

Algo Configuration Guidelines for Fuze

Fuze Recommends

Fuze Recommends, is a beta technical partner project from Fuze where recommendations for hardware and or software can be made and published by the vendor of equipment that has been found to operate within Fuze's recommended configuration guidelines.

The following configuration guidelines for these third-party services have been recommended as being compatible with Fuze existing SIP requirements.

Note: Fuze does not support Third Party Services so any subsequent configuration questions or issues must be directed to the third-Party vendor's Support Services.

Note: Fuze is subject to change connectivity requirements without notice and without further validation.

Note: The customer is responsible for maintaining the security of the device and supplied credentials. Fuze is not liable for any subsequent costs resulting from misconfiguration.

Algo contact information

info@algosolutions.com – Sales and product questions

support@algosolutions.com – Tech Support on Products

Document Control	
Fuze Recommends - Algo Configuration Guidelines for Fuze	
Version Number	2.0
Author	Doug Smith – Senior UCaaS Network Consultant
Document Status	Approved
Effective Date	9-Sep-2021
Last Update	9-Sep-2021

Logging into the Algo

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, typically supplied with the unit or use the [Algo Network Device Locator](#).
2. Enter the default password (algo)

The screenshot shows the web interface for the Algo 8301 Paging Adapter & Scheduler. The top header includes the ALGO logo, the device name '8301 Paging Adapter & Scheduler', and the firmware version 'Firmware: 3.4.4'. The main content area is titled 'Welcome to the Algo 8301 Paging Adapter & Scheduler' and provides instructions for setting up the device. It includes four steps: 1. Configure your Paging Adapter & Scheduler, 2. Check network settings (Optional), 3. Secure your Paging Adapter & Scheduler (Optional), and 4. Register your Paging Adapter & Scheduler (Optional). Below the instructions is a login form with a 'Password (default: algo)' field and a 'Login' button. A blue arrow points to the 'Login' button. Below the login form is a 'Status' section with a table of device information.

Device Name	algo-8301
SIP Registration	Page Ring #2 Successful Successful (Extension D5MTH9B0->9270) (Extension D5MTH9B0->9261)
Call Status	Idle
Proxy Status	Single proxy mode
Provisioning Status	Disabled
MAC	00:22:ee:09:63:20
IPv4	192.168.1.242/24, Gateway: 192.168.1.1
Switch Port ID	mac 3c5c3c37-9b19
Date / Time	Mon Sep 13 14:58:47 EDT 2021
Next Scheduled Event	No Events Scheduled
Multicast Mode	Master Mode: Idle
Volume	Page Volume: 10 (0dB) Ring Volume: 10 (0dB)
Relay Input Status	Disabled

Note: Fuze does not support Third Party Services. All configuration questions or issues must be directed to the Third Party vendor's Support Services.

Note: Fuze is subject to change connectivity requirements without notice & without validation.

Note: The customer is responsible for maintaining the security of the device and supplied credentials. Fuze is not liable for any subsequent costs resulting from misconfiguration.

Algo Configuration Guidelines for Fuze

*****UPGRADE THE FIRMWARE to 3.4.4*****

<https://www.algosolutions.com/firmware-downloads/>

Pick your IP endpoint and follow the instructions for the firmware currently installed.

Note: This process can take up to 45 minutes.

Note: You may be asked to reboot the unit during this process, but you don't need to until the end, However you will need to do it at least once.

Advanced Settings – Admin

Here you will:

- 1 Set 'Force Strong Password' to Enabled (Optional, If you choose not to do this make sure you are still setting a strong password) Algo suggests 10 characters. 1 lower case, 1 upper case, 1 number, 1 special character
- 2 Set 'Allow Secure SIP Passwords' to Enabled.
- 3 Set a strong password to protect the device. This is mandatory to save the page

These are required for a secure unit. Once complete you can verify by downloading the configuration and noting the passwords are encrypted. See **System - Maintenance** section below.

Note: The customer is responsible for maintaining the security of the device and supplied credentials. Fuze is not liable for any subsequent costs resulting from misconfiguration.

The screenshot shows the 'Admin Settings' page for the Algo 8301 Paging Adapter & Scheduler. The page is titled '8301 Paging Adapter & Scheduler' and 'Firmware: 3.4.4'. The 'Admin Settings' section includes fields for 'Old Password', 'Password', and 'Confirmation'. The 'General' section includes 'Device Name (hostname)', 'Introduction Section on Status Page', 'Show Status Section on Status Page when Logged Out', 'Display Switch Port ID on Status Page', 'Web Interface Session Timeout', and 'Play Tone at Startup'. The 'Log Settings' section includes 'Log Level' and 'Log Method'. The 'Management' section includes 'Web Interface Protocol', 'Force Strong Password', and 'Allow Secure SIP Passwords'. The 'Simple Network Management Protocol' section includes 'SNMP Support'. The 'API Support' section includes 'RESTful API'. The 'System Integrity' section includes 'System Integrity Checking'. The 'SIP-Apps' section includes 'SIP-Announce Support'. The 'InformaCast' section includes 'InformaCast Support'. A 'Save' button is at the bottom right of the page. Two purple arrows point to the 'Admin Password' section (labeled 'Set Unit Password') and the 'Management' section (labeled 'Set Security').

MAKE SURE TO CLICK SAVE – Failure to do so will result in you losing what you just set.

Note: Fuze does not support Third Party Services. All configuration questions or issues must be directed to the Third Party vendor's Support Services.

Note: Fuze is subject to change connectivity requirements without notice & without validation.

Note: The customer is responsible for maintaining the security of the device and supplied credentials. Fuze is not liable for any subsequent costs resulting from misconfiguration.

Algo Configuration Guidelines for Fuze

Basic Settings – SIP

Note: This is for using the Algo endpoint as a paging extension.

Here you will:

- Enter the Fuze supplied URL in the SIP Domain (Proxy Server) field
- Enter the SIP peer name in the page Extension and Authentication ID.
- Enter the password in the Authentication Password field. These credentials come from Fuze.
- Enter the Realm which is asterisk

The screenshot shows the 'SIP Settings' page in the ALGO 8301 Paging Adapter & Scheduler web interface. The 'SIP Domain (Proxy Server)' field contains 'border-all-vap.sip.thinkingphones.net'. The 'Ring/Alert Mode' section has 'Monitor Ring event on registered SIP extension' selected. The 'Page Extension', 'Authentication ID', and 'Authentication Password' fields all contain 'DSMTHPBX-x9270'. The 'Realm' field contains 'asterisk'. A 'Save' button is located at the bottom right of the form.

MAKE SURE TO CLICK SAVE – Failure to do so will result in you losing what you just set.

Note: To use the Algo IP endpoint as a night bell make sure Monitor “Ring” event... is selected.

If no Multicast is being used, you can enter the Ringer credentials here, otherwise move to the next step.

The screenshot shows the 'SIP Settings' page in the ALGO 8301 Paging Adapter & Scheduler web interface. The 'SIP Domain (Proxy Server)' field contains 'border-all-vap.sip.thinkingphones.net'. The 'Ring/Alert Mode' section has 'Monitor Ring event on registered SIP extension' selected. The 'Ring Extension' field is empty. The 'Page Extension', 'Authentication ID', 'Authentication Password', 'Display Name (Optional)', and 'Realm' fields all contain 'DSMTHPBX-x9270'. A 'Save' button is located at the bottom right of the form.

MAKE SURE TO CLICK SAVE – Failure to do so will result in you losing what you just set.

Note: Fuze does not support Third Party Services. All configuration questions or issues must be directed to the Third Party vendor’s Support Services.

Note: Fuze is subject to change connectivity requirements without notice & without validation.

Note: The customer is responsible for maintaining the security of the device and supplied credentials. Fuze is not liable for any subsequent costs resulting from misconfiguration.

Algo Configuration Guidelines for Fuze

Additional Features – More Ring Extensions (When using Multicast)

Next step is to add the Night bell/Ringer SIP credentials as the Ring Extension and set the appropriate Multicast Group if it is a Master unit.

ALGO 8301 Paging Adapter & Scheduler Firmware: 3.4.4

More Ring Extensions

Ring Extension 2 Enabled Disabled

Extension: DSMITHPBX-x9261

Authentication ID: DSMITHPBX-x9261

Authentication Password: *****

Display Name (Optional):

Realm: asterisk

Ring Tone: <Use Default Ring Tone>

Multicast Zone: Zone 3

Ring Extension 3 Enabled Disabled

Ring Extension 4 Enabled Disabled

Ring Extension 5 Enabled Disabled

Ring Extension 6 Enabled Disabled

Ring Extension 7 Enabled Disabled

Ring Extension 8 Enabled Disabled

Ring Extension 9 Enabled Disabled

Ring Extension 10 Enabled Disabled

MAKE SURE TO CLICK SAVE – Failure to do so will result in you losing what you just set.

Advanced Settings – Advanced SIP

You will need to

- Set Register Period (Seconds) to 360
- Set 'Standard' on SDP SRTP Offer
- Select Keep-Alive Method to Double CRLF
- Set the Keep-Alive Interval (seconds) to 30 – This prevents premature NAT session timeout.

ALGO 8301 Paging Adapter & Scheduler Firmware: 3.4.4

Advanced SIP Settings

General

SIP Transport: Auto

SIP Scheme: SIP

SIP Outbound Proxy: Disabled

Register Period (seconds): 360

SRTP

SDP SRTP Offer: Standard

SDP SRTP Offer Crypto Suite: AES_GCM_128_CMAC_SHA1_64

NAT

Media NAT: None

Server Redundancy

Server Redundancy Feature (Multiple SIP Server Support): Disabled

Intraresiliency

Keep-Alive Method: Double CRLF

Keep-Alive Interval (seconds): 30

Use Outgoing TLS port in SIP headers: Enabled

Do Not Reuse Authorization Headers: Enabled

Allow Missing Subscription-State Headers: Enabled

MAKE SURE TO CLICK SAVE – Failure to do so will result in you losing what you just set.

Note: Fuze does not support Third Party Services. All configuration questions or issues must be directed to the Third Party vendor's Support Services.

Note: Fuze is subject to change connectivity requirements without notice & without validation.

Note: The customer is responsible for maintaining the security of the device and supplied credentials. Fuze is not liable for any subsequent costs resulting from misconfiguration.

Algo Configuration Guidelines for Fuze

Basic Settings – Features

Here you will:

- Set the paging to delayed, avoiding feedback in case the person paging is directly below a speaker. This is optional, but highly recommended.
- Set the output to match the impedance of the paging system. You will find settings for some common paging systems in the Paging adapter amplifier integration guide on the Algo website. Link provided below.
- Set the volume for Ring/Alert Volume and Page Volume as required
- Turn off the Ring Page tone if you don't want to hear a tone before the page plays
- Set the Page timeout to 30 seconds or so to avoid long pages. If someone puts paging on hold or park this prevents an extraordinarily long page.

NOTE: The Output setting is different on all models that have an output (i.e. 8180 has a direct 600 Ohm Unbalanced output only).

The screenshot shows the 'Basic Settings - Features' tab in the Algo 8301 configuration interface. Key settings include: Ring/Alert Tone (Loud2.med.wav), Ring/Alert Volume (10), Ring Limit (No limit), Page Volume (10), Page Mode (Delayed), Page Timeout (30 seconds), Page Tone (None), G.722 Support (Enabled), Pascode Protected Page Extensions (Enabled), DTMF Detection Type (Auto), Ambient Noise Compensation (Enabled), Automatic Gain Control (AGC) (Enabled), and Line Out Analog Output Level (600 Ohm (3.75 Vrms)). A purple arrow points to the 'Line Out' Analog Output Level setting, with a text box indicating it should be set per the Algo paging adapter integration guide.

MAKE SURE TO CLICK SAVE – Failure to do so will result in you losing what you just set.

Advanced Settings - Network

Enter QOS values to ensure voice priority. Once you click save you will be prompted to reboot. QOS Values are in the image below and are consistent across all Algo devices.

The screenshot shows the 'Advanced Settings - Network' tab in the Algo 8301 configuration interface. Key settings include: Internet Protocol (IPv4 only), IPv4 Method (Static/DHCP), VLAN Mode (None/Manual/Auto), Differentiated Services (SP: 60, RTP: 46, RTCP: 46), and DNS Caching Mode (Disabled/Call). A purple arrow points to the SP (6-bit DSCP value) setting, with a text box indicating it should be set per the Algo paging adapter integration guide.

MAKE SURE TO CLICK SAVE – Failure to do so will result in you losing what you just set.

Note: Fuze does not support Third Party Services. All configuration questions or issues must be directed to the Third Party vendor's Support Services.

Note: Fuze is subject to change connectivity requirements without notice & without validation.

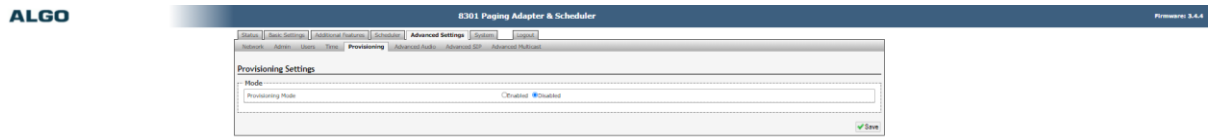
Note: The customer is responsible for maintaining the security of the device and supplied credentials. Fuze is not liable for any subsequent costs resulting from misconfiguration.

Algo Configuration Guidelines for Fuze

Advanced settings – Provisioning

This should be disabled unless you intend to maintain a provisioning server for these devices.

Note: Fuze does not offer this service



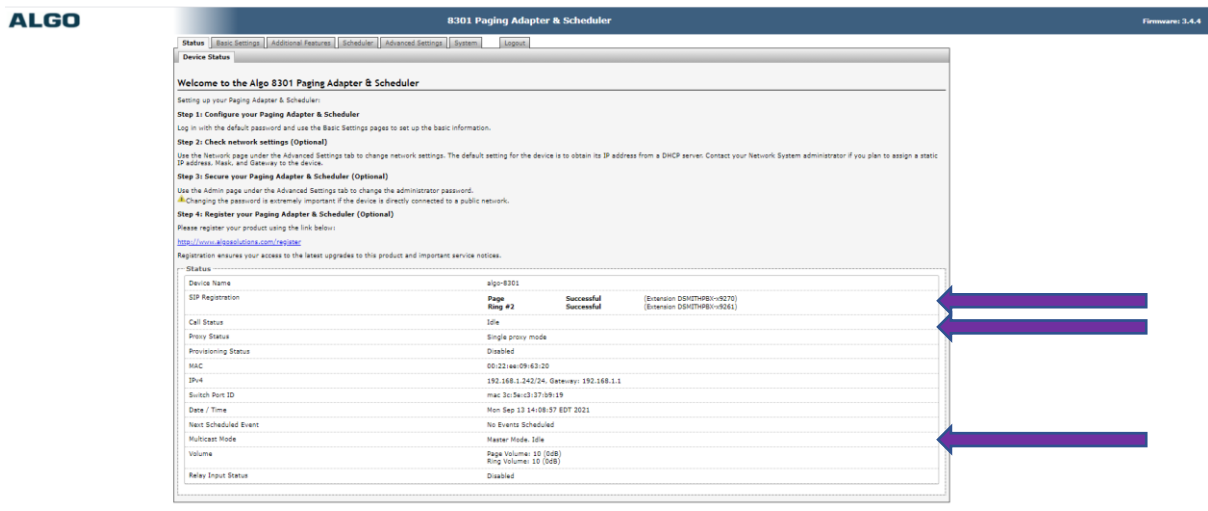
MAKE SURE TO CLICK SAVE – Failure to do so will result in you losing what you just set.

Status

Verify your settings. You should see Successful for Page and if applicable Ringer

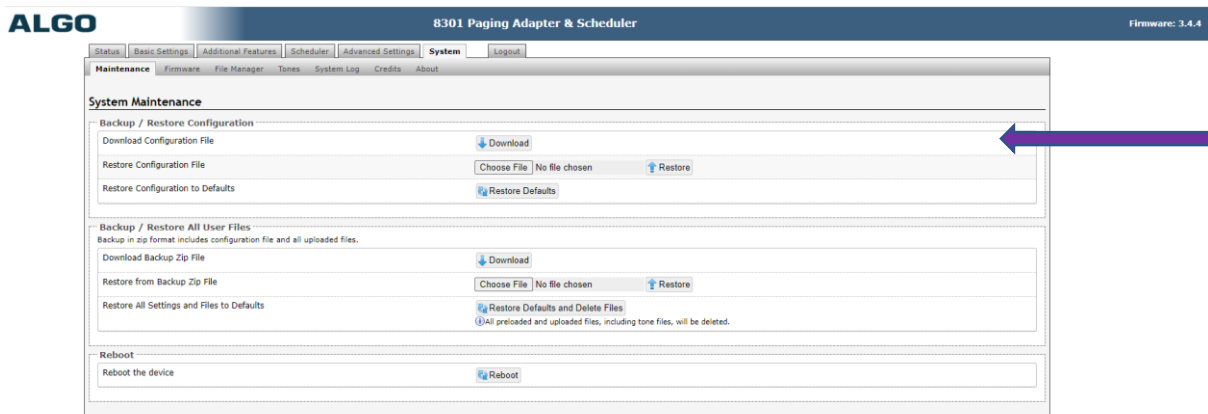
Here you can see the call status (Recording, paging, ringing)

You can also see the Multicast Mode in real time.



System – Maintenance

Here is where you can download the configuration to verify the passwords are encrypted. You can also upload a previously saved config.



Note: Fuze does not support Third Party Services. All configuration questions or issues must be directed to the Third Party vendor's Support Services.

Note: Fuze is subject to change connectivity requirements without notice & without validation.

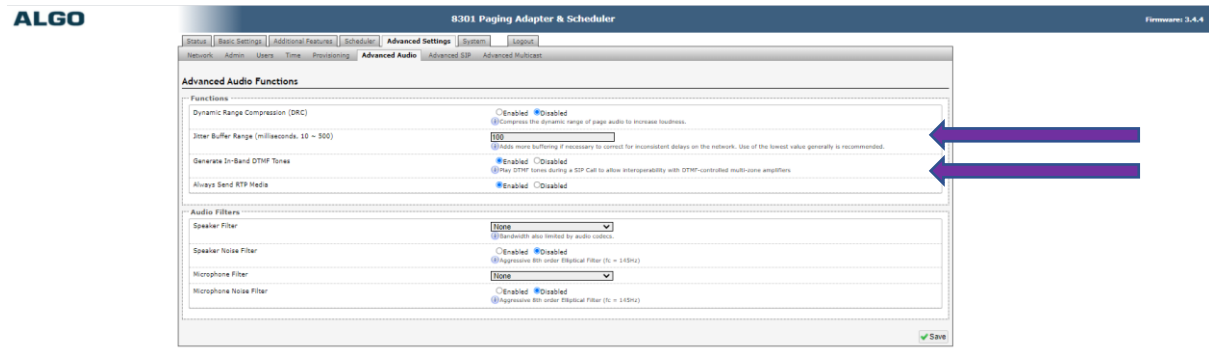
Note: The customer is responsible for maintaining the security of the device and supplied credentials. Fuze is not liable for any subsequent costs resulting from misconfiguration.

Algo Configuration Guidelines for Fuze

Additional information and Troubleshooting steps

Advanced Settings – Advanced Audio

In some cases, you may want to increase the Jitter buffer to correct network latency. You can also enable DTMF passthrough here to Play DTMF tones during a SIP Call to allow interoperability with DTMF-controlled multi-zone amplifiers



MAKE SURE TO CLICK SAVE – Failure to do so will result in you losing what you just set.

For connections to specific common paging systems

<https://www.algosolutions.com/wp-content/uploads/2019/11/Paging-Adapter-Amplifier-Integration-Guide.pdf>

Note: Fuze does not support Third Party Services. All configuration questions or issues must be directed to the Third Party vendor's Support Services.

Note: Fuze is subject to change connectivity requirements without notice & without validation.

Note: The customer is responsible for maintaining the security of the device and supplied credentials. Fuze is not liable for any subsequent costs resulting from misconfiguration.