

PAP2 Phone Adapter

Installation Guide

OUTBOUND CALLING

Version 1.0

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Version 1.0*

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1 Introduction

This document is an installation/configuration guide for the Linksys PAP2 phone adapter running firmware version 2.0.10 (LSc). It describes how to configure the SIP parameters, codec settings and analog coefficients for outbound calling. It also includes steps for provisioning the device with the user account and PIN. Once you complete these steps, you will be ready to begin placing calls.

2 Adapter Description

The sections below briefly describe the PAP2 device.

2.1 PAP2 Overview

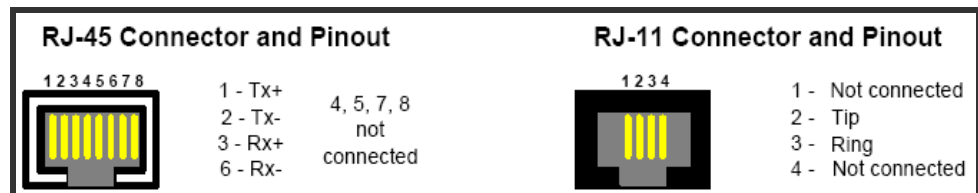
The PAP2 is a 2-port FXS phone adapter, which allows you to connect two (2) analog phones.



PAP2 2-Port FXS Phone Adapter

2.2 Connectors and Pinouts

The image below displays the Ethernet (RJ-45) and analog (RJ-11) line pin-outs.



Ethernet (RJ-45) and Analog (RJ-11) Line Pin-Outs

2.3 Accessing the PAP2

1. Connect an analog phone to the RJ-45 connector on the PAP2.
2. Using the telephone keypad, press the star key (*) four (4) times: ********.
You will be prompted to enter a code.
3. Enter the appropriate code, followed by the pound (#) key. Refer to the **PAP2 Menu Options** table on the following page for codes.

PAP2 MENU OPTIONS			
Action	Code	User Input	Behavior Notes
Enter IVR Menu	****	None	Do not press any other keys until you hear, "Configuration menu. Please enter option followed by the pound (#) key, or hang up to exit."
Check DHCP	100	None	The system announces if DHCP is enabled or disabled.
Set DHCP	101	Enter 1 to enable. Enter 0 to disable.	Enter the option, followed by the pound (#) key.
Check IP address	110	None	
Set IP Address	111	Enter value using the numbers on the telephone keypad. Use the star (*) key when entering a decimal point.	Enter the value, followed by the pound (#) key. DHCP must be "Disabled," otherwise you will hear the announcement, "Invalid Option" if you try to set this value.
Check Net Mask	120	None	
Set Net Mask	121	Enter value using the numbers on the telephone keypad. Use the star (*) key when entering a decimal point.	Enter the value, followed by the pound (#) key. DHCP must be "Disabled," otherwise you will hear the announcement, "Invalid Option" if you try to set this value.
Check Gateway	130	None	
Set Gateway	131	Enter the value using the numbers on the telephone keypad. Use the star (*) key when entering a decimal point.	Enter the value, followed by the pound (#) key. DHCP must be "Disabled," otherwise you will hear the announcement, "Invalid Option" if you try to set this value.
Check MAC Address	140	None	You will hear the phone adapter's MAC address.
Check Firmware Version	150	None	You will hear the phone adapter's firmware version.
Manual Reboot	7326668	None	After you hear, "Option successful," hang up the phone. The phone adapter will automatically reboot.

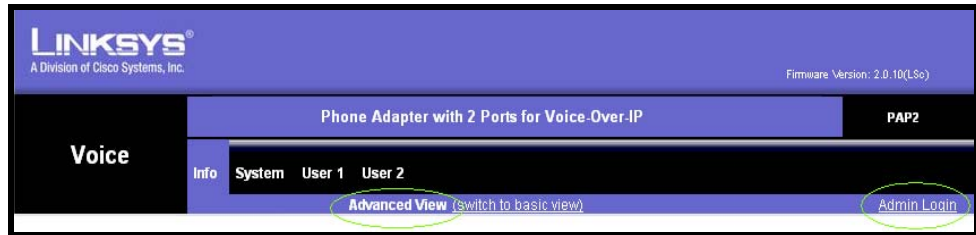
PAP2 Menu Options

3. Provisioning

3.1 General Configuration for Outbound Calling

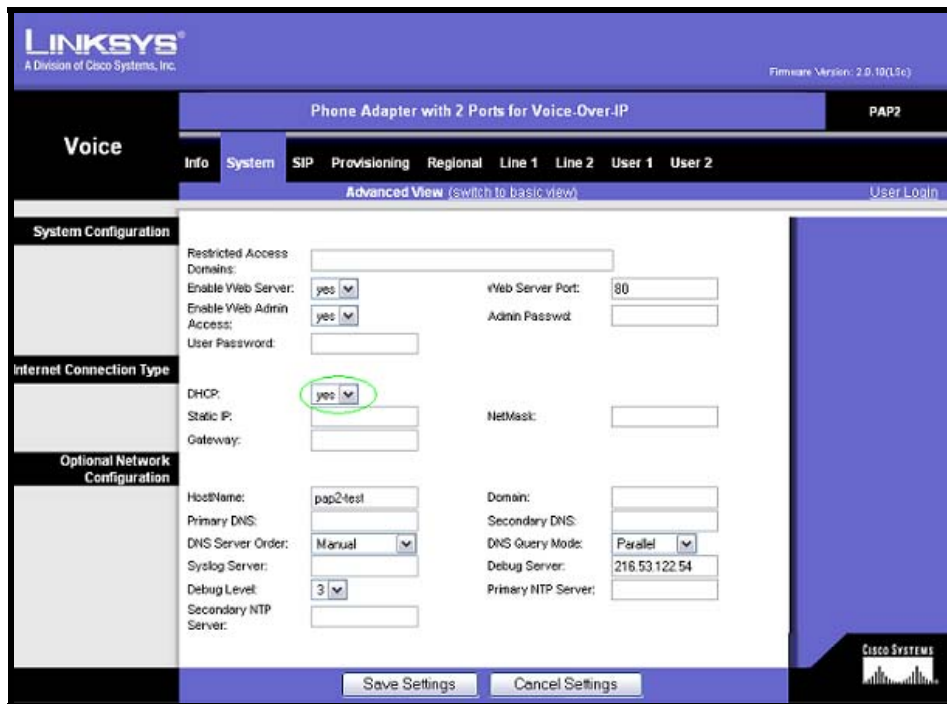
To configure the PAP2 for outbound calling:

1. Connect to the PAP2 by entering the device's IP address in the Web browser's **Address** bar. For instructions on obtaining the IP address, refer to section **2.3 Accessing the PAP2** on page 2 in this Guide.
2. Click on the **Admin Login** link in the upper right corner of the page, and then click the **advanced** configuration link.



PAP2 Web Interface – Main Window

3. Click the **System** tab, and in the *Internet Connection Type* section, click the **DHCP** drop-down menu, and select **yes** or **no**.



System Tab

4. If you set **DHCP** to **no**, enter the **Static IP**, **NetMask**, and **Gateway** information.
If you set **DHCP** to **yes**, continue to step 5.
5. Click the **Submit All Changes** button at the bottom of the page to save the settings.

3.2 Line-Specific Configuration

1. Click the **Line1** or **Line2** tab at the top of the page, and in the *NAT Settings* section, change the following setting:

Field	Value
NAT Keep Alive Enable	no

2. In the *Proxy and Registration* section (see the screen on the following page), change the following settings:

Field	Value
Proxy	byod1.net2phone.com
Use Outbound Proxy	no
Use OB Proxy In Dialog	no
Make Call Without Reg	yes
Ans Call Without Reg	yes
DNS SRV Auto Prefix	no

3. In the *Subscriber Information* section (as shown in the Line1/2 Window screen on the following page), enter a **Display Name**. This value can be any alphanumeric string. Enter the following values for outbound only service:

Service Type	Field	Display Name Value
OUTBOUND SERVICE ONLY	Display Name (Line 1)	NO_DID1
	Display Name (Line 2)	NO_DID2

4. Enter the **User ID** (account) and **Password** (PIN).

IMPORTANT	You must have a different account and PIN for Line 1 and Line 2.
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5. Click the **Use Auth ID** drop-down menu, and click **no**.

The screenshot shows the configuration page for a Linksys PAP2 device. The page is titled "Voice" and "Phone Adapter with 2 Ports for Voice-Over-IP". It has tabs for "Info", "System", "SIP", "Provisioning", "Regional", "Line 1", "Line 2", "User 1", and "User 2". The "Line 1" tab is selected, and the "Advanced View" is active. The settings are organized into several sections:

- Streaming Audio Server (SAS):** Line Enable: yes; SAS Enable: no; SAS Inbound RTP Sink: empty; SAS DLG Refresh Intvl: 30.
- NAT Settings:** NAT Mapping Enable: no; NAT Keep Alive Enable: no; NAT Keep Alive Msg: \$NOTIFY; NAT Keep Alive Dest: \$PROXY.
- Network Settings:** SIP TOS/DiffServ Value: 0x68; RTP TOS/DiffServ Value: 0xb8; Network Jitter Level: high.
- SIP Settings:** SIP Port: 5060; EXT SIP Port: empty; SIP Debug Option: none; SIP 100REL Enable: no; Auth Resync-Reboot: yes.
- Call Feature Settings:** Blind Attn-Xfer Enable: no; Xfer When Hangup Conf: yes; MOH Server: empty.
- Proxy and Registration:** Proxy: jett.net2phone.com; Outbound Proxy: empty; Register: no; Register Expires: 3600; Use DNS SRV: no; Proxy Fallback Intvl: 3600; Use Outbound Proxy: no; Use OB Proxy In Dialog: no; Make Call Without Reg: yes; Ans Call Without Reg: yes; DNS SRV Auto Prefix: no; Voice Mail Server: empty.
- Subscriber Information:** Display Name: 6464324964; Password: *****; Auth ID: empty; Mini Certificate: empty; SRTP Private Key: empty; User ID: 3456547898; Use Auth ID: no.

Proxy and Registration and Subscriber Information Sections

6. Scroll to the *Audio Configuration* section (as shown in the Audio Configurations and Dial Plan Sections screen on the following page), and change the following settings:

Field	Value
Preferred Codec	G729a
Use Pref Codec Only	no
G729a Enable	yes
G723 Enable	yes
G726-16 Enable	no
G726-24 Enable	no
G726-32 Enable	no
G726-40 Enable	no
DTMF Tx Method	AVT

Supplementary Service Subscription	
Call Waiting Serv:	yes
Block ANC Serv:	yes
Cfwd All Serv:	yes
Cfwd No Ans Serv:	yes
Cfwd Last Serv:	yes
Accept Last Serv:	yes
CID Serv:	yes
Call Return Serv:	yes
Three Way Call Serv:	yes
Attn Transfer Serv:	yes
MVM Serv:	yes
Speed Dial Serv:	yes
Referral Serv:	yes
Block CID Serv:	yes
Dist Ring Serv:	yes
Cfwd Busy Serv:	yes
Cfwd Sel Serv:	yes
Block Last Serv:	yes
DND Serv:	yes
CW/CID Serv:	yes
Call Back Serv:	yes
Three Way Conf Serv:	yes
Unattn Transfer Serv:	yes
VMM Serv:	yes
Secure Call Serv:	yes
Feature Dial Serv:	yes
Audio Configuration	
Preferred Codec:	G729a
Use Pref Codec Only:	no
G729a Enable:	yes
G723 Enable:	yes
G726-16 Enable:	no
G726-24 Enable:	no
G726-32 Enable:	no
G726-40 Enable:	no
DTMF Tx Method:	AVT
Hook Flash Tx Method:	None
Release Unused Codec:	yes
Silence Supp Enable:	no
Silence Threshold:	medium
Echo Canc Enable:	yes
Echo Canc Adapt Enable:	yes
Echo Supp Enable:	yes
FAX CED Detect Enable:	yes
FAX CNG Detect Enable:	yes
FAX Passthru Codec:	G711u
FAX Codec Symmetric:	yes
FAX Passthru Method:	NSE
FAX Process NSE:	yes
Dial Plan	
Dial Plan:	[*xx[3469]111[xxx[2-9]xxxxxx<:011>[2-9]x;xxxxxxxxxxxx]
Enable IP Dialing:	no
FXS Port Polarity Configuration	
Idle Polarity:	Forward
Caller Conn Polarity:	Forward
Callee Conn Polarity:	Forward
<input type="button" value="Save Settings"/> <input type="button" value="Cancel Settings"/>	

Audio Configuration and Dial Plan Sections

- In the **Dial Plan** section, change the **Dial Plan** to fit the dialing pattern in your country. The dialed number must start with '1' for US calls and '011' for non-US calls. Please read the PAP2 manual to customize your dial plan.
- Click the **Submit All Changes** button to save the settings.