

Webex Calling Configuration Guide: SIP and IC Enabled Strokes

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Revision Information

6/29/2022 – Initial Release

11/11/2022 – Update to add InformaCast Enabled Strokes

Table of Contents

Revision Information.....	2
Table of Contents.....	3
1.0 Supported CyberData Products	4
2.0 Before You Start.....	5
3.0 Setting up a Workspace in Webex Calling	7
4.0 Setting up the CyberData SIP Strobe	11
5.0 Setting the blink options.....	14
5.1 Setting up a Multicast priority	15
5.2 Creating a paging group in Webex Calling.....	16
6.0 Setup Diagram.....	20
7.0 FAQ.....	21
8.0 Contact CyberData Corporation	22

1.0 Supported CyberData Products

This section describes the products used for interoperability testing with Webex Calling.

Table 1-1: Supported CyberData Products

EQUIPMENT	MODEL or PART NUMBER	FIRMWARE VERSION
CYBERDATA SIP RGB (MULTI-COLOR) STROBE	011376	20.2.0 or later
CYBERDATA SIP OUTDOOR RGB (MULTI-COLOR) STROBE	011479	20.2.0 or later
INFORMACAST ENABLED RGB (MULTI-COLOR) STROBE	011377	21.0.0 or later
INFORMACAST ENABLED OUTDOOR RGB (MULTI-COLOR) STROBE	011489	21.0.0 or later

2.0 Before You Start

Network Advisories

Webex Calling uses a Fully Qualified Domain Name (FQDN) for the SIP server and Outbound Proxy addresses. The CyberData strobe needs to perform a DNS query to resolve the IP address of Webex's Outbound Proxy FQDN.

In addition, be sure to verify the following ports are available for the strobe to use:

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

The strobe will need to traverse the public internet in order to operate with Webex Calling in the cloud.

The strobe's paging and nightringer extension uses SIP port 5060 to send and receive SIP messages.

SIP ports 5060 and RTP port 10500 are the default values on all noted firmware levels. Alternatively, SIP ports are configurable on the **SIP** page of the web interface. The RTP port setting on the **SIP** page is used for both extensions.

InformaCast

Singlewire's InformaCast uses SLP (Service Location Protocol) for devices to discover the InformaCast server. CyberData recommends using SLP for the easiest deployment of intercoms to use with InformaCast. SLP requires multicast support on the LAN and a local InformaCast server for devices to connect with.

For assistance setting up SLP please contact Singlewire.

<https://support.singlewire.com/s/article/IP-Speaker-Registration-and-Troubleshooting-Guide>

Product Documentation and Utilities

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

SIP RGB (Multi-Color) Strobe:

<https://www.cyberdata.net/collections/sip/products/011376>

SIP Outdoor RGB (Multi-Color) Strobe:

<https://www.cyberdata.net/collections/sip/products/011479>

InformaCast Enabled RGB (Multi-Color) Strobe

<https://www.cyberdata.net/collections/singlewire/products/011377>

InformaCast Enabled Outdoor RGB (Multi-Color) Strobe

<https://www.cyberdata.net/collections/singlewire/products/011489>

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

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

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

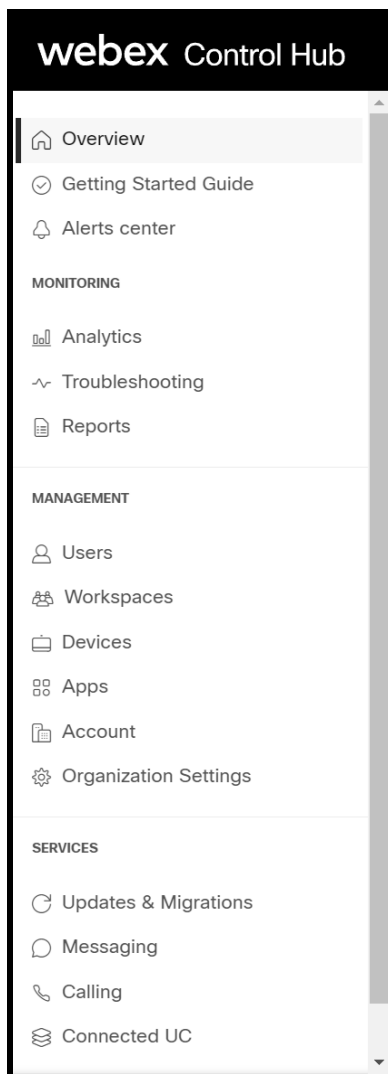
3.0 Setting up a Workspace in Webex Calling

This section outlines how to create a Webex Calling user in the Webex Control Hub (CH). This will provide the credentials to then setup the CyberData device.

[Cisco has detailed instructions in the Cisco Webex Help Center in the Add your customer managed device article.](#)

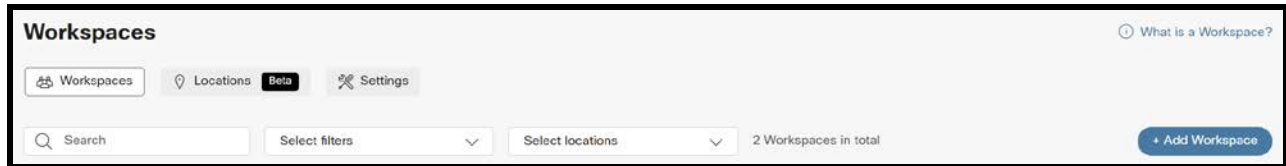
1. Login to [Webex Control Hub as the administrator](#).
2. From the overview page select **Workspaces**.

Figure 3-1: Overview Side Bar



- From the Workspaces page select the **Add Workspace** button.

Figure 3-2: Workspaces Page



- On the Add Workspace popup create a Workspace for the strobe.

Figure 3-3: Create a Workspace

Add Workspace

Workspaces represent a physical space in your organization. It may contain one device or multiple devices that work together. Workspace details show usage, settings, and environmental status for that physical space to help you make decisions to improve the use and cost of your space.

Name *

What do you want to name the Workspace?

Type ⓘ

What type best describes the Workspace?

Other

Capacity

How many people is the Workspace suitable for?

Location

Where is the Workspace located?

None

Types of Workspaces

Workspaces come in different shapes and sizes, defining what type of workspace you are adding will help us deliver insights into adoption and usage, in the future defaults for certain types may exist.

Other Unspecified

6/6

Cancel

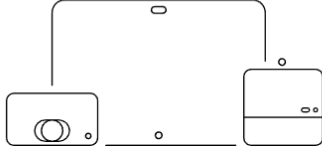
Next

5. After creating the workspace select **Cisco IP Phone**.

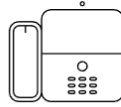
Figure 3-4: Pick a device

Add Workspace

What kind of device do you want to set up in this workspace?



Room, Board or Desk series
e.g. Cisco Webex Board, Room, and Desk series, and Webex Share.



Cisco IP Phone
e.g. Cisco 8845, 8865, 8800 and Analog Telephone Adapter ports

Select Device

Customer Managed Device

Device Vendor

Cyberdata Customer Managed

Enter MAC Address
Enter the MAC address of the IP phone you want to add.

0020f7041382

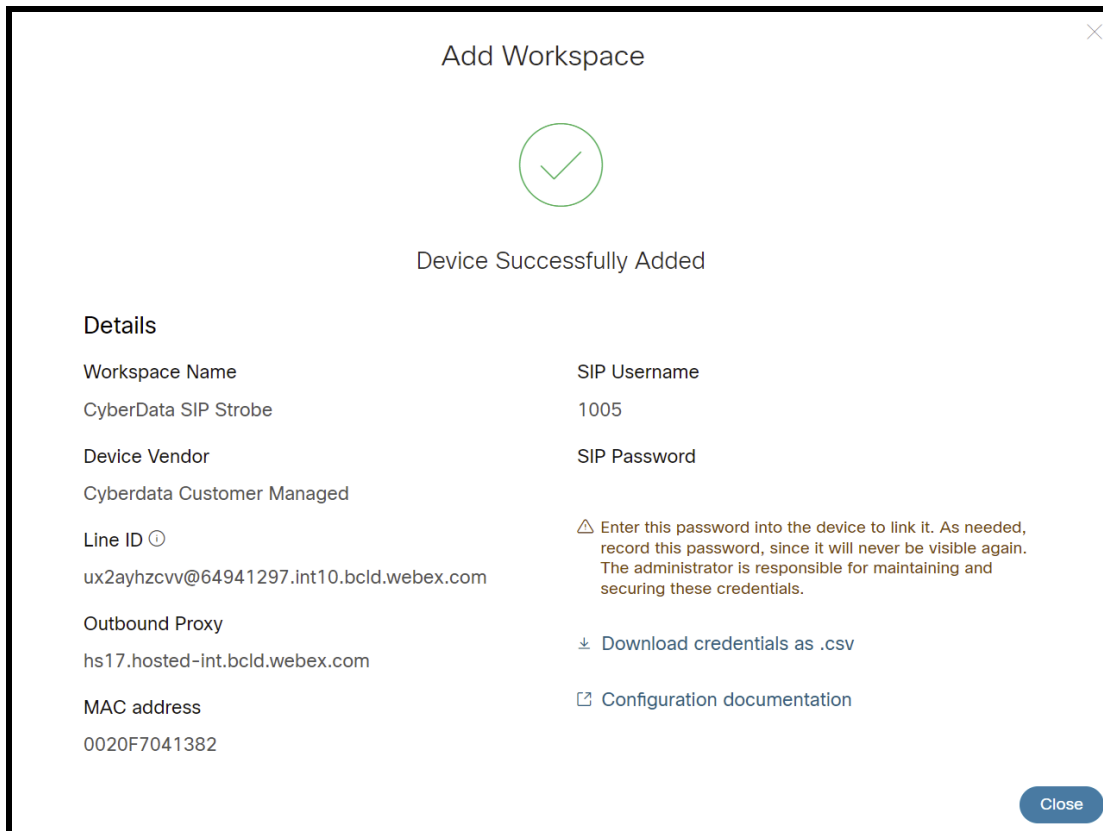
☒ *I confirm that creating this device profile will expose sensitive device credentials that could be misused and exploited by users with unauthorized access. You are responsible for securing and recycling these credentials. You agree that Cisco is not responsible for any fraudulent charges or phone calls that result from the exposure of these device credentials. Cisco offers limited support for third-party devices connected via this interface. Cisco will only investigate basic issues for third-party devices that are actively registered to the Webex Calling platform. Any other third-party device-related support issues should be directed to the third-party device vendor, including issues related to onboarding, deployment, configuration, or connectivity.

Back

Next

6. Set the device to **Customer Managed Device**.
7. Select **CyberData Customer Managed** as the Device Vender.
8. Enter the MAC address of the CyberData device.
9. Press **Next** to continue.

Figure 3-5: Device Successfully Added



Note: The password has been obscured.

10. Make sure to press **Download credentials as .csv** because this page is only shown once.

4.0 Setting up the CyberData SIP Strobe

This section outlines the required sections for the CyberData device and how the credentials supplied from Webex correlate to the CyberData settings.

Table 4-1: SIP Credential Explanation

Webex Calling Credential	CyberData Setting
2 nd Half of Line ID	Primary SIP Server
1 st Half of Line ID	Primary SIP User ID
SIP Username	Primary SIP Auth ID
SIP Password	Primary SIP Auth Password
Outbound Proxy	Outbound Proxy

Note: CyberData devices do not support 'Line IDs' and the ID provided by Webex must be broken up to be used by the CyberData device. Webex provides the line ID in the following format: "UserID@SIP_Server_Address". Everything before the @ symbol is used as CyberData's Primary SIP User ID and everything after the @ symbol is used as the Primary SIP Server.

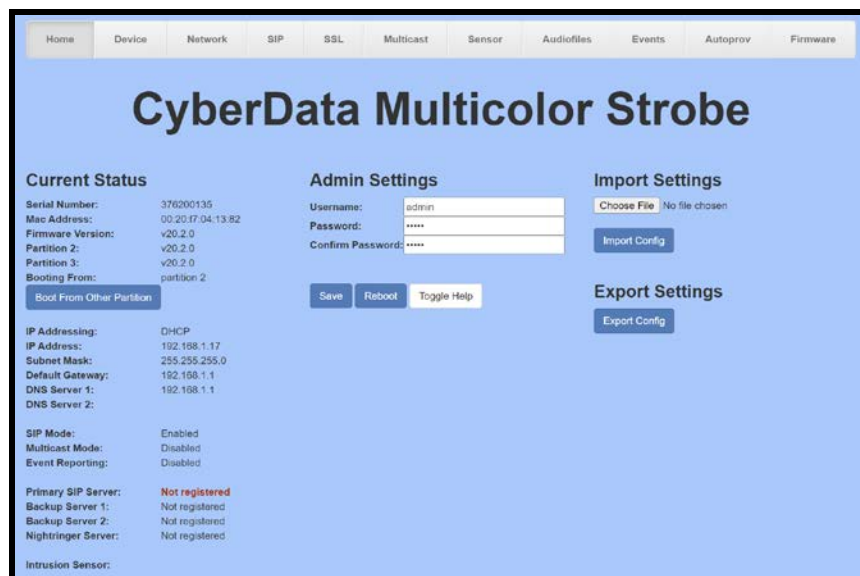
CyberData's default login credentials are:

Username: admin

Password: admin

1. Log into the web interface of the CyberData device.

Figure 4-1: Home Tab



2. Navigate to the SIP tab.
3. Set the **Primary SIP Server** field to the 2nd half of the Line ID.
4. Set the **Primary SIP User ID** to the 1st half of the Line ID.

Note: Do not add an @ to SIP Server or User ID.

5. Set the **Primary SIP Auth ID** to the Extension Number.
6. Set the **Primary SIP Auth Password** to the SIP Password.
7. Set the **Outbound Proxy** to the Outbound Proxy.
8. Leave the **Outbound Proxy port** set to 0.
9. Set the **SIP Transport** to TLS.
10. Ensure **TLS Version** is set to **1.2 Only (Recommended)**.
11. Set RTP Encryption to **Mandatory**.
12. Save and Reboot.

Figure 4-2: SIP Tab

CyberData Multicolor Strobe

SIP Settings

Enable SIP operation: ☒

Register with a SIP Server: ☒

Primary SIP Server: 64941297 int10.bcid.webex.com

Primary SIP User ID: ux2ayhzcwv

Primary SIP Auth ID: 1005

Primary SIP Auth Password: *****

Re-registration Interval (in seconds): 360

Backup SIP Server 1: Host or IP address

Backup SIP User ID: User ID

Backup SIP Auth ID: Auth ID

Backup SIP Auth Password: Password

Re-registration Interval (in seconds): 360

Backup SIP Server 2: Host or IP address

Backup SIP User ID: User ID

Backup SIP Auth ID: Auth ID

Backup SIP Auth Password: Password

Re-registration Interval (in seconds): 360

Remote SIP Port: 5060

Local SIP Port: 5060

SIP Transport Protocol: TLS ☒ NTP enabled

TLS Version: 1.2 only (recommended)

Verify Server Certificate: ☐

Outbound Proxy: hs17.hosted-int.bcid.webex.com

Outbound Proxy Port: 0

Use Cisco SRST: ☐

Disable rport Discovery: ☐

Unregister on Boot: ☐

Keep Alive Period: 10000

Nightringer Settings

SIP Server: Host or IP address

SIP User ID: User ID

SIP Auth ID: Auth ID

SIP Auth Password: Password

Re-registration Interval (in seconds): 360

SIP Ring Strobe Settings

Blink Strobe on Ring: ☒

Scene: ADA Brightness: 255 Color: Red 255 Green 255 Blue 255 Preview

MWI Strobe Settings

Blink Strobe on MWI: ☐

Scene: ADA Brightness: 255 Color: Red 255 Green 255 Blue 255 Preview

Nightringer Strobe Settings

Blink Strobe on Nightring: ☐

Scene: ADA Brightness: 255 Color: Red 255 Green 255 Blue 255 Preview

Call Disconnection

Terminate Call after delay: 0

Audio Codec Selection

Codec: Auto Select

RTP Settings

RTP Port (even): 10500

Asymmetric RTP: ☐

Jitter Buffer: 50

RTP Encryption (SRTP): Mandatory

Save Reboot Toggle Help

If the credentials have been entered correctly the device should now be registered with Webex. This can be verified on the home tab of the web interface or on the Webex site.

Figure 4-3: Home Tab – Registered

The screenshot displays the 'Home' tab of the CyberData Multicolor Strobe web interface. The top navigation bar includes tabs for Home, Device, Network, SIP, SSL, Multicast, Sensor, Audiofiles, Events, Autoprovisioning, and Firmware. The main content area is titled 'CyberData Multicolor Strobe' and is divided into four sections: Current Status, Admin Settings, Import Settings, and Export Settings.

Current Status

Serial Number:	376200135
Mac Address:	00:20:f7:04:13:82
Firmware Version:	v20.2.0
Partition 2:	v20.2.0
Partition 3:	v20.2.0
Bootling From:	partition 2

[Boot From Other Partition](#)

IP Addressing: DHCP
IP Address: 192.168.1.17
Subnet Mask: 255.255.255.0
Default Gateway: 192.168.1.1
DNS Server 1: 192.168.1.1
DNS Server 2:

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

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

Intrusion Sensor:

Admin Settings

Username: admin
Password: *****
Confirm Password: *****

[Save](#) [Reboot](#) [Toggle Help](#)

Import Settings

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

Export Settings

[Export Config](#)

5.0 Setting the blink options

CyberData strobes are designed to illuminate on an incoming call or multicast stream. The strobe uses RGBW LED's and this allows any custom colors and ADA compliance from a single device. The strobe uses 'Blink Scenes' or illumination patterns for the strobe.

- ADA
- Slow Fade
- Fast Fade
- Slow Blink
- Fast Blink

The strobe can then have a color set for the notification, CyberData has preset colors available in a drop-down menu or any custom value can be used with 0-255 values for Red, Green, and Blue.

Figure 5-1: Set the Dial out Extension

The image shows a configuration interface for three types of strobes: SIP Ring, MWI (Message Waiting Indicator), and Nightringer. Each section has a 'Blink Strobe on [Device]' checkbox, a 'Scene' dropdown menu, a 'Brightness' input field, a 'Color' dropdown menu, and three input fields for Red, Green, and Blue color values. A 'Preview' button is located at the end of each section.

Strobe Type	Blink Strobe on [Device]	Scene	Brightness	Color	Red	Green	Blue	Preview
SIP Ring Strobe Settings	<input checked="" type="checkbox"/>	ADA	255	Color	255	255	255	Preview
MWI Strobe Settings	<input type="checkbox"/>	ADA	255	Color	255	255	255	Preview
Nightringer Strobe Settings	<input type="checkbox"/>	ADA	255	Color	255	255	255	Preview

5.1 Setting up a Multicast priority

CyberData devices support multicast that works in a priority system, where a higher priority will always supersede a lower priority. For example, a multicast page to priority 4 would play over a background music stream at priority 0. SIP Calls are treated as priority 4.5.

Figure 5-2: Multicast Tab

Home
Device
Network
SIP
SSL
Multicast
Sensor
Audiofiles
Events
Autoprov
Firmware

CyberData Multicolor Strobe

Multicast Settings

Enable Multicast Operation: ☒

Priority	Address	Port	Name	Relay	Scene	Brightness	Color	Red	Green	Blue	
0	239.168.3.1	2000	Background Music	<input type="checkbox"/>	ADA	255	Color	255	255	255	Preview
1	239.168.3.2	3000	MG1	<input type="checkbox"/>	Fast Blink	255	Color	70	0	128	Preview
2	239.168.3.3	4000	MG2	<input type="checkbox"/>	Slow Blink	255	Color	255	0	0	Preview
3	239.168.3.4	5000	MG3	<input type="checkbox"/>	Fast Fade	255	Color	255	35	0	Preview
4	239.168.3.5	6000	General Announcements	<input type="checkbox"/>	Slow Fade	255	Color	255	35	0	Preview
5	239.168.3.6	7000	MG5	<input type="checkbox"/>	ADA	255	Color	255	255	255	Preview
6	239.168.3.7	8000	MG6	<input type="checkbox"/>	ADA	255	Color	255	255	255	Preview
7	239.168.3.8	9000	MG7	<input type="checkbox"/>	ADA	255	Color	255	255	255	Preview
8	239.168.3.9	10000	MG8	<input type="checkbox"/>	ADA	255	Color	255	255	255	Preview
9	239.168.3.10	11000	Emergency	<input type="checkbox"/>	ADA	255	Color	255	255	255	Preview

Polycom Default Channel 1
Polycom Priority Channel 24
Polycom Emergency Channel 25

SIP calls are considered priority 4.5

Port range can be from 2000-65535

Priority 9 is the highest and 0 is the lowest

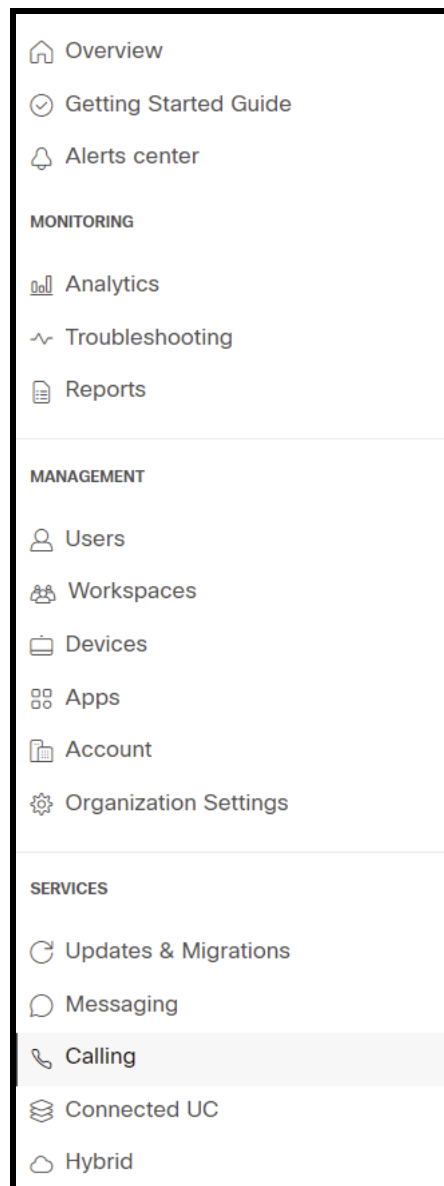
A higher priority audio stream will always supersede a lower one

5.2 Creating a paging group in Webex Calling

Webex calling supports paging groups that allow one-way pages to up to 75 devices at the same time. This makes products like VoIP Speakers easy to page with in the Cisco Webex calling environment. Follow these steps to setup a paging group.

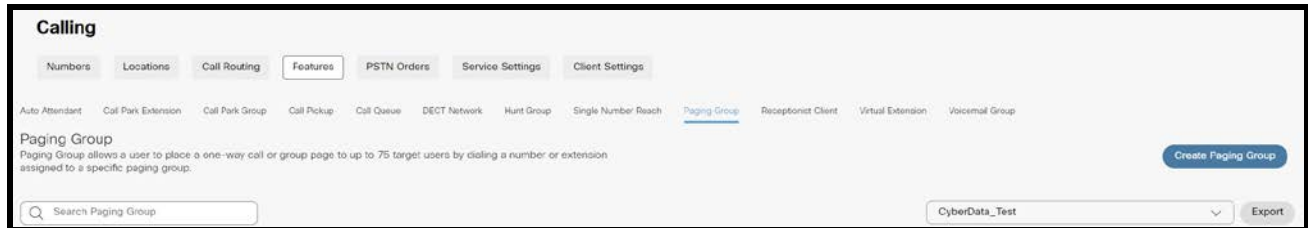
1. Select Calling from the Services sub section in the sidebar.

Figure 5-3: Select Calling



- From the Calling page select **Features** and then **Paging Group**.

Figure 5-4: Calling Settings



- Press **Create Paging Group** to begin the paging group creation process.

Figure 5-5: Naming a Paging Group

Create Paging Group

● — ● — ○ — ○
 Settings Paging Targets Paging Originators Review

Location
Assign your Paging Group to a Location.

CyberData_Test

Paging Group Name
The name is used to default Caller ID and reference the Paging Group later in the process.

Paging Group

Phone Number
Assign the Paging Group to a Webex Calling primary line. A phone number and/or extension is required.

None and/or 2000

Language
Select the Paging Group language

English

Calling Line ID
This ID displays on the target user's phones when a group page is performed.

Calling ID First Name Calling ID Last Name

Emergency Paging

Calling ID Label
This determines what is shown on a paging target user's caller ID when a group page is performed

☒ Paging Group ID ⓘ
☐ Page Originator ⓘ

Cancel Next

4. Set the location of the paging group.
5. Name the paging group.
6. Set a phone number and/or an extension number.
7. Pick the desired language for the group.
8. Set the Calling ID Name.
9. Pick if the group ID or Page Originator shows up on the caller ID.
10. Press **Next**.

Figure 5-6: Set the Paging Targets

The screenshot shows a web interface titled "Create Paging Group" with a progress bar at the top indicating four steps: Settings, Paging Targets (current), Paging Originators, and Review. Below the progress bar, the "Paging Targets" section is active. It includes a heading "Paging Targets" with a help icon, followed by the instruction "Add Users and/or Workspaces" and a search prompt: "Search for and add up to 75 users and/or workspaces by name, phone number, or extension. Click the name to view more details." Below this is a search input field labeled "Add User or Workspace" with a dropdown arrow. Underneath is a table with columns: Name, Phone Number, Extension, and a trash icon. One entry is visible: "CyberData VoIP Speaker" with extension "1004". Below the table, it says "1/75 users". There is a checkbox labeled "Copy my paging targets to my paging originators" which is currently unchecked. At the bottom right, there are "Back" and "Next" buttons.

Name	Phone Number	Extension	
CyberData VoIP Speaker		1004	

11. Choose what devices are in the paging group.
12. Press **Next**.

Figure 5-7: Paging Originators

Create Paging Group

Settings Paging Targets **Paging Originators** Review

Paging Originators ⓘ

Add Users and/or Workspaces

Search for and add users and/or workspaces by name, phone number, or extension.

Add User or Workspace ▾

Name ▲	Phone Number	Extension
CyberData Test	+17135334000	4000

1 users

Back **Next**

13. Choose what numbers can page to the paging group.

14. Press **Next**.

15. Review the settings and press **Create**.

Figure 5-8: Review Settings

Create Paging Group

Settings Paging Targets Paging Originators **Review**

Paging Group Settings Review

Review the settings for your new paging group to make sure everything is correct. You can go back and make changes now, or make edits, manage and enable advanced features at any time by clicking on the name of your paging group on the features page.

General Settings Paging Targets Paging Originators

Paging Group Name: Paging Group

Location: CyberData_Test

Extension: 2000

Language: English

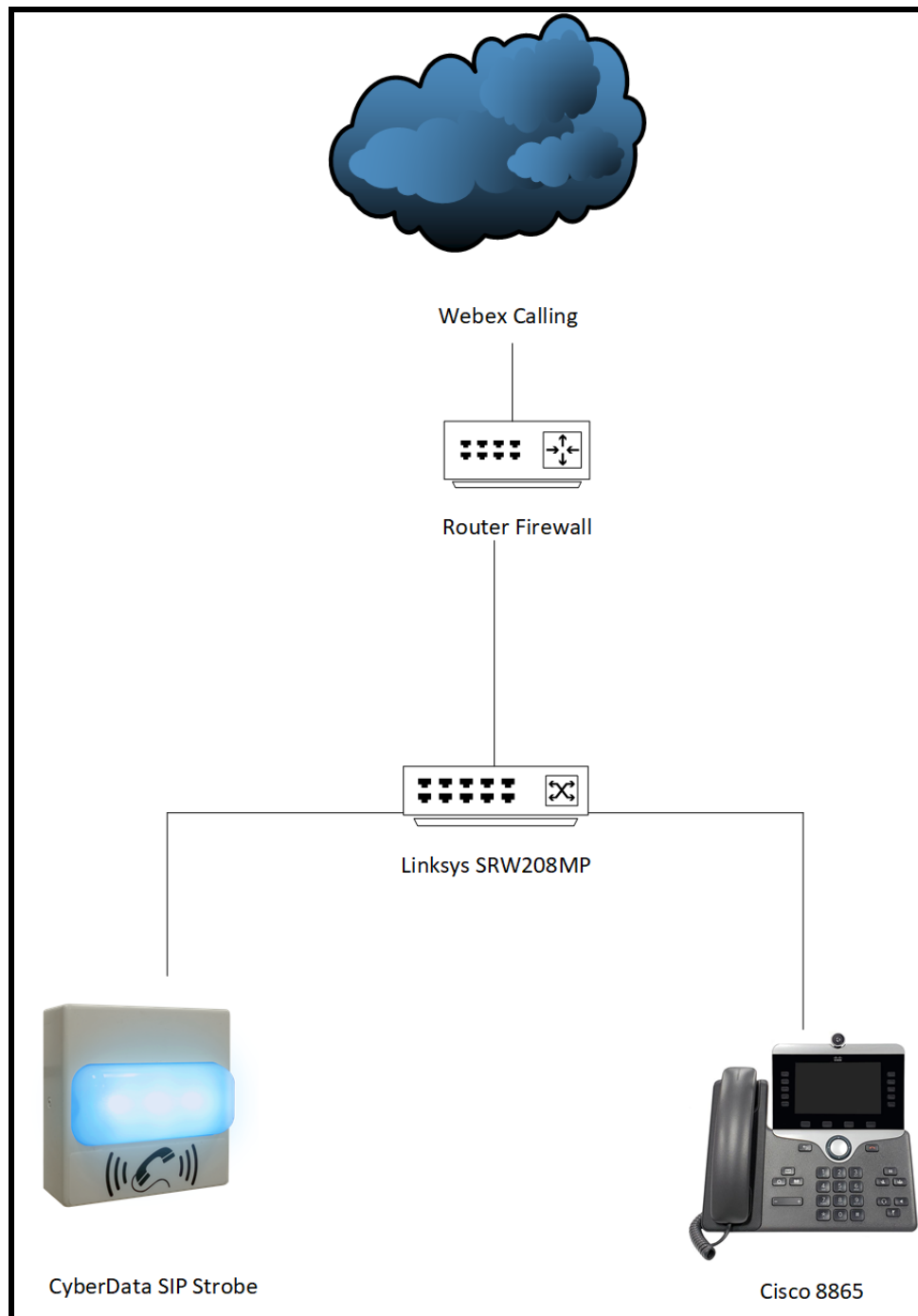
Calling Line ID: Emergency Paging

Calling ID Label: Paging Group ID

Back **Create**

6.0 Setup Diagram

Figure 6-1: Interoperability Test Infrastructure



7.0 FAQ

Why is the device registering to a backup server and not the primary server listed in the SRV record?

CyberData devices have a bug where they will not fall back to the primary server listed in the SRV record in the event it switches to a backup server. To resolve this issue simply reboot the device. This will be fixed in a future release.

Connecting to InformaCast without SLP.

CyberData InformaCast Enabled devices can be pointed directly to the InformaCast servers when SLP is not working or is not possible in the environment. On the Device tab of the CyberData device add the path to the InformaCast server, here is an example value:

`http://10.0.1.195:8081/InformaCast/resources/`

Note: Make sure to change the address listed in the path to the IP address of the server.

8.0 Contact CyberData Corporation

Sales

For sales-related questions, please visit our [Contact CyberData Sales](#) web page for more information.

Technical Support

For CyberData Technical Support, please submit a [Contact CyberData VoIP Technical Support](#) form on our website.

The CyberData VoIP Technical Support Contact form initiates a troubleshooting ticket which CyberData uses for quality assurance purposes.

Additionally, the Contact VoIP Tech Support form tells us which phone system you are using, the make and model of the network switch, and other essential troubleshooting information we need to efficiently assist with a resolution. Please also include as much detail as possible in the Describe Problem section of the form. Your installation is extremely important to us.

Documentation Feedback

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