Zoom Configuration Guide: SIP Strobe

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

Table 2-1: Setup Equipment

<table>
<thead>
<tr>
<th>EQUIPMENT</th>
<th>MODEL or PART NUMBER</th>
<th>FIRMWARE VERSION</th>
</tr>
</thead>
<tbody>
<tr>
<td>CYBERDATA SIP STROBE</td>
<td>011376</td>
<td>20.0.0</td>
</tr>
<tr>
<td>CYBERDATA OUTDOOR SIP STROBE</td>
<td>011479</td>
<td>20.0.0</td>
</tr>
<tr>
<td>YEALINK</td>
<td>T58A</td>
<td>58.83.3.6</td>
</tr>
<tr>
<td>LINKSYS SWITCH</td>
<td>SRW208MP</td>
<td>***</td>
</tr>
</tbody>
</table>
3.0 Before You Start

This configuration guide documents the integration process of a CyberData SIP Strobe.

Network Advisories

Zoom uses a Fully Qualified Domain Name (FQDN) for the SIP server and Outbound Proxy addresses. The CyberData SIP Strobe needs to perform a DNS A query to resolve the IP address of Zoom’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 intercom to use:

- TCP 5060-5061, 5091 (SIP)
- UDP 10500 (RTP)

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

The strobe’s paging 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 5091, the port used by Zoom’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 paging and Nightringer extension are configurable on the SIP page of the web interface.

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

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.
**Product Documentation and Utilities**
Before you start, download the Operation and Quick Start guides from the intercom’s product webpage:
CyberData SIP RGB (Multi-Color) Strobe (011376)
https://files.cyberdata.net/assets/011376/011376_931567B_SIP_RGB_Strobe_Ops_Guide.pdf

CyberData SIP Outdoor RGB (Multi-Color) Strobe (011479)
4.0 Configuration Procedure: Common Area Phone

There are several different extension types that can be used on the Zoom platform. This guide provides instructions to register the CyberData SIP Strobe as a Common Area Phone. Registering in a different capacity may require creating a user profile and providing an email address. See Zoom documentation for more details.

1. Log into Zoom.  

https://zoom.us/signin

Figure 4-1: Log into Zoom
2. From the Profile page select the “Phone System Management” section and the ‘Users & Rooms’ subsection.

**Figure 4-2: Profile Landing Page**

*Note: Some text from the profile page has been hidden to protect sensitive information.*
3. From the “Users & Rooms” page select ‘Common Area Phones’.

**Figure 4-3: Phone System Management**

*Note: Some text from this page has been hidden to protect sensitive information.*
4. From the “Common Area Phones” press the ‘Add’ Button to create a new common area phone to be used by the device.

*Note: The MAC address of the speaker will be required to create the common area phone.*

**Figure 4-4: Common Area Phones**

5. After clicking the Add button a Pop-up will appear that allows extension creation.
6. Set the **Display name** of the extension. This will be the main Identifier on the Common Area Phones page.
7. Set the **description** to the location of the strobe.
8. The **extension number** will be auto generated but can be changed if desired.
9. Set the **MAC address** of the device.

**Figure 4-6: Common Area Phone Pop-up – Filled**
10. Click the **Save** button to create the Common Area Phone.

11. Once created the new extension will appear in the list.

**Figure 4-7: Common Area Phone list**

12. Press the “Provision” button on the extension that was just created.
**Figure 4-7: Provisioning Pop-up**

Provisioning

- **MAC Address**: 00-20-17-04-13-78
- **Device Type**: Other

You will need to enable TLS1.2 for SIP registration and enable SRTP for secure calling on your IP phone. Please refer to your manufacturer's instructions for these processes.

You'll need the following information for manual provisioning:
1. **SIP Domain**: 50882551.zoom.us
2. **Outbound Proxy**: us01sipj0h.zoom.us:5091
3. **User Name**: 389033032192
4. **Authorization ID**: 1491664921492
5. **Password**

**Press the 'Certificate' button.**

**Also, download CA certificate and import to trust list on your IP phone.**

Note: Please note that Zoom support team will not be able to troubleshoot or configure IP phones that are provisioned in this manner. Some Zoom Phone features may not work on manually provisioned phones. It may vary depending on your desk phone model.

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**Note: CyberData Devices do not support SRTP at the time of writing this document.**

13. A popup will appear with manual provisioning information to setup the CyberData Intercom. **Keep this popup open.**

14. Make sure to download the “CA Certificate,” which will be needed for device configuration.
5.0 Configuration Procedure: Setting up the Paging Extension

If you are configuring through the web interface, use the following steps to login to the web interface of your CyberData device.

Table 5-1: Setting Name correlation

<table>
<thead>
<tr>
<th>CyberData Setting</th>
<th>Zoom Provisioning Pop-up</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary SIP Server</td>
<td>SIP Domain</td>
</tr>
<tr>
<td>Outbound Proxy</td>
<td></td>
</tr>
<tr>
<td>Outbound Proxy Port</td>
<td>Outbound Proxy</td>
</tr>
<tr>
<td>Primary SIP User ID</td>
<td>User Name</td>
</tr>
<tr>
<td>Primary SIP Auth ID</td>
<td>Authorization ID</td>
</tr>
<tr>
<td>Primary SIP Auth Password</td>
<td>Password</td>
</tr>
</tbody>
</table>

1. Click **Launch Browser** from the CyberData Discovery Utility or point your browser to the CyberData device’s IP address to access the Home Page of the web interface.

   **Figure 5-1:** CyberData Discovery Utility

2. Enter the default credentials when prompted and click the **Log In** button.

   Username: admin
   Password: admin
3. From the Home tab press the ‘Device’ Tab.

Figure 5-2: Web Interface Login
4. Confirm that “Enable NTP” is enabled.
5. Change the NTP server if necessary.
6. Set the Timezone to the local area.

Note: See the operations manual for other time zone strings.

7. Save.
8. Go to the SIP Tab.
9. Set the ‘SIP Transport Protocol’ to TLS.
10. Keep TLS version set to “1.2 Only (Recommended)”.
11. Check the box for “Verify Server Certificate”
12. Set the Primary SIP Server to the SIP Domain from the configuration Popup.
13. Set the Primary SIP User ID to the Username from the configuration Popup.
14. Set the Primary SIP Auth ID to the Authorization ID from the configuration Popup.
15. Set the Primary SIP Auth Password to the password provided in the configuration Popup.
16. Set the Outbound proxy and Outbound Proxy port to the address provided in the configuration Popup.

Note: Make sure to separate the port from the outbound proxy information provided by zoom.
17. Check the box for “Force Selected Codec”.
18. Save.
19. Go to the ‘SSL’ Tab.
20. Press the ‘Choose Files’ button.
21. Select the “sbc_ca.pem” file and press the Open button.
22. Press the “Import CA Certificate” button to load the cert.
23. Once imported, confirm the file is listed with the other certificates.
24. Once the certificate is loaded a reboot will be required to make the changes take effect.
Figure 5-10: Home page – Registered
6.0 Configuration Procedure: Setting up the Nightringer extension

Table 6-1: Setting Name correlation

<table>
<thead>
<tr>
<th>CyberData Setting</th>
<th>Zoom Provisioning Pop-up</th>
</tr>
</thead>
<tbody>
<tr>
<td>SIP Server</td>
<td>SIP Domain</td>
</tr>
<tr>
<td>Outbound Proxy</td>
<td>Outbound Proxy</td>
</tr>
<tr>
<td>Outbound Proxy Port</td>
<td></td>
</tr>
<tr>
<td>User ID</td>
<td>User Name</td>
</tr>
<tr>
<td>Authenticate ID</td>
<td>Authorization ID</td>
</tr>
<tr>
<td>Authenticate Password</td>
<td>Password</td>
</tr>
</tbody>
</table>

1. Click Launch Browser from the CyberData Discovery Utility or point your browser to the CyberData device’s IP address to access the Home Page of the web interface.

Figure 6-1: CyberData Discovery Utility

2. Enter the default credentials when prompted and click the Log In button.

   Username: admin
   Password: admin
3. From the Home tab press the ‘Device’ Tab.
4. Confirm that “Enable NTP” is enabled.
5. Change the NTP server if necessary.
6. Set the Timezone to the local area.

Note: See the operations manual for other time zone strings.
7. Save.
8. Go to the SIP Tab.
9. Set the ‘SIP Transport Protocol’ to TLS.
10. Keep TLS version set to “1.2 Only (Recommended)”.
11. Check the box for “Verify Server Certificate”
12. Set the SIP Server to the SIP Domain from the configuration Popup.
13. Set the User ID to the Username from the configuration Popup.
14. Set the Authenticate ID to the Authorization ID from the configuration Popup.
15. Set the Authenticate Password to the password provided in the configuration Popup.
16. Set the Outbound proxy and Outbound Proxy port to the address provided in the configuration Popup.
17. Save.
18. Go to the ‘SSL’ Tab.
19. Press the ‘Choose Files’ button.
20. Select the “sbc_ca.pem” file and press the Open button.  
21. Press the “Import CA Certificate” button to load the cert.
22. Once imported, confirm the file is listed with the other certificates.
23. Once the certificate is loaded a reboot will be required to make the changes take effect.
Figure 6-8: Registration Status
7.0 Using the CyberData Strobe in a Zoom system.
CyberData SIP Strobe’s are used for visual notification. The strobe can be directly called or added to a ring group/call queue. When the strobe receives a call, it will blink in accordance to the color and ‘scene’ that was picked for that operation.

7.1 Creating a Call queue
CyberData recommends using the Nightringer extension as part of a call queue, allowing the amplifier to also serve as an additional notification for incoming calls.

1. From the Phone System Management page select call queues and press the Add button to create a new queue.

Figure 7-1: Add call queue
2. After clicking ‘Add’ a pop-up will appear that allows naming and assigning a number to the call queue.

![Figure 7-2: Name the queue](image)

3. Name the queue, set a description and change the extension number if necessary.

![Figure 7-3: Add users](image)
4. Press the Add button to add Users and Common Area Phones to the queue.

**Figure 7-4: Add Users**

5. Select the users who will participate in the call group, then select "Common Area Phones."
6. In the "Common Area Phones" section, select the phones you wish to add to the queue.
Figure 7-5: Add Common Area Phones

7. Click “OK” to confirm your selections.
8. Finally, press ‘Save’ to complete the queue.
Figure 7-6: Call queue complete
7.2 Setting the Blink Scenes

The strobe can illuminate differently depending on what extension is called and what state the call is in. Both color and scene are configurable for each of the different possible options.

Blink Scene types:

- **ADA**
  - Fast blink in White to comply with ADA standards
- **Slow Fade**
  - Full brightness that slowly fades in intensity
- **Fast Fade**
  - Full brightness that fades quickly in intensity
- **Slow Blink**
  - Full brightness that slowly blinks
- **Fast Blink**
  - Full brightness that blinks quickly
- **Off**

Strobe Settings

- **SIP Ring Strobe Settings**
  - How the strobe will blink when the paging extension is called.
- **SIP Call Strobe Settings**
  - How the strobe will blink when the strobe makes an outbound call.
- **MWI Strobe Settings**
  - How the strobe will blink when a voice mail is left for the extension of the strobe.
- **Nightringer Strobe Settings**
  - How the strobe will blink when the Nightringer extension rings.
Figure 7-7: SIP Strobe Settings

![CyberData Multicolor Strobe](image)

<table>
<thead>
<tr>
<th>SIP Settings</th>
<th>Nightringer Settings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enable SIP operation:</td>
<td>SIP Server:</td>
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<tr>
<td>Register with a SIP Server:</td>
<td>50882551.zoom.us</td>
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<td>Primary SIP Server:</td>
<td>SIP User ID:</td>
</tr>
<tr>
<td>Primary SIP User ID:</td>
<td>3809033033192</td>
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<td>SIP Auth ID:</td>
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<td>14556842142</td>
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<td>SIP Auth Password:</td>
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<td>Re-registration Interval (in seconds): 360</td>
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<td>Backup SIP Server 1:</td>
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<td>Backup SIP User ID:</td>
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<td>Backup SIP Auth Password:</td>
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<tr>
<td>Re-registration Interval (in seconds): 360</td>
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<td>Remote SIP Port:</td>
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<td>Local SIP Port:</td>
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<th>SIP Ring Strobe Settings</th>
<th>MWI Strobe Settings</th>
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<tr>
<td>Blink Strobe on Ring:</td>
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<td>Scene ADA</td>
<td>Blink Strobe on MWI:</td>
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<td>Brightness Color:</td>
<td>Scene Fast Face</td>
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<td>Green 255</td>
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<tr>
<td>Blue 255</td>
<td>Blue 255</td>
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<tr>
<td>Scene Slow Fade</td>
<td>Scene ADA</td>
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<tr>
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<td>Brightness Color:</td>
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<td>Red 255</td>
</tr>
<tr>
<td>Green 255</td>
<td>Green 255</td>
</tr>
<tr>
<td>Blue 255</td>
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<table>
<thead>
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<th>Nightringer Strobe Settings</th>
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<td>Blink Strobe on Nighting:</td>
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<td>Scene Fast Face</td>
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</tr>
<tr>
<td>Preview</td>
<td>Preview</td>
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</tbody>
</table>
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 Zoom PBX solution may render this document obsolete. We welcome and encourage documentation feedback to ensure continued applicability.