



SIP Speaker Cisco Call Manager Setup Guide

Document Part #930280D

CyberData Corporation 3 Justin Court Monterey, CA 93940 (831) 373-2601



SIP Speaker Cisco Call Manager Setup Guide Document #930280D

COPYRIGHT NOTICE:

© 2020, CyberData Corporation, ALL RIGHTS RESERVED.

This configuration guide and related materials are the copyrighted property of CyberData Corporation. No part of this configuration guide or related materials may be reproduced or transmitted, in any form or by any means (except for internal use by licensed customers), without prior express written permission of CyberData Corporation. This configuration guide, and the products, software, firmware, and/or hardware described in this configuration guide are the property of CyberData Corporation, provided under the terms of an agreement between CyberData Corporation and recipient of this configuration guide, and their use is subject to that agreement and its terms.

DISCLAIMER: Except as expressly and specifically stated in a written agreement executed by CyberData Corporation, CyberData Corporation makes no representation or warranty, express or implied, including any warranty or merchantability or fitness for any purpose, with respect to this configuration guide or the products, software, firmware, and/or hardware described herein, and CyberData Corporation assumes no liability for damages or claims resulting from any use of this configuration guide or such products, software, firmware, and/or hardware. CyberData Corporation reserves the right to make changes, without notice, to this configuration guide and to any such product, software, firmware, and/or hardware.

OPEN SOURCE STATEMENT: Certain software components included in CyberData products are subject to the GNU General Public License (GPL) and Lesser GNU General Public License (LGPL) "open source" or "free software" licenses. Some of this Open Source Software may be owned by third parties. Open Source Software is not subject to the terms and conditions of the CyberData COPYRIGHT NOTICE or software licenses. Your right to copy, modify, and distribute any Open Source Software is determined by the terms of the GPL, LGPL, or third party, according to who licenses that software. Software or firmware developed by CyberData that is unrelated to Open Source Software is copyrighted by CyberData, subject to the terms of CyberData licenses, and may not be copied, modified, reverse-engineered, or otherwise altered without explicit written permission from CyberData Corporation.

TRADEMARK NOTICE: CyberData Corporation and the CyberData Corporation logos are trademarks of CyberData Corporation. Other product names, trademarks, and service marks may be the trademarks or registered trademarks of their respective owners.



Revision Information

• 7/9/2020 – Major Guide Update

SIP SPEAKER CISCO CALL MANAGER SERVER SETUP GUIDE



Doc. 930280D Page 3

Table of Contents

1.0 Setup Diagram	4
2.0 Test Equipment	
3.0 Verify in Cisco Call Manager that the IP Voice Media Streaming Application is Activated	6
3.1 Obtain the MAC Address from the CyberData Device to be Added to the System	9
3.2 Setup a New User in Cisco Call Manager	10
3.3 Set Up a New Phone Device in Cisco Call Manager	12
3.4 Create a New Directory Number (DN) and Associate it with the New Phone Device	18
3.5 Associate the Phone Device and Directory Number with the New User	20
4.0 Setup CyberData Device Parameters	24
4.1 Setting Up the CyberData Device Parameters	24
5.0 Contact CyberData Corporation	27



1.0 Setup Diagram

Figure 1-1 is a setup diagram for a SIP Speaker configuration. In this configuration, the speaker acts as a standalone SIP telephony device.

Cisco 8861

CyberData SIP Speaker

NetGear switch

Figure 1-1. Setup Diagram



2.0 Test Equipment

Table 2-1. Test Setup Equipment

Equipment	Model	Version	
Cisco 8861	8861	12.8	
CyberData SIP Speaker	011398	12.1.0	
Netgear ProSafe POE Switch	FS108P	NA	

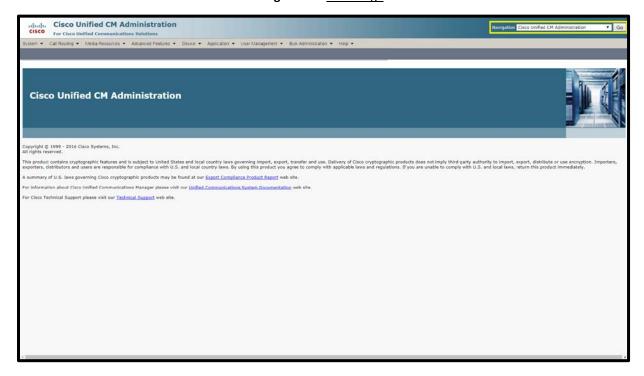


3.0 Verify in Cisco Call Manager that the IP Voice Media Streaming Application is Activated

It is important to verify that the IP Voice Media Streaming Application is running on Cisco Call Manager.

- 1. Log into Cisco Call Manager.
- 2. Click on the Navigation drop-down menu and select 'Cisco Unified Serviceability'.
- 3. Click on the **Go** Button.

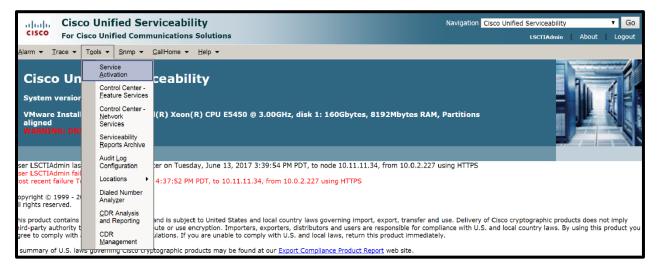
Figure 3-1. Main Page





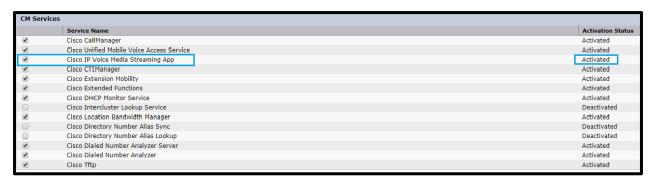
4. On the Cisco Unified Serviceability page, select the Tools menu and select Service Activation

Figure 3-2. Cisco Unified Serviceability Page



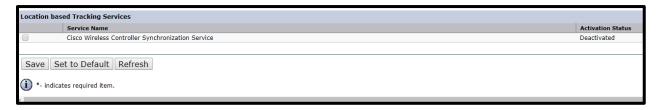
5. Scroll to the CM Services section and check the activation status of the Cisco IP Voice Media Streaming App. If the Activation Status column does not display the word 'Activated' then click on the checkbox next to the Cisco Voice Media Streaming App service name to activate.

Figure 3-3. Cisco IP Voice Media Streaming App



6. Click on the **Save** button at the top of the page.

Figure 3-4. Save Button on the Cisco Unified Serviceability Page





7. Scroll up and click on the **Navigation** drop-down menu. Select **Cisco Unified CM Administration.**

Figure 3-5. Navigation Menu



8. Click on the **Go** button.

Note: It is only necessary to follow Step 1 through Step 8 once for all CyberData Devices.



3.1 Obtain the MAC Address from the CyberData Device to be Added to the System

To complete some of the steps in this procedure, one will first need to get the MAC address from the **CyberData SIP Speaker**. The MAC Address is on the device itself and can also be taken from the web interface of the device.

 Log into the CyberData Configuration Home page by pointing a browser to the speaker's IP address.

Note: The <u>CyberData VoIP Discovery Utility</u> program, allows the discovery of any CyberData devices on the network. Simply press the Launch Browser button to launch the webpage of the device.

2. When prompted, enter the following **Web Access Username** and **Web Access Password** to access the **CyberData SIP Speaker Home Page.**

Default Login: Username: admin Password: admin

Figure 3-6. CyberData Speaker Home Page



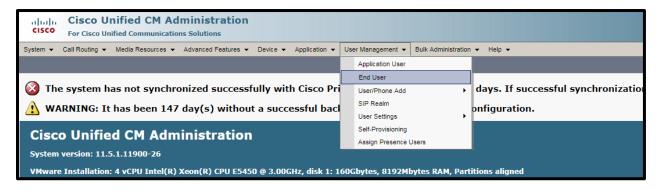


3.2 Setup a New User in Cisco Call Manager

To setup a new user in Cisco Call Manager.

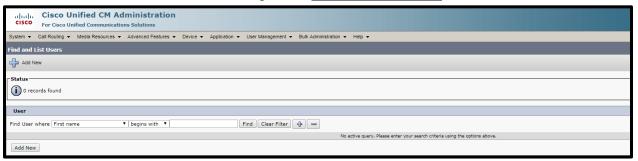
1. From the **Cisco Unified CM Administration** page. Go to the **User Management** menu and select **End User**. This will lead to the **Find and List Users** page.

Figure 3-7. User Management Menu



From the Find and List Users page, click on Add New (Figure 3-8). This is the End User Configuration page.

Figure 3-8. Find and List Users Page



- 3. On the **End User Configuration** page (Figure 3-9), complete the following steps:
 - Type a user ID into the User ID field.

Note: Write down this **User ID**, it will be needed in later steps.

- Type a name into the Last name field.
- Set and confirm a Digest Credential. This will be used for the device's password during registration.

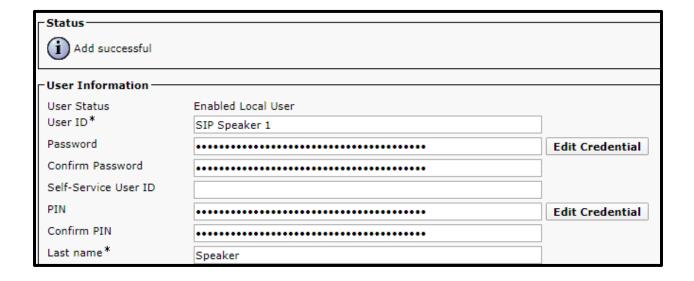


Figure 3-9. End User Configuration Page

User Information	
OSCI TIIIOI III BLIOII	
User Status	Enabled Local User
User ID*	SIP Speaker 1
Password	
Confirm Password	
Self-Service User ID	
PIN	
Confirm PIN	
Last name *	Speaker

4. Scroll down and click **Save** at the bottom of the page. After a short time, the screen will show 'Add Successful'.

Figure 3-10. End User Configuration Page – Add Successful



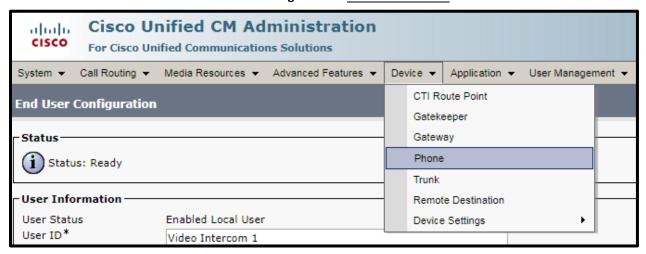
Doc. 930280D



3.3 Set Up a New Phone Device in Cisco Call Manager

1. Go to the **Device** menu and select **Phone.** This will lead to the **Find and List Phones** menu.

Figure 3-11. Cisco Device Menu



2. In the Find and List Phones menu, click on Add New. This is the Add a new Phone page.

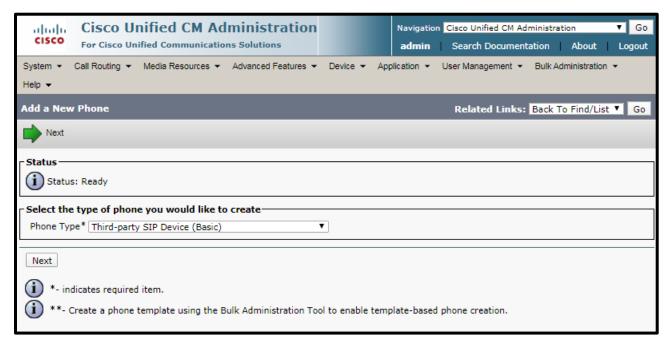
Figure 3-12. Find and List Phones Menu



3. On the Add a New Phone select Third Party SIP Device (Basic) from the Phone Type drop-down menu.



Figure 3-13. Phone Configuration Page



4. Click Next.

For a summary of all the required settings for the **Phone configuration** page please see Table 3-1.

For a step-by-step description of the settings that are necessary for the Phone Configuration page, go to Step 5.

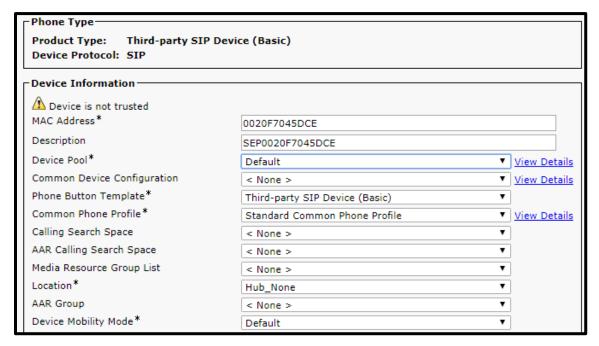
Table 3-1. Phone Configuration Page Settings

Phone Device Parameter	Selected Setting
MAC Address Field	Type the number that was written down for the
	Ethernet Address field of the CyberData SIP Speaker.
Description Field	Type any description desired
Device Pool drop-down menu	Select Default
Phone Button Template Drop-down Menu	Select Third party SIP device (Basic)
Owner User ID Drop-down menu	Select the name of the user, this was set in step 3 of
	Section 4.5
Device Security Profile drop-down menu	Select Third-Party Basic - Standard SIP Non-Secure
	Profile.
SIP Profile drop-down menu	Select Standard SIP Profile.
Digest User drop-down menu	Select the name of the user, this was set in step 3 of
	Section 4.5



5. On the **Phone Configuration** page (Figure 3-14), get the number written down from the MAC Address field of the CyberData SIP Speaker page (Figure 3-6), and type it into the **Mac Address** field.

Figure 3-14. Phone Configuration Page



- 6. In the **Description** field, type a description.
- 7. In the Device Pool drop down menu select **Default**.
- 8. In the Phone Button Template drop-down menu, select Third party SIP Device (Basic).

Note: Leave the Common Phone Profile set to Standard Common Phone Profile.

9. Scroll down to the **Owner User ID** drop-down menu (Figure 3-15). Select the UserID created for the speaker.



Figure 3-15. Phone Configuration Page

Owner User ID*	SIP Speaker 1	•
Mobility User ID	< None >	<i>'</i>
Use Trusted Relay Point*	Default	<u></u>
Always Use Prime Line*	Default	·
Always Use Prime Line for Voice Message*	Default	·
Geolocation	< None >	<u>'</u>
☐ Ignore Presentation Indicators (internal	calls only)	
☑ Logged Into Hunt Group		
Remote Device		

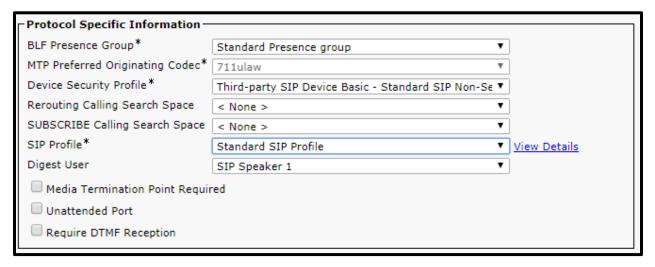
Note: Please leave the **Use Trusted Relay Point** and **Always Use Prime Line** in their default values.

10. Scroll down to the **Device Security Profile** drop-down menu (Figure 3-16) and select the **Third-Party SIP Device Basic-Standard SIP Non-Secure Profile.**



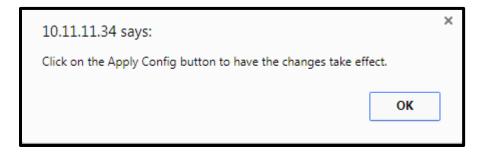
Doc. 930280D

Figure 3-16. Phone Configuration Page



- 11. In the SIP Profile drop-down menu, select Standard SIP Profile.
- 12. In the **Digest user** drop-down menu, please select the name that was used in the **UserID** field in step 3 of <u>Section 3.2.</u>
- 13. Click on the **Save** button at the bottom of the page. The page will take a moment to refresh and the following message will popup:

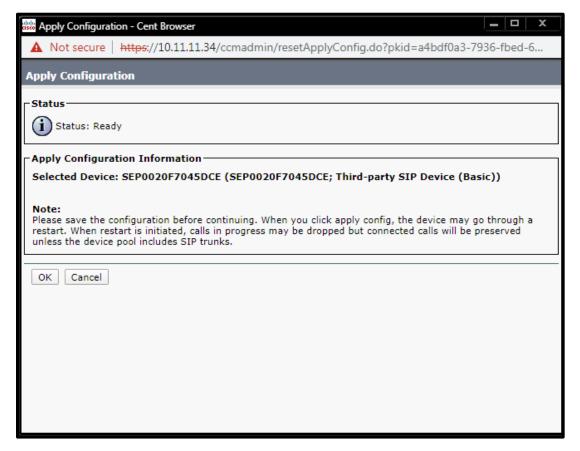
Figure 3-17. Click on the apply Config button popup



- 14. After the page finishes processing it will show the **Phone Configuration** guide again, please press the **Apply Config** button.
- 15. A new Apply Config window will appear (Figure 3-18). Click on the OK button.



Figure 3-18. Apply Configuration Window



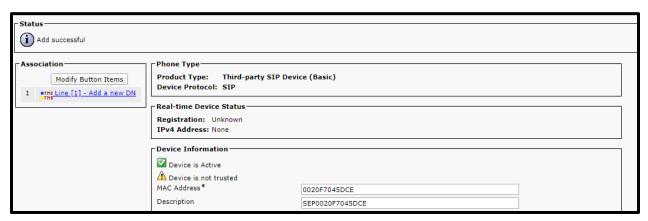
16. After the server is done applying the configuration, the **Status** section will show **Add Successful.**



3.4 Create a New Directory Number (DN) and Associate it with the New Phone Device

Underneath the Modify Button Items button, please click on "Line (1) – Add a new DN."

Figure 3-20. Add a new Directory Number (DN)



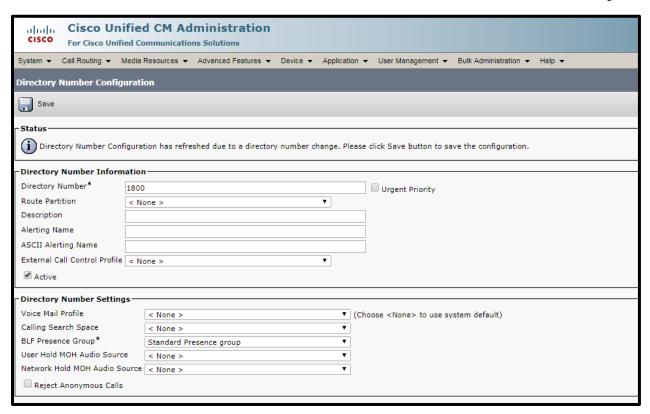
2. In the **Directory Number** field, please type an extension number that is within the range of extensions.

Note: Please write down the **Directory Number**, it will be needed in further steps.

Note: The extension '1800' was used in this example.

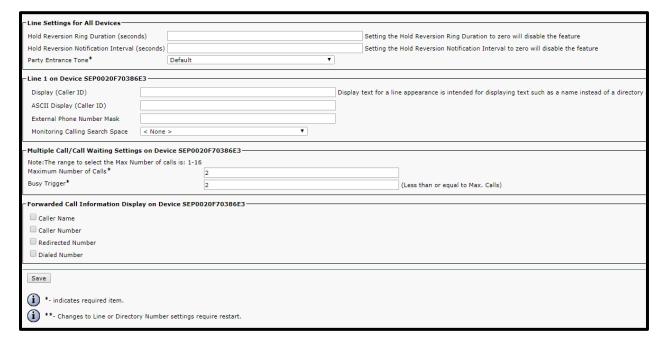
Figure 3-21. Directory Number Configuration





3. Scroll down and click on the **Save** button on the bottom of the page.

Figure 3-22. Directory Number Configuration Page





3.5 Associate the Phone Device and Directory Number with the New User

Follow these steps to associate the phone and directory number to the user.

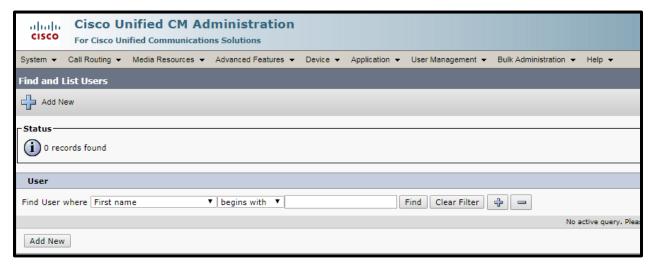
- 1. Please select the **User Management** menu and pick **End User** from the drop-down menu.
- 2. Click on Find.

Figure 3-23. Cisco Call Manager Toolbar



3. On the **Find and List Users** page, please click on the **Find** button.

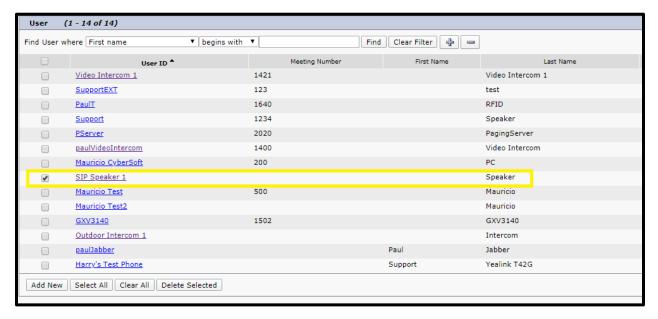
Figure 3-24. Find and List Users



4. All the existing users will be listed in the **User ID** column.



Figure 3-25. Find User List Populated



- 5. Click on the User ID that has the name of the user from step 3 of <u>Section 3.2.</u> This leads to the **End User Configuration** page.
- 6. On the **End User Configuration** page, scroll down to the **Device Information** section. Please press the **Device Association** button.

Figure 3-26. End User Configuration

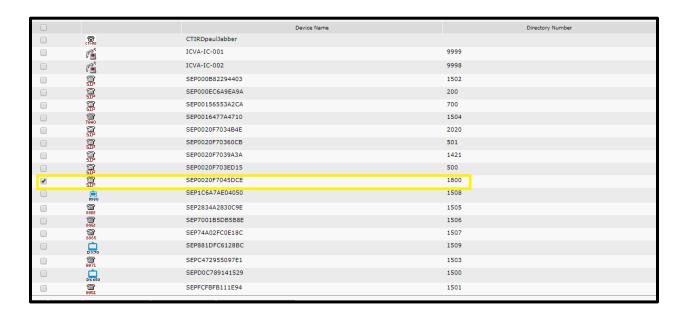


7. On the **User Device Association** page, click on the **Find** button.



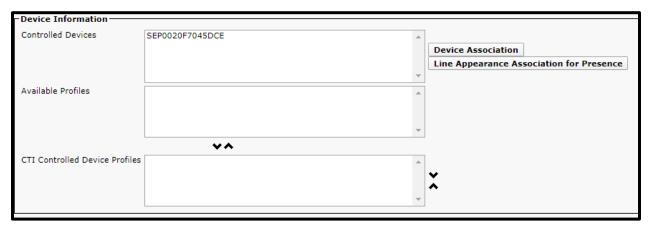
- 8. Find the device by the MAC address, then click the check box next to it.
- 9. Please press the Save Selected/Changes button.

Figure 3-27. User Device Association Page



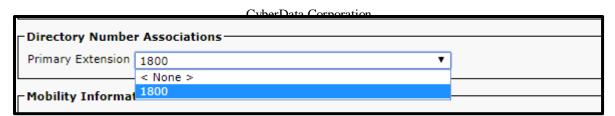
- 10. From the Related Links, drop-down menu. Select Back to User and click to Go button.
- 11. Back on the **End User Configuration** page, look at the **Device Associations** section to verify that the device is associated with the user.

Figure 3-28. End User Configuration Page



12. Please scroll down to the **Directory Number Associations** section. Please select the primary extension for this user.

Figure 3-29. End User Configuration





Note: Extension 1800 was used in this example

13. Scroll down to the bottom of the page and select the **Save** button.



4.0 Setup CyberData Device Parameters

For the initial configuration of the SIP Speaker, please refer to the SIP Speaker Operations Manual which can be downloaded from the webpage:

http://files.cyberdata.net/assets/011397,011398/011398_931191M_SIP_Talk-Back_Speaker_Operations_Guide.pdf

Please navigate to the Downloads section to find the relevant Operations Guide.

4.1 Setting Up the CyberData Device Parameters

To setup the CyberData Device Parameters,

1. Get the IP Address of the SIP Speaker.

Note: This can be done in a few different ways. Once the device has finished booting up, if there is still direct access to the front of the speaker, press the 'RTFM' button. This will make the device announce its IP address. If the device has already been installed, CyberData has developed a program to find all the CyberData Devices on a network.

Note: The CyberData VoIP Discovery Utility can be downloaded with the following link: http://www.cyberdata.net/assets/common/discovery.zip

- 2. Please login to the device using the default Login username and password.
- **3.** From the device's homepage please press the SIP tab.

Table 4-1. SIP Tab Page Settings

SIP Tab Items	Settings
SIP Server	Type the address of the Call Manager Server
SIP User ID	Type the Directory Number that was written down in
	step 2 of <u>Section 4.7</u>
Authentication ID	Type the Cisco User ID that was used for the
	Description field in step 3 of <u>Section 4.5</u>
Authentication Password	Use the password set on the end user page
SIP Registration	Select Yes
Registration expiration (Seconds)	Type 120

- **4.** On the SIP Tab please complete the following steps:
 - o In the **SIP Server** field, type the address of the Call Manager Server.
 - o In the SIP User ID field, type the Directory Number.
 - o In the **Authentication ID** field, type the Cisco User ID.
 - o In the **Password** field type the password used for the Digest Credential.
 - o Keep the SIP Registration field checked.
 - o In the **Register expiration (seconds)** fields, type 120.



Doc. 930280D

Figure 4-1. CyberData SIP Tab

SIP Settings		Nightringer Settings	
Enable SIP operation:		Enable Nightringer:	
SIP Transport Protocol:	UDP V	SIP Server:	10.0.0.253
TLS Version:	1.2 only (recommended)	Remote SIP Port:	5060
Verify Server Certificate: Register with a SIP Server:		Local SIP Port:	5061
Jse Cisco SRST:		Outbound Proxy:	
Primary SIP Server:	10.11.11.34	Outbound Proxy Port:	0
Primary SIP User ID:	1800	User ID:	241
Primary SIP Auth ID:	SIP Speaker 1	Authenticate ID:	241
Primary SIP Auth Password:		Authenticate Password:	*****
· · · · · · · · · · · · · · · · · · ·		Re-registration Interval (in seconds	s): 360
Backup SIP Server 1:			
Backup SIP User ID 1:		DTD Cottings	
Backup SIP Auth ID 1:		RTP Settings	
Backup SIP Auth Password 1:		RTP Port (even): 10500	
		Jitter Buffer: 50	
Backup SIP Server 2:		SRTP: Disabled ✓	
Backup SIP User ID 2:			
Backup SIP Auth ID 2:		Call Disconnection	
Backup SIP Auth Password 2:			
		Terminate Call after delay: 0	
Remote SIP Port:	5060		
Local SIP Port:	5060	Codec Selection	
Outbound Proxy:		Force Selected Codec:	
Outbound Proxy Port:	0		11, u-law) 🗸
Manifest Heaville			
Monitor User ID:		Dutton Cottings	
Monitor Authenticate ID:		Button Settings	
Monitor Authenticate Password:		Dial Out Extension: 204	
Disable rport Discovery:		Extension ID: id204	
Buffer SIP Calls:			
Re-registration Interval (in second	ds): 120		
Unregister on Boot:			
Keep Alive Period:	10000		

5. Once the settings have been configurated please press the **Save** button, then press the **Reboot** Button.



6. Once the device has finished rebooting please confirm that the device shows registered on the Home Page.

Figure 4-2. Registration Status

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

7. If the device shows Registered, then please take a Cisco Phone that has already been registered and make a test call to confirm that audio can from the device.



5.0 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 include as much detail as possible in the Describe Problem section of the form. The success of your installation is extremely important to us.

Documentation Feedback

We realize changes to the software or hardware of the platform may render this document obsolete. We welcome and encourage documentation feedback to ensure continued applicability.