Algo SIP Endpoints and Zoom Phone Interoperability Testing and Configuration Steps

Need Help?

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Introduction

Algo SIP Endpoints can register to Zoom Phone as a third-party SIP Endpoint and provide Paging, Ringing as well as Emergency Alerting capability.

This document provides instructions to add your Algo device to the Zoom web portal. Interoperability testing results are also available in the end of this document.

All testing has been conducted with the Algo 8301 Paging Adapter and Scheduler, 8186 SIP Horn, and 8201 SIP PoE Intercom. These are representative of all Algo SIP speakers, paging adapters and doorphones and similar registration steps would apply. Please see exceptions in the yellow box below.

**Note 1:** only one SIP extension may be registered to any given Algo endpoint at a time with Zoom Phone. Multiple Lines feature will be release later in the year. For more information, please contact Zoom support.

**Note 2:** The following endpoints are exceptions and cannot register to Zoom, as TLS support is not available. 8180 SIP Audio Alerter (G1), 8028 SIP Doorphone (G1), 8128 Strobe Light (G1) and 8061 SIP Relay Controller. For more information, please contact Algo support.
Configuration Steps – Zoom Web Portal

To register an Algo SIP Endpoint to Zoom Phone begin by creating a new common area phone in the Zoom web portal. See the Zoom support site for more information.

1. Sign in to the Zoom web portal.
2. Click Phone System Management > Users & Rooms.
3. Click the Common Area Phones tab.
4. Click Add and enter the following information:

   ![Add Common Area Phone](image)

   - **Site** (only visible if you have multiple sites): Select the site you want the device to belong to.
   - **Display Name**: Enter a display name to identify the device.
   - **Description (Optional)**: Enter a description to help you identify the location of the device.
   - **Extension Number**: Enter an extension number to assign it to the device.
   - **Package**: Select your desired package.
   - **Country**: Select your country.
• **Time Zone**: Select your time zone.

• **MAC Address**: Enter the 12-digit MAC address of the Algo Endpoint. The MAC can be found on the product label or in the Algo Web Interface under **Status**.

• **Device Type**: Select **Algo/Cyberdata**.
  
  **Note**: If you don’t have the **Algo/Cyberdata** option, contact your Zoom sales representative.

• **Model**: Select **Paging&Intercom**.

• **Emergency Address** (only visible if you don’t have multiple sites): Select an emergency address to assign to the desk phone. If you selected a site for the common area phone, the site’s emergency address will be applied to the phone.

5. Click **Save**.

6. Click **Provision** to view the SIP credentials. You will need this information to complete provisioning using the Algo Web Interface.

7. Download all certificates provided by Zoom. This will be used in a later step.

**Provisioning**

<table>
<thead>
<tr>
<th>MAC Address</th>
<th>00-22-ee-12-00-25</th>
</tr>
</thead>
<tbody>
<tr>
<td>Device Type</td>
<td>Algo/Cyberdata Paging&amp;Intercom</td>
</tr>
</tbody>
</table>

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 following information for manual provisioning. For Algo/CyberData Paging/Intercom devices, see Zoom Phone Supported Devices to view the configuration guide.

**SIP Account 1:**

1. **SIP Domain**: 7002541309.zoom.us
2. **Outbound Proxy**: us01sip02.sc.zoon.us:5091
3. **User Name**: [Enter]
4. **Authorization ID**: [Enter]
5. **Password**: [Enter]

**Please download CA certificate, DigiCert Global Root CA, DigiCert Global Root G2, DigiCert Global Root G3 and import to your IP phone if they are not in the trust list of the device.**

**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.
Configuration Steps – Algo Endpoint

To register an Algo SIP Endpoint navigate to the Web Configuration Interface.

1. Open a web browser.
2. Type the IP Address of the endpoint. If you don’t know the address yet, navigate to www.algosolutions.com, find the user guide for your product and go through the Getting Started section.
3. Log in and go to Basic Settings -> SIP tab.
4. Enter the information provided from Zoom as per below. Please note the credentials below and an example, use your credentials as generated by Zoom.

- SIP Domain (Proxy Server) – Zoom SIP Domain
- Page or Ring Extension – Zoom User Name
- Authentication ID – Zoom Authorization ID
- Authentication Password – Zoom Password
5. Go to Advanced Settings -> Advanced SIP.
6. Set the SIP Transportation protocol to “TLS”.
7. Set Validate Server Certificate to “Enabled”.
8. Set Force Secure TLS Version to “Enabled”.
9. Enter the Outbound Proxy provided by Zoom.
10. Set SDP SRTP Offer to “Standard”.
11. Set SDP SRTP Offer Crypto Suite to “All Suites”.

12. To upload the CA certificate (downloaded in a previous step) go to System -> File Manager tab.
13. Browse to “certs” -> “trusted” directory. Use the “Upload” button in the upper left corner or drag and drop to upload the certificates downloaded from Zoom. Please note you may be prompted to reboot the unit.
14. Ensure the SIP Registration Status shows “Successful” in the Status tab.
Note: if registering additional extensions for ringing, paging or emergency alerting, enter the unique credentials for the respective extension in the same way.

Only one SIP extension may be registered to any given Algo endpoint at a time with Zoom Phone. Multiple Lines feature will be release later in the year. For more information, please contact Zoom support.
Interoperability Testing

Register to Zoom Phone

- Endpoints: 8301 Paging Adapter and Scheduler, 8186 SIP Horn, 8201 SIP PoE Intercom
- Firmware: 3.3.3
- Description: Verify 3rd Party SIP Endpoints are registered successfully.
- Result: Successful

Register Multiple SIP Extensions Simultaneously

- Endpoints: 8301 Paging Adapter and Scheduler, 8186 SIP Horn
- Firmware: 3.3.3
- Description: Verify the server will sustain multiple simultaneous extensions registered to the same endpoint (e.g. page, ring, and emergency alert).
- Result: Not supported at this time. Please see note below.

Please note only one SIP extension may be registered to any given Algo endpoint at a time with Zoom Phone. Multiple Lines feature will be release later in the year. For more information, please contact Zoom support.

One-Way Page

- Endpoints: 8301 Paging Adapter and Scheduler, 8186 SIP Horn
- Firmware: 3.3.3
- Description: Verify one-way page mode functionality, by calling the registered page extension.
- Result: Successful

Two-Way Page

- Endpoints: 8301 Paging Adapter and Scheduler, 8186 SIP Horn, 8201 SIP PoE Intercom
- Firmware: 3.3.3
- Description: Verify two-way page mode functionality, by calling the registered page extension.
- Result: Successful
Ringing

- Endpoints: 8301 Paging Adapter and Scheduler, 8186 SIP Horn
- Firmware: 3.3.3
- Description: Verify ringing mode functionality by calling the registered ring extension.
- Result: Successful

Emergency Alerts

- Endpoints: 8301 Paging Adapter and Scheduler, 8186 SIP Horn
- Firmware: 3.3.3
- Description: Verify emergency alerting functionality by calling the registered extension.
- Result: Successful

Outbound Calls

- Endpoints: 8301 Paging Adapter and Scheduler, 8186 SIP Horn, 8201 SIP PoE Intercom
- Firmware: 3.3.3
- Description: Verify emergency alerting functionality by calling the registered extension.
- Result: Successful

TLS for SIP Signaling

- Endpoints: 8301 Paging Adapter and Scheduler, 8186 SIP Horn, 8201 SIP PoE Intercom
- Firmware: 3.3.3
- Description: Verify TLS for SIP Signaling is supported.
- Result: Successful

SDP SRTP Offer

- Endpoints: 8301 Paging Adapter and Scheduler, 8186 SIP Horn, 8201 SIP PoE Intercom
- Firmware: 3.3.3
- Description: Verify support for SRTP calling.
- Result: Successful
Troubleshooting

SIP Registration Status = “Rejected by Server”

**Meaning:** The server received register request from the endpoint and responds with an unauthorized message.

- Ensure the SIP credentials (extension, authentication ID, password) are correct.
- Under Basic Settings -> SIP, click on the blue circular arrows to the right of the Password field. If the Password is not what it should be, the web browser is probably auto filling the password field. If so, any change on a page containing a password could be filled in with an undesired string.

SIP Registration Status = “No reply from server”

**Meaning:** the device is not able to communicate across the network to the phone server.

- Double check the "SIP Domain (Proxy Server)", under Basic Settings -> SIP tab field is filled out correctly with the address of your server and port number.
- Ensure the firewall (if present) is not blocking the incoming packets from the server.
- Ensure TLS is configured for SIP Transportation Method (Advanced Settings -> Advanced SIP).