

Application Note



Product: Analog VoIP Gateway (AA50)

Purpose: Configuration Guide for FreeNET VoWiFi

Date: December 1, 2009

Analog VoIP Gateway (AA50) Configuration Guide AscCom FreeNET VoWiFi System

Introduction

This document outlines the necessary steps and guidelines to optimally integrate the AscCom FreeNET VoWiFi System with the Analog VoIP Gateway (AA50).

This guide should be used in conjunction with the appropriate installation and operation manuals and is intended for someone knowledgeable about the configuration of AscCom systems.

The Analog VoIP Gateway (AA50) provides telephony interworking with a PBX utilizing analog station ports. The Analog VoIP Gateway manages device registration and up to 8 FXO ports interfaced toward a PBX. A FreeNET handset is dedicated to a single FXO port, thus each Analog VoIP Gateway manages up to 8 FreeNET handsets. In a system where greater than 8 FXO ports are needed, additional Analog VoIP Gateways can be included, each managing up to 8 FreeNET handsets, as desired.

The steps, screen shots, and command line syntax depicted throughout this document are based upon Analog VoIP Gateway (AA50) software version 1.3.0.5.

Analog VoIP Gateway Configuration

The following instructions will outline how to configure the AA50 to provide interworking between the AscCom FreeNET handsets and a PBX. The instructions assume that the unit(s) is physically installed, according to the installation manual, and accessible on the network.

1. With a compatible web browser, navigate to the unit's WebGUI. With a PC directly connected to the unit's LAN ports (1-4), the default web address is 192.168.69.1.
2. At the login screen, login with the default username and password (admin / password). Once logged in, it will force you to change the default password. It's recommended to set the default password to 'changeme', as this is the default password in the standard configuration.
3. Navigate to the 'Backup' tab and upload the latest standard FreeNET configuration file. If needed, please contact your supplier for the latest configuration file.
4. After the unit restarts, navigate to the 'Networking' tab and click the WAN link. Set the desired static IP Address and appropriate SUBNET and Gateway addresses.

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The WAN port is the interface that shall interconnect to the corporate LAN. Ensure that 'Enable GUI on WAN Interface' is checked. Click the 'Save' button when completed. A restart is needed to activate the new networking parameters.

5. If Message Waiting Indications are to be detected by the AA50 FXO ports and transmitted to the assigned handset, then the following steps are necessary.
 - a. Navigate to 'Configure Hardware'. The standard configuration includes MWI configuration with NEON detection. However, the 'Neon MWI voltage Level' parameter might need to be adjusted depending on the particular PBX connected.
 - b. If changes are made, click 'Update Settings'. Once saved, click the 'Apply Changes' button. A restart is needed to activate the MWI system parameters.

Please note: The MWI system parameters shall be enabled before any Users or Trunks are configured.

6. Navigate to the 'Options' tab and select 'General Preferences'. Set the desired extension preferences. When completed, press 'Save'.
7. Navigate to the 'Outgoing Calling Rules' tab. The standard configuration includes the Calling Rules for User 1 (CR1) – User 8 (CR8). The Calling Rule routes all matched number series and routes it out the mapped FXO port (i.e. User 1 to Port 1, User 2 to Port 2, etc.). Ensure that the standard outgoing calling rules will be sufficient for this particular deployment. If not, modify accordingly.

Please note: The standard calling rules allow pre dial only. If post dialing is also needed, the specific dialing rules will need to be included in each Dial Plan (i.e. 9+7digit, 9+10 digit, etc.).

8. Navigate to the 'Dial Plans' tab. The standard configuration includes the Dial Plans for User 1 (DP1) – User 8 (DP8). The Dial Plan includes the associated Calling Rule for each user (i.e. DP1 to CR1, DP2 to CR2, etc.). Ensure that these standard Dial Plans will be sufficient for this particular deployment. If not, modify accordingly.
9. Navigate to the 'Users' tab. Follow the steps outlined below to create desired users.
 - a. On the 'Users' tab, click 'Create New User'.
 - b. Fill in the following parameters:

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- Extension
- Name
- Select the designated Dial Plan (i.e. DP1 for User 1, DP2 for User 2, etc.)
- Caller ID
- Enable Voicemail for this user (if MWI notification is required)
- Enable SIP only
- Set First Codec Preference to 'u-law'
- Set SIP/IAX Password (if provisioned)
- Disable 'Can Reinvite'
- Set DTMF mode as 'RFC2833'.
- Enable 3-way Calling
- Enable Call Waiting

c. When completed, press 'Update'.

Create New User X

General :

Extension: 8888 Name: User1 DialPlan: DP1
CallerID: 8888 OutBound CallerID:

Enable Voicemail for this User
VoiceMail Access PIN code: Email Address:

Technology

SIP IAX Analog Station: None flash: 750 rxfash: 1250
Codec Preference : First : u-law Second : None Third : None Fourth : None Fifth : None

VoIP Settings

MAC Address : Line Number : 1 SIP/IAX Password: 8888
NAT: Can Reinvite: DTMF Mode: RFC2833 insecure: no

Other Options

3-Way Calling In Directory Call Waiting CTI Is Agent Pickup Group: 1

Cancel Update

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- d. Repeat the above steps for each desired user.
10. Navigate to the 'Incoming Calls' tab. Follow the steps outlined below to create incoming call rules for desired users.
- a. On the 'Incoming Calls' tab, click the 'New Incoming Rule' button.
 - b. Select the desired Trunk (AT1 for User 1, AT2 for User 2, etc.)
 - c. Select 'None' for desired Time Interval.
 - d. Select the desired User Extension (User 1 for AT1, User 2 for AT2, etc.)
 - e. Click 'Update'.

The screenshot shows a 'New Incoming Rule' dialog box. The fields are: Trunk: AT1; Time Interval: None (no TimeIntervals matched); Pattern: S; Destination: User Extension -- 8888. There are 'Cancel' and 'Update' buttons at the bottom.

- f. Repeat the above steps for each needed incoming call rule.

Message Waiting Indication (MWI) Configuration

The Analog VoIP Gateway (AA50) can detect message waiting on the FXO lines and notify the mapped user/device with a message waiting indication. The following steps outline how to properly configure MWI.

11. Ensure that step 5 above is completed.
12. Navigate to the 'Trunks' tab. For the desired Analog Trunk, click the 'Edit' button.
13. Under the Advanced Options, select the mailbox of the user that shall be notified upon receipt of MWI detection. If the user is not available in the list, ensure that voicemail has been enabled for their profile.

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14. A key sequence generated by the FreeNET handsets is interpreted as a Hook Flash across the FXO port. This key sequence can be defined as any DTMF digit(s). The standard configuration file has this value set as a '*'. This DTMF sequence shall be unique and not utilized for any other telephony services (i.e. voice mail, auto attendants, etc). To change the Hook Flash key sequences, the following steps are necessary.

- a. Navigate to the 'Options' tab and click the 'Advanced Options' link. Click the 'Show Advanced Options' button.

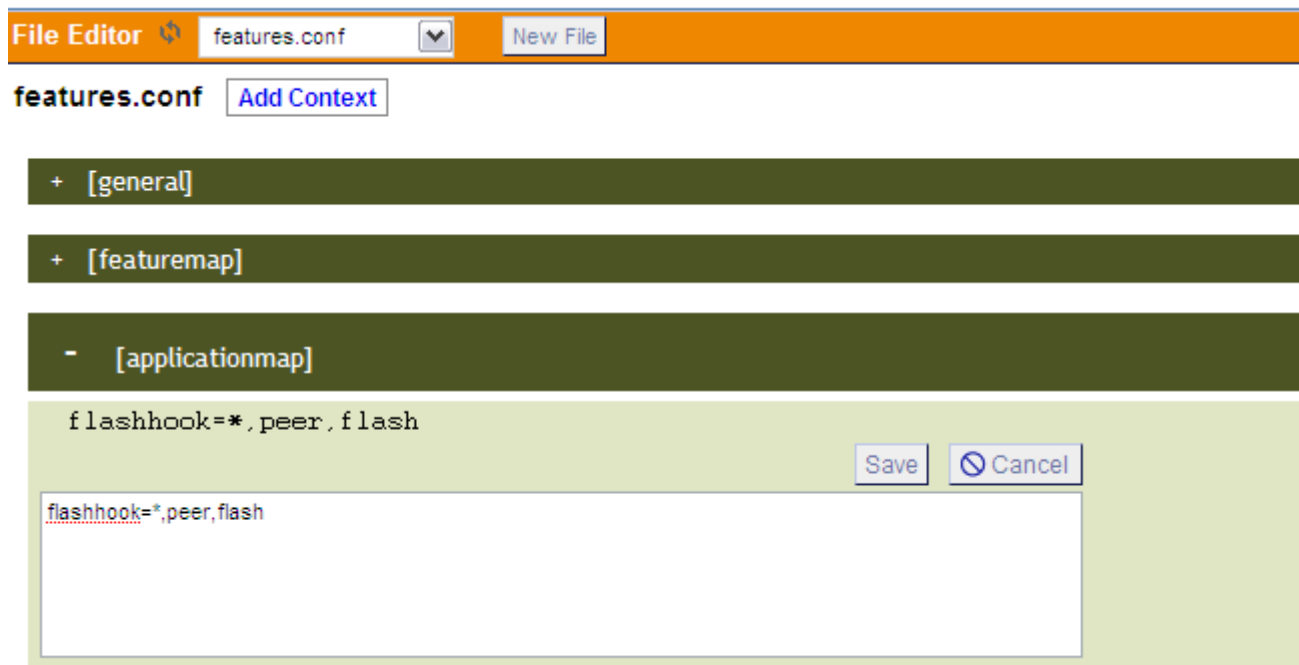
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- b. Navigate to the 'File Editor' tab and select the "features.conf" file from the dropdown box.
- c. Click the light green shaded box located under the "[applicationmap]" context.
- d. In the text box, change the '*' value to the desired DTMF sequence to be interpreted as a Hook Flash and press 'Save'.



15. When all configuration parameters are set, click 'Apply Changes' for the new values to be activated.
16. It's recommended to perform a Backup of the current configuration when completed. Navigate to the 'Backup' tab to complete this procedure.

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FreeNET i75 VoWiFi Handset Configuration

The i75 Handsets shall be configured to utilize SIP and register to the Analog VoIP Gateway designated to manage that users call services. For example, user 1 has extension 8888, which is assigned to Unit 1's port 1. This handset extension will register to Unit 1. User 9 has extension 8899, which is assigned to Unit 2's port 1. This handset extension will register to Unit 2.

1. Set extension value (i.e. 8888) at Device | User | Endpoint Number.
2. Set VoIP Protocol to SIP at Protocol | General | VoIP Protocol.
3. Set Codec to G.711 u-law at Protocol | General | Codec configuration.
4. Set IP Address of AA50 managing handset registration at Protocol | SIP | SIP Proxy IP Address.
5. Set extension password at Protocol | SIP | SIP proxy password.

Related Documents

AA50 Installation Manual	601-00005
System Description VoWiFi System	TD 92313GB
Function Description VoWiFi System	TD 92314GB
Considerations for Ascom VoWiFi System Planning	TD 92408GB
Configuration Manual i75 VoWiFi Handset	TD 92431GB
Installation & Operation Manual Portable Device Manager,Windows	TD 92325GB
Installation & Operation Manual Portable Device Manager,System	TD 92378GB

Additional Information

If you have any questions or need additional information, please contact Ascom Technical Assistance Center at 1-877-71-ASCOM, option 3.