

Algo SIP Endpoints and Mitel MiCloud Connect Interoperability Testing and Configuration Steps

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Introduction

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

This document provides instructions to register your Algo device to Mitel MiCloud. Interoperability testing result are also available.

Please note 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.

Configuration Steps

First, one (or multiple) 3rd party SIP endpoint profiles must be created on the Mitel system. To do so, open a support case with Mitel or create the profile through MiCloud Connect Portal (requires “Decision Maker” privileges). If using the Connect Portal, go to Phone System -> Users -> “+ Add User” button.



To register an Algo SIP Endpoint, open a web browser and type the IP address assigned to the unit to access the web configuration panel. Go to Basic Settings -> SIP tab and enter the follow information:

- SIP Domain (Proxy Server) – Mitel server and port number (e.g. my_proxy.com:5070)
- Page and/or Ring Extension – Mitel extension
- Authentication ID – Mitel DID
- Authentication Password – Mitel pin number

Note: if registering additional extensions for ringing, paging and emergency alerting, enter the unique credentials for the respective extension in the same way. Any combination of page, ring and/or emergency alerts is acceptable, as long the credentials are unique.

Status **Basic Settings** Additional Features Advanced Settings System Logout

SIP Features Multicast

SIP Settings

SIP

i This section allows the SIP server information & account credentials to be entered. This information should be obtained from your telephone system administrator or hosted account provider. After saving these settings, see the [Status](#) tab to confirm successful registration.

SIP Domain (Proxy Server)

i Default port is 5060. To specify a different port, enter PROXY:PORT, e.g. my_proxy.com:5070, or 192.168.1.10:5080.

Ring/Alert Mode

Monitor "Ring" event on registered SIP extension
 Use "Subscribe/Notify" dialog event (RFC 4235) to monitor event on different extension
 Use "Subscribe/Notify" presence event (RFC 3856/3863 PIDF) to monitor event on different extension
 None

Base/Page Extension

Authentication ID

Authentication Password

Display Name (Optional)

i The device will auto-answer any inbound call received on this extension and provide a voice paging path (and multicast if configured).

Save

Make sure to set the SIP Transportation protocol to "TLS", under Advanced Settings -> Advanced SIP.

Status Basic Settings Additional Features **Advanced Settings** System Logout

Network Admin Time Provisioning File Manager Advanced Audio **Advanced SIP** Advanced Multicast

Advanced SIP Settings

General

SIP Transportation

i Select Auto to check DNS NAPTR record, then try UDP/TCP.
i In TLS mode, if the SIP Server requires endpoints to be authenticated, a PEM file containing both a device certificate and a private key needs to be installed on the Algo device. Use the "Advanced Settings > [File Manager](#)" tab to upload a certificate file renamed to 'sipclient.pem' in the 'certs' folder.
i To force the Algo device to authenticate the SIP server, a certificate obtained from the SIP server needs to be installed. Use the "Advanced Settings > [File Manager](#)" tab to upload a certificate file renamed to 'siptrusted.pem' in the 'certs' folder.

SIPS Scheme Enabled Disabled

SDP SRTP Offer

SIP Outbound Support (RFC 5626) Enabled Disabled

i Enable this option to support best networking practices according to RFC 5626. This option should generally be enabled if the Algo device is being registered with a hosted server or if TLS is being used for SIP Transportation.

Outbound Proxy

Register Period (seconds)

Ensure the SIP Registration Status shows "Successful".

The screenshot shows the control panel interface with the following elements:

- Navigation tabs: Status (highlighted with a red circle), Basic Settings, Additional Features, Advanced Settings, System, Logout.
- Section: **Device Status**
- Header: **Welcome to the Algo 8180G2 SIP Audio Alerter Control Panel**
- Text: "Setting up your SIP Audio Alerter:"
- Step 1: Configure your SIP Audio Alerter**
Log in with the default password and use the Basic Settings pages to set up the basic information.
- Step 2: Check network settings (Optional)**
Use the Network page under the Advanced Settings tab to change network settings. The default setting for the device is to obtain its IP address from a DHCP server. Contact your Network System administrator if you plan to assign a static IP address, Mask, and Gateway to the device.
- Step 3: Secure your SIP Audio Alerter (Optional)**
Use the Admin page under the Advanced Settings tab to change the administrator password.
⚠️ Changing the password is extremely important if the device is directly connected to a public network.
- Step 4: Register your SIP Audio Alerter (Optional)**
Please register your product using the link below:
<http://www.algosolutions.com/register>
Registration ensures your access to the latest upgrades to this product and important service notices.
- Status** section containing a table:

Status			
Device Name	sipalerter		
SIP Registration	Page	Successful	(Extension 3327)
Call Status	Idle		
Proxy Status	Single proxy mode		

Interoperability Testing

Register to Mitel MiCloud Connect

- Endpoints: 8301 Paging Adapter and Scheduler, 8186 SIP Horn, 8201 SIP PoE Intercom
- Firmware: 1.7.6
- 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: 1.7.6
- Description: Verify the server will sustain multiple simultaneous extensions registered to the same endpoint (e.g. page, ring, and emergency alert).
- Result: **Successful**

One-Way Page

- Endpoints: 8301 Paging Adapter and Scheduler, 8186 SIP Horn
- Firmware: 1.7.6
- 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: 1.7.6
- Description: Verify two-way page mode functionality, by calling the registered page extension.
- Result: **Successful**

Ringling

- Endpoints: 8301 Paging Adapter and Scheduler, 8186 SIP Horn
- Firmware: 1.7.6
- 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: 1.7.6
- 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: 1.7.6
- 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: 1.7.6
- 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: 1.7.6
- Description: Verify support for SRTP calling using Standard (RTP/SAVP) or optional (RTP/AVP) profile.
- Result: **Failed**

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.
- Check the logs under System -> System Log. If you see a “403 Forbidden” packet received from the server, it is because you have attempted too many times with the wrong credentials and the device is blocked for a period of time. Confirm your SIP credentials and turn the device off for 15 minutes. Plug it back in and try again.

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.