



RING CENTRAL CONFIGURATION GUIDE: SIP IP66 Outdoor Horn

Document Part #931592B

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**RingCentral Configuration Guide: SIP IP66 Outdoor Horn
Document #931592B**

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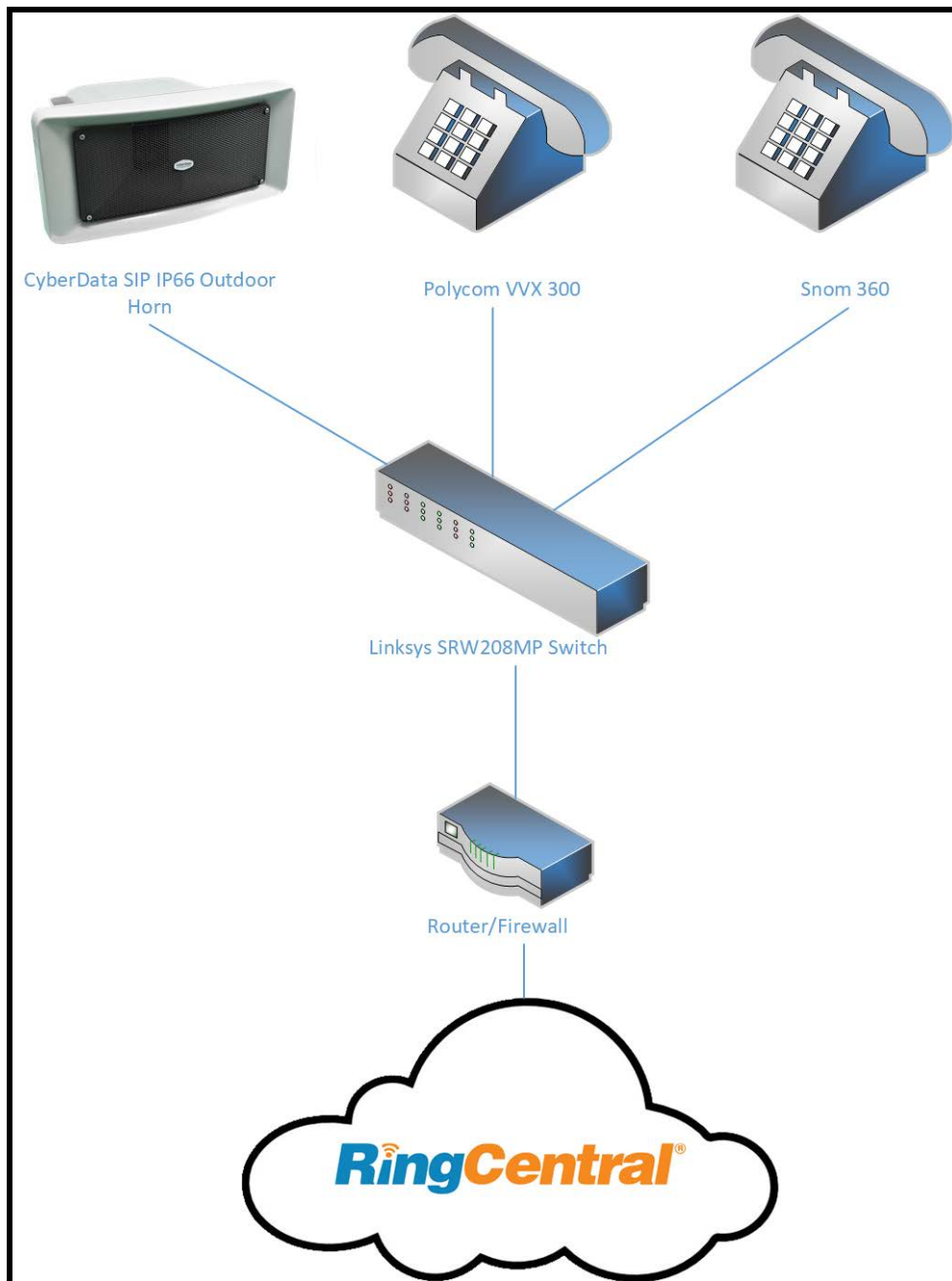
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1.0 Setup Diagram

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 IP66 OUTDOOR HORN | 011457 | V11.8.5 |
| 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 SIP IP66 Outdoor Horn.

Network Advisories

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

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

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

The horn'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. The SIP ports for both the Primary and Nightringer extensions are configurable on the **SIP** page of the web interface.

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

Product Documentation and Utilities

Before starting, download the Operation and Quick Start guides from the horn's product webpage:

<https://www.cyberdata.net/collections/sip/products/011457>

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

<https://www.cyberdata.net/pages/discovery>

***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 desk phones and/or paging devices. CyberData Outdoor Horns can be added to *Paging Only* groups supporting a combination of CyberData paging endpoints and RingCentral Polycom and Cisco desk phones.

CyberData SIP IP66 Outdoor Horns are ideal for one-way, auto-answer paging in outdoor or indoor environments and offer digital volume control.

Add a Free Paging Device

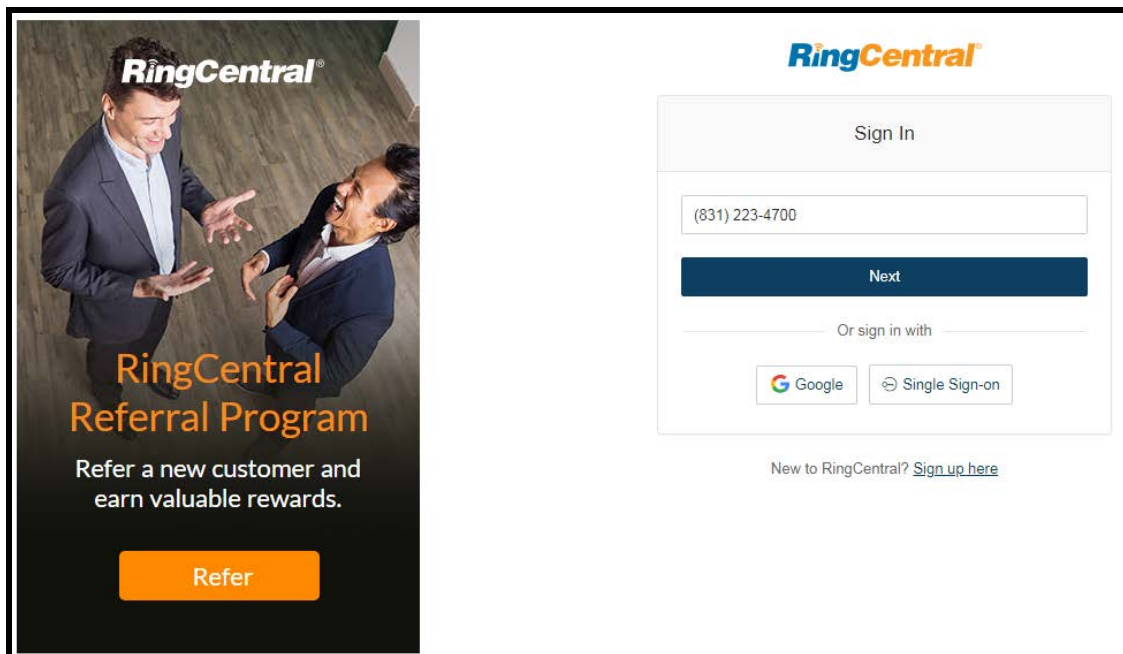
To provision the horn's paging extension, add a RingCentral Paging Device to a *Paging Only* group through the RingCentral Admin Portal.

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.

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

Figure 4-1. RingCentral Admin Portal Login



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

Figure 4-2. Add Device

The screenshot displays the RingCentral Admin Portal interface. The left sidebar contains a 'Phones & Devices' menu item, which is highlighted with a yellow box. The main content area shows the 'Paging Devices' configuration page, also highlighted with a yellow box. The page includes a search bar, a status dropdown, and a '+ Add Device' button (highlighted with a red box). Below these elements is a table listing existing paging devices with columns for Status, Name, and Assigned Groups. Each row includes a 'Delete' link.

| Status | Name | Assigned Groups | Delete |
|--------|--|-----------------|------------------------|
| ✖ | Interop_4Port | | Delete |
| ✖ | Interop_Paging_Amp | Interop | Delete |
| ✖ | Interop_SPA | Interop... | Delete |
| ✖ | Interop_Speaker | Interop | Delete |
| ✖ | Kenny_Paging_Amp | Kenny | Delete |
| ✖ | name | | Delete |
| ✖ | Paging_Amp_Nightringer | | Delete |
| ✖ | QA_Paging_Server | QA | Delete |
| ✖ | Spa_Nightringer | | Delete |
| ✖ | TechSupportSPA | TechSupport | Delete |

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

Figure 4-3. Select Device Type

Add Paging Device

1 Device Nickname 2 Provisioning Info

The following paging devices are supported by RingCentral:

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

Paging Device Nickname

SIP IP66 Outdoor Horn

Cancel Next

3. A popup window labeled **Generic Paging Device Provisioning** will appear. The provisioning information will be used to register the horn's primary extension with RingCentral.

Figure 4-4. Paging Device Provisioning Information

x

✓ 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 | sip10.ringcentral.com |
| Outbound Proxy Port | 5090 |
| User Name | 18312234700*802874705010 |
| Authorization ID | 802874705010 |
| Password | |

Done

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

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

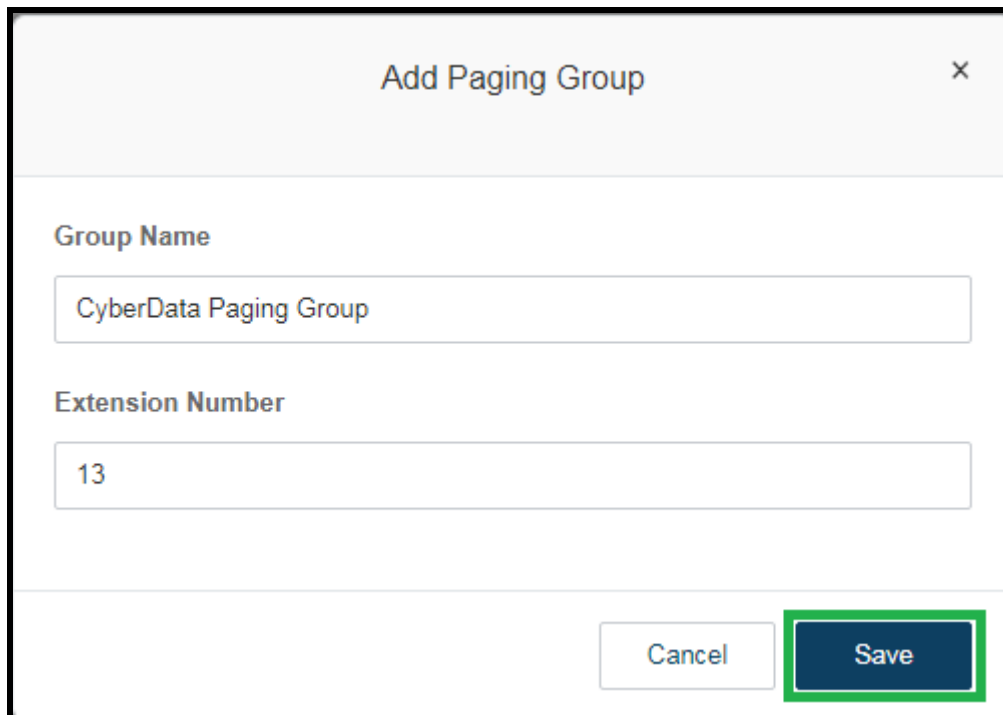
Figure 4-5. Add Group

The screenshot shows the RingCentral Admin Portal interface. The top navigation bar includes 'Call Queues', 'Paging Only' (selected), 'Shared Lines', 'Park Locations', 'Call Monitoring', and 'Others'. The left sidebar contains '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 displays a table of existing paging groups. A '+ New Paging Only' button is located in the top right corner of the main content area.

| 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 |

5. 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 4-6. Add Paging Group



Add Paging Group X

Group Name

CyberData Paging Group

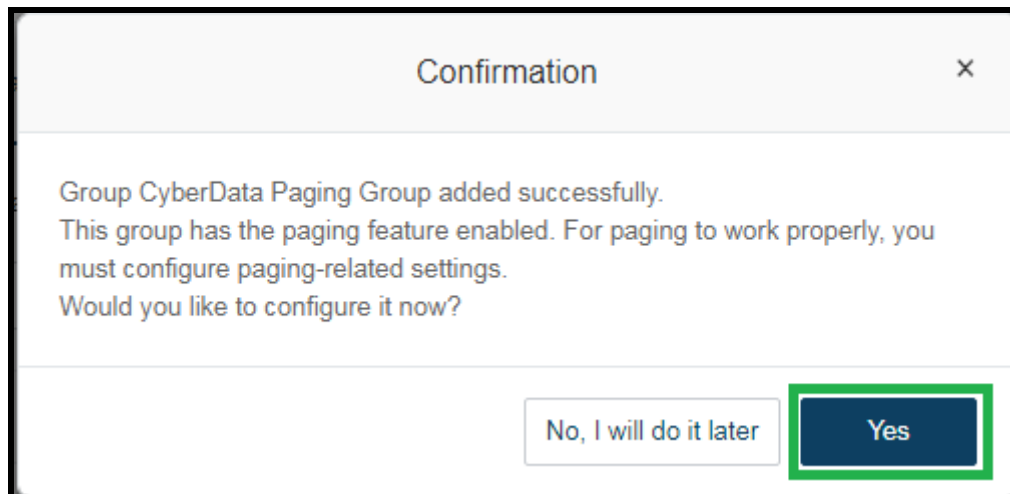
Extension Number

13

Cancel Save

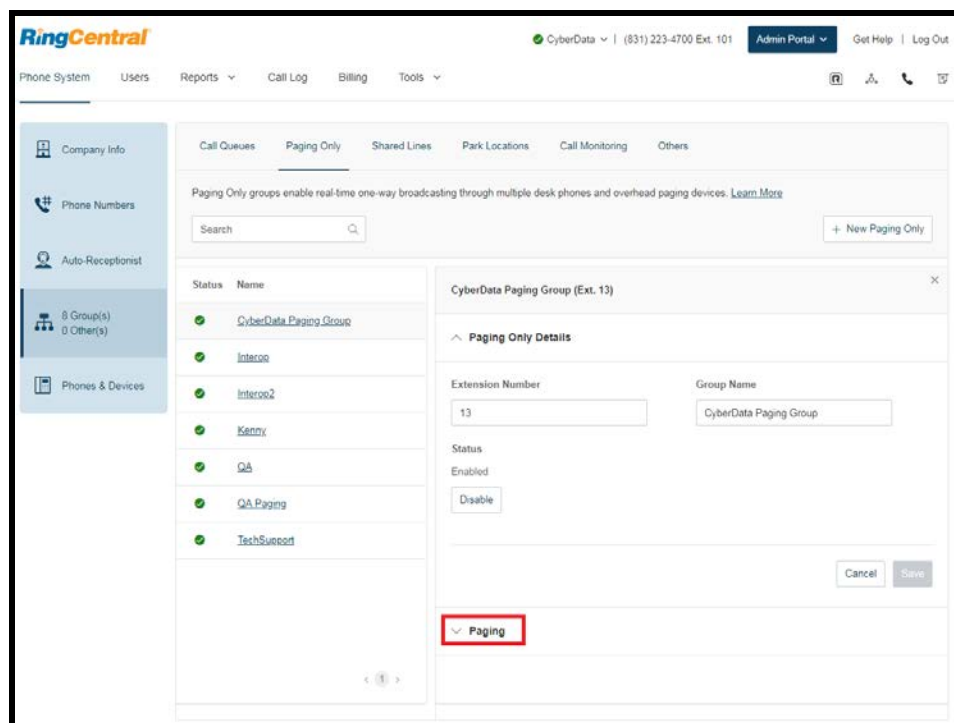
6. A confirmation screen will confirm the paging group has been created. Select **Yes** to configure paging settings.

Figure 4-7. Confirmation



7. 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 4-8. Group Paging Menu



8. From the **Paging** menu, select **Devices to receive page**, then check the devices to add to the group and press **Save**.

Figure 4-9. Devices to Receive Page

The screenshot displays the 'CyberData Paging Group (Ext. 13)' configuration page. On the left, a list of devices is shown with their status (all green) and names: CyberData Paging Group, Interop, Interop2, Kenny, QA, QA Paging, and TechSupport. The main area on the right is titled 'CyberData Paging Group (Ext. 13)' and contains a 'Paging Only Details' section. Under the 'Paging' sub-section, the 'Devices to Receive Page' tab is selected and highlighted with a yellow box. Below this, a message states: 'Only-Paging capable phones are displayed in the list. You can select up to 25 devices.' There is a search bar and a 'Phone Type' dropdown menu. Below these, there are links for 'Show All' and 'Show Selected (2)'. A table lists the devices available for selection:

| Phone Type | Phone Name | Ext. |
|-------------------------------------|---------------|-----------------------|
| <input checked="" type="checkbox"/> | Paging Device | SIP IP66 Outdoor Horn |
| <input type="checkbox"/> | Paging Device | Spa Nightringer |
| <input type="checkbox"/> | Paging Device | TechSupportSPA |

The first row, 'SIP IP66 Outdoor Horn', is highlighted with a yellow box. At the bottom of the page, there are 'Total: 13', 'Show: 10' dropdown, and pagination controls. The 'Save' button is highlighted with a yellow box.

9. 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 4-10. Users Allowed to Page This Group

^ **Paging**

Devices to Receive Page **Users Allowed to Page this Group**

Search All Departments

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: < 1 2 3 >

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

Table 4-1. 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) |

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 4-11. Web Interface Login

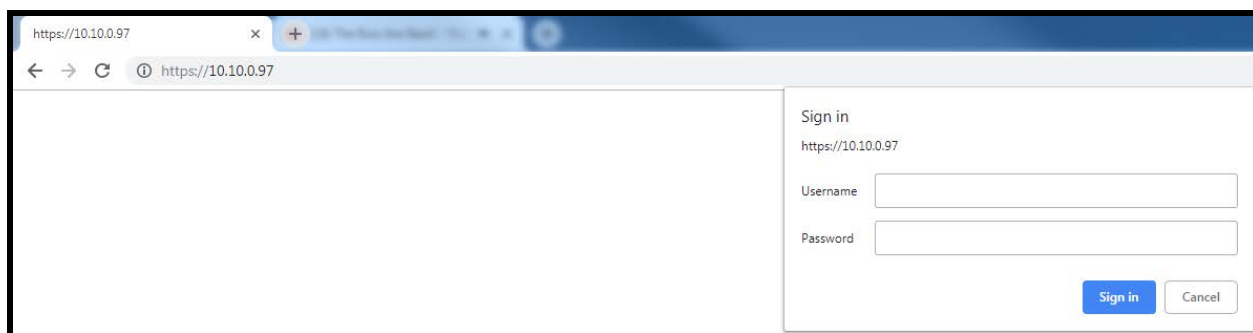


Figure 4-12. Home Page of Outdoor Horn Web Interface

Current Status

Serial Number: 405000417
 Mac Address: 00:20:f7:03:a3:2f
Firmware Version: v11.8.5
 IP Addressing: DHCP
 IP Address: 10.10.0.97
 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
 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

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 **SIP** on the top toolbar of the screen to access the SIP page.

***Note:** The firmware version and registration status for the paging extension and Nightringer 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 horn 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**.

- Click **Save** and **Reboot** to store changes.

Figure 4-13. SIP Configuration

CyberData Outdoor Horn

SIP Settings

Enable SIP operation: ☒

SIP Transport Protocol:

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 autoprovisioning the horn, use the SIP Settings in the autoprovisioning template to register the horn 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/products/011324>

Be sure to use the autoprovisioning template for the firmware version running on the horn. 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 4-14. Autoprovisioning Template Example – SIP Settings

```
<SIPSettings>
  <EnableSIPOperation>Yes</EnableSIPOperation>
  <SIPTransportProtocol>UDP</SIPTransportProtocol>
  <SIPServer>sip.ringcentral.com</SIPServer>
  <RemoteSIPPort>5060</RemoteSIPPort>
  <BackupSIPServer1></BackupSIPServer1>
  <BackupSIPServer2></BackupSIPServer2>
  <LocalSIPPort>5060</LocalSIPPort>
  <OutboundProxy>sip20.ringcentral.com</OutboundProxy>
  <OutboundProxyPort>5090</OutboundProxyPort>
  <SIPUserID>18312234700*802874705010</SIPUserID>
  <SIPAuthID>802874705010</SIPAuthID>
  <SIPAuthPassword>      </SIPAuthPassword>
  <SIPUserID2></SIPUserID2>
  <SIPAuthID2></SIPAuthID2>
  <SIPAuthPassword2></SIPAuthPassword2>
  <SIPUserID3></SIPUserID3>
  <SIPAuthID3></SIPAuthID3>
  <SIPAuthPassword3></SIPAuthPassword3>
  <SIPRegistrationTimeout>30</SIPRegistrationTimeout>
  <SIPRegisterOnBoot>Yes</SIPRegisterOnBoot>
  <BufferSIPCalls>No</BufferSIPCalls>
  <RTTPort>10500</RTTPort>
  <JitterBuffer>50</JitterBuffer>
  <CallTimeout>0</CallTimeout>
  <UseCiscoSRST>No</UseCiscoSRST>
  <DisableRportDiscovery>No</DisableRportDiscovery>
  <DialoutExtension0>204</DialoutExtension0>
  <DialoutID0>id204</DialoutID0>
  <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 [Generic Paging Device Provisioning](#) popup window.

Verify the Horn is Registered

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

Additionally, the registration status can be verified with RingCentral through the admin portal. From the **Phones & Devices** menu, select the Paging Device tab then find the device just created for the horn. The status should show as a green checkmark in the **Status** column.

Figure 4-15. Device 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 (selected). The main content area is titled 'Paging Devices' and includes a search bar, a status dropdown, and an 'Add Device' button. Below this is a table of devices with columns for Status, Name, Assigned Groups, and Operation. The 'SIP IP66 Outdoor Horn' device is highlighted with a yellow box, showing a green checkmark in the Status column.

| Status | Name | Assigned Groups | Operation |
|--------|------------------------|------------------------|------------------------|
| ✗ | CyberData Paging Amp | CyberData Paging Group | Delete |
| ✗ | Interop 4Port | | Delete |
| ✓ | Interop SPA | Interop... | Delete |
| ✗ | Interop Speaker | Interop | Delete |
| ✗ | Kenny Paging Amp | Kenny | Delete |
| ✗ | name | | Delete |
| ✗ | Paging Amp Nightringer | | Delete |
| ✗ | QA Paging Server | QA | Delete |
| ✓ | SIP IP66 Outdoor Horn | | Delete |

Make a Test Call

Once the device has registered with RingCentral, any phone associated as an [Allowed User](#) can dial the extension of the paging group. Refer to this [RingCentral Knowledge article 5925](#) for instructions on paging a group from an IP phone.

5.0 Configuration Procedure: Voice-Prompted Paging

When an installation requires more flexibility than auto-answer live paging, the horn's primary extension can be provisioned as an IP phone associated with a user extension. Provisioning as a Paging Device does not allow the caller to receive audio from the horn to hear voice prompts from the horn's paging menu or enter DTMF digits for stored message selections.

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

- Playing up to 9 configurable stored messages
- Security code

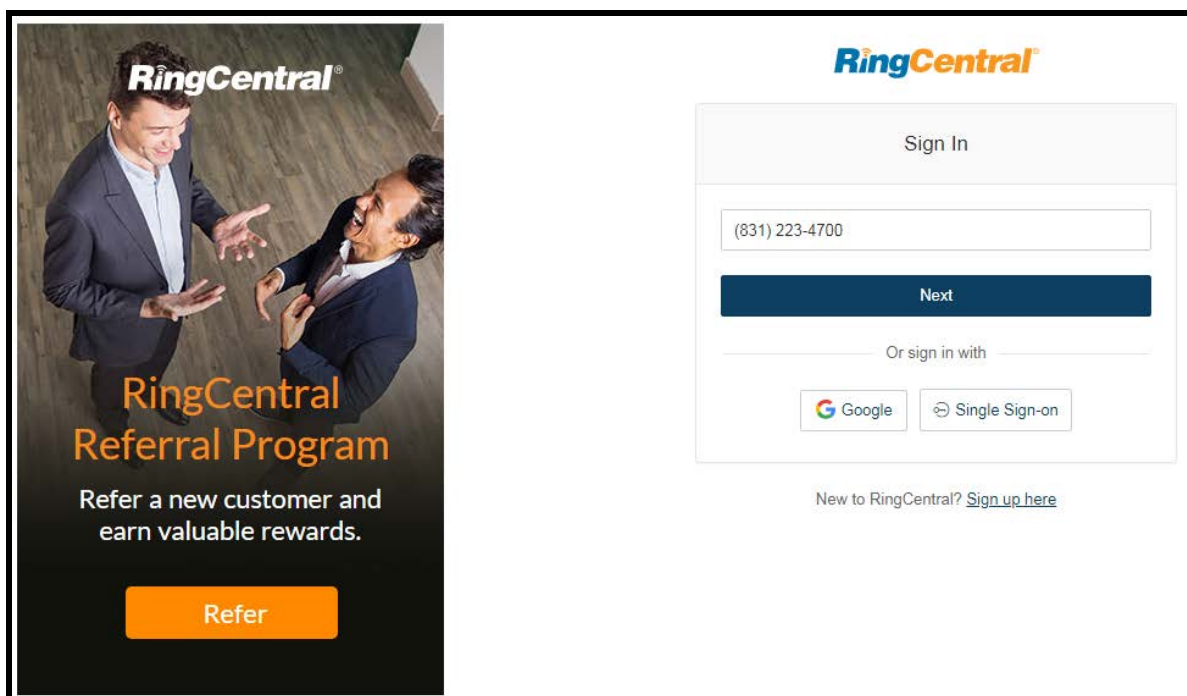
Add an IP Phone

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

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 5-1. RingCentral Admin Portal Login



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

Figure 5-2. Add User Button

The screenshot displays 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' (highlighted), '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 filters is a table of users with columns: Status, Name, Number, Ext., Roles, Department, and Msg. The table lists several users, including 'Available User2', 'Cameron Device', 'Cameron Nightr...', 'Cameron Snom', 'CyberData Cor...', 'Group User', 'Interop Polyc...', 'Interop Snom360', 'Interop Strobe', 'Kenny_phone_2', and 'Kenny_phone_3'.

| Status | Name | Number | Ext. | Roles | Department | Msg. | |
|--------------------------|-------------------|----------------|------|---------------------|------------|-------|--|
| <input type="checkbox"/> | Available User2 | | 945 | Standard (Intern... | | 0 / 0 | Disable |
| <input type="checkbox"/> | Cameron Device | (831) 272-0654 | 934 | Standard (Intern... | | 0 / 0 | Resend Invite Delete |
| <input type="checkbox"/> | Cameron Nightr... | (831) 272-0641 | 935 | Standard (Intern... | | 0 / 0 | Resend Invite Delete |
| <input type="checkbox"/> | Cameron Snom | (831) 233-3994 | 932 | Super Admin | | 3 / 3 | Disable |
| <input type="checkbox"/> | CyberData Cor... | (303) 872-5806 | 101 | Super Admin | | 9 / 9 | |
| <input type="checkbox"/> | Group User | | 943 | Standard (Intern... | | 3 / 3 | Disable |
| <input type="checkbox"/> | Interop Polyc... | (831) 975-2610 | 104 | Standard (Intern... | | 1 / 1 | Disable |
| <input type="checkbox"/> | Interop Snom360 | (831) 233-3992 | 103 | Super Admin | | 5 / 5 | |
| <input type="checkbox"/> | Interop Strobe | (669) 900-4551 | 942 | Standard (Intern... | | 1 / 1 | Disable |
| <input type="checkbox"/> | Kenny_phone_2 | (831) 741-4265 | 938 | Standard (Intern... | | 2 / 2 | Disable |
| <input type="checkbox"/> | 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 5-3. Add User Popup

Add Users

1 Location 2 Add Users 3 Shipping Address 4 Confirmation

Select a Location

☒ Domestic ☐ International

Cancel Next

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

Figure 5-4. Pick a Phone Number

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](#)

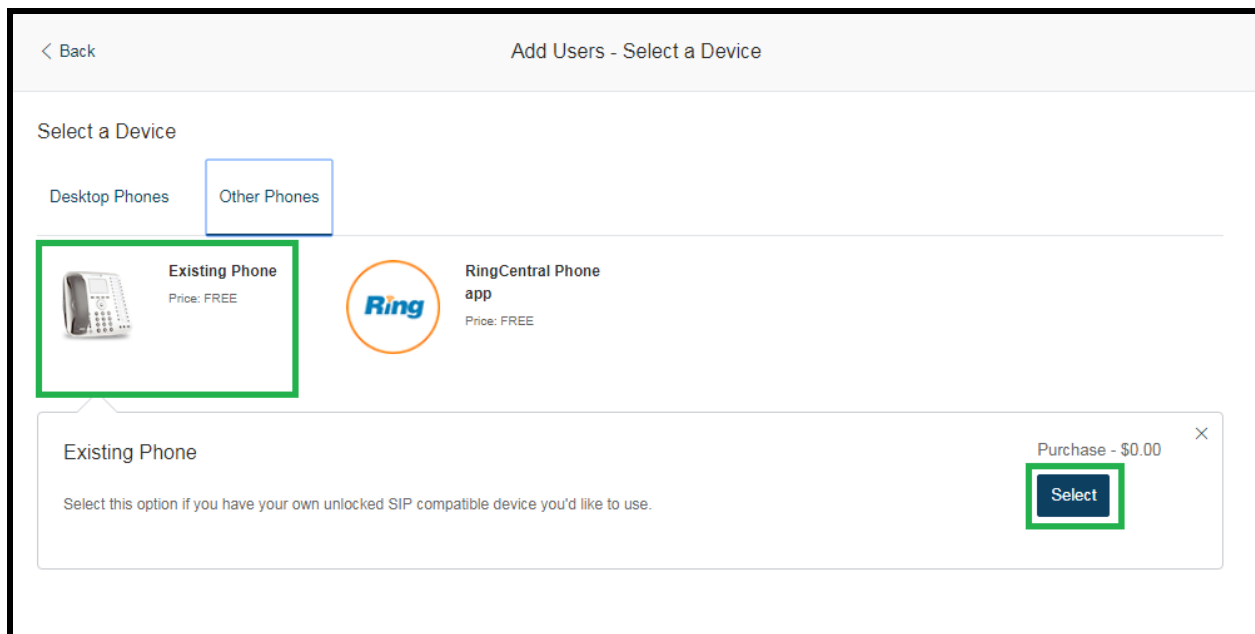
| Number of Users | State | Area Code | Device |
|-----------------|--------|-----------|----------------------|
| 1 | Select | Select | Select a Device... > |

Add

Back Next

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

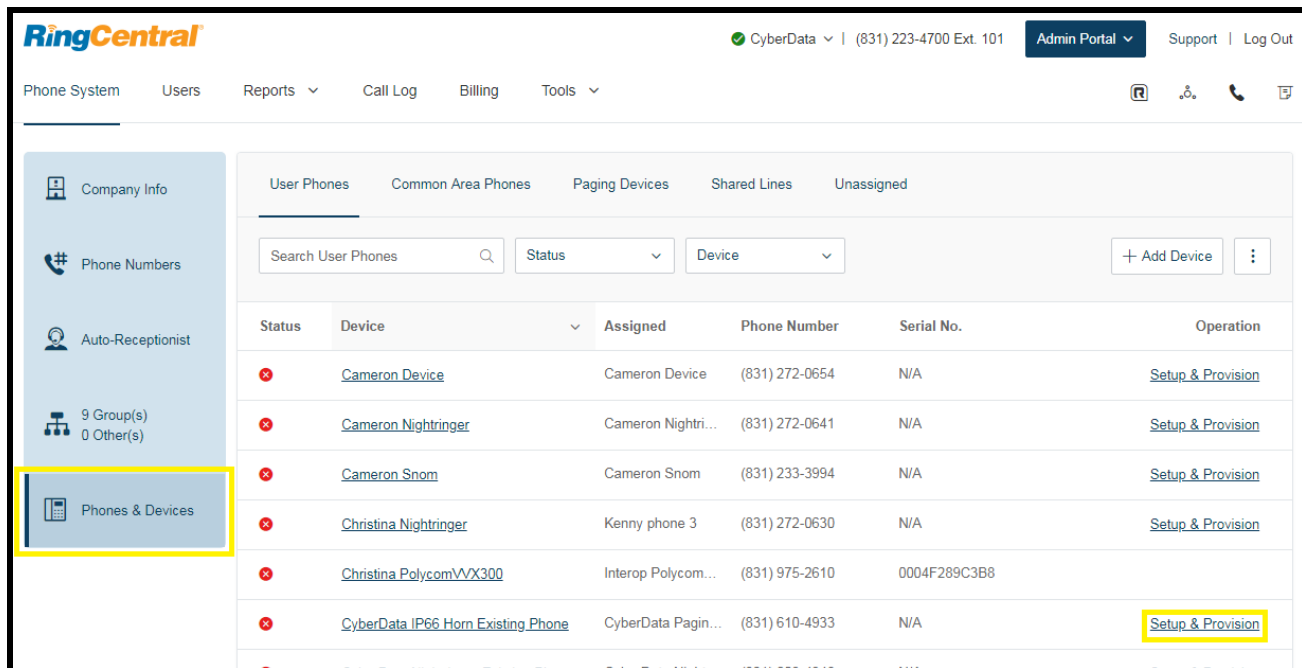
Figure 5-5. Select Phone Type



6. Next, there will be 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 the order.

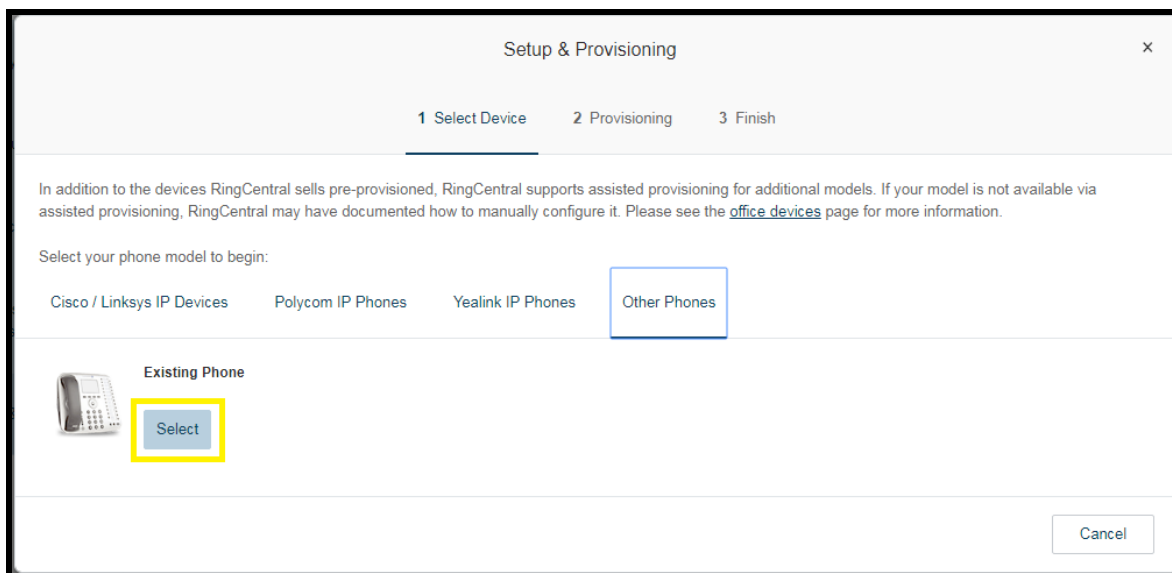
- From the **Phones & Devices** menu, select **User Phones** and select the user phone designated for the horn. Click **Setup and Provision**.

Figure 5-6. Setup and Provision



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

Figure 5-7. Setup & Provisioning - Other Phones



9. A popup window labeled **Setup & Provisioning** will appear. Use the information in this popup to register the device with RingCentral.

Figure 5-8. 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 5-1. 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 horn and register the primary 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 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 horn as its source port for the primary 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 5-9. SIP Configuration

CyberData Outdoor Horn

SIP Settings

Enable SIP operation: ☒

SIP Transport Protocol:

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 autoprovisioning the IP66 Horn, use the SIP Settings in the autoprovisioning template to register the primary extension with RingCentral.

Figure 5-10. Autoprovisioning Template Example – SIP Settings

```
<SIPSettings>
  <EnableSIPOperation>Yes</EnableSIPOperation>
  <SIPTransportProtocol>UDP</SIPTransportProtocol>
  <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>
  <RTTPort>10500</RTTPort>
  <JitterBuffer>50</JitterBuffer>
  <CallTimeout>0</CallTimeout>
  <UseCiscoSRST>No</UseCiscoSRST>
  <DisableRportDiscovery>No</DisableRportDiscovery>
  <DialoutExtension0>204</DialoutExtension0>
  <DialoutID0>id204</DialoutID0>
  <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 horn 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 the primary extension is registered with RingCentral through the Admin Portal. From the **Phones & Devices** menu, select **User Phones** and the IP Phone just created for the horn. The status should show as “online” in the **Phone Details**.

Figure 5-11. Phone Details – Status

The screenshot shows the RingCentral Admin Portal interface. The top navigation bar includes the RingCentral logo, user information (CyberData, (831) 223-4700 Ext. 101), and links to Admin Portal, Support, and Log Out. The main navigation menu on the left includes Company Info, Phone Numbers, Auto-Receptionist, and Phones & Devices. The 'Phones & Devices' section is expanded, showing a list of user phones. The 'User Phones' tab is selected, displaying a table with columns for Status, Device, Assigned, Phone Number, Serial No., and Operation. The 'CyberData IP66 Horn Existing Phone' is highlighted with a green status icon and a yellow border.

| 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 PolycomVX300 | Interop Polycom... | (831) 975-2610 | 0004F289C3B8 | |
| ✓ | CyberData IP66 Horn Existing Phone | CyberData Pagin... | (831) 610-4933 | N/A | Setup & Provision |

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 5-12. Enabled Paging Menu

The screenshot shows the 'Device Configuration' page for a CyberData Outdoor Horn. The page has a navigation bar at the top with tabs: Home, Device (selected), Network, SIP, Multicast, Audiofiles, Events, Autopro, and Firmware. The main title is 'CyberData Outdoor Horn'. The page is divided into several sections:

- Volume Settings (0-9)**:
 - SIP Volume: 4
 - Multicast Volume: 4
 - Volume Boost: No Volume Boost (dropdown)
- DTMF Settings**:
 - Require Security Code: ☐
 - Security Code:
 - Enable Stored Message Playback: ☒** (highlighted with a yellow box)
- Clock Settings**:
 - Set Time with NTP server on boot: ☐
 - NTP Server: north-america.pool.ntp.org
 - Posix Timezone String (see manual): PST8PDT,M3.2.0/2:00:00,M11.1.
 - Periodically sync time with server: ☐
 - Time update period (in hours): 24
 - Current Time: 18:34:04
- Power Settings**:
 - 802.3AT Mode: Not detected. Disabled
 - Force 802.3AT Mode (NOT recommended): ☐
 - Auxiliary Power Supply: ☐
- Misc Settings**:
 - Device Name: Outdoor Horn
 - Beep on Init: ☐
 - Beep on Page: ☐
 - Disable HTTPS (NOT recommended): ☐

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

Figure 5-13. Autoprovisioning Example – Enabled Paging Menu

```
<DeviceSettings>
  <HighPowerMode>No</HighPowerMode>
  <AuxPowerMode>No</AuxPowerMode>
  <DisableHTTPS>No</DisableHTTPS>
  <UseDigitalVolume>Yes</UseDigitalVolume>
  <SpeakerVolume>4</SpeakerVolume>
  <MulticastVolume>4</MulticastVolume>
  <BoostLevel>0</BoostLevel>
  <BeepOnInitialization>No</BeepOnInitialization>
  <BeepBeforePage>No</BeepBeforePage>
  <AdminName>admin</AdminName>
  <AdminPassword>admin</AdminPassword>
  <UseSecurityCode>No</UseSecurityCode>
  <PageSecurityCode></PageSecurityCode>
  <EnableStoredMessagePlayback>Yes</EnableStoredMessagePlayback>
</DeviceSettings>
```

Make a Test Call

Once the primary extension has registered with RingCentral and the appropriate device settings have configured the for the installation, use any RingCentral phone to dial the extension.

6.0 Configuration Procedure: Nightringer

What is a Nightringer?

CyberData IP66 Outdoor Horns 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 primary extension.

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).

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.”](#)

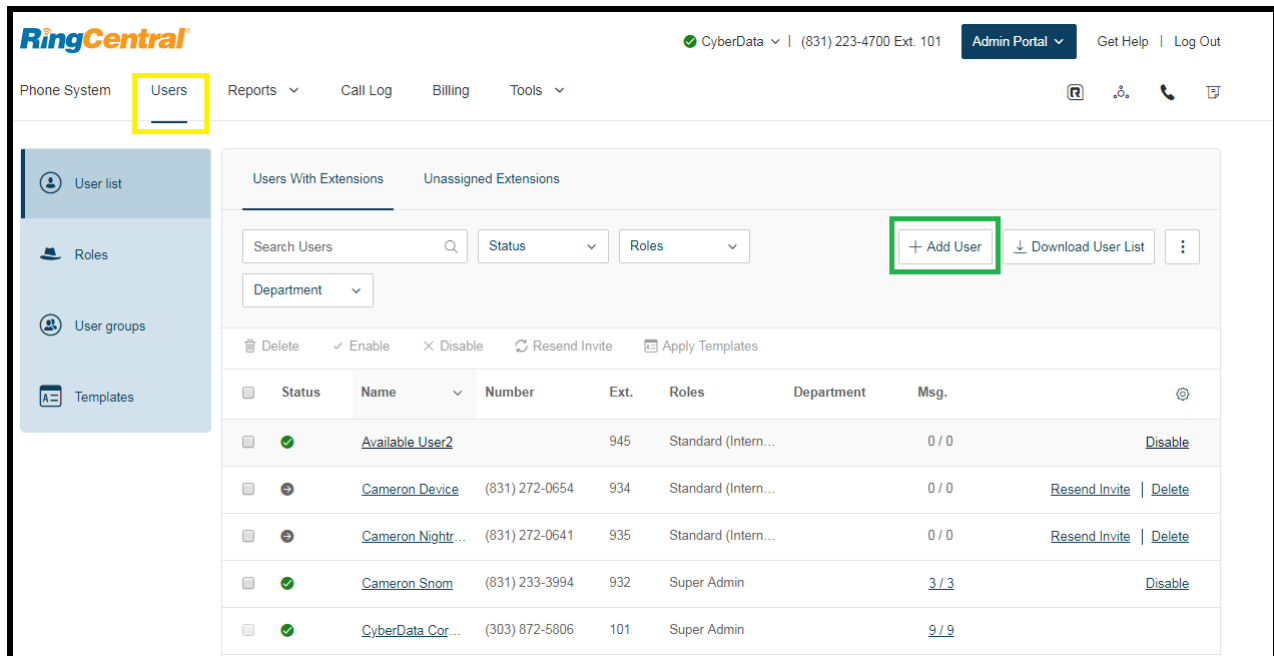
Add an IP Phone

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

First, a user must be created for the Nightringer.

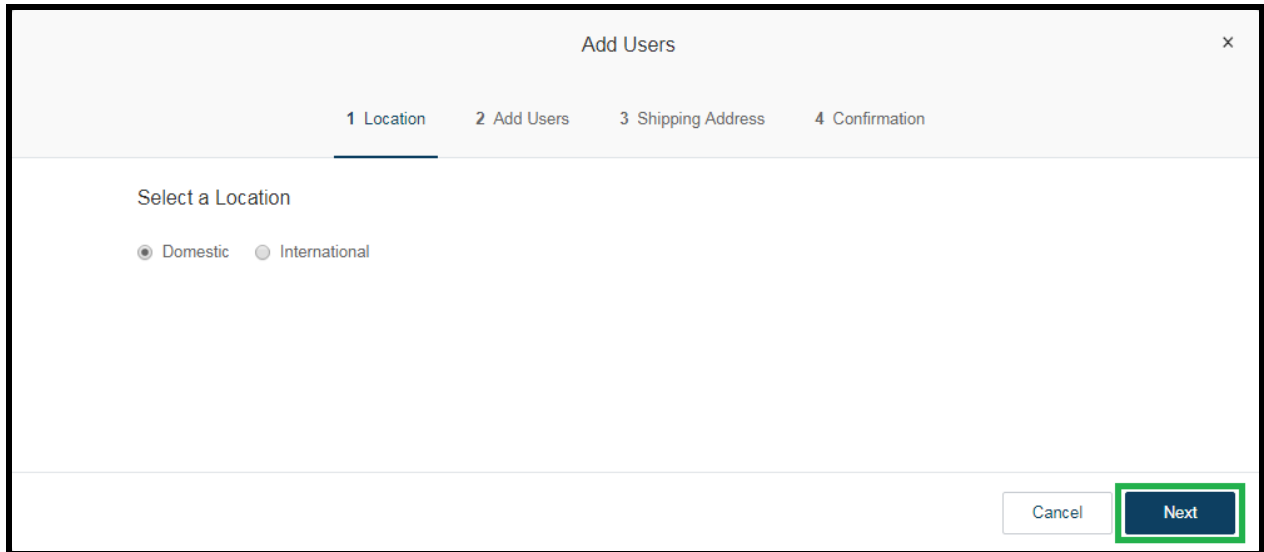
1. From the [n] Users menu, click the **Add** button.

Figure 6-1. Add User Button



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

Figure 6-2. 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 6-3. Add User Phone Number

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](#)

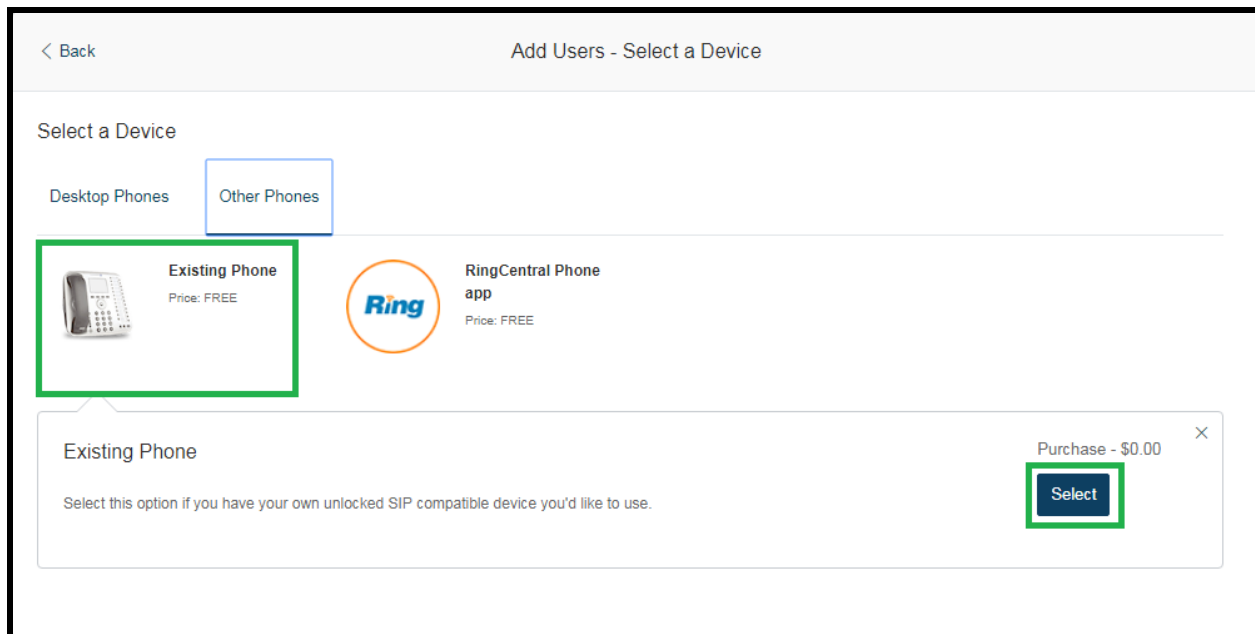
| Number of Users | State | Area Code | Device |
|-----------------|--------|-----------|----------------------|
| 1 | Select | Select | Select a Device... > |

Add

Back Next

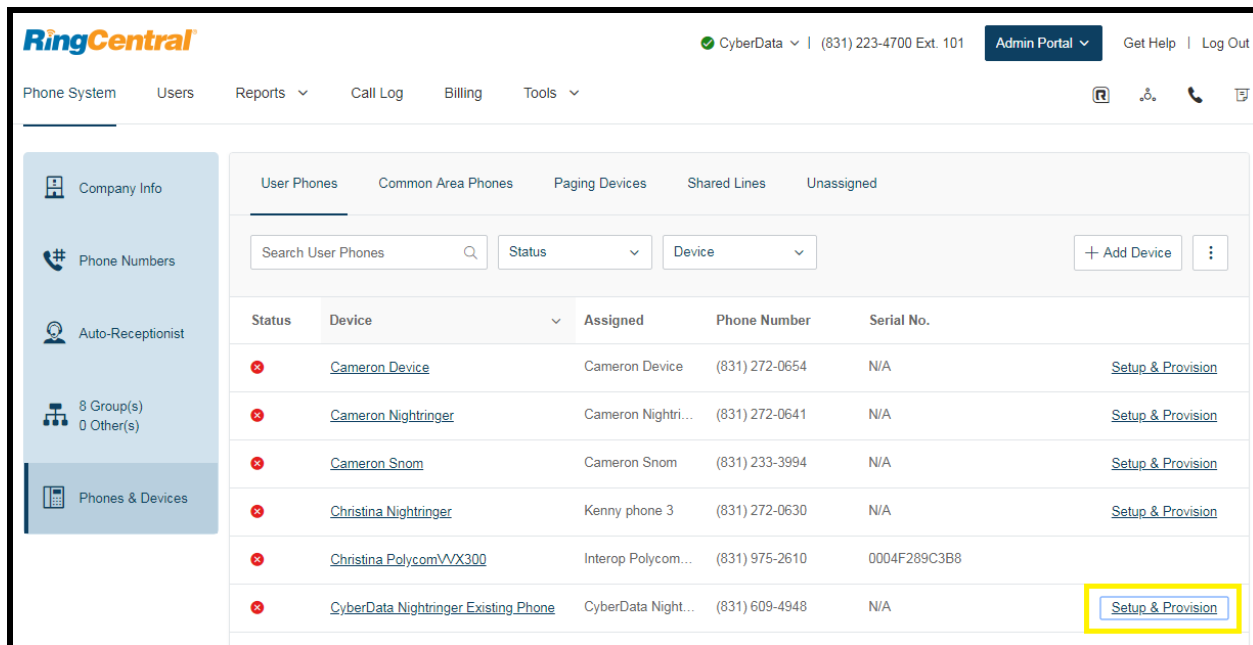
4. A prompt will appear to select a phone type. Click the **Select** button to choose an **Existing Phone**. Select **Existing Phone**.

Figure 6-4. Select Phone Type



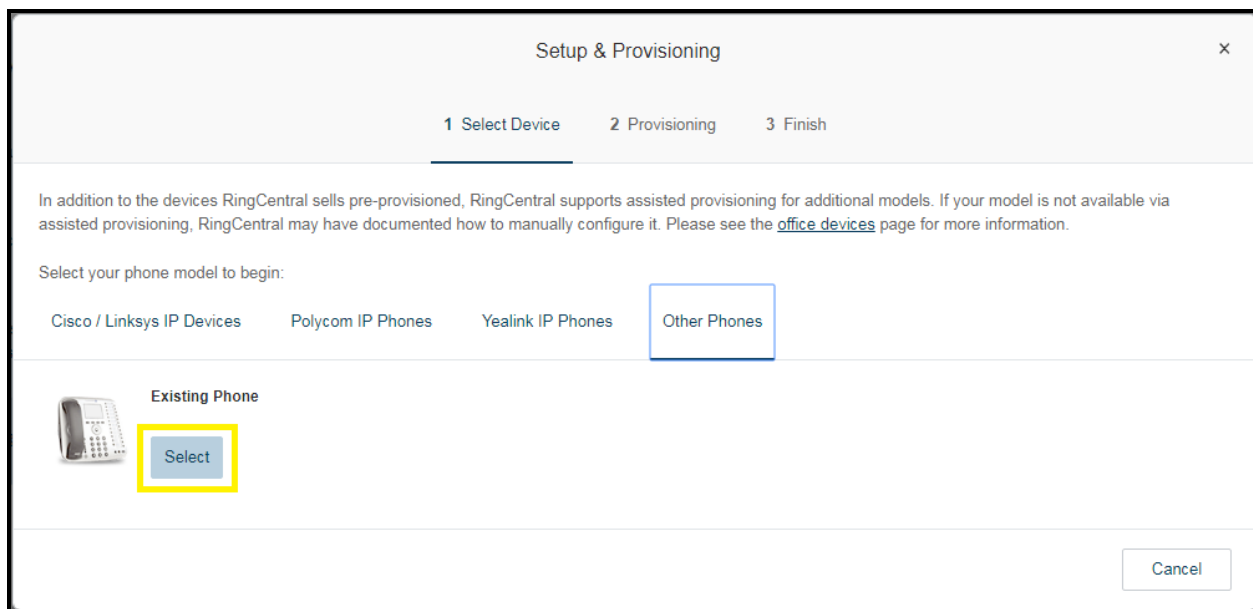
- From the **Phones & Devices** menu, select **User Phones** and the select the user phone designated for the Nightringer. Click **Setup and Provision**.

Figure 6-5. Setup and Provision



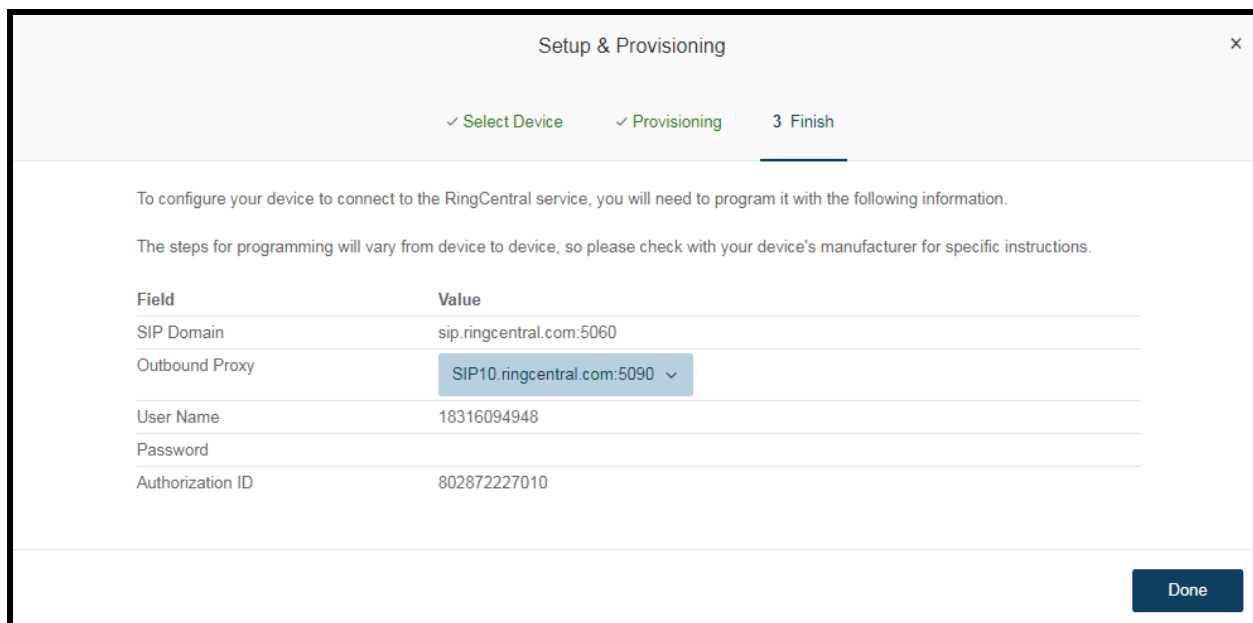
- A popup window labeled **Assisted provisioning – Step 1** will appear. Select **Other Phone** and click **Next**.

Figure 6-6. Assisted Provisioning – Step 1



7. A popup window labeled **Assisted Generic IP Phone/Adaptor Provisioning** will appear. Use the provisioning information to register the horn's primary extension with RingCentral.

Figure 6-7. 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 | 18316094948 |
| Password | |
| Authorization ID | 802872227010 |

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 Nightringer SIP Parameters

If 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 6-8. 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 horn 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 6-9. Nightringer Configuration Page of the Web Interface

CyberData Outdoor Horn

SIP Settings

Enable SIP operation: ☒

SIP Transport Protocol:

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

Figure 6-10. 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>18316094948</NightringerUserID>
  <NightringerAuthID>802872227010</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](#). 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 created for the Nightringer. 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, 8 Group(s) 0 Other(s), and Phones & Devices. The main content area is titled 'User Phones' and includes a search bar, status filter, and device filter. A table lists the following devices:

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

Make a Test Call

Once the device has registered with RingCentral, any RingCentral phone may be used 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.