

Getting Started with Algo IP Endpoints: SIP Registration Guide

Need Help?

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Introduction

Algo IP products register with most hosted / cloud or premise-based telephone systems supporting 3rd party SIP endpoints. This guide provides instructions to get an Algo SIP endpoint registered as well as to troubleshoot a failed registration.

For a list of known phone systems which support Algo SIP devices and specific instructions, please visit the URL below:

<http://www.algosolutions.com/voip>

Please check the [Appendix](#) for instructions for a select number of the well-known platforms. For a complete list, please check the URL above.

Note: Additional phone systems may not be listed, however, as long as 3rd party SIP endpoints are supported by the phone system then Algo endpoints will register without issue.

Instructions

1. Log into the web interface by typing the device's IP address in the web browser. For device-specific instructions to discover the IP address, check its User Guide, or use the [Network Device Locator](#).
2. Get in touch with your service provider or network administrator to request the following:
 - a. SIP Server Address / Domain Name
 - b. Create a new SIP Extension, Authentication ID and Password
Note: On some phone systems if no Authentication ID is available use the extension # in this field.
 - c. (Not mandatory – dependent upon service provider settings) IP address / Domain Name for Outbound Proxy
3. Enter the SIP server's IP address / Domain Name into the **SIP Domain (Proxy Server)** field under the **Basic Settings** -> **SIP** tab.
4. Enter the **Page** and/or **Ring Extension, Authentication ID and Password**.

The screenshot shows the 'SIP Settings' page in the ALGO web interface. The 'Basic Settings' tab is active. The 'SIP Domain (Proxy Server)' field is set to '10.0.0.100'. The 'Ring/Alert Mode' is set to 'Monitor Ring'. The 'Page Extension' field is set to '2065', and its 'Authentication ID' is also '2065'. The 'Authentication Password' for the Page Extension is masked with dots. A 'Save' button is located at the bottom right of the form.

Note: Algo SIP speakers and the 8301 paging adapter support two types of SIP extensions. A Page Extension auto-answers for voice page announcements. A Ring Extension plays an audio WAV file (e.g. ring tone, alert announcement, etc.). It is not required that you register both extensions for a device to register. Leave blank the appropriate extension if only registering a single extension. For converting and uploading a custom WAV files, reference the [Tone Conversion Guide](#).

5. (Not mandatory) If the service provider uses an **Outbound Proxy**, enter its address under **Advanced Settings** -> **Advanced SIP**.

6. Check SIP Registration Status. If the status is not “Successful”, read the [Troubleshooting](#) section below.

Status		
Device Name	siphorn	
SIP Registration	Page	Successful (Extension 2065)
Call Status	Idle	
Proxy Status	Single proxy mode	
Security	TLS	Disabled
	SRTP	Disabled
Provisioning Status	None Found	
MAC	00:22:ee:0a:31:89	
IP	10.30.18.38	
Netmask	255.0.0.0	
Gateway	10.0.0.1	
Date / Time	Tue Jun 5 21:57:56 UTC 2018	
Multicast Mode	Slave Mode. Idle	
Volume	Page Volume: -2 (-36dB), Ring Volume: -2 (-36dB)	
Relay Input Status	Disabled	

7. Call to the endpoint by dialling its Page / Ring extension

Troubleshooting

SIP Registration Status = “Rejected by Server”

Meaning: The server receives Register packets from the endpoint and responds with an unauthorized message.

- Ensure the credentials (extension, authentication ID, password) on the device match on 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 autofilling the password field. If so, any change on a page containing a password could be filled in with an undesired string.
- Many VoIP Phone Systems don't accept more than 1 device registered to an extension. Make sure that the endpoint is registering with an extension that is not being used by any other device.
- Check the System Log (System -> System Log tab). If you see “500 Server Internal Error”, it often this means that this is not actually the correct address/port for the SIP server (although the server does know enough to reject the request).
- Lastly, if the Extension and Authentication ID are not the same, copy & paste the Extension to Authentication ID.

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.
- Check if the service provider uses an Outbound Proxy. If so, enter it under Advanced Settings -> Advanced SIP
- 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.

Appendix

Cisco Call Manager

A step-by-step guide can be found at the address below:

<http://www.algosolutions.com/pdf/Cisco%20CUCM%2012.0%20Config%20Guide%20for%20Algo%208186%20SIP%20Horn%20Speaker.pdf>.

When registering two or more extensions to a single 3rd party SIP endpoint in CUCM, it must be configured using as "Third Party Advanced" as opposed to "Third Party Basic". This will allow more than one extension per MAC address. Configuration as Basic is only designed for one extension.

It will be necessary to delete the basic extension and reconfigure, because it cannot be changed into Advanced after it's created.

Nextiva

Extension field is the SIP Username and Authentication ID is Authentication Name.

Vonage

- Alerter/Speaker/Horn - <https://businesssupport.vonage.com/articles/answer/Algo-Alerter-1002>
- Doorphone - <https://businesssupport.vonage.com/articles/answer/Algo-Doorphone-1003>

RingCentral

To provision an Algo unit on RingCentral platform, log in to the online administration portal, go to "Phone & Devices" -> "User Phones". Click "+ Add Device". On step 3 "Buy Phones" choose "Other phones" and "Existing Phone". Keep following the steps until the end.

Once this is completed, click on "Setup & Provision" -> "Other Phones". Copy and paste the credentials on the Algo Endpoint:

- Ring Central User Name is entered into the Extension field
- Ring Central Authorization ID is entered into the Authentication ID field
- Ring Central Password is entered into the Password field

The SIP Domain must be: sip.ringcentral.com:5060

Outbound Proxy must be: sip20.ringcentral.com:5090 or sip10.ringcentral.com:5090

If RingCentral provides a different port number than what is referenced above, try their values first.

Note: a SIP endpoint may also be configured as Paging Device and assigned to a Group on the RingCentral platform.

Digium

On the Digium platform follow the path below:

Setup -> Manage -> Modify extension -> Phone Settings -> Common Settings -> Phone Password

Extension field on the Algo endpoint = extension number

Authentication ID field on the Algo endpoint = extension number