



RING CENTRAL CONFIGURATION GUIDE: SIP-ENABLED IP SPEAKERS

Document Part #931039D

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RingCentral Configuration Guide: SIP-Enabled IP Speakers Document #931039D

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Revision Information

Revision 931039A was released on January 23rd, 2015.

• Initial release

Revision 931039B was released on September 18th, 2017.

• This revision features new device screenshots and updated configuration steps. Revision 931039C was released on May 3rd, 2019.

• Updated extension creation process on RingCentral side

Revision 931039D was released on June 8th, 2020

• Corrected nomenclature inconsistencies.



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1.0 Setup Diagram

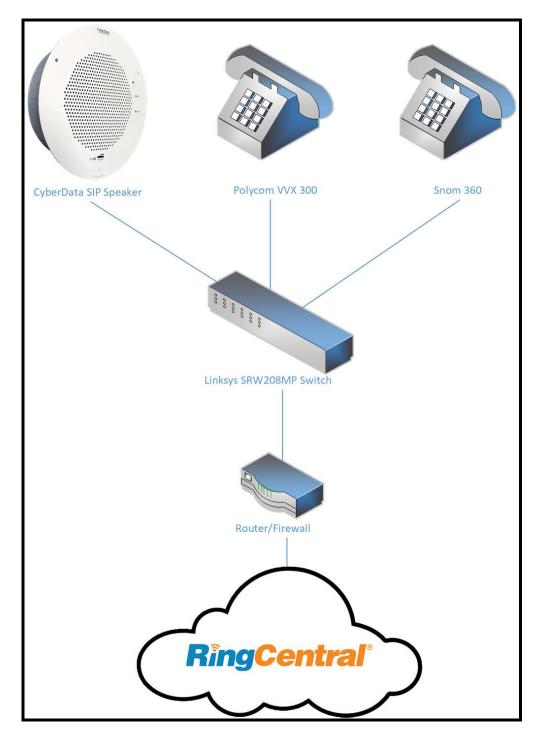


Figure 1-1. Interoperability Test Infrastructure



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 SPEAKER	011393 011394	v12.1.1
CYBERDATA SIP TALKBACK SPEAKER	011397 011398	v12.1.1
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-enabled IP Speaker.

Network Advisories

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

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

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

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

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

Product Documentation and Utilities

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

http://www.cyberdata.net/voip/011393/

The CyberData Discovery Utility can be used to locate CyberData devices on the local network. The tool may be download it from the following web address: <u>http://www.cyberdata.net/assets/common/discovery.zip</u>

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



4.0 Configuration Procedure: Auto-Answer Paging

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

CyberData SIP Speakers are ideal for one-way, auto-answer paging in indoor environments and offer external or digital volume control.

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 speaker.

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

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

RingCentral	RingCentral
	Sign In
	(831) 223-4700
alter de Caller	Next
Direcontrol	Or sign in with
RingCentral Referral Program	G Google ⊖ Single Sign-on
Refer a new customer and earn valuable rewards.	New to RingCentral? Sign up here
Refer	

Figure 4-1. RingCentral Admin Portal Login



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

RingCentral			♥ CyberData ∨ (831) 223-4700 Ext. 101	Admin Portal Get Help Log Out
Phone System Users	Reports V Call Log	Billing Tools ~		R "å, 📞 🗉
Company Info	User Phones Com	mon Area Phones Paging Devices	Shared Lines Unassigned	
C Phone Numbers	Search Paging Devices	Q Status ~		+ Add Device
Q Auto-Receptionist	i Delete			
	Status	Name	✓ Assigned Groups	
7 Group(s) 0 Other(s)	. 8	Interop 4Port		<u>Delete</u>
	. 8	Interop Paging Amp	Interop	Delete
Phones & Devices	. 8	Interop SPA	Interop	Delete
	• •	Interop Speaker	Interop	Delete
	. 8	Kenny Paging Amp	Kenny	Delete
		name		Delete
	. 8	Paging Amp Nightringer		<u>Delete</u>
	. 8	QA Paging Server	QA	Delete
		<u>Spa Nightringer</u>		Delete
		TechSupportSPA	TechSupport	<u>Delete</u>

Figure 4-2. Add Device



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

	Add Pagin	g Device		×
	1 Device Nickname	2 Provisioning Info		
- CyberData SIP-enable	d IP V2 Paging Amplifier ne	gCentral:		
			Cancel	Next

Figure 4-3. Add Paging Device - Nickname

4. A popup window labeled **Generic Paging Device Provisioning** will appear. The credentials will be used to register the SIP speaker's primary extension with RingCentral.



Figure 4-4. Provisioning Information

	Add Pag	ing Device
	✓ Device Nickname	2 Provisioning Info
Provisioning information	or CyberData paging devices	
	s need to be programmed with the inform a assigned to paging group.	ation given below to make
	sion to the CyberData device. Please con on how to determine the IP address of yo ials.	
Step 2 Navigate to the Networki	ng page and confirm that the device is cor	figured for DHCP operation.
Step 3 Navigate to the SIP Cofig and Click "Save". The de	uration page and enter the following setti vice may reboot. Value	ngs in the appropriate fields
SIP Domain	sip.ringcentral.com	
Remote SIP port	5060	
Local SIP port	5060	
Outbound Proxy	sip20.ringcentral.com	
Outhound Proxy Port		
Outbound Proxy Port	5090 18312234700*803304087011	
User Name	18312234700*803304087011	
User Name Authorization ID		
User Name	18312234700*803304087011	

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



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

Figure 4-5. <u>A</u>	dd Group
----------------------	----------

RingCentral			S CyberData ∽ ∣ (83	1) 223-4700 Ext. 101 Adr	nin Portal 🗸 Get Help Log Out
Phone System Users	Reports 🗸	Call Log Billing Tools V			R .°. 🕻 🗐
Company Info	Call Que	Paging Only Shared Lines	Park Locations Call Monitoring	Others	
Phone Numbers	Paging Or Search	nly groups enable real-time one-way broadcasting	g through multiple desk phones and overh	ead paging devices. <u>Learn Mo</u>	re + New Paging Only
Auto-Receptionist	Status	Name ~	Devices	Ext.	
7 Group(s) 0 Other(s)	0	Interop	Interop Speaker	11	Disable
U Other(s)	ø	Interop2	Interop SPA	12	Disable
Phones & Devices	ø	Kenny	Kenny Paging Amp	3	Disable
	ø	QA	QA Paging Server	8	Disable
	ø	QA Paging		10	Disable
	۲	TechSupport	TechSupportSPA	7	Disable



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

Figure 4-6. Add Paging Group

	Add Paging Group	×
Group Name CyberData Paging Group Extension Number	2	
13	Cancel	



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

Figure 4-7. Confirmation

Confirmation	×
Group CyberData Paging Group added successfully. This group has the paging feature enabled. For paging to work properly, you must configure paging-related settings. Would you like to configure it now?	
No, I will do it later Yes	

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

Figure 4-8. Group Paging Menu

Q Auto-Receptionist Search	Company Info	Call Queues Paging Only Shared Lin	es Park Locations Call Monitoring	Others	
Status Name Cyber/Data Paging Group (Ext. 13) © SuberData Paging Gloup • SuberData Paging Gloup ~ Paging Only Details © Phones & Devices • Interco2 Extension Number Group Name © Manny QA Status Group Name © QA QA QA Status Group Name © QA QA Disable Disable	4 Phone Numbers		scasting through multiple desk phones and overhead		g Only
B Group(s) • GoderData Paging Group • Paging Only Details • Paging Only Details • Intercos2 • Intercos2 • Kenny • GoderData Paging Group • Kenny • GoderData Paging Group • Kenny • GoderData Paging Group • Status • GoderData Paging Group • Tabled • Tabled	Q Auto-Receptionist	Status Name	CyberData Paging Group (Ext. 13)		×
Phones & Devices Extension Number Group Name Interco2 13 CyberData Paging Group Image: Application Number Status Status Image: Application Number Disable Image: Application Number Disable	8 Group(s) 0 Other(s)		A Paging Only Details		
Kennx Status QA Enabled QA Parang Disable ItschSuncad ItschSuncad	Phones & Devices				
QA Enabled QA.Paging Disable IschSupport InchSupport		e Kenny		CyberData Paging Group	
TechSuncod		AQ O			
		QA Paging	Disable		
		IechSupport		Carrol	and the second
				Lähcer	ouro -



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

CyberData Paging Group (Ext. 1	13)	×
arsigma Paging Only Details		
∧ 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.	
Search Q	Phone Type: All Phone T ~	
Show All Show Selected (4)		
Phone Type	Phone Name 🗸	Ext.
User Phone	Christina PolycomVVX300	104
Paging Device	CyberData Paging Amp	-
Paging Device	CyberData SIP Paging Adapter	-
Paging Device	CyberData SIP Paging Server	-
Paging Device	CyberData SIP Speaker	-
Paging Device	Paging Amp Nightringer	-
User Phone	QA Polycom	602
Paging Device	SIP IP66 Outdoor Horn	-
Total: 8	Show: 10 •	1 >
	Cancel	Save

Figure 4-9. Devices to Receive Page



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

~ F	Paging			
De	vices to Receive Page	Users Allowed to P	age this Group	
Se	arch C	All Departmen	ts v	
Show	w All Show Selected (3)			
	Name	✓ Ext.	Department	
	Available User2	945		
	Cameron Device	934		
	Cameron Nightringer	935		
	Cameron Snom	932		
	CyberData Corporation	101		
	Group User	943		
	Interop PolycomVVX300	104		
	Interop Snom360	103		
	Interop Strobe	942		
	Kenny phone 2	938		
Total	: 23		Sh	ow: 10 • < 1 2 3 >
				Cancel

Figure 4-10. Users Allowed to Page This Group

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



Configure SIP Parameters

One may feel more comfortable with web-based configuration or provisioning using templates. Both methods are documented in this configuration guide. Be sure to review the SIP Speaker'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.

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)

Table 4-1 CyberData Configuration Settings



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

10.10.1.212 ×		
← → C 10.10.1.212		
	Authentication Required	
	The server http://10.10.1.212:80 requires a username and password. The server says: CyberData SPA.	
	User Name:	
	Password:	
	Log In Cancel	

Figure 4-11. Web Interface Login



Figure 4-12.	Home	Page	of S	peaker	Web	Interface

Home	Device	Network	SIP	Multicast	Sensor	Audiofiles	Events	Autoprov	Firmware	
	C	Cyb	erD	ata	V3.′	l Sp	eake	ər		
Current Sta	itus		Adı	min Settir	ngs		Import Se	ttings		
Serial Number: Mac Address: Firmware Version: IP Address: Subnet Mask: Default Gateway: DNS Server 1: DNS Server 2: SIP Mode: Multicast Mode:	DHCP 10.10.1.154 255.0.0.0 10.0.0.1 10.0.1.56 Enabled	03	Userr Passi	name: a word: irm Password:	idmin Toggle Help		Choose File No. Import Config Export Se Export Config	o file chosen		
Event Reporting: Nightringer: Primary SIP Server Backup Server 1: Backup Server 2: Nightringer Server:	Multicast Mode: Disabled Event Reporting: Disabled									

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

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

4. Enter the provisioning information from the <u>Generic Paging Device Provisioning</u> popup window.

Note: The Local SIP Port is set to 5060 on default and is used by the Speaker 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 4-13. SIP Configuration

CyberData V3.1 Speaker SIP Settings **Nightringer Settings** Enable SIP operation: Enable Nightringer: Register with a SIP Server: SIP Server: Use Cisco SRST: 5060 **Remote SIP Port:** Primary SIP Server: sip.ringcentral.com Local SIP Port: 5061 Primary SIP User ID: 18312234700*803304087011 **Outbound Proxy:** Primary SIP Auth ID: 803304087011 Outbound Proxy Port: Primary SIP Auth Password: User ID: 241 Authenticate ID: 241 Backup SIP Server 1: Authenticate Password: Backup SIP User ID 1: Re-registration Interval (in seconds): 360 Backup SIP Auth ID 1: Backup SIP Auth Password 1: **RTP Settings** Backup SIP Server 2: RTP Port (even): 10500 Backup SIP User ID 2: Jitter Buffer: 50 Backup SIP Auth ID 2: Backup SIP Auth Password 2: **Call Disconnection** Remote SIP Port: 5060 Local SIP Port: 5060 Terminate Call after delay: 0 Outbound Proxy: sip20.ringcentral.com Outbound Proxy Port: 5090 **Codec Selection** Monitor User ID: Force Selected Codec: 🗹 PCMU (G.711, u-law) V 200 Codec: Monitor Authenticate ID: Monitor Authenticate Password: **Button Settings Disable rport Discovery:** Buffer SIP Calls: Dial Out Extension: 204 Re-registration Interval (in seconds): 30 Extension ID: id204 Unregister on Boot: Keep Alive Period: Toggle Help



Autoprovisioning

If autoprovisioning the Speaker, use the SIP Settings in the autoprovisioning template to register the Speaker 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 Speaker. The firmware version can be verified on the <u>Home page of the web interface</u>.

Refer to the Operations Guide for instructions on autoprovisioning configuration.

Figure 4-14. <u>Autoprovisioning Template Example – SIP Settings</u>

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>18312234700*194773016011</sipuserid>
<sipauthid>194773016011</sipauthid>
<sipauthpassword>*****</sipauthpassword>
<sipregistrationtimeout>30</sipregistrationtimeout>
<sipunregisteronboot>No</sipunregisteronboot>
<sipregisteronboot>Yes</sipregisteronboot>
<buffersipcalls>No</buffersipcalls>
<rtpport>10500</rtpport>
<calltimeout>0</calltimeout>
<useciscosrst>No</useciscosrst>
<disablerportdiscovery>No</disablerportdiscovery>
<keepalive>0</keepalive>
-

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 Paging Extension is Registered

After the Speaker 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 Speaker. The status should show as "online" in the **Device Details**.

RingCentral			♥ CyberData ∨ (831) 223-4700 Ext. 101	Admin Portal V Support Log Out
Phone System Users	Analytics Call	Log Billing Tools ~		e "å, 🕻 🗉
Company Info	User Phones	Common Area Phones Paging Devic	es Shared Lines Unassigned	
Phone Numbers	Search Paging D	levices Q Status	×	+ Add Device
Q Auto-Receptionist	Delete			
-	Status	Name	✓ Assigned Groups	Operation
9 Group(s) 0 Other(s)		CyberData Paging Amp	CyberData Paging Group	<u>Delete</u>
o Galer(a)	. 8	CyberData SIP Paging Adapter	CyberData Paging Group	Delete
Phones & Devices		CyberData SIP Paging Server	Interop	Delete
		CyberData SIP Speaker		Delete

Figure 4-15. Device Details – Status

Make a Test Call

Once the device has registered with RingCentral, use a phone associated with an <u>Allowed User</u> to dial the extension of the paging group.

Refer to <u>RingCentral Article Number 5983</u> 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 SIP Speaker's primary extension can be provisioned as an IP phone associated with a user extension. Provisioning as a Paging Device does not allow the speaker to transmit audio back to the calling phone (talkback speaker) OR does not allow for sending of DTMF characters for stored message playback

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

- Talkback*
- Playing up to 9 configurable stored pages
- Security code

Note Talkback is only possible for the <u>011397/011398</u>.

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 Speaker.

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 <u>https://service.ringcentral.com</u>.

Figure 5-1. RingCentral Admin Portal Login

RingCentral	RingCentral
	Sign In
	(831) 223-4700
and the second	Next
	Or sign in with
RingCentral	G Google ⊖ Single Sign-on
Referral Program	
Refer a new customer and earn valuable rewards.	New to RingCentral? Sign up here
Refer	



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

Figure	5-2.	Add	User	Button

RingCentral '									
Phone System Users	Reports V Call Log Billi	ng Tools ~			R .å. 📞 T				
Juser list	Users With Extensions Unas	signed Extensions							
and Roles	Search Users Q	+ Add User	→ Download User List						
	Department v								
User groups		able 📿 Resend Invite	e 📧 Apply Templates						
A= Templates	Status Name	- Number	Ext. Roles	Department Msg.	0				
	Available User2		945 Standard (Intern	. 0/0	Disable				
	Cameron Device	(831) 272-0654	934 Standard (Intern	. 0/0	Resend Invite Delete				
	Cameron Nightr	(831) 272-0641	935 Standard (Intern	. 0/0	Resend Invite Delete				
	Cameron Snom	(831) 233-3994	932 Super Admin	<u>3/3</u>	Disable				
	CyberData Cor.	. (303) 872-5806	101 Super Admin	<u>9/9</u>					
	Group User		943 Standard (Intern	<u>3/3</u>	Disable				
	Interop Polyco	(831) 975-2610	104 Standard (Intern	<u>1/1</u>	<u>Disable</u>				
	Interop Snom36	<u>D</u> (831) 233-3992	103 Super Admin	<u>5/5</u>					
	Interop Strobe	(669) 900-4551	942 Standard (Intern	. <u>1/1</u>	Disable				
	Kenny phone 2	(831) 741-4265	938 Standard (Intern	<u>2/2</u>	Disable				
	Kenny phone 3	(831) 272-0630	939 Standard (Intern	<u>6/6</u>	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 Interna 	tional						
					Cancel	Next	

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

Figure 5-4. <u>Pick a Phone Number</u>

	Add Users							
	✓ Location	2 Add Users	3 Shipping Address	4 (Confirmation			
Add Users With Phones	Add Users Without Phones	3						
Account Status								
Your plan: 20 - 99 Users	Used: 25 Available:	0 Availat	ble for purchase: 74					
You can add multiple users	at a time if they will all use the s	ame area code.	Learn More			_		
Number of Users	State	Area	Code		Device			
1	Select	▼ Se	lect	•	Select a Device >		Add	
						Back	Next	



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

< Back	Add Users - Select a Device	
Select a Device		
Desktop Phones	Other Phones	
11	sting Phone e: FREE Price: FREE RingCentral Phone app Price: FREE	
Existing Phone Select this option if	9 you have your own unlocked SIP compatible device you'd like to use.	× Purchase - \$0.00 Select

6. Next, 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.



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

RingCentral				S CyberData ∽ │ ((831) 223-4700 Ext. 101	Admin Portal V Support Log Out
Phone System Users	Analytics	Call Log Billing Tools ~				rº. t. t
Company Info	User Pho	ones Common Area Phones F	aging Devices S	hared Lines Una	ussigned	
Phone Numbers	Search U	Jser Phones Q Status	~ Dev	ice ~		+ Add Device
Q Auto-Receptionist	Status	Device ~	Assigned	Phone Number	Serial No.	Operation
	8	Cameron Device	Cameron Device	(831) 272-0654	N/A	Setup & Provision
9 Group(s) 0 Other(s)	8	Cameron Nightringer	Cameron Nightri	(831) 272-0641	N/A	Setup & Provision
_	8	Cameron Snom	Cameron Snom	(831) 233-3994	N/A	Setup & Provision
Phones & Devices	8	Christina PolycomVVX300	Interop Polycom	(831) 975-2610	0004F289C3B8	
	8	CyberData Nightringer Existing Phone	CyberData Night	(831) 609-4948	N/A	Setup & Provision
	8	CyberData Outdoor Intercom	CyberData Pagin	(831) 610-4933	N/A	Setup & Provision
	8	CyberData Paging Server NightRinger	Paging Server	(831) 233-3993	N/A	Setup & Provision
	8	CyberData SIP Paging Adapter	Kenny phone 3	(831) 272-0630	N/A	Setup & Provision
	8	CyberData SIP Speaker	Interop Snom360	(831) 233-3992	N/A	Setup & Provision

Figure 5-6. Setup and Provision

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



Figure 5-7. Assisted provisioning – Step 1

Setup & Provisioning					
1 Select Device 2 Provisioning 3 Finish					
In addition to the devices RingCentral sells pre-provisioned, RingCentral supports assisted provisioning for additional models. If your model is not available via assisted provisioning, RingCentral may have documented how to manually configure it. Please see the <u>office devices</u> page for more information. Select your phone model to begin: Cisco / Linksys IP Devices Polycom IP Phones Yealink IP Phones Other Phones					
Existing Phone Select					
Cance	el				

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

Figure 5-8. IP Phone Provisioning Information

Setup & Provisioning				
	✓ Select Device ✓ Provisioning 3 Finish			
	he RingCentral service, you will need to program it with the following information.			
Field	n device to device, so please check with your device's manufacturer for specific instructions.			
SIP Domain	sip.ringcentral.com:5060			
Outbound Proxy	SIP10.ringcentral.com:5090 ~			
User Name	18312333992			
Password				
Authorization ID	802910798011			
	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. <u>SIF</u>	P Fie	lds	Ta	<u>ble</u>	
		-	-		

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

Configure SIP Parameters

If configuring through the web interface, use the following steps to login to the web interface of the Speaker 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 of the screen to access the SIP Configuration page.

4. Enter the provisioning information from the <u>Assisted Generic IP Phone</u> <u>Provisioning</u> popup window. Use <u>Table 6-1</u> 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 Speaker 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 5-9. SIP Configuration

C	yberDa	ta V3.1 S	Spea	ker	,
SIP Settings		Nightringer	-		
Enable SIP operation:	 ✓ ✓ 	Enable Nightringer:	:	40.0.0.050	
Register with a SIP Server: Use Cisco SRST:		SIP Server:		10.0.0.253	
Primary SIP Server:	sip.ringcentral.com	Remote SIP Port:		5060 5061	
Primary SIP User ID:	18312333992	Local SIP Port:		5061	
Primary SIP Auth ID:	802910798011	Outbound Proxy:		0	
Primary SIP Auth Password:		Outbound Proxy Po User ID:	ort:	241	
		Authenticate ID:		241	
Backup SIP Server 1:		Authenticate ID: Authenticate Passy		241	
Backup SIP User ID 1:					
Backup SIP Auth ID 1:		Re-registration Inte	ervar (in seconds):		
Backup SIP Auth Password 1:					
Backup SIP Server 2:		RTP Setting	gs		
Backup SIP User ID 2:		RTP Port (even): 10	0500		
Backup SIP Auth ID 2:		Jitter Buffer: 50)		
Backup SIP Auth Password 2:					
		Call Discon	naction		
Remote SIP Port:	5060	Call Discon	nection		
Local SIP Port:	5060	Terminate Call after	r delay: ⁰		
Outbound Proxy:	sip10.ringcentral.com				
Outbound Proxy Port:	5090	Codec Sele	otion		
Monitor User ID:	200	Force Selected Coo			
Monitor Authenticate ID:	200	Codec:	PCMU (G.711	I, u-law) ▼	
Monitor Authenticate Password:	•••••				
Disable rport Discovery:		Button Sett	tings		
Buffer SIP Calls:		Dial Out Extension:	204		
Re-registration Interval (in seconds)	: 30	Extension ID:	id204		
Unregister on Boot:					
Keep Alive Period:	0				
Save Reboot Toggle Help					

Autoprovisioning

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







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



Verify the Paging Extension Is Registered

After the Speaker 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 through RingCentral through the Admin Portal. From the **Phones & Devices** menu, select **User Phones** and the IP Phone created for the Speaker. The status should show as "online" in the **Phone Details**.

RingCentral [®]					•	Ø CyberData ∽ (831) 223-4700 Ext. 101	Admin Portal 🗸	Support Log Ou
Phone System Users	Analytics	Call Log Billing	Tools 🗸					R	.°. 🕻 🗄
Company Info	User Ph	ones Common Area F	Phones Pa	ging Devices	Sha	red Lines Una	ssigned		
Phone Numbers	Search	User Phones C	Status	~	Device	• •		+	Add Device
Q Auto-Receptionist	Status	Device	~	Assigned		Phone Number	Serial No.		Operation
_	8	Cameron Device		Cameron De	evice	(831) 272-0654	N/A		Setup & Provision
9 Group(s) 0 Other(s)	8	Cameron Nightringer		Cameron Ni	ightri	(831) 272-0641	N/A		Setup & Provision
	8	Cameron Snom		Cameron Sr	nom	(831) 233-3994	N/A		Setup & Provision
Phones & Devices	8	Christina PolycomVVX3	00	Interop Poly	/com	(831) 975-2610	0004F289C3B8		
	8	<u>CyberData Nightringer E</u>	xisting Phone	CyberData I	Night	(831) 609-4948	N/A		Setup & Provision
	8	CyberData Outdoor Inter	rcom	CyberData I	Pagin	(831) 610-4933	N/A		Setup & Provision
	8	CyberData Paging Serve	er NightRinger	Paging Serv	ver	(831) 233-3993	N/A		Setup & Provision
	8	CyberData SIP Paging A	dapter	Kenny phon	ne 3	(831) 272-0630	N/A		Setup & Provision
	۲	CyberData SIP Speaker		Interop Snor	m360	(831) 233-3992	N/A		Setup & Provision

Figure 5-11. Phone Details – Status

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.



6.0 Configuration Procedure: Nightringer

What is a Nightringer?

The CyberData SIP-enabled IP Speaker offers a secondary SIP extension called "**Nightringer**" in addition to the primary extension used for auto-answer paging.

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

Provisioning Nightringer with RingCentral

Provisioning a Nightringer extension with RingCentral differs from provisioning the auto-answer paging extension.

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

When integrating with RingCentral, <u>the Nightringer extension must be provisioned as an IP phone</u> rather than a Paging Device which allows 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 the account.

Note: For voice paging, use the provision the primary extension as a Paging Device following the instructions in <u>Section 4.0 "Configuration Procedure: Auto-answer Paging."</u>



Add an IP Phone

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

First, designate a RingCentral User for the Nightringer.

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

Figure 6-1. Add User Button

RingCentral			00 Ext. 101 Admin Portal V Get Help Log Out
Phone System Users	Reports v Call Log Billing Tools v		R .º. U
Juser list	Users With Extensions Unassigned Extensions		
a Roles	Search Users Q Status	✓ Roles ✓	+ Add User ↓ Download User List
User groups	Department ~		
Const groups	$\hat{\mathbb{T}}$ Delete \checkmark Enable $ imes$ Disable $ imes$ Resend	nvite 🖪 Apply Templates	
A= Templates	🗋 Status Name ~ Number	Ext. Roles Department	Msg. 💿
	Available User2	945 Standard (Intern	0 / 0 Disable
	Cameron Device (831) 272-0654	934 Standard (Intern	0 / 0 Resend Invite Delete
	Cameron Nightr (831) 272-0641	935 Standard (Intern	0 / 0 Resend Invite Delete
	Cameron Snom (831) 233-3994	932 Super Admin	<u>3/3</u> Disable
	CyberData Cor (303) 872-5806	101 Super Admin	<u>9/9</u>



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



	Add Users					×
	1 Location	2 Add Users	3 Shipping Address	4 Confirmation		
Select a Location						
Oomestic O Inter	rnational					
					Cancel	Next



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

		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 s	ame area code. <u>Learn More</u>		
Number of Users	State Select	Area Code Select	Device Select a Device) 	Add
				Back Next

Figure 6-3. Add User Phone Number



4. Next, select a phone type. Click the **Select** button to choose an **Existing Phone**. Select **Existing Phone**.

Figure 6-4. Select Phone Type

< Back	Add Users - Select a Device	
Select a Device		
Desktop Phones Other Phon	35	
Existing Phone Price: FREE	RingCentral Phone app Price: FREE	
Existing Phone Select this option if you have your or	Purchas In unlocked SIP compatible device you'd like to use.	xe - \$0.00 ×



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

Phone System Users Reports V Call Log E	Billing Tools ~ rea Phones Paging [Devices Shared L	Lines Unassigned	R	.°. % F
Company Info User Phones Common Ar	rea Phones Paging [Devices Shared L	Lines Unassigned		
Phone Numbers Search User Phones	Q Status	~ Device	~	+ Add	Device :
Q Auto-Receptionist Status Device	~ As	signed Pho	one Number Serial	No.	
S Cameron Device	Car	meron Device (83	1) 272-0654 N/A	Se	tup & Provision
8 Group(s) S Cameron Nightringe	er Car	meron Nightri (83	1) 272-0641 N/A	Se	tup & Provision
<u>Cameron Snom</u>	Car	meron Snom (83	1) 233-3994 N/A	Se	tup & Provision
Phones & Devices 2 Christina Nightringe	<u>r</u> Ker	nny phone 3 (83	1) 272-0630 N/A	Se	tup & Provision
Christina PolycomV	VX300 Inte	erop Polycom (83	1) 975-2610 0004F	289C3B8	
S CyberData Nightring	ger Existing Phone Cyt	berData Night (831	1) 609-4948 N/A	Se	tup & Provision

Figure 6-5. Setup and Provision



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

Figure 6-6. Assisted Provisioning – Step 1

Setup & Provisioning						
1 Select Device 2 Provisioning 3 Finish						
In addition to the devices RingCentral sells pre-provisioned, RingCentral supports assisted provisioning for additional models. If your model is not available via assisted provisioning, RingCentral may have documented how to manually configure it. Please see the <u>office devices</u> page for more information.						
Select your phone model to begin: Cisco / Linksys IP Devices Polycom IP Phones Yealink IP Phones Other Phones						
Existing Phone Select						
Canc	el					



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

|--|

	Setup & Provisioning				
		✓ Select Device ✓ Provisioning 3 Finish			
		e RingCentral service, you will need to program it with the following information. I device to device, so please check with your device's manufacturer for specific instructions.			
I	Field	Value			
\$	SIP Domain	sip.ringcentral.com:5060			
(Outbound Proxy	SIP10.ringcentral.com:5090 ~			
l	User Name	18316094948			
I	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.

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

Table 6-1. CyberData Configuration Settings

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** on the toolbar on the top side of the screen.



Figure 6-8. Home Page of the Web Interface

Home	Device	Network	SIP	Multicast	Sensor	Audiofiles	Events	Autoprov	Firmware
CyberData V3.1 Speaker									
Current Sta	atus		Ac	lmin Settin	igs		Import Se	ettings	
Serial Number: Mac Address: Firmware Version: IP Addressing: IP Address: Subnet Mask: Default Gateway: DNS Server 1: DNS Server 2: SIP Mode:	DHCP 10.10.1.154 255.0.0.0 10.0.0.1 10.0.1.56 Enabled	91:03	Pas Cor	sword: firm Password:	dmin Toggle Help		Choose File N Import Config Export Se Export Config		
Multicast Mode: Event Reporting: Nightringer: Primary SIP Serve Backup Server 1: Backup Server 2: Nightringer Servel Monitor SIP Serve	Not registere Not registere Not registere	ed ed							

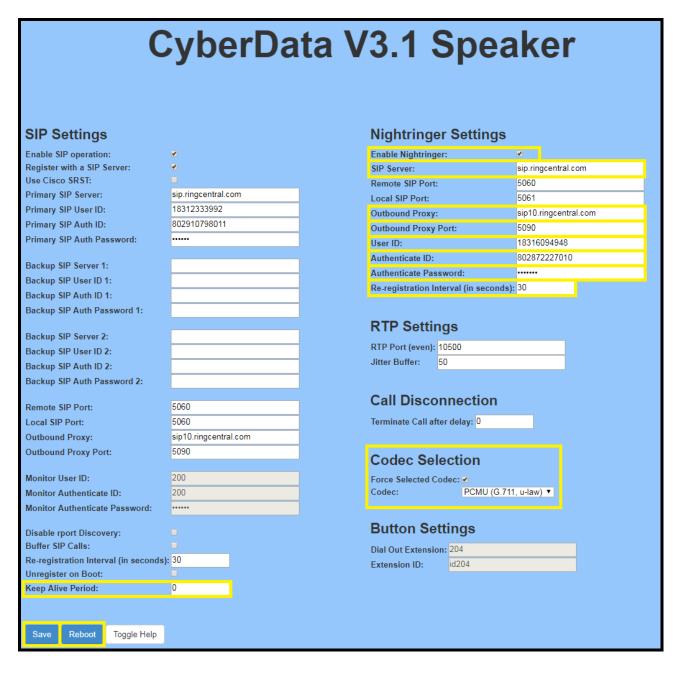
3. Enter the provisioning information from the <u>Nightringer's Assisted Generic IP</u> <u>Phone/Adaptor Provisioning</u> popup.

Note: The Local SIP Port is set to 5061 on default and is used by the SIP Speaker 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. <u>Nightringer Configuration Page of the Web Interface</u>





Autoprovisioning

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

Figure 6-10. Autoprovisioning Template Example – Nightringer Settings

<pre>ShightringerSettings></pre>
<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>
-

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



Verify the Nightringer is Registered

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

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

RingCentral				♥ CyberData ∨ (83)	1) 223-4700 Ext. 101	Admin Portal 🗸	Support Log Out
Phone System Users	Analytics	Call Log Billing Tools ~				R	.°. 📞 🗉
Company Info	User Pho	nes Common Area Phones Pa	ging Devices SI	hared Lines Unassi	gned		
Phone Numbers	Search U	Jser Phones Q Status	~ Dev	ice ~		+ A	dd Device
Q Auto-Receptionist	Status	Device ~	Assigned	Phone Number	Serial No.		Operation
	8	Cameron Device	Cameron Device	(831) 272-0654	N/A		Setup & Provision
9 Group(s) 0 Other(s)	8	Cameron Nightringer	Cameron Nightri	(831) 272-0641	N/A		Setup & Provision
_	8	Cameron Snom	Cameron Snom	(831) 233-3994	N/A		Setup & Provision
Phones & Devices	8	Christina Polycom/V/X300	Interop Polycom	(831) 975-2610	0004F289C3B8		
	0	CyberData Nightringer Existing Phone	CyberData Night	(831) 609-4948	N/A		Setup & Provision

Figure 6-11. Nightringer Phone Details – Status

Make a Test Call

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



7.0 Contact CyberData Corporation

Sales

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

Technical Support

For CyberData Technical Support, please submit a <u>Contact CyberData VoIP Technical Support</u> 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.