



## Algo SIP Endpoints and Cisco Webex Calling Registration Guide

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## Introduction

Algo SIP Endpoints can register to Cisco Webex Calling as a third-party SIP endpoint for voice paging, loud ringing, and emergency alerting.

This document provides instructions to set up the Algo IP Endpoints on the Cisco Webex Calling Control Hub (CH) administration portal. All tests were conducted with the Algo 8301 SIP Paging Adapter & Scheduler, 8186 SIP Horn, 8180 SIP Audio Alerter (G2), 8128 (G2) SIP Strobe Light and 8201 SIP PoE Intercom. These represent all Algo IP speakers, paging adapters, visual alerters, and door phones, and similar registration steps would apply.

### **Please note the following Algo devices that are supported with Webex Calling. IP SPEAKERS & HORNS**

- 8180 (G2)
- 8186
- 8188
- 8189
- 8190 & 8190S
- 8196
- 8198

#### **1. IP PAGING ADAPTER**

- 8301
- 8373

#### **2. IP STROBE LIGHTS**

- 8128 (G2)
- 8138

#### **3. IP DOORPHONES/INTERCOMS**

- 8028 (G2)
- 8063
- 8201
- 8300

#### **4. IP CONTROLLERS**

- 8300

***Note:*** All the devices mentioned above support DNS SRV records required for Webex Calling.

Please see certain exceptions regarding unsupported devices below:

***Note 1:*** The following endpoints are exceptions and cannot be registered to Cisco Webex Calling, as TLS/SRTP support is not available: 8180 SIP Audio Alerter(G1), 8028 SIP Doorphone(G1), 8128 Strobe Light(G1), and 8061 SIP Relay Controller. These devices do not support DNS SRV records. For more information, please contact Algo support.

***Note 2:*** The video intercoms 8039 and 8036 are exceptions as they do not support SDP SRTP encryption at the moment. Accordingly, they cannot register to Cisco Webex Calling.

***Note 3:*** Currently, only a single endpoint can be assigned to a workspace. Devices cannot have multiple extensions registered to the same Workspace.

## Algo Firmware requirement:

All Algo devices must be on firmware 3.4.4 or above. You can verify the current firmware on the device, as well as update the firmware, by navigating to System > Firmware tab.

The latest firmware available can be checked on the website: [www.algosolutions.com](http://www.algosolutions.com)

## Firewall Recommendations:

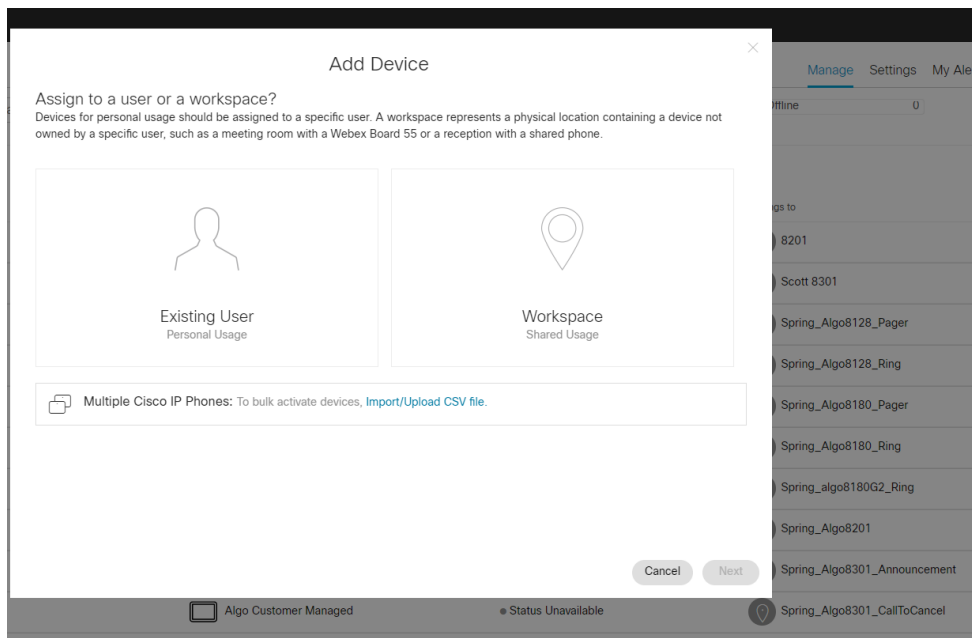
The following port numbers must be kept open for SRTP traffic to reach Algo:

RTP/SRTP port range – 3000-4000

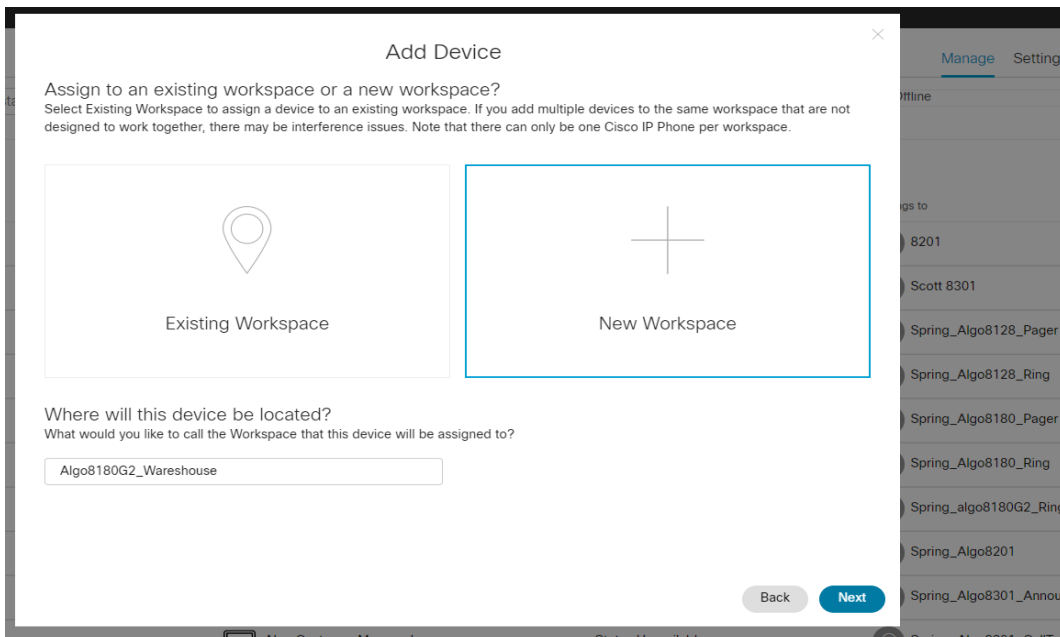
## Configuration Steps – Webex Control Hub

*Note: Please reference the article [Add Your Customer Managed Device](#) on Cisco's Webex Help Center (<https://help.webex.com>) for additional information.*

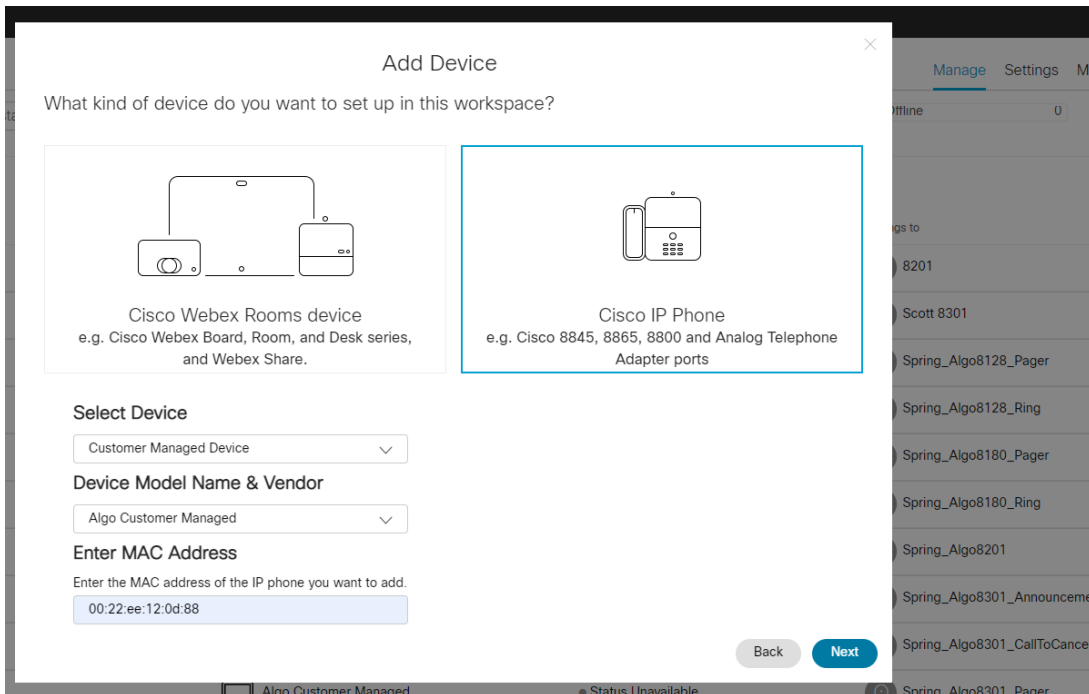
1. Log in to the Webex Control Hub as the Organization's Administrator and select **Manage Devices**. Click on **Add Device** in the top right corner. The window shown below will open.



2. Assign a workspace to the device by selecting **Workspace**. Currently, only one Workspace can be allocated to a device. Press **Next**.
3. If there is an existing unallocated Workspace, you may assign it by selecting **Existing Workspace** or create a new workspace by clicking the **+ New Workspace**.
4. Enter a name or description for the Workspace that will be created (e.g., Algo8180G2\_Warehouse), and press Next.



5. Select **Cisco IP Phone** to enter the device information. First, under the **Select Device** dropdown select **Customer Managed Device** as the device type. For the **Device Model Name & Vendor**, select **Algo Customer Managed**. Lastly, enter the MAC address of the Algo endpoint (e.g. 00:22:ee:xx:xx:xx).



6. Click **Next** to proceed to the **Assign numbers** entry.
7. Select a Location for the Workspace.

- Assign a phone number for the device if desired. It may be set as **None** if no phone number is required. Note that this can be added at a later time.
- Enter the Extension to be assigned.
- Click **Save** to proceed.

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### Add Device

Assign numbers  
Choose from the available phone numbers and extensions in the drop-down lists. These will become the primary line which you can use to reach this place.

[Reset](#)

User	Location	Phone Number	Extension	Calling Plan
Algo8180G2_Warehouse	AlgoValidationAS10	+12134639509	1663	<input checked="" type="checkbox"/>

- The Webex Control Hub will then generate the SIP credentials for the Algo endpoint. It's recommended to download the .csv file with the credentials and keep it in a secure location.

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### Add Device



Device Successfully Added

Details	
Workspace Name	SIP Username
Algo8180G2_Warehouse	1663
Device & Vendor Name	SIP Password
Algo Customer Managed	<div style="background-color: red; height: 15px; width: 100%;"></div>
Line ID ⓘ	⚠ Enter this password into the device to link it. As needed, record this password, since it will never be visible again. The administrator is responsible for maintaining and securing these credentials.
bfmfdewjtx@64941297.int10.bclid.webex.com	
Outbound Proxy	⚡ <a href="#">Download credentials as .csv</a>
hs17.hosted-int.bclid.webex.com	📄 <a href="#">Configuration documentation</a>
MAC Address	
0022EE120D88	

Close

## Configuration Steps – Algo Endpoint

- Open a web browser and log in to the Algo web interface by entering the device's IP address. If you are not sure what is the IP address, check the Getting Started section in the [User Guide](#).

- Log in and navigate to Basic Settings -> SIP tab. Enter the SIP credentials provided from Webex as per the table below. Please note the credentials below are an example; use the credentials generated by your Webex portal.

e.g., **bmfmdewjtx@64941297.int10.bclld.webex.com**

Webex Parameter	Algo Parameter
Line ID (Use only the portion after the "@") e.g., <b>64941297.int10.bclld.webex.com</b>	SIP Domain (Proxy Server)
Line ID (Use only the portion before the "@") e.g., <b>bmfmdewjtx</b>	SIP Extension
SIP Username e.g., <b>1663</b>	Authentication ID
SIP Password	Authentication Password

**Note 1:** The Extension in this example is configured as a Base/Page extension. The device will auto-answer the call on this number.

**Note 2:** Most Algo SIP endpoints also support ring extensions for loud ringing and emergency alert extensions. These extensions and their configurations are explained in detail in the [Generic SIP Registration Guide](#).

The screenshot shows the 'SIP Settings' configuration page. At the top, there are tabs for 'Status', 'Basic Settings', 'Additional Features', 'Advanced Settings', 'System', and 'Logout'. Below these are sub-tabs for 'SIP', 'Features', and 'Multicast'. The main content area is titled 'SIP Settings' and contains a descriptive paragraph: '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.' Below this are several input fields and options:

- SIP Domain (Proxy Server):** A text input field containing '64941297.int10.bclld.webex.com'. A red circle highlights this field. Below it is a note: '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:** A section with three radio button options:
  - 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:** A text input field containing 'bmfmdewjtx'. A red circle highlights this field.
- Authentication ID:** A text input field containing '1663'.
- Authentication Password:** A password input field with masked characters '\*\*\*\*\*'.
- Display Name (Optional):** An empty text input field.

At the bottom of the settings area, there is a note: 'The device will auto-answer any inbound call received on this extension and provide a voice paging path (and multicast if configured).' A 'Save' button with a green checkmark is located at the bottom right of the configuration area.

3. Save the settings by clicking the **Save** button.
4. Go to Advanced Settings > Advanced SIP tab.
5. Enter Outbound Proxy address provided by the Webex Control Hub.
6. Set the SDP SRTP Offer to **Standard**.
7. Set SDP SRTP Offer Crypto Suite to **AES\_CM\_128\_HMAC\_SHA1\_80**.
8. Save all the settings on this page.

The screenshot shows the 'Advanced SIP Settings' page. The 'General' section includes fields for SIP Transportation (set to Auto), SIPS Scheme (Disabled), Validate Server Certificate (Disabled), Force Secure TLS Version (Disabled), SIP Outbound Support (RFC 5626) (Disabled), Outbound Proxy (hs17.hosted-int.bclid.webex.com), and Register Period (3600). The 'SRTP' section includes SDP SRTP Offer (Standard) and SDP SRTP Offer Crypto Suite (AES\_CM\_128\_HMAC\_SHA1\_80). The 'NAT' section includes Media NAT (None).

9. Confirm the device is registered successfully in the Status tab.



The screenshot shows the control panel for the Algo 8180 SIP Audio Alerter (G2). The 'Status' tab is selected, displaying the following information:

**Welcome to the Algo 8180 SIP Audio Alerter (G2) Control Panel**

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 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**

Device Name	sipalerter-120d88	
SIP Registration	<b>Page</b>	<b>Successful</b> (Extension bfmfdewjtx)
Call Status	Idle	

10. Once the Algo endpoint is registered, call it by dialing the Extension. In this particular example, 1663.

## Troubleshooting

### SIP Registration Status = "Rejected by Server" (in the Status tab)

Meaning: The Webex server received SIP Register packets from the endpoint and responded with an unauthorized message.

- Ensure the credentials (Extension, authentication ID, password) on the device match the server.
- 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" (in the Status tab)

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

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

## Registration Drops Constantly

Enable the Keep-alive method. Navigate to Advanced Settings -> Advanced SIP, set Keep-alive to "Double CRLF," and set the period to 30 seconds.