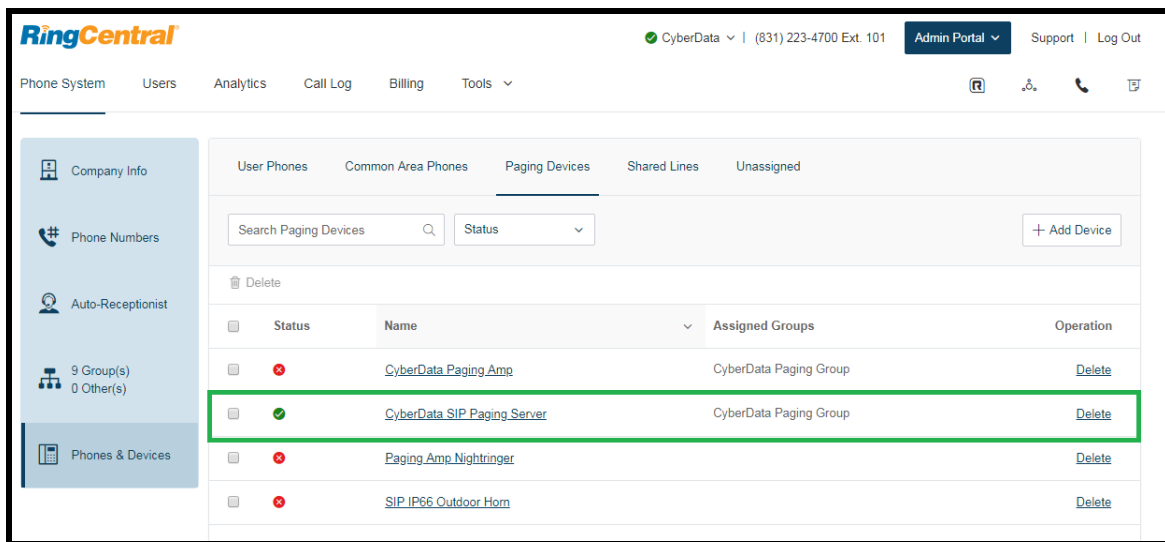
Note: These example values are published only for reference. The SIPAuthPassword value should be the actual value from the [Assisted Generic IP Phone Provisioning](#) popup window.

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:

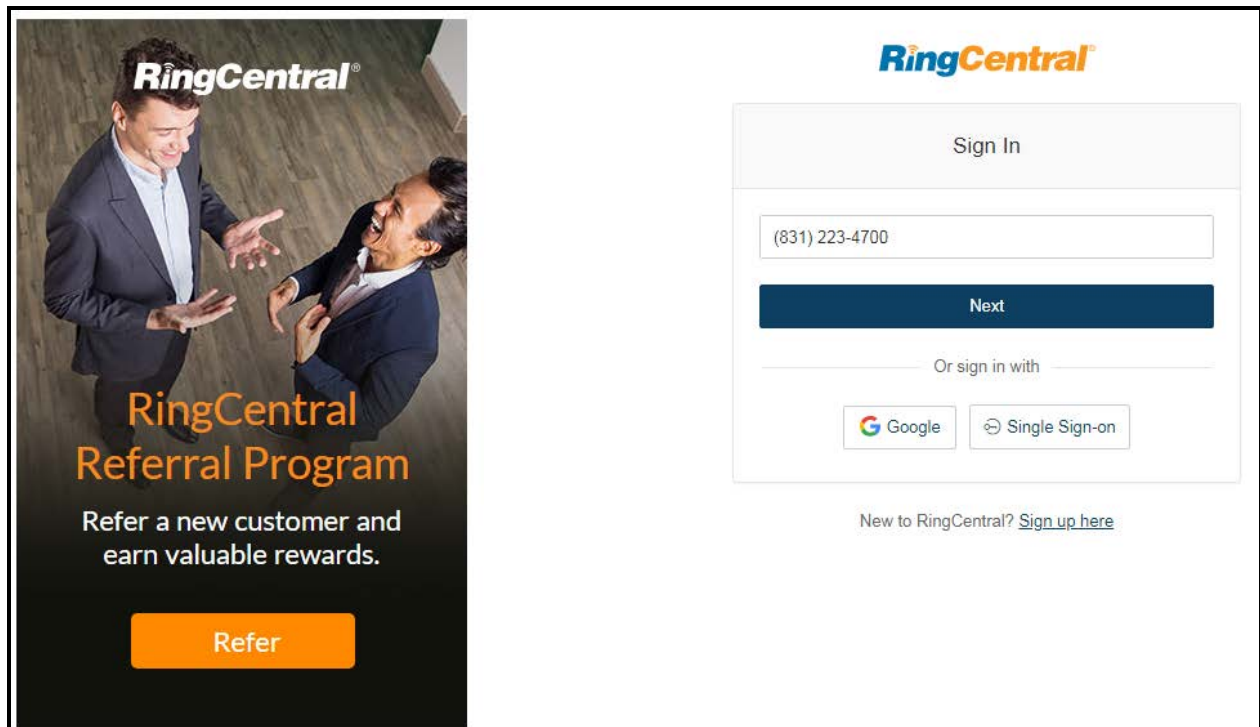
- Use of up to 100 Multicast Zones
- Security code protection for multicast zones

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

The screenshot shows the RingCentral Admin Portal interface. The 'Users' tab is selected in the top navigation bar. On the left sidebar, the 'User list' option is highlighted. The main content area displays a table of users with columns for Status, Name, Number, Ext., Roles, Department, and Msg. A '+ Add User' button is highlighted with a green box in the top right corner of the user list area.

Status	Name	Number	Ext.	Roles	Department	Msg.	
Available	Available User2		945	Standard (Intern...		0 / 0	Disable
Available	Cameron Device	(831) 272-0654	934	Standard (Intern...		0 / 0	Resend Invite Delete
Available	Cameron Nightr...	(831) 272-0641	935	Standard (Intern...		0 / 0	Resend Invite Delete
Available	Cameron Snom	(831) 233-3994	932	Super Admin		3 / 3	Disable
Available	CyberData Cor...	(303) 872-5806	101	Super Admin		9 / 9	
Available	Group User		943	Standard (Intern...		3 / 3	Disable
Available	Interop Polyc...	(831) 975-2610	104	Standard (Intern...		1 / 1	Disable
Available	Interop Snom360	(831) 233-3992	103	Super Admin		5 / 5	
Available	Interop Strobe	(669) 900-4551	942	Standard (Intern...		1 / 1	Disable
Available	Kenny phone 2	(831) 741-4265	938	Standard (Intern...		2 / 2	Disable
Available	Kenny phone 3	(831) 272-0630	939	Standard (Intern...		6 / 6	Disable

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

Figure 6-3: 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 and underlined. 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.

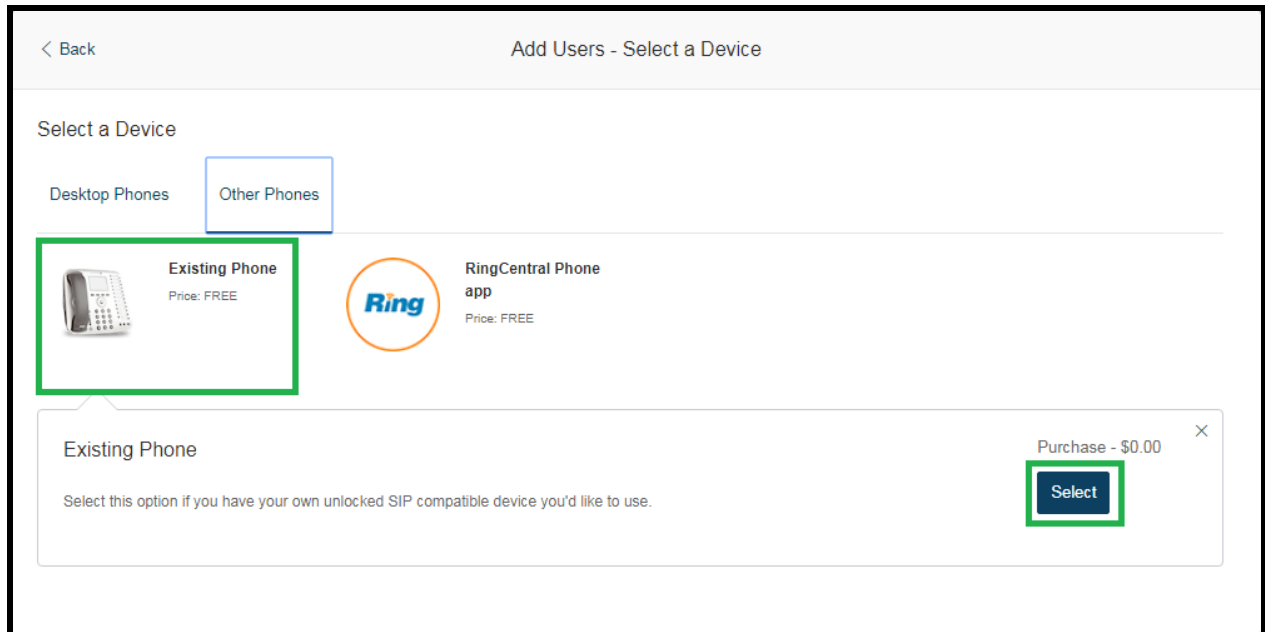
4. In the subsection **Add Users with Phones**, select the number of users, state, area code, and device.

Figure 6-4. Pick a 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 underlined) 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 is a note: "You can add multiple users at a time if they will all use the same area code. [Learn More](#)". At the bottom of the modal, 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. Next, select a phone type. Choose **Other Phones**, and then make sure **Existing Phone** is selected. Press **Select**.

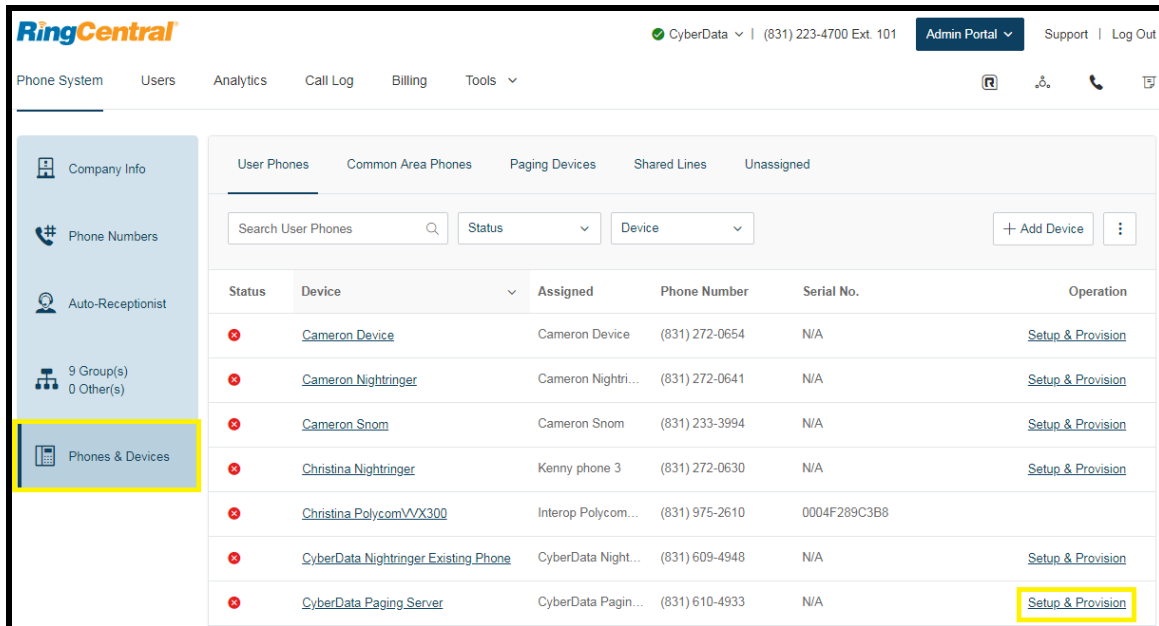
Figure 6-5: Select Phone Type



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.

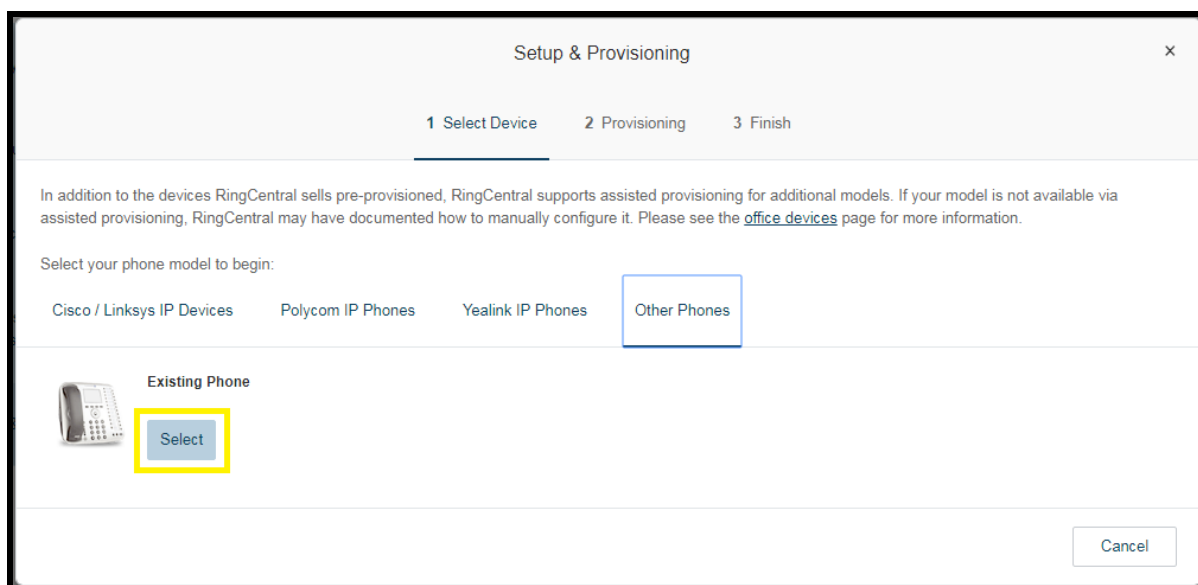
- From the **Phones & Devices** menu, select **User Phones** and select the user phone designated for the paging server. Click **Setup and Provision**.

Figure 6-6: Setup and Provision



- 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

✕

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 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	Yes
Codec dropdown	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

CyberData v3.1 Paging Server

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:

RTP Settings

RTP Port (even):

Jitter Buffer:

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):

Relay rings to multicast: ☐

Multicast Address:

Multicast Port:

Call Disconnection

Terminate Call after delay:

Codec Selection

Force Selected Codec: ☒

Codec:

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

```
<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>
  <RTTPPort>10500</RTTPPort>
  <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

The screenshot shows the RingCentral Admin Portal interface. The left sidebar contains navigation options: 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 registered devices, with the 'CyberData Paging Server' highlighted in yellow. The table columns are Status, Device, Assigned, Phone Number, Serial No., and Operation.

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 PolycomVXX300	Interop Polycom...	(831) 975-2610	0004F289C3B8	
✖	CyberData Nightringer Existing Phone	CyberData Night...	(831) 609-4948	N/A	Setup & Provision
✔	CyberData Paging Server	CyberData Pagin...	(831) 610-4933	N/A	Setup & Provision

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.

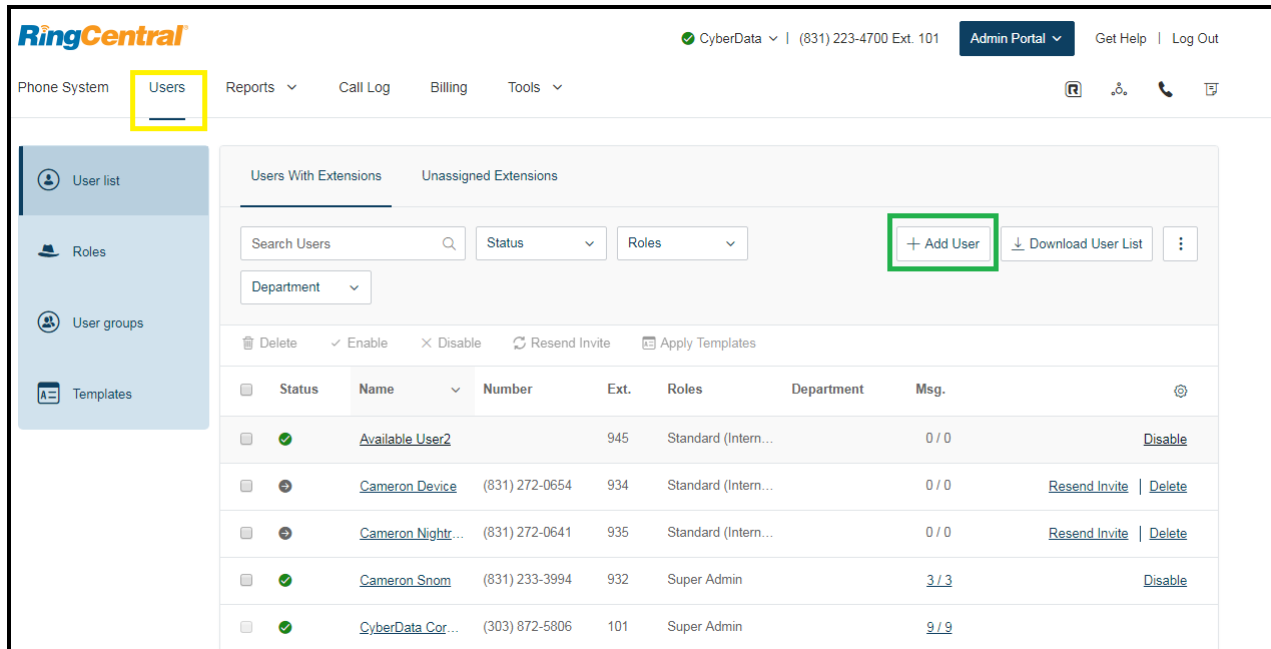
Add an IP Phone

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 **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

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

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

Learn More'. Below this is a form with four fields: 'Number of Users' (text input 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', 'State', and 'Area Code' fields are highlighted with a yellow border, and the 'Device' field is highlighted with a green border. To the right of these fields is an 'Add' button. At the bottom right are 'Back' and 'Next' buttons."/>

Add Users

✓ Location 2 Add Users 3 Shipping Address 4 Confirmation

Add Users With Phones Add Users Without Phones

Account Status

Your plan: 20 - 99 Users Used: 25 Available: 0 Available for purchase: 74

You can add multiple users at a time if they will all use the same area code. [Learn More](#)

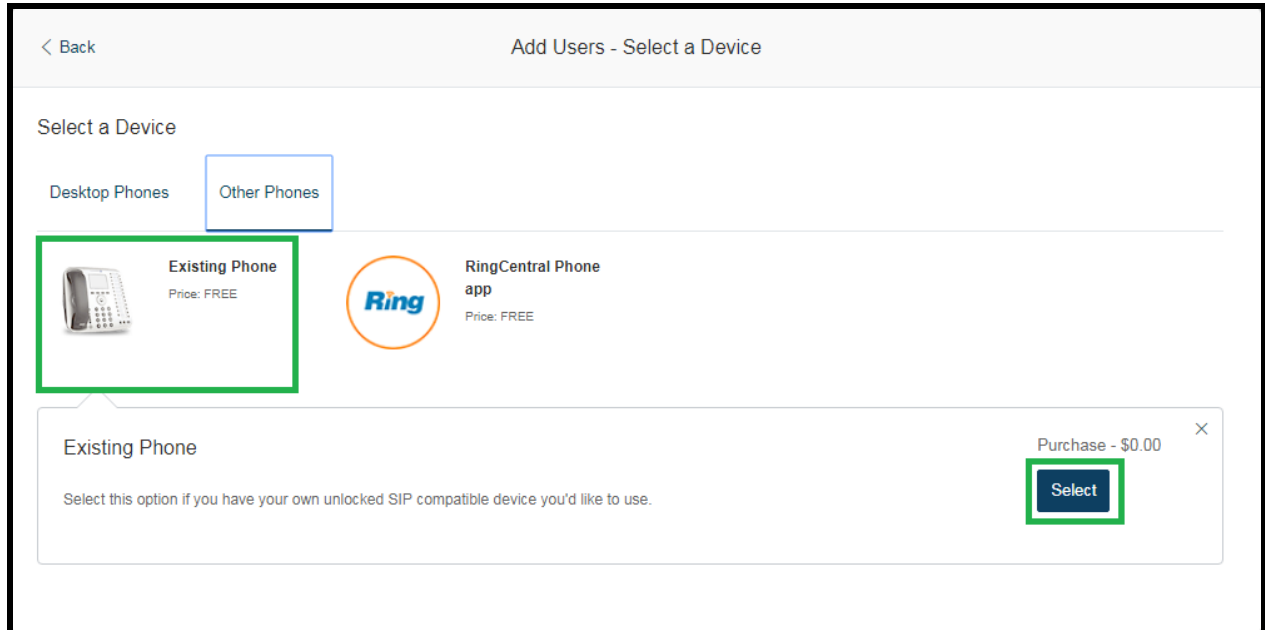
Number of Users	State	Area Code	Device
1	Select ▼	Select ▼	Select a Device... >

Add

Back Next

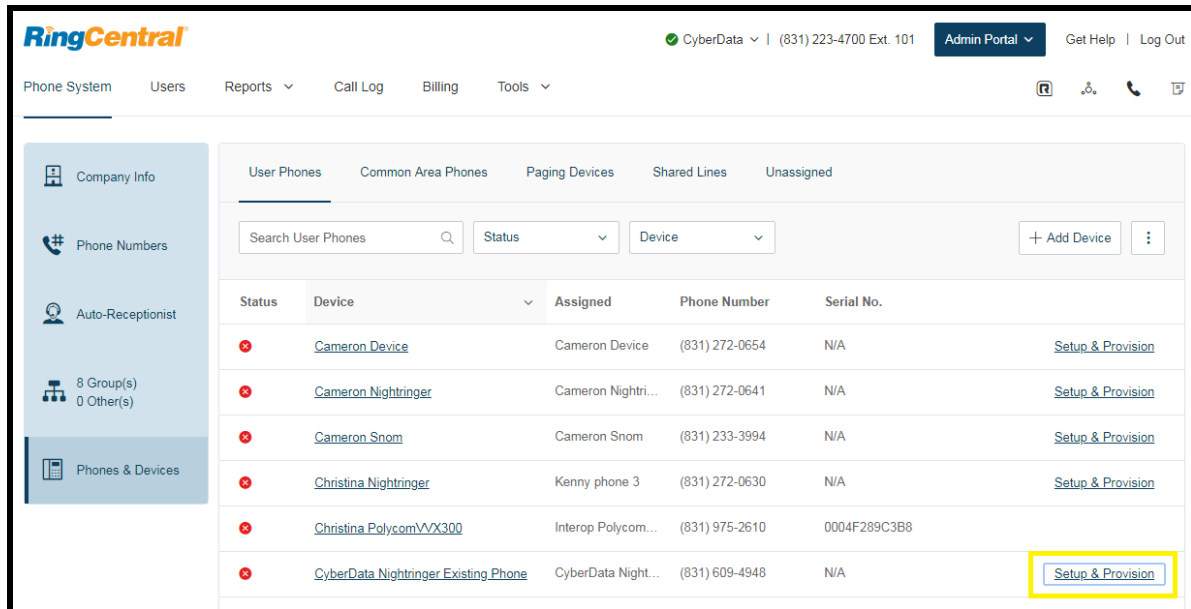
4. From the Select a Device menu pick **Other Phones**. Then select **Existing Phone**. Press Select to confirm the selection.

Figure 7-4: Select Phone Type



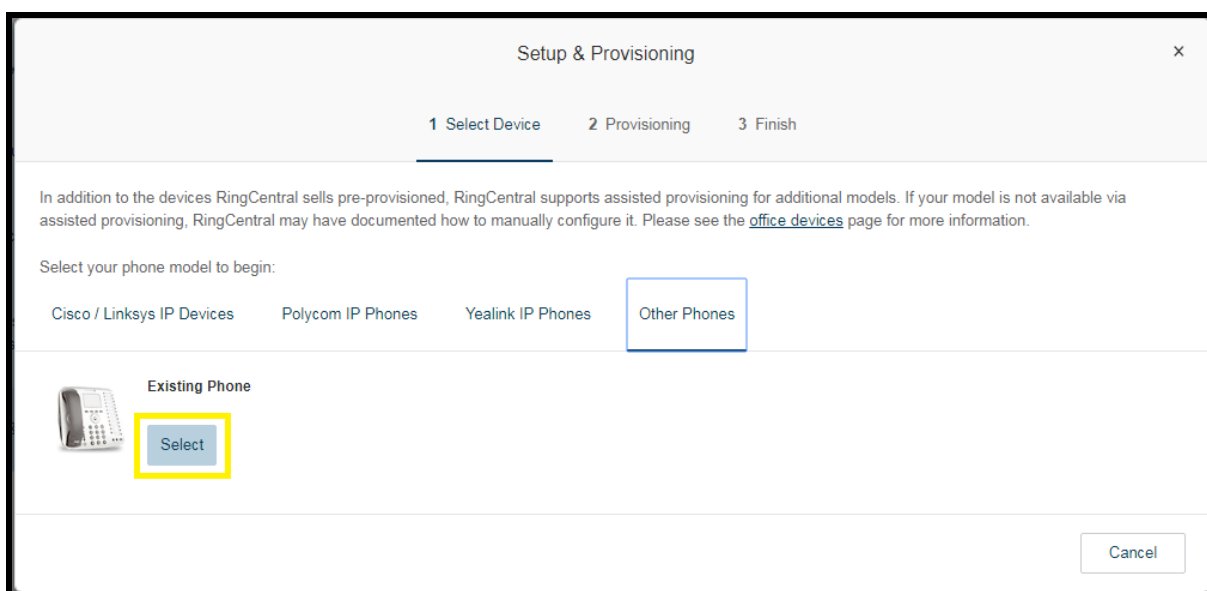
- From the **Phones & Devices** menu, select **User Phones** and then select the user phone created for the Nightringer. Click **Setup and Provision**.

Figure 7-5: Setup and Provision



- 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

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

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	
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 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	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 top toolbar.

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

Home Device Network **SIP** PGROUPS Schedules Fault Audiofiles Events Autoprovisioning Firmware

CyberData v3.1 Paging Server

Current Status

Serial Number: 280100001
Mac Address: 00:20:f7:03:30:1e
Firmware Version: v12.0.3

IP Addressing: DHCP
IP Address: 10.10.1.194
Subnet Mask: 255.0.0.0
Default Gateway: 10.0.0.1
DNS Server 1: 10.0.1.56
DNS Server 2:

SIP Mode: Enabled
Event Reporting: Disabled
Nightringer: Disabled

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

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 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

Home
Device
Network
SIP
PGROUPS
Schedules
Fault
Audiofiles
Events
Autoprov
Firmware

CyberData v3.1 Paging Server

SIP Settings

Enable SIP operation: ☒

Register with a SIP Server: ☒

Use Cisco SRST: ☐

Primary SIP Server: sip.ringcentral.com

Primary SIP User ID: 18312234700*803291212011

Primary SIP Auth ID: 803291212011

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: sip10.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: sip10.ringcentral.com

Outbound Proxy Port: 5090

User ID: 18312333993

Authenticate ID: 17422862010

Authenticate Password: *****

Re-registration Interval (in seconds): 30

Relay rings to multicast: ☐

Multicast Address: 224.1.2.32

Multicast Port: 2020

Call Disconnection

Terminate Call after delay: 0

Codec Selection

Force Selected Codec: ☒

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

RTP Settings

RTP Port (even): 10500

Jitter Buffer: 50

Save
Reboot
Toggle Help

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>
```

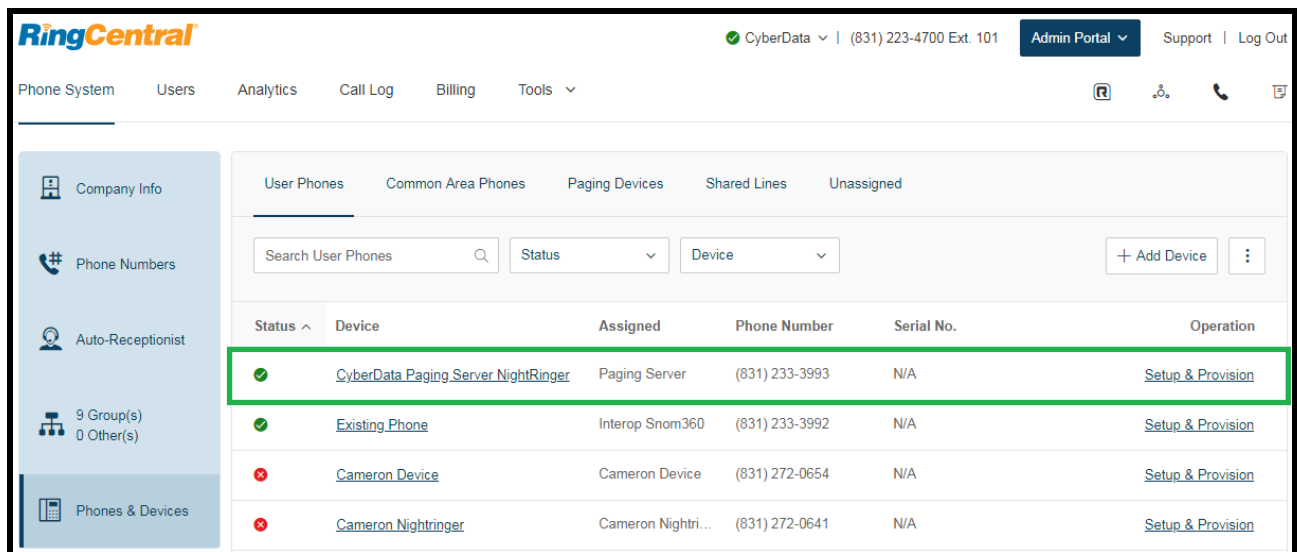
Note: These example values are published only for reference. The “NightringerAuthPassword” value should be the actual value from the [Nightringer's Assisted Generic IP Phone/Adaptor Provisioning](#) popup.

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



Status	Device	Assigned	Phone Number	Serial No.	Operation
✓	CyberData Paging Server Nightringer	Paging Server	(831) 233-3993	N/A	Setup & Provision
✓	Existing Phone	Interop Snom360	(831) 233-3992	N/A	Setup & Provision
✗	Cameron Device	Cameron Device	(831) 272-0654	N/A	Setup & Provision
✗	Cameron Nightringer	Cameron Nightri...	(831) 272-0641	N/A	Setup & Provision

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.