

**Integration with Linksys PAP2T Phone Adapter**

**Configuration Reference Integration with Linksys PAP2T Phone Adaptor Please note that this device is not an AltiGen certified 3rd party SIP device. AltiGen cannot ensure Cisco support. If Cisco makes a firmware change that creates a problem, AltiGen will be unable to resolve the problem.** Version: 1.2

Date: March 2009

Introduction:

Linksys PAP2T is an economical IP adaptor solution for connecting an analog device as a SIP-based IP extension. You can connect an analog-based cordless phone or conference phone to PAP2T and map the analog port to an IP extension. This is a quick solution to protect your customer's conference phone investment and provide office mobility when migrating to an IP-based system. This document provides a step-by-step guide to set up the Linksys PAP2T adaptor to work with an AltiGen server via a third-party SIP extension. The following functions/operations are verified after PAP2T is properly configured:

Register to AltiGen System as a SIP extension  
Make a call to an extension, outside number, and 911 Dial ## and #xx (feature code)  
Use the Flash key to hold, transfer, and conference  
Receive an inbound call with caller ID  
Message waiting light and stutter dial tone

Ring tone and cadence Note:

Each PAP2T can support up to 2 analog devices mapped to an AltiGen system as two IP extensions. PAP2T is installed internally. NAT Traversal over WAN connection is not tested. Using PAP2T to send and receive FAX is not tested.

Requirements:

AltiServ: Software ACC/ACM 5.2 or above. License third-party SIP device license is required for PAP2T to register as an IP extension  
Configuration Check the "Enable 3rd Party SIP Device" check box in the Extension

Configuration screen for the extension that PAP2T will connect to. Using Dynamic IP for this extension is recommended. This will help you verify if SIP registration is correct or not.

Linksys PAP2T Adaptor: Firmware "Version 5.1.6 (tested version) or above

Please follow the steps documented in the Linksys quick installation guide to connect the following:

Telephony RJ11 cable to an analog phone and PHONE1 port on PAP2T  
Ethernet cable Power adaptor

Integration with Linksys PAP2T Phone Adaptor

Please follow the steps documented in the PAP2T user guide to configure the IP address:

## Accessing the Interactive Voice Response Menu

Use a telephone connected to the PHONE 1 or PHONE 2 port of the Phone Adapter. Press \*\*\*\* (in other words, press the star key four times). You will hear, "Configuration menu. Please enter an option followed by the # (pound) key or hang up to exit." Refer to the following table that lists actions, commands, menu choices, and descriptions. After you select an option, press the # (pound) key. To exit the menu, hang up the telephone. Enter 101# followed by 1 to enable DHCP. Enter 110# to find out and write down the IP address. Open a browser and enter PAP2T IP address to start the configuration menu.

Integration with Linksys PAP2T Phone Adaptor

### Configure PAP2T

Click Admin Login on the following configuration screen. Click switch to advanced view (located beside Basic View).

You will see the following admin menu options:

#### System Configuration Page

In the "Internet Connection Type" configuration area, DHCP is the default. To change this device to use a fixed IP, change DHCP to No and enter the static IP, NetMask, and Gateway information. Click Save Settings to continue.

#### SIP Configuration Page

1. Change Hook Flash MIME Type to application/dtmf-relay. You can copy the contents from the DTMF Relay MIME Type field.

Important: This configuration will pass the correct "Flash" event to the AltiGen server. Failure to make this change will result in the Flash key not working when trying to hold, transfer, or conference a call.

Change User Agent Name to "AltiGen IP Phone 0.1" (Case Sensitive) Change SIP Reg User Agent Name to "AltiGen IP Phone 0.1" (Case Sensitive) Change Reg Min Expires to 10 Change Reg Retry Long Intvl to 60 Click Save Settings to continue.

#### Regional Page

Scroll down to Ring and Call Waiting Tone Spec section.

Change Ring Waveform to Sinusoid. Change Ring Frequency to 25. Change Ring Voltage to 80. Change Synchronized Ring to Yes.

Note: Not all analog phones work the same way. These settings are tested with the AltiTouch 510 phone. You may try changing Ring Waveform to Trapezoid if your analog device does not ring properly.

Go to the Control Timer Values section.

Make sure the VMWI Refresh Intvl is 0.5. Change Interdigit Long Timer to 4 (Default is 10) Note: Setting the Interdigit Long Timer to 4 is to shorten the dialing delay if the dialed number does not match the pattern

defined in the dial plan.

Go to the Miscellaneous section.

The following parameters will affect the time stamp display on the analog phone. You need to enter the correct values.

Enter the local date in mm/dd format. Enter the local time in HH/mm format (in 24 Hour format). Change Time Zone to your local time zone. Change Daylight Saving Time Rule to start=3/2/7;end=11/1/7;save=1 (This value means Daylight saving starts on March/2nd/Sunday and ends on November/1st/Sunday with saving of one hour.) Note: The Date and Time value will be saved into the PAP2T memory. These two values will not be displayed after you save the setting and view the Regional Page again. For users in the North America region, do not change the default setting for 5 and 6.

For installing PAP2T outside the North America region, you may need to adjust the following parameters:

Change FXS Port Impedance based on type of analog device. Change Caller ID Method based on local telecom specification. Click Save Settings to continue.

Integration with Linksys PAP2T Phone Adaptor

Line Page

Go to the SIP Settings section.

Change SIP Remote-Party-ID to no. Change SIP GUID to no.

In the Proxy and Registration section

Enter the AltiGen server's IP address in the Proxy field. Make sure Register is set to yes. Change Register Expires to 60 seconds Change Proxy Fallback Intvl to 60 seconds Enter the AltiGen server IP address in the Voice Mail Server Field. Change Mailbox Subscribe Expires to 60 seconds.

In Subscriber Information

Enter the extension's user name in the Display Name field. Enter the extension number in both User ID and Auth ID fields. Enter extension's password in the Password field.

Scroll down and go to Supplementary Service Subscription section

1. Change all services in this section to no except the following three services:

CID Serv: (Caller ID Service) MWI Serv: (Turn on FSK Message Waiting Indicator Service) VMWI Serv: (Receive Voice Mail Waiting Indicator Service over SIP)

In the Audio Configuration section

Change DTMF Tx Method to INFO. Change DTMF Tx Mode to Normal. Change Hook Flash Tx Method to INFO.

In Dial Plan Section

Dial Plan is crucial to allow dialed numbers to pass through PAP2T correctly. Please erase the default Dial

Plan entry and replace with the following pattern.

(###[1-9]x[[1-8]xx|911|0|9[2-9]xxxxxx|91xxx[2-9]xxxxxx|9011xxxxxxxxxxxxx.) Note: The "##" is a dialing pattern divider while x means any number including \* and #.

Dial Plan Pattern	Description
##	To access voice mail. You will not be able to check voice mail if this entry is not defined in the Dial Plan.
#[1-9]x	To recognize feature code #xx. The [1-9] is to avoid an ambiguous pattern.
[1-8]xx	To recognize extension numbers. This example assumes a 3-digit extension and the first digit can be 1 to 8. If your system uses a 4 digit extension and the 8 is reserved for IP dialing, this pattern will be [1-7]xxx.
911	To dial 911
0	To dial operator
9[2-9]xxxxxx	To dial a 7-digit local number. If your area needs to dial a 10-digit local number, this pattern will be 9[2-9]xxxxxxx. If your trunk access code is not 9, you need to change the first number with the correct access code.
91xxx[2-9]xxxxxx	This pattern is to define a long distance call pattern
9011xxxxxxxxxxxxx.	This pattern is to define an international call pattern. It is the trunk access code followed by international prefix and 12 numbers or more.

Note: You can add other dial patterns into this entry as long as there is no ambiguous pattern. If there is an ambiguous pattern dialed, the PAP2T will wait 4 seconds (inter-digit delay) then send the number to the AltiGen server.

Click Save Settings to continue. Repeat the Line Page configuration for the Line2 if you would like to activate the second line.

After completing all configurations, you need to verify that the following operations work.

Pick up the analog phone and hear the dial tone. If the dial tone is not ready, check the AltiGen Admin to see if the SIP device registration is successful. You will not hear a dial tone if SIP registration failed. Press ## to check voice mail then hang up. Dial #27 to check the extension number. Dial another extension number and connect. Press the Flash key to put a call on hold. Press the Flash key to retrieve a call. Press Flash follow by an extension number to complete a transfer. Dial a local number. Dial a long distance number.

10. Use another extension to call the phone connected to PAP2T and connect.

11. Press the Flash key, dial an extension or external number, and press the # key upon connecting to the third party to start a conference call, then hang up.

12. Use another extension to leave a message for the extension using PAP2T. Check the message waiting light and stutter tone after the message arrives in the inbox.

By default, the User and Admin accounts have no password. If the Admin account needs to be reset, you have to perform a full factory reset, which also erases any provisioning. To reset the ATA device to the factory defaults, perform the following steps:

Connect an analog phone to the ATA device and access the IVR by pressing \*\*\*\*. Press 73738# to perform a full reset of the unit to the defaults as it shipped from Linksys. This will reset the Admin account password to the default of blank. Press 1 to confirm the operation or Press \* to cancel the operation. Log in to the unit using the User or Admin account without a password and reconfigure the unit as necessary.

For detailed descriptions of each configuration field, please go to the Linksys support web site and search for the ATA Administration Guide.

<https://know.altigen.com/questions/784/>