

Leap Telecom Configuration Guide: SIP Strokes

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Revision Information

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1.0 Supported CyberData Products

This section describes the products used for interoperability testing with Leap Telecom.

Table 1-1: Supported CyberData Products

EQUIPMENT	MODEL or PART NUMBER	FIRMWARE VERSION
CYBERDATA SIP RGB (MULTI-COLOR) STROBE	011376	20.2.0 or greater
CYBERDATA SIP OUTDOOR RGB (MULTI-COLOR) STROBE	011479	20.2.0 or greater

2.0 Before You Start

Network Advisories

Leap Telecom uses a Fully Qualified Domain Name (FQDN) for the SIP server. The CyberData strobe needs to perform a DNS query to resolve the IP address of SIP Server's FQDN.

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

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

The strobe will need to traverse the public internet in order to operate with Leap Telecom 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.

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>

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>

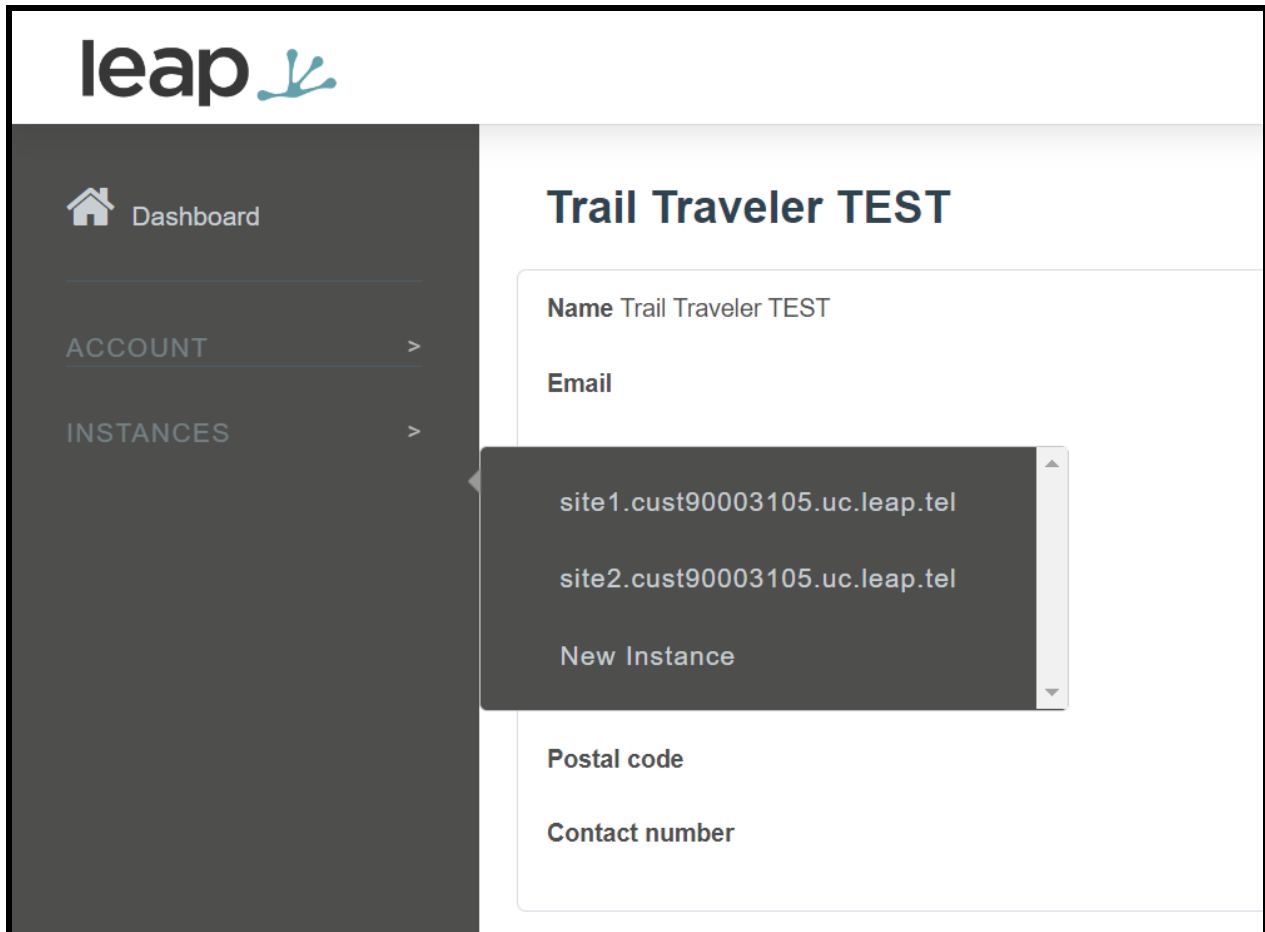
Note: DHCP addressing mode is enabled on default on all noted firmware levels.

3.0 Setting up a Device in the Leap Tel System

This section outlines how to create a device in the Leap Tel system.

1. Login to the Leap system
2. Mouse over instances and select the site/instance where the device will be used.

Figure 3-1: Instance Selection



- From the site page select **Devices**, then press the + button to create a new device.

Figure 3-2: Workspaces Page

Devices 8 -

Search:

Name	Login	SIP Caller ID name	SIP Caller ID number	Edit	Delete	Origins	Registration Status	Routing
Ted Home Phone	tedxxx	Traveler Traveler						
Home Speaker	cyb3r	Traveler Traveler						
Test device	fubar	Traveler Traveler						
Cyber Intercom	Intercom	Traveler Traveler						
CyberNight	CyberNight	Traveler Traveler						
CallButton	CallButton	Traveler Traveler						
PaulSoftphone	PaulSoftphone	Traveler Traveler						
KERRY'S DESK PHONE	kgarrison123	Traveler Traveler						

Show 1 - 8 of 8 < < > >

- Set the **Name** of the device, being descriptive can help for device management in the future.
- Set the **Login** field as desired, CyberData recommends not using spaces, hyphens, or underscores.
- Press **Save** at the bottom of the page.

Figure 3-3: Add a Device

New device

Name ⓘ

Login ⓘ

Password ⓘ REGENERATE PASSWORD

mduPbkijDIJkP2QgbtE0

7. After pressing save the page will refresh, click on **Extensions**.
8. In the **Extensions** section press the + to create a new extension.

Figure 3-4: Pick a device

Extensions 9 -

Search:

Name	Number	Edit	Delete	Origins	Routing
CyberData Ring Group	3004				
Kerry Home Speaker	4001				
Cyber Intercom	3006				
CyberNight	3008				
CallButton	3010				
PaulSoftphone	3011				
Sales Conference Room Ext	4002				
Kerry	1002				
Ted	2005				

Show 1 - 9 of 9 < < > >

+

9. In the New extension window set a **Name** for the extension. CyberData recommends having the name correlate to the device that will use the extension.
10. Set the **Number** as desired.
11. Set the **Destination** to the **Name** of the device set in step 4.
12. Press **Save**.

Figure 3-5: New Extension Creation

The screenshot shows a 'New extension' dialog box. It has three input fields: 'Name' (containing 'Strobe'), 'Number' (containing '3009'), and 'Destination' (a dropdown menu showing 'CyberData SIP RGB Strobe (device:3443)'). At the bottom, there are 'CANCEL' and 'SAVE' buttons.

Configuration on the Leap Tel side is now complete and the CyberData device is ready to be configured. Values set on the Device tab are required for registration, CyberData recommends opening up the Device created in steps 3 - 6 for ease of copy and pasting.

4.0 Setting up the CyberData Strobe

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

Table 4-1: SIP Credential Explanation

Leap Credential	CyberData Setting
Instance	Primary SIP Server
Device Login	Primary SIP User ID
Device Login	Primary SIP Auth ID
Device Password	Primary SIP Auth Password

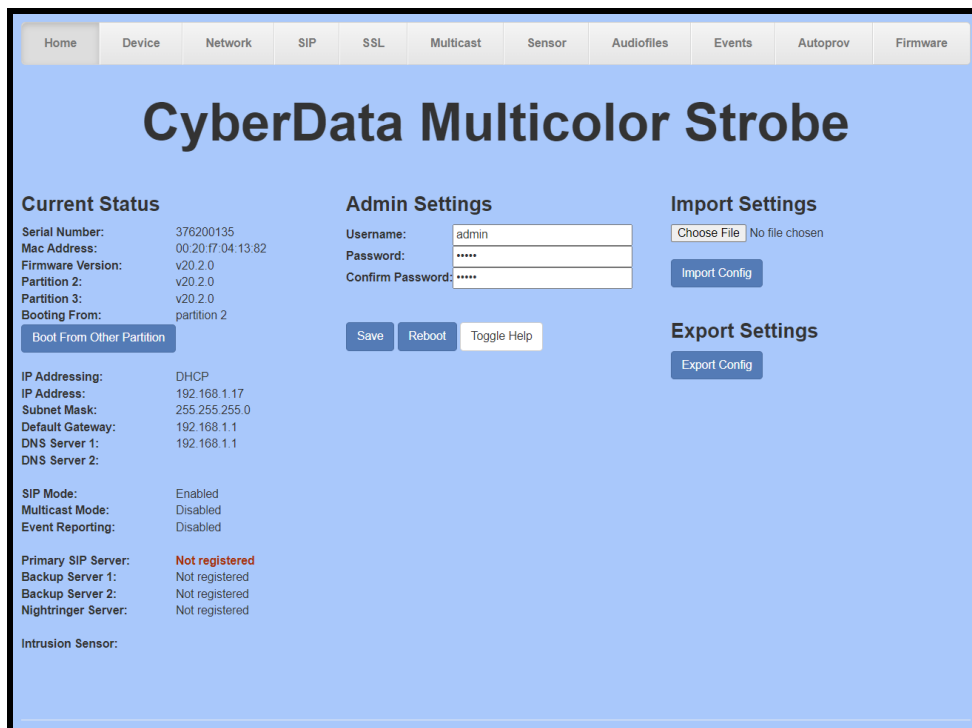
CyberData's default login credentials are:

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 FQDN of the Instance.
4. Set the **Primary SIP User ID** to the Device Login set in step 3-5.
5. Set the **Primary SIP Auth ID** to the Device Login set in step 3-5.
6. Set the **Primary SIP Auth Password** to the Device Password.

Note: Leap Tel supports both UDP and TCP for SIP Transport. Please use either of the transport protocols, during testing CyberData found that TCP preforms best.

7. Save and Reboot.

Figure 4-2: SIP Tab

SIP Settings

Enable SIP operation:
 Register with a SIP Server:
 Primary SIP Server: site1.cust90003105.uc.leap.tel
 Primary SIP User ID: Strobe
 Primary SIP Auth ID: Strobe
 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: TCP
 TLS Version: 1.2 only (recommended)
 Verify Server Certificate:

Outbound Proxy: Host or IP address
 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: Color, Red: 255, Green: 255, Blue: 255, Preview

MWI Strobe Settings

Blink Strobe on MWI:
 Scene: ADA, Brightness: 255, Color: Color, Red: 255, Green: 255, Blue: 255, Preview

Nightringer Strobe Settings

Blink Strobe on Nightring:
 Scene: ADA, Brightness: 255, Color: 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): Disabled

Save Reboot Toggle Help

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

Figure 4-3: Home Tab – Registered

The screenshot displays the 'Home' tab of the CyberData Multicolor Strobe web interface. The navigation menu at the top includes Home, Device, Network, SIP, SSL, Multicast, Sensor, Audiofiles, Events, Autoprov, and Firmware. The main heading is 'CyberData Multicolor Strobe'. The interface is divided into three main sections: Current Status, Admin Settings, and Import Settings. The Current Status section shows the device is registered with the primary SIP server. Admin Settings includes fields for Username (admin), Password, and Confirm Password, along with Save, Reboot, and Toggle Help buttons. Import Settings includes a Choose File button and an Import Config button. Export Settings includes an Export Config button.

Section	Item	Value
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
	Booting From:	partition 2
	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:		

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 three configuration panels for strobe settings. Each panel has a title, a 'Blink Strobe on [Device]:' checkbox, and a table of settings. The 'SIP Ring Strobe Settings' panel has the checkbox checked. The 'MWI Strobe Settings' and 'Nightringer Strobe Settings' panels have the checkboxes unchecked. All panels have 'Scene' set to 'ADA', 'Brightness' set to '255', and 'Red', 'Green', and 'Blue' color values set to '255'. A 'Color' dropdown menu is visible in each panel, and a 'Preview' button is at the end of each row.

SIP Ring Strobe Settings					
Blink Strobe on Ring: <input checked="" type="checkbox"/>					
Scene	Brightness	Color	Red	Green	Blue
ADA	255	Color	255	255	255

MWI Strobe Settings					
Blink Strobe on MWI: <input type="checkbox"/>					
Scene	Brightness	Color	Red	Green	Blue
ADA	255	Color	255	255	255

Nightringer Strobe Settings					
Blink Strobe on Nightring: <input type="checkbox"/>					
Scene	Brightness	Color	Red	Green	Blue
ADA	255	Color	255	255	255

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

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

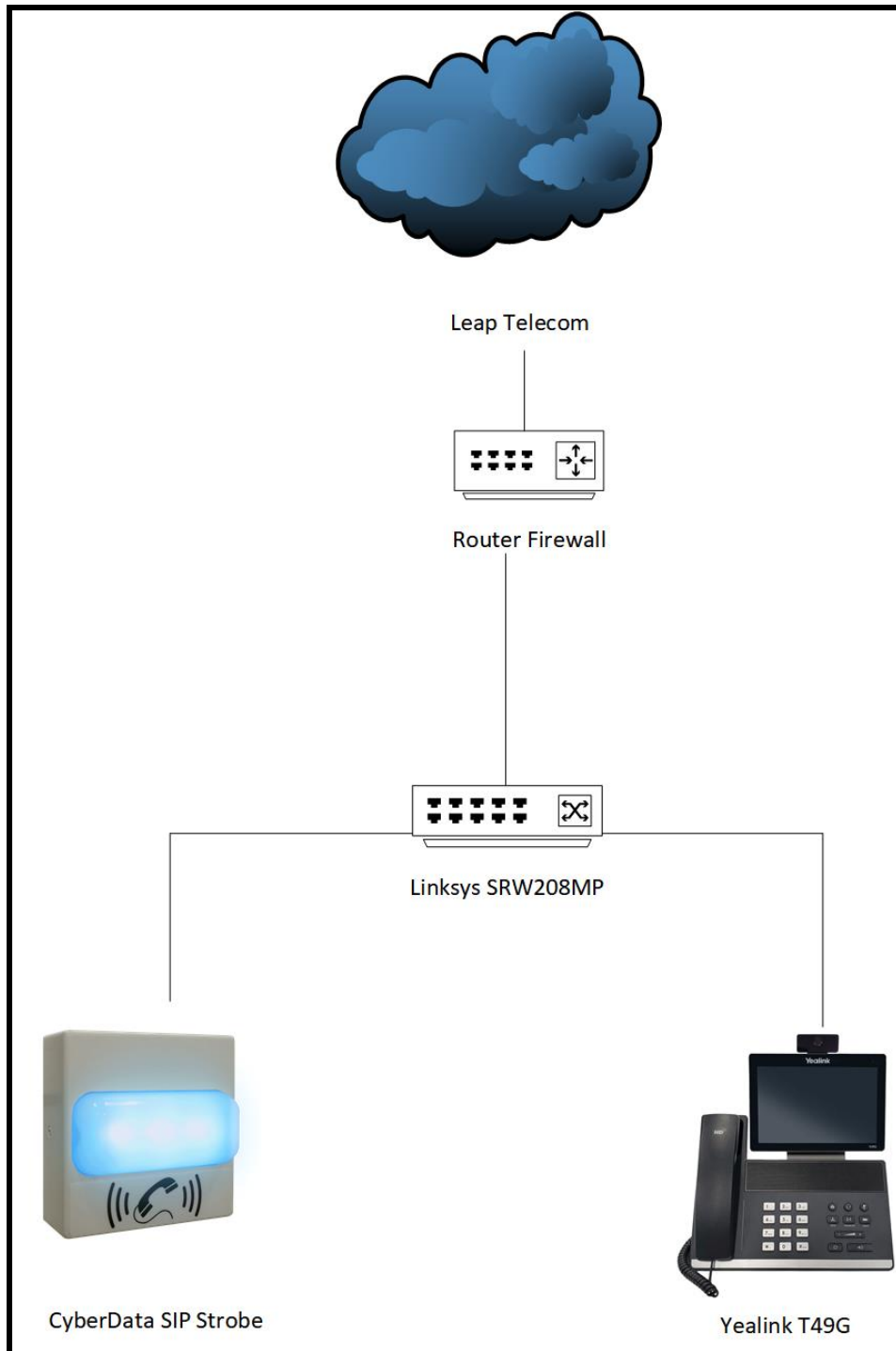
Port range can be from 2000-65535

Priority 9 is the highest and 0 is the lowest

A higher priority audio stream will always supersede a lower one

6.0 Setup Diagram

Figure 6-1: Interoperability Test Infrastructure



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 Leap Telecom solution may render this document obsolete. We welcome and encourage documentation feedback to ensure continued applicability.