

Getting Started with Algo IP Endpoints: SIP Registration Guide

Need Help?

(604) 454-3792 or support@algosolutions.com

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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>

General Instructions (For All Extension Types)

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 [Algo 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. SIP Extension, Authentication ID and Password

Note: The Authentication ID may also be called Username for some SIP servers, and in some cases may be the same as the SIP extension.

3. Enter the SIP server's IP address / Domain Name into the **SIP Domain (Proxy Server)** field under the **Basic Settings** -> **SIP** tab.

The screenshot shows the 'Basic Settings' tab with the 'SIP' sub-tab selected. Under 'SIP Settings', the 'SIP Domain (Proxy Server)' field contains the IP address '10.0.0.100'. Other tabs like 'Status', 'Advanced Settings', 'System', and 'Logout' are visible at the top.

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

The screenshot shows the 'Advanced Settings' tab with the 'Advanced SIP' sub-tab selected. Under 'Advanced SIP Settings', the 'Outbound Proxy' field is empty. Other settings include 'SIP Transportation' (set to Auto), 'SIPS Scheme' (radio buttons for Enabled and Disabled), 'SDP SRTP Offer' (set to Disabled), 'SIP Outbound Support (RFC 5626)' (radio buttons for Enabled and Disabled), and 'Register Period (seconds)' (set to 3600). A detailed help text for 'SIP Transportation' is visible.

Extension Specific Instructions

Registering a Page Extension

A Page Extension will auto answer and open a voice path. Often used for public announcement, and can be configured for two-way communication.

1. In Basic Settings -> SIP tab, enter the **Page Extension**, **Authentication ID**, and **Password**.
2. Check SIP Registration state under the Status tab. If the status is not "Successful", read the [Troubleshooting](#) section below.

The screenshot shows the 'SIP Settings' configuration page. At the top, there are navigation tabs: Status, Basic Settings (selected), Additional Features, Scheduler, Advanced Settings, System, and Logout. Below these are sub-tabs: SIP (selected), Features, and Multicast. The main content area is titled 'SIP Settings' and contains the following fields and options:

- SIP Domain (Proxy Server):** Input field with '10.0.0.100'. A tooltip below it states: '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:** Radio buttons for 'Monitor "Ring" event on registered SIP extension' (unselected) and 'None' (selected).
- Page Extension:** Input field with '2121'.
- Authentication ID:** Input field with '2121'.
- Authentication Password:** Password input field with masked characters '••••' and a show/hide icon.
- Display Name (Optional):** Empty input field.

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

Registering Additional Page Extension

Most Algo SIP Endpoints support up to 50 page extensions. These are typically used with multicasting to give each zone a specific SIP extension.

1. Select **Additional Features** -> **More Page Extensions** tab.
2. Enable the desired zones and fill in the **Extension**, **Authentication ID**, and **Authentication Password**.

Registering a Ring Extension

A Ring Extension plays an audio file (e.g. ring tone, alert announcement, etc.), and is commonly used for loud ringing. The Algo SIP Endpoint can be added as part of a hunt group or ring group to ring in conjunction with a telephone.

1. In **Basic Settings** -> **SIP** tab, change the **Ring/Alert Mode** to **Monitor "Ring" event on registered SIP extension**.
2. Enter the **Ring Extension**, **Authentication ID**, and **Password**.

The screenshot shows the 'SIP Settings' configuration page. At the top, there are navigation tabs: Status, Basic Settings (selected), Additional Features, Scheduler, Advanced Settings, System, and Logout. Below these are sub-tabs: SIP (selected), Features, and Multicast. The main heading is 'SIP Settings'. A help icon and text state: '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.' The form contains the following fields:

- SIP Domain (Proxy Server)**: Text input with '10.0.0.100'. A help icon and text below it state: '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**: Radio buttons for 'Monitor "Ring" event on registered SIP extension' (selected) and 'None'.
- Ring Extension**: Text input with '2122'.
- Authentication ID**: Text input with '2122'.
- Authentication Password**: Password input field with four dots and a help icon.
- Display Name (Optional)**: Empty text input field.

At the bottom, a help icon and text state: 'The device will detect inbound ring events on this extension and play the alerting tone (and multicast if configured) until the inbound call stops ringing. It will not answer the call on this extension.'

3. Check SIP Registration state under the Status tab. If the status is not "Successful", read the [Troubleshooting](#) section below.

Registering Additional Ring Extensions

Most Algo SIP Endpoints support up to 10 ring extensions. These can be used to monitor multiple extensions, or with multicast to alert specific zones.

1. Select **Additional Features** -> **More Ring Extensions** tab.
2. Enable the additional ring extensions and fill in the **Extension**, **Authentication ID**, and **Authentication Password**.

Registering Emergency Alert Extensions

An Emergency Alert Extension can be dialed and will begin to play an audio file (e.g. ring tone, alert announcement, etc.). These can be configured to play for a pre-set duration, or until a Call-to-Cancel extension is dialed.

For additional Emergency Alert configuration, please see device user guide.

1. Select **Additional Features** -> **Emergency Alerts** tab.
2. Enable the announcements that are to be configured.
3. Enter the **Extension**, **Authentication ID**, and **Password**.
4. (Optional) If Announcement Duration is set to Play Until Cancelled then enter an **Extension**, **Authentication ID**, and **Password** under Call-to-Cancel.

The screenshot shows the 'Emergency Alerts' configuration page. At the top, there are navigation tabs: Status, Basic Settings, **Additional Features**, Scheduler, Advanced Settings, System, and Logout. Below these are sub-tabs: Input/Output, **Emergency Alerts**, More Page Extensions, and More Ring Extensions. The main content area is titled 'Emergency Alerts' and contains several sections:

- Settings:** Includes 'Announcement Duration' (radio buttons for 'Play Once' and 'Play Until Cancelled'), 'Maximum Announcement Time' (a dropdown menu set to '10 minutes'), and 'Answer Inbound Call' (radio buttons for 'Enabled' and 'Disabled').
- Call-to-Cancel:** Includes fields for 'Extension' (2130), 'Authentication ID' (2130), 'Authentication Password' (masked with dots), and 'Display Name (Optional)'.
- Announcements:** Includes a section for 'Announcement 1' with radio buttons for 'Enabled' and 'Disabled', and fields for 'Extension' (2127), 'Authentication ID' (2127), 'Authentication Password' (masked), 'Display Name (Optional)', 'Tone/Pre-recorded Announcement' (dropdown set to '<Use Default Ring Tone>'), and 'Multicast Zone' (dropdown set to '<Use Default Multicast Zone>').

5. Check SIP Registration state under the Status tab. If the status is not "Successful", read the [Troubleshooting](#) section below.

The Answer Inbound Call feature can be enabled to play a confirmation tone on the dialing phone. Leave this feature disabled if there are other devices registered to the emergency alert 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 auto filling 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.