

ALGO

Algo IP Endpoints and Microsoft Teams SIP Gateway Interoperability

Guide – Testing & Configuration

ALGO



For additional support, call (604) 454-3792 or email support@algosolutions.com

Information Notices



Note

Note indicates useful updates, information, and instructions that should be followed

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For additional information or technical assistance in North America, please contact Algo’s support team:

Algo Technical Support
1-604-454-3792
support@algosolutions.com

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1 GENERAL

1.1 Introduction

Algo IP Endpoints are certified for native compatibility with the Microsoft Teams SIP Gateway, accommodating dozens of different applications, from IP paging to emergency alerting, and hands-free visitor communication.

Registering Algo IP Endpoints to the Teams SIP Gateway is a quick and straight-forward process. In the following sections, this guide will go over the required steps to configure and register Algo IP Endpoints to Microsoft Teams, as well as discuss the different applications and considerations.

The following endpoints are compatible with the Microsoft Teams SIP Gateway:

IP Speakers

- 8180G2 IP Audio Alerter
- 8186 IP Horn Speaker
- 8188 IP Ceiling Speaker
- 8189 IP Surface Mount Speaker
- 8190 IP Speaker – Clock
- 8190S IP Speaker – Clock & Visual Alerter
- 8196 IP PoE+ Horn Speaker

IP Intercoms

- 8028G2 IP Doorphone
- 8201 IP PoE Intercom
- 8063 IP Door Controller

IP Visual Alerters

- 8128G2 IP Visual Alerter
- 8138 IP Color Visual Alerter

IP Paging Adapters

- 8301 IP Paging Adapter & Scheduler
- 8373 IP Zone Paging Adapter

IP Display Speakers

- 8410 IP Display Speaker
- 8420 IP Dual-Sided Display Speaker

1.2 Considerations

In most cases, only one Algo IP Endpoint will require a SIP registration to Microsoft Teams. Leveraging multicast, Algo IP Endpoints can scale the solution to any number and combination of endpoints, without requiring each endpoint to be registered to Microsoft Teams. Multicast is a cost-effective solution accommodating up to 50 zones and allowing for ease of scalability.

To register an Algo IP Endpoint into Microsoft Teams, it must be associated with a Microsoft account. This is typically done with a Shared Device License, although it may instead be associated with a full user license.

Applications requiring multiple extensions to be registered to a single endpoint may require additional Algo devices. However, only a single SIP extension may be initially registered on any given endpoint through Microsoft SIP Gateway.

**Note**

Only one SIP extension may be registered to any given Algo endpoint at a time with the Microsoft Teams SIP Gateway. For more information, please contact Algo support.

For applications requiring two-way communication (e.g., an IP intercom deployed for visitor communication and secure door entry), each endpoint will require its own Microsoft Teams Shared Device License.

For general information related to Microsoft Teams compatibility or different use cases, please contact Algo [support](#).

2 CONFIGURATION STEPS

2.1 Requirements

The following requirements are necessary to register an Algo Device to the Microsoft Teams SIP Gateway.

- Access to Algo's web interface
- Firmware 5.3.4 or higher
- Microsoft Teams support must be enabled in the Algo firmware
- Microsoft SIP Gateway must be enabled through the Teams Admin Center
- A Microsoft Teams License available in the Teams Admin Center
- Microsoft Teams production environment must support Algo devices
- Device certificate installed
 - See the *System* → *About* tab on Algo's web interface.



Note

Any Algo endpoint shipping in 2019 or later will have the certificate installed from the factory. If the certificate is not currently installed, please contact Algo's support team.

2.2 Instructions

2.2.1 Register Algo IP Endpoint in Microsoft Teams

1. To register an Algo IP Endpoint to Microsoft Teams, ensure the Microsoft Teams SIP Gateway is enabled. Follow the Instructions provided [here](#).
2. Add a user in the Microsoft 365 Admin Center. See the Microsoft Teams support site for more information.
 - a. Go to the Microsoft 365 Admin Center
 - b. Navigate to *Users* → *Active Users*.
 - c. Press **Add a user** and enter the information required in the *Basics* tab as per the example below.

Add a user

The screenshot shows the 'Add a user' interface with the 'Set up the basics' tab selected. On the left, a vertical navigation menu has 'Basics' selected with a blue circle, while 'Product licenses', 'Optional settings', and 'Finish' are unselected. The main content area is titled 'Set up the basics' and includes the instruction: 'To get started, fill out some basic information about who you're adding as a user.' Below this are several input fields: 'First name' and 'Last name' (empty text boxes), 'Display name *' (containing 'Algo 8301 Shared Device Paging'), 'Username *' (containing 'algo_shared_paging'), and 'Domains' (a dropdown menu showing 'algosolutions.com').

Figure 1: Basics tab

- On the next screen (Product licenses tab), assign licenses as required. Generally, only a Teams Shared Device License is required. For more details, refer to the Considerations section above. Proceed through the next steps to finish adding the account.

Add a user

The screenshot shows the 'Add a user' interface with the 'Assign product licenses' tab selected. The left navigation menu now has 'Basics' with a checkmark and 'Product licenses' selected with a blue circle. The main content area is titled 'Assign product licenses' and includes the instruction: 'Assign the licenses you'd like this user to have.' Below this is a 'Select location *' dropdown menu showing 'Canada'. A section titled 'Licenses (1)*' contains a list of license options:

- Assign user a product license
 - Microsoft 365 Audio Conferencing**
You don't have any licenses available. To purchase additional licenses, please contact your partner(s).
 - Microsoft 365 Business Standard**
You don't have any licenses available. To purchase additional licenses, please contact your partner(s).
 - Microsoft Power Automate Free**
9972 of 10000 licenses available
 - Microsoft Teams Phone Standard**
1 of 36 licenses available
 - Microsoft Teams Shared Devices**
1 of 3 licenses available

Figure 2: Product Licenses tab

- Verify that the user has been created successfully.

Add a user

- ✓ Basics
- ✓ Product licenses
- ✓ Optional settings
- ✓ Finish

✓ **Algo 8301 Shared Device Paging added to active users**

Algo 8301 Shared Device Paging will now appear in your list of active users.

User details
 Display name: Algo 8301 Shared Device Paging
 Username: algo_shared_paging@algosolutions.com
 Password: [REDACTED]
 Password will be sent to: [REDACTED]

Licenses bought
None

Licenses assigned
Microsoft Teams Shared Devices

Figure 3: User successfully created

5. Ensure that a DID (phone number) is associated with the recently created account before proceeding to the next step.



Note

The next steps cannot be completed without a valid DID associated with the account.

6. The configuration on the Microsoft 365 Admin Center is finished.

2.2.2 Enable Teams Support in Algo IP Endpoint

1. Navigate to web UI of the Algo IP Endpoints you wish to register to Teams
2. Log in using the Algo credentials.
3. Go to *Advanced Settings* → *Admin*.
4. Towards the bottom of the page, enable Microsoft Teams Support.
5. Select the SIP Gateway Region based on the region where the Algo endpoint is deployed.
6. Save and reboot when prompted.



Note

Enabling this setting will provision the device via Microsoft's servers. The device reboot will take up to 5 minutes to complete.

Microsoft

Microsoft Teams Support Enabled Disabled
 ⓘ Enabling this setting will provision the device via Microsoft's servers. The device reboot will take up to 5 minutes to complete. This feature requires a compatible release from Microsoft.

SIP Gateway Region: Americas (North & South America) ▾

ADMP Cloud Monitoring

Enable ADMP Cloud Monitoring Enabled Disabled
 ⓘ This feature requires a valid Account ID. Please contact support@algorithms.com for assistance.

Save

Figure 4: Enabling Teams Support

Once the Algo web interface reloads (after approximately 5 minutes), a section for Microsoft Teams will become enabled, and the SIP registration status will show as successful.

ALGO 8301 IP Paging Adapter & Scheduler Firmware: 5.3

Welcome to the Algo 8301 IP Paging Adapter & Scheduler

Setting up your IP Paging Adapter & Scheduler:

Step 1: Configure your IP Paging Adapter & Scheduler
 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 IP Paging Adapter & Scheduler (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 IP Paging Adapter & Scheduler (Optional)
 Please register your product using the link below:
<http://www.algorithms.com/register>

Registration ensures your access to the latest upgrades to this product and important service notices.

Microsoft Teams
Pairing Code: 4620414B9
 Please sign in with the Microsoft account that you would like this device to pair to and enter the pairing code. **Note:** The device will automatically reboot if the sign in is successful, please refresh the page after 2 minutes.

Login

Password (default: algo)

Status

Device Name	pagingadapter-09497c		
SIP Registration	Page	Successful	(Extension 0022EE09497CqFMsbEGJ)

Figure 5: Successful SIP Registration

2.2.3 Pairing an Algo IP Endpoint with Microsoft Teams

A pairing code will be required to associate the Microsoft Teams account with this endpoint.

1. In the *Status* tab of the Algo web interface, press **Sign In** under the Microsoft Teams section.
2. A new browser tab will be opened, redirecting to the Microsoft Login Portal. Enter the email and password to log in.

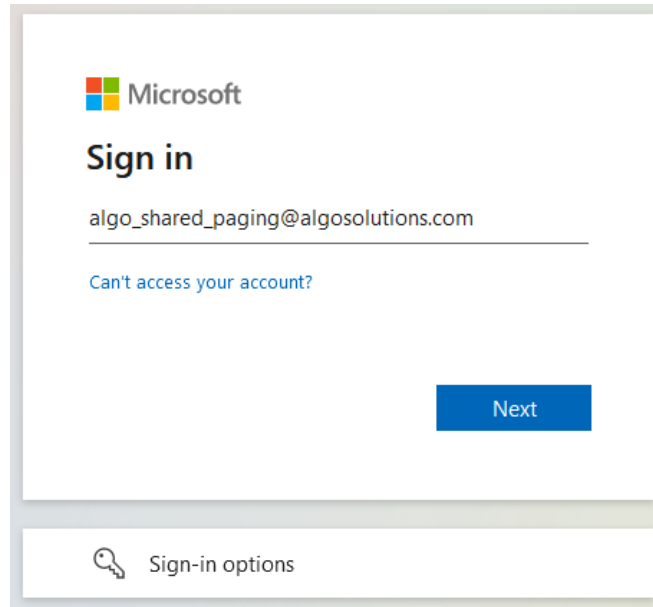


Figure 6: Login

3. After signing in, enter the pairing code provided. The device will automatically reboot if the sign in is successful. If the pairing is not accepted, regenerate the code, and enter again.



Note

*The pairing code expires after a few minutes. If that happens, a new code may be regenerated by pressing the **Generate New Pairing Code** button.*

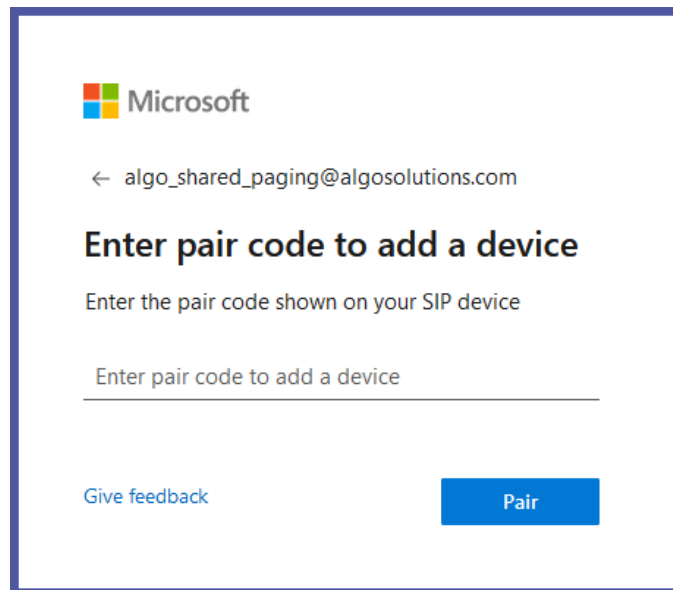


Figure 7: Enter pair code

- Wait approximately 2 minutes and then refresh the Algo web interface page. The Microsoft Teams section should now display “Registered”. It’s also possible to verify a successful registration in the SIP registration portion on the *Status* tab.

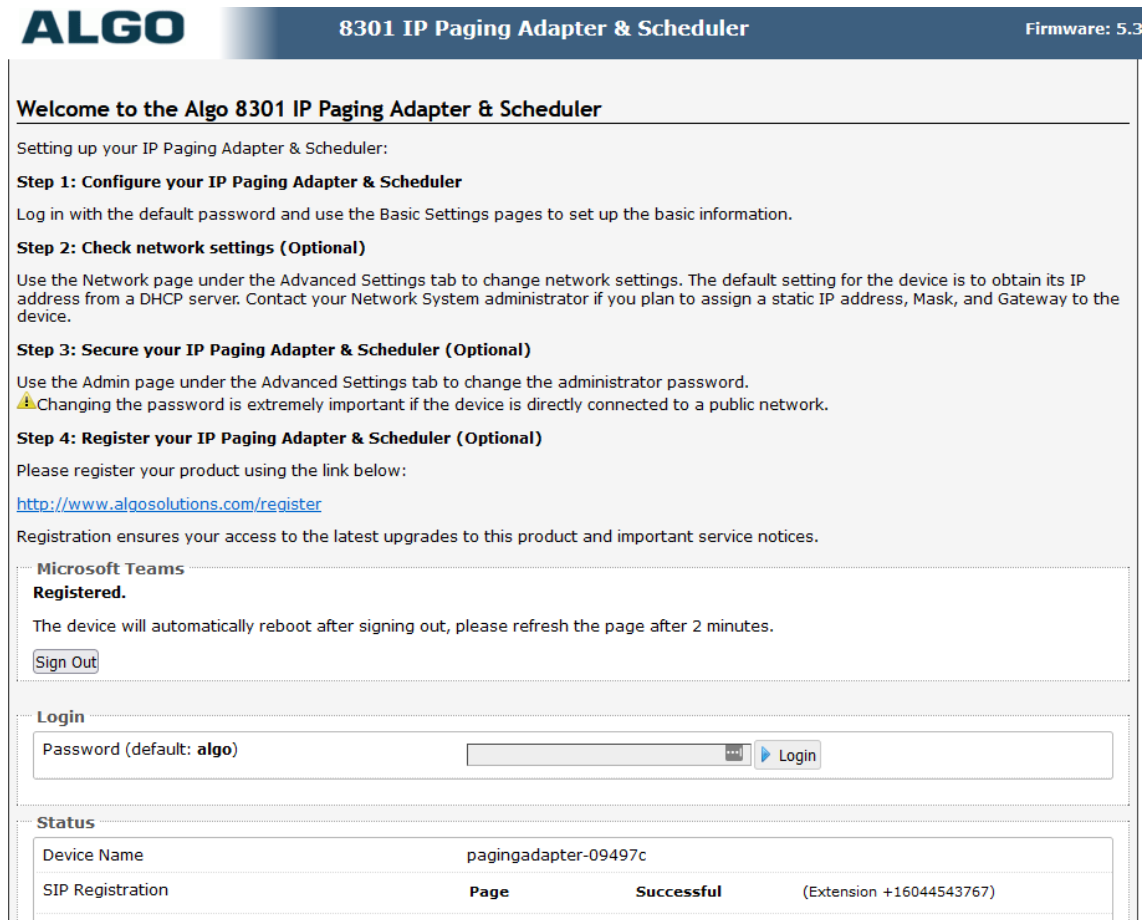


Figure 8: Successful Microsoft Teams Registration

- To ensure the successful pairing of the device to Microsoft Teams, call the DID (phone number) associated with the account. In the default settings, the Algo IP endpoint will auto-answer and open a one-way audio path.

At this point, Microsoft Teams should be completely configured. If there are multiple Algo IP endpoints deployed, they may be configured in multicast transmitter / receiver mode. Please refer to the [Multicast Guide](#) for more information.

3 REGISTERING ADDITIONAL OR DIFFERENT TYPES OF EXTENSIONS

The steps outlined in the previous section imply that the endpoints will be set up for public announcing. However, Algo devices may support different types of extensions, accommodating different applications, such as loud ringing or emergency alerting.

For information on registering different types of extensions to Microsoft Teams, please contact Algo [support](#).

4 TROUBLESHOOTING

In the following sections, some of the more frequent issues and how to resolve them are outlined. Please go through the information carefully and ensure everything is configured according to this guide. If further assistance is required, please contact Algo [support](#).

4.1 My device does not provision with Microsoft's server.

For successful provisioning, please ensure the Algo device has access to the public internet. If there are VLANs or subnets, make sure there is external network access to the particular server the Algo device is deployed to.

4.2 My device does not reboot after entering the pairing code.

A failure for an Algo device to reboot may be caused by lack of a DID (phone number) associated with the Teams account. Please ensure a DID is associated and try again.