

SIPURA SPA-2000

Installation Guide

Version 1.1

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*Sipura SPA-2000 Installation Guide
Version 1.1*

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Table of Contents

1.	Introduction	1
2.	Gateway Description	2
	2.1 SPA-2000 Overview.....	2
	2.2 Connectors and Pinouts.....	2
	2.3 Accessing the SPA-2000.....	2
3.	Provisioning	4
	3.1 Upgrading the SPA-2000 FXS Device.....	4
	3.1.1 <i>Setting the SPA-2000 to Allow Upgrades</i>	4
	3.1.2 <i>Performing the Upgrade</i>	5
	3.2 General Configuration for Outbound/Inbound Calling	7
	3.3 Line-Specific Configuration	8

1. Introduction

This document is an installation/configuration guide for the Sipura SPA-2000. This Guide provides instructions for upgrading the SPA-2000 to software version 2.0.13(g). It describes how to configure the SIP parameters, codec settings and analog coefficients for outbound/inbound calling. It also includes steps for provisioning the device with the user account and PIN. These steps will allow users to quickly access the platform and begin making/receiving calls.

2. Gateway Description

The sections below briefly describe the SPA-2000 device.

2.1 SPA-2000 Overview

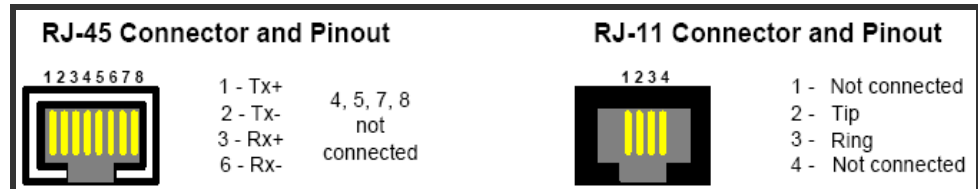
The SPA-2000 is a 2-port FXS gateway, which allows you to connect two (2) analog phones.



SPA-2000, 2-port FXS

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 SPA-2000

1. Connect an analog phone to the RJ-45 connector on the SPA-2000.
2. Using the telephone keypad, press the star key four (4) times: ********.
3. When you hear an IVR prompt, enter the appropriate code, followed by the pound (#) sign. Refer to the **SPA-2000 Menu Options** table on the following page for codes.

SPA-2000 MENU OPTIONS			
Action	Code	User Input	Behavior Notes
Enter IVR Menu	****	None	Ignore SIT or other tones until you hear, "Sipura configuration menu. Please enter option followed by the pound (#) key, or hang up to exit."
Check DHCP	100	None	IVR will announce if DHCP is enabled or disabled.
Set DHCP	101	Enter 1 to enable. Enter 0 to disable.	Enter 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 value followed by the pound (#) key. DHCP must be "Disabled," otherwise, you will hear the message, "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 value followed by the pound (#) key. DHCP must be "Disabled," otherwise, you will hear the message, "Invalid Option" if you try to set this value.
Check Gateway	130	None	
Set Gateway	131	Enter value using the numbers on the telephone keypad. Use the star (*) key when entering a decimal point.	Enter value followed by the pound (#) key. DHCP must be "Disabled," otherwise, you will hear the message, "Invalid Option" if you try to set this value.

SPA-2000 Menu Options

3. Provisioning

3.1 Upgrading the SPA-2000 FXS Device

Before you upgrade the device, please make sure that you:

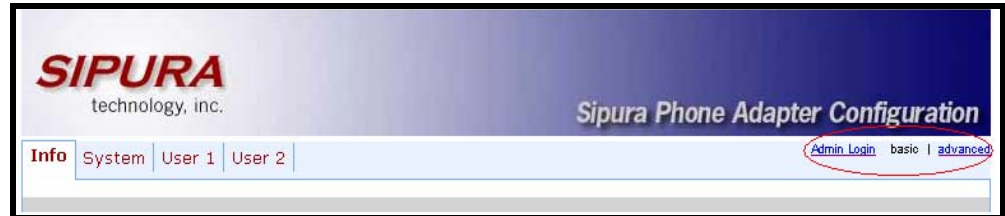
- ★ Verify that all phones are on-hook (hung up).
- ★ Disable any firewalls on the PC.
- ★ Have the PC on the same LAN subnet as the SPA-2000.
- ★ Make sure that the **Upgrade Enable** field is set to yes on the **Provisioning** tab (for instructions, refer to section **3.1.1 Setting the SPA-2000 to Allow Upgrades** below).

3.1.1 Setting the SPA-2000 to Allow Upgrades

In order for the SPA-2000 to upgrade properly, you must first set the **Upgrade Enable** field to **yes**.

To set the **Upgrade Enable** field to **yes**:

1. Connect to the SPA-2000 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 SPA-2000** on page 2 in this Guide.)
2. Click on the **Admin Login** link, and then click the **advanced** configuration link.



Sipura Web Interface Main Window

3. Click the **Provisioning** tab, and in the *Firmware Upgrade* section, click the **Upgrade Enable** drop-down menu, and select **yes**.
See the screen on the following page.
4. Click the **Submit All Changes** button at the bottom of the page to save the settings.

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technology, inc.

Sipura Phone Adapter Configuration

Info | System | SIP | **Provisioning** | Regional | Line 1 | Line 2 | User 1 | User 2 | User Login | basic | advanced

Configuration Profile

Provision Enable: Resync On Reset:
 Resync Random Delay: Resync Periodic:
 Resync Error Retry Delay: Forced Resync Delay:
 Resync From SIP: Resync After Upgrade Attempt:
 Resync Trigger 1:
 Resync Trigger 2:
 Resync Fails On FNF:
 Profile Rule:
 Profile Rule B:
 Profile Rule C:
 Profile Rule D:
 Log Resync Request Msg:
 Log Resync Success Msg:
 Log Resync Failure Msg:
 Report Rule:

Firmware Upgrade

Upgrade Enable: Upgrade Error Retry Delay:
 Downgrade Rev Limit:
 Upgrade Rule:
 Log Upgrade Request Msg:
 Log Upgrade Success Msg:
 Log Upgrade Failure Msg:

Provisioning Tab – Upgrade Enable Field Set to Yes

3.1.2 Performing the Upgrade

To upgrade the SPA-2000:

1. Download the firmware 2.0.13g from the Sipura support site (www.sipura.com) or from your reseller to your PC.
The Zip file has **exe** and **bin** files. The **bin** file is the firmware. The **exe** file is the utility to upgrade the device.
2. Double-click the **exe** file.
The SPA-1000/2000 Firmware Upgrade window displays.
3. Click the **Continue** button.
The SPA-2000 Firmware Upgrade window displays.

SPA-1000/2000 Firmware Upgrade

This program will upgrade your SPA firmware to:

Version 2.0.13(g) 

To proceed, please provide the IP address of your SPA. To find out the IP address of your SPA, using a telephone handset, enter * * * *, option 110#, and write down the value. For example, 10.1.0.123

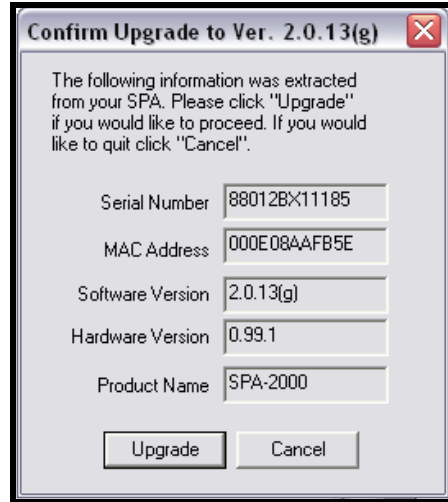
Please enter IP address of your SPA:

Your IP Address

SPA-2000 Firmware Upgrade Window

4. Enter the IP address of the SPA-2000 that you want to upgrade, and then click the **OK** button.

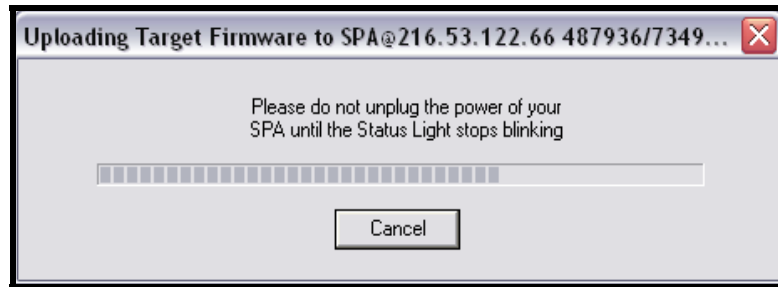
The Confirm Upgrade window displays.



Confirm Upgrade Window

5. Click the **Upgrade** button.

The Uploading Target Firmware window displays.



Upgrade Status Window

6. When the SPA-2000 has been upgraded successfully, click the **OK** button in the Upgrade Successful window.

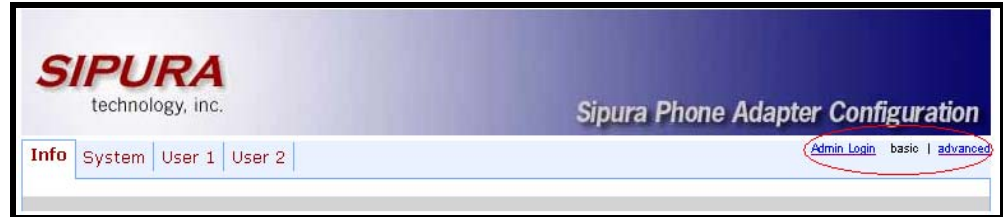


Upgrade Successful Window

3.2 General Configuration for Outbound/Inbound Calling

To configure the SPA-2000 for outbound and inbound calling:

1. Connect to the SPA-2000 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 SPA-2000** 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.



Sipura 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.

- Click the **Provisioning** tab, and in the *Firmware Upgrade* section, click the **Upgrade Enable** drop-down menu, and select **no**.
See the screen on the following page.
- Click the **Submit All Changes** button at the bottom of the page to save the settings.

Provisioning Tab – Upgrade Enable Field Set to No

3.3 Line-Specific Configuration

- Click the **Line1** or **Line2** tab, and in the **NAT Settings** section, change the following setting:

Field	Value
NAT Keep Alive Enable	no

- In the **Proxy and Registration** section, change the following setting:

Field	Value
Proxy	byod1.net2phone.com



IMPORTANT: For inbound service, you must set the Register field to yes; otherwise, set it to no.

- In **Proxy and Registration** section as shown in the Line1/2 Window screen below, change the following settings.

Field	Value
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

The screenshot shows the 'Sipura Phone Adapter Configuration' web interface. The 'Line 1' tab is selected. The 'Proxy and Registration' section has the following settings: Proxy: byod1.net2phone.com, Outbound Proxy: (empty), Register: yes, Register Expires: 3600, Use DNS SRV: no, Proxy Fallback Intvl: 3600. The 'Subscriber Information' section has: Display Name: 12341234, Password: *****, Auth ID: 4112, User ID: 345678956, Use Auth ID: no. Other settings like 'NAT Keep Alive Enable' and 'NAT Keep Alive Dest' are also visible.

Line1/2 Window – Proxy and Registration and Subscriber Information Sections

- In the **Subscriber Information** section, you must enter a **Display Name**. This value can be any alphanumeric string. You may enter the following values, depending on whether you have outbound only or inbound/outbound service:

Service Type	Field	Display Name Value
OUTBOUND SERVICE ONLY	Display Name (Line 1)	NO_DID1
	Display Name (Line 2)	NO_DID2
INBOUND SERVICE	Display Name (Line 1)	Enter your DID.
	Display Name (Line 2)	Enter your DID.

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



IMPORTANT: You must have a different account and PIN for Line 1 and Line 2.

6. Click the **Use Auth ID** drop-down menu, and click **no**.
7. Scroll to the **Audio Configuration** section as shown in the Line1/2 Window screen on the following page, and change the following settings:

Field	Value
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 Process INFO	no
DTMF Process AVT	yes
DTMF Tx Method	AVT

Supplementary Service Subscription			
Call Waiting Serv:	yes	Block CID Serv:	yes
Block ANC Serv:	yes	Dist Ring Serv:	yes
Cfwd All Serv:	yes	Cfwd Busy Serv:	yes
Cfwd No Ans Serv:	yes	Cfwd Sel Serv:	yes
Cfwd Last Serv:	yes	Block Last Serv:	yes
Accept Last Serv:	yes	DND Serv:	yes
CID Serv:	yes	CWCID Serv:	yes
Call Return Serv:	yes	Call Back Serv:	yes
Three Way Call Serv:	yes	Three Way Conf Serv:	yes
Attn Transfer Serv:	yes	Unattn Transfer Serv:	yes
MWI Serv:	yes	VMWI Serv:	yes
Speed Dial Serv:	yes	Secure Call Serv:	yes
Referral Serv:	yes	Feature Dial Serv:	yes
Audio Configuration			
Preferred Codec:	G723	Silence Supp Enable:	no
Use Pref Codec Only:	no	Silence Threshold:	medium
G729a Enable:	yes	Echo Canc Enable:	yes
G723 Enable:	yes	Echo Canc Adapt Enable:	yes
G726-16 Enable:	no	Echo Supp Enable:	yes
G726-24 Enable:	no	FAX CED Detect Enable:	yes
G726-32 Enable:	no	FAX CNG Detect Enable:	yes
G726-40 Enable:	no	FAX Passthru Codec:	G711u
DTMF Process INFO:	no	FAX Codec Symmetric:	yes
DTMF Process AVT:	yes	FAX Passthru Method:	NSE
DTMF Tx Method:	AVT	FAX Process NSE:	yes
Hook Flash Tx Method:	None	Release Unused Codec:	yes
Dial Plan			
Dial Plan:	(*xx [3469]11 0 00 [2-9]xxxxxx 1xxx[2-9]xxxxxx xxxxxxxxxxxxx.)		
Enable IP Dialing:	no		
FXS Port Polarity Configuration			
Idle Polarity:	Forward	Caller Conn Polarity:	Reverse
Callee Conn Polarity:	Reverse		
Undo All Changes		Submit All Changes	

Line1/2 Window – Audio Configuration and Dial Plan Sections

8. 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 Sipura manual to customize your dial plan.
9. Click the **Submit All Changes** button to save the settings.