

**VP301**

**SIP**

**VoIP Phone**

**User Manual**

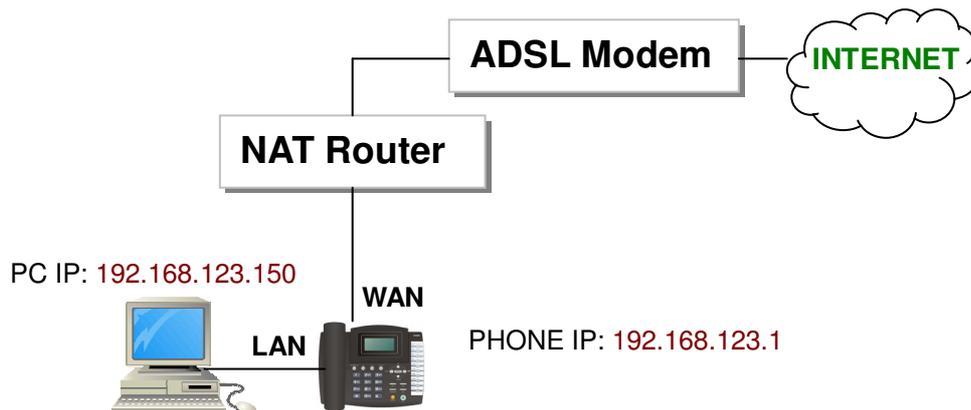
**V1.1p**

## Quick Guide

### Step 1: Broadband (ADSL/Cable Modem) Connections for VP301

- A. Connect VP301 RJ45 WAN port to ADSL NAT Router as the following connection.
- B. Connect VP301 RJ45 LAN port to Notebook PC LAN port using a Category 5 LAN cable.
- C. Connect 9VDC Power Adaptor. The LCD Panel will start showing **Loading Program!**
- D. The LCD panel will show **Date, Time** and **No service** without SIP registration, or **<phone number>** after successful SIP registration.
- E. Pick up the phone, and the LCD panel will show **IP Dialing...** Please hang up.
- F. Press **MENU / 4.Network / 2.Status** from the phone keypad to check the IP address (default: **192.168.123.1**) for VP301.
- G. The **MENU** key is used for escape, and the **ENTER** key for selection.

Figure A. ADSL Connections with NAT Router for VP301



### Step 2: Settings for VP301 from PC Web Browser

- A. This is an example for FWD ITSP provider using ADSL connection with NAT router as in Figure A. Both parties sign up to FWD SIP server <http://www.freeworlddialup.com> with individual registered FWD phone numbers and passwords.
- B. Enter the IP address from PC Web browser for configuration settings.  
**Example:** Enter <http://192.168.123.1> from IE Web browser to display login page.
- C. Enter the user name and password into the blank field. The default settings are Username: **root** Password: **test** . Click the **“Login”** button to enter for configurations.

**Login VoIP Gateway**

Username

Password

Remember last login

- D. You need to set up the following web configurations: **Network Settings, SIP Settings, WAN /LAN Settings**. Remember to submit, save and reboot for new configurations.
- E. The LCD will display the registered **<phone number>** after successful SIP registration in the SIP server. For more detail configurations, please refer the VoIP applications examples chapter.

### Step 3: Making Point-To-Point SIP Calls

- A. Pick up the phone, and you should hear a dial tone.
- B. Press **123456#** to call the party with the number **123456** registered in the SIP server. Note **#** is used to send out the call immediately. In a moment, you should hear the ring back tone, and wait for the called party to answer. For more applications, please refer to the user manual.

**Note: If you have difficulties in configuring VP301, please refer to the last chapter for trouble shootings.**

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# 1. Introductions

The VP301 is an LCD VoIP Phone with SIP Protocols for Voice over IP (VoIP) applications. This user's manual will explain the keypad instructions and web configurations for the VoIP Phone. VP301 can make a VoIP call over the ADSL Internet connection, and it provides one RJ45 WAN port for ADSL Internet connections plus one RJ45 LAN port for Notebook PC connection. With the embedded NAT/DHCP server, VP301 can be easily configured for different network diagrams by PC Web browser and telephone keypads. This is very suitable for ITSP (Internet Telephony Service Providers) and SOHO users to make VoIP calls.

Note that VP301 requires an IP address, a subnet mask, and its gateway Router IP address for its own use to connect to Internet. These three are available from your Internet service provider. VP301 may enable PPPoE or DHCP features to automatically get an assigned dynamic IP from the ITSP. Please refer to Section 7 Configurations by Web browser for detailed information.

# 2. Features

The VP301 VoIP TA is equipped with two RJ45 connectors and is featuring as the following

- SIP v1 (RFC2543), v2 (RFC3261) with MD5 authentication (RFC2069 and RFC 2617)
- RJ45 x 2 for Ethernet WAN and LAN ports
- ITU-T G.711, G.723, G.726, G.729A/B, VAD and CNG for Speech Codec
- ITU-T G.165/168 Echo Cancellation
- LCD Display for registered IP phone number
- Speaker/Microphone & Keypads for Redial / SpeakerPhone Hand-Free Calls
- Configurations by Web Browser and Telephone Keypads
- Embedded NAT/DHCP Server
- PPPoE/DHCP Client for Dynamic IP plus NAT, DNS, and DDNS Clients
- Support STUN server for NAT Traversal
- Hot Line Mode
- Dial Plan Settings
- Speed Dial, Call Forward/Waiting/Hold, and 3-Way Conference Call features
- Auto Configurations by TFTP, HTTP, or FTP server
- Firmware Upgraded with local HTTP or remote TFTP server by Web PC
- Direct IP/URL Dial without SIP Proxy or Dial number via SIP server
- Telephone features: Volume Adjustment, Phone book, Speed Dial, Redial, and Flash
- Out-Band DTMF (RFC 2833) / In-Band DTMF / Send DTMF SIP Info

### 3. Packing Contents

Inside the package you should find:

- (1) One VP301 SIP VoIP Phone
- (2) One AC to 9VDC/1A Power Adaptor
- (3) One User Manual CD

### 4. LCD Display and Keypads

The LCD display and keypads of VP301 are as the following.



## 5. Installations & Keypad Instructions

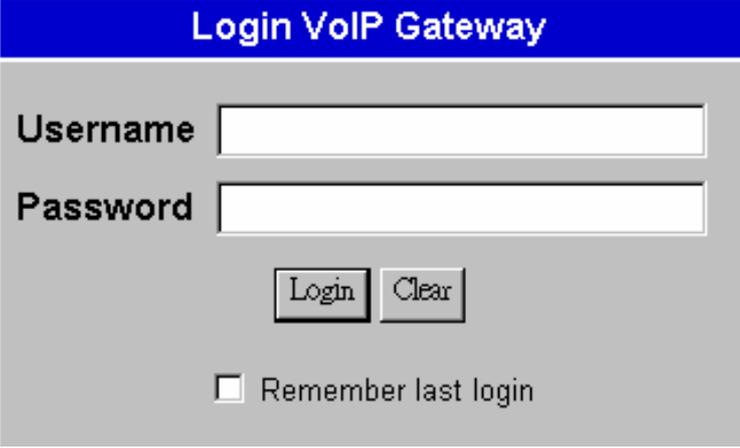
1. Connect VP301 RJ45 WAN port to NAT Router using a Category 5 LAN cable.
2. Connect VP301 RJ45 LAN port to Notebook PC using a Category 5 LAN cable.
3. Connect 9VDC power adaptor, and the LCD panel will start showing **Loading Program!** and **System Initialized**.
4. The LCD panel will show **Date, Time** and **No service** without SIP registration, or **<phone number>** after successful SIP registration.
5. Pick up the phone, and the LCD panel will show **IP Dialing..**, and you should hear a dial tone. Please hang up. If not, please check if the RJ45 WAN port is connected.
6. Press **MENU / 4.Network / 2.Status** from the keypad to check the IP address for VP301. The **MENU** key is used for escape, and the **ENTER** key for selection. The default IP address is **192.168.123.1**. You need this IP address for Web configurations in Chapter 7.
7. Please refer to Chapter 9 for VoIP applications examples of SIP registrations, and register VP301 into your SIP server.
8. The LCD panel will show **Date, Time** and registered **<phone number>** after successful SIP registration.
9. Press the green Hand-Free key, and you should hear a dial tone. Press **123456#** to call the party with the number **123456** registered in the SIP server. Note that **#** will dial out the number immediately. Dialing without **#** will not dial out until the auto dial timer (default=5 seconds) elapsed. In a moment, you should hear a ring back tone, and wait for answer.

## 6. Default Reset by Using Keypads

Press **MENU / 7.Administrator / 2.Default setting / 1.Load default** by using Menu and arrow keys to reset back to factory defaults, and the LCD panel will start showing **Loading Program** and **System Initialized**. Please use the **MENU** key for escape, and the **ENTER** key for selection. Press **MENU / 7.Administrator / 6.Restart** to reboot VP301.

## 7. Configurations by Web Browser

You may enter the IP address by PC Web browser to configure VP301. For example, enter <http://192.168.123.1> from IE web browser to display login page as follows.



The image shows a web browser window displaying the login page for a VoIP Gateway. The page has a blue header with the text "Login VoIP Gateway". Below the header, there are two input fields: "Username" and "Password". Below the "Password" field are two buttons: "Login" and "Clear". At the bottom, there is a checkbox labeled "Remember last login".

7.1. Please enter the username and password into the blank field. The default settings are:

Username: **root**

Password: **test**

7.2. Click the "**Login**" button will enter the management information page for system setup.

Note that whenever you change the setting in each Web page, please remember to click the "Submit" button in the page, and click the "Save" button to save into the non-volatile memory and click the "Reboot" button to activate the new settings.

## System Information

7.3. The system information shows firmware version, Codec, etc in this page.

7.4. You may click the button list at the left hand side to configure the VP301.

### System Information

This page illustrate the system related information.

- Phone Book
- Call Settings
- Network
- SIP Settings
- Auto Config
- User Password
- Save Change
- Update
- Reboot

Model Name:	VoIP Phone
Firmware Version:	Tue Jun 20 13:45:11 2006. (001p)
Codec Version:	Fri Jun 16 15:22:27 2006.

## Phone Book

- 7.5. User may enter the all the calling numbers in the Phone Book page.
- 7.6. You may display the phonebook numbers from the PHONEBOOK function key.
- 7.7. If you need to add a phone number into the list, you need to enter the position, the name, and the phone number (by URL type). When you finished a new phone list, just click the “Add Phone” button.
- 7.8. If you want to delete a phone number, please select the phone number you want to delete then click “Delete Selected” button.
- 7.9. If you want to delete all phone numbers, please click “Delete All” button.

## Phone Book

You could add/delete items in current phone book.

- Phone **Phone Book**
- Call Speed Dial Settings
- Network Hot Line Setting
- SIP Settings
- Auto Config
- User Password
- Save Change
- Update
- Reboot

Phone Book Page: page 1

Phone	Name	URL	Select
0			<input type="checkbox"/>
1			<input checked="" type="checkbox"/>
2			<input type="checkbox"/>
3			<input checked="" type="checkbox"/>
4			<input type="checkbox"/>
5			<input checked="" type="checkbox"/>
6			<input type="checkbox"/>
7			<input checked="" type="checkbox"/>
8			<input type="checkbox"/>
9			<input checked="" type="checkbox"/>

### Add New Phone

Position:  (0~139)  
Name:   
URL:

## Speed Dial Phone List

- 7.10. For Speed Dial function you can add/delete Speed Dial number up to maximum 10 entries in Speed Dial Phone List.
- 7.11. If you need to add a phone number into the Speed Dial list, you need to enter the position, the name, and the phone number (by URL type). When you finished a new phone list, just click the “Add Phone” button.
- 7.12. If you want to delete a phone number, please select the phone number you want to delete then click “Delete Selected” button.
- 7.13. If you want to delete all phone numbers, please click “Delete All” button.
- 7.14. **Example:** Press **2#** on telephone to Speed Dial the phone number **2** immediately.

## Speed Dial Phone List

You could set the speed dial phones in this page.

- Phon Phone Book
- Call Speed Dial Settings
- Netw Hot Line Setting
- SIP Settings
- Auto Config
- User Password
- Save Change
- Update
- Reboot

Phone	Name	URL	Select
0			<input type="checkbox"/>
1			<input checked="" type="checkbox"/>
2			<input type="checkbox"/>
3			<input checked="" type="checkbox"/>
4			<input type="checkbox"/>
5			<input checked="" type="checkbox"/>
6			<input type="checkbox"/>
7			<input checked="" type="checkbox"/>
8			<input type="checkbox"/>
9			<input checked="" type="checkbox"/>

### Add New Phone

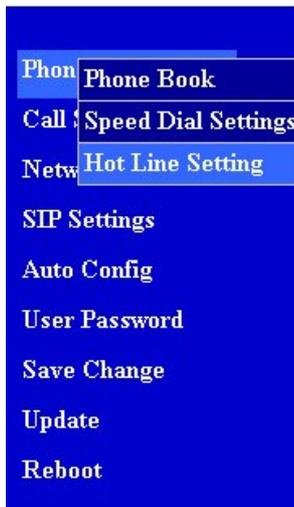
Position:  (0~9)  
Name:   
URL:

## Hot Line Setting

- 7.15. The Hot Line mode allows user to make a direct call at the IP stored in this page without dialing. Hot-Line Mode is very convenient for IP calling to Public Switching Telephone Network (PSTN) number through FXO Gateway
- 7.16. When the Hot Line mode is enabled, you may pick up the phone and the VP301 will call the party directly to the preset IP (or URL) address. The default for Hot Line is OFF.
- 7.17. You need to set “ON” and click the “Submit” button and reboot to activate the function.
- 7.18. Pick up the phone. In 1 second (wait time), the VP301 will automatically call the preset IP number. Note that during the wait time you may press different IP phone number to make a regular IP call, and the Hot Line function will be temporarily stopped.

## Hot Line Setting

You could set the Hot Line number of your phone in this page.



Hot Line Setting:  Off  On

	Name	URL
Hot Line No.:	<input type="text" value="aaa"/>	<input type="text" value="192.168.0.101"/>

Waiting Time:  (1~3 Seconds)

## Call Settings

7.19. The subpages are as follows; Call Forward, SNTP, Volume, Melody (Ringer), Block Settings, Dial Plan, and Call Waiting functions.

### Call Forward function:

7.20. You can select the forward mode and enter the forward URL.

**All Forward:** All incoming call will forward to the URL you choose.

**Busy Forward:** The incoming call will forward to the URL when the callee is busy.

**No Answer Forward:** The incoming call will forward to the URL when no answer.

Note you have to set the No\_Answer Fwd Time Out timer to initiate forwarding call to the number you choosed. When you finished the setting, please click the "Submit" button.

## Forward Setting

You could set the forward number of your phone in this page.



All Forward:  Off  On  
Busy Forward:  Off  On  
No Answer Forward:  Off  On

	Name	URL
All Fwd No.:	<input type="text"/>	<input type="text"/>
Busy Fwd No.:	<input type="text"/>	<input type="text"/>
No Answer Fwd No.:	<input type="text"/>	<input type="text"/>
No Answer Fwd Time Out:	<input type="text" value="3"/> (2~8 Ring)	

## SNTP Setting:

7.21. You can setup the primary and second SNTP Server IP Address, to get the date/time information. You may also set the Time Zone, and how long need to synchronize again. When you finished the setting, please click the “Submit” button.

## SNTP Settings

You could set the SNTP servers in this page.

Phone Book	
Call	Call Forward
Netw	SNTP Settings
SIP S	Volume Settings
Auto	Melody Settings
User	Block Settings
Save	Dial Plan Settings
	Call Waiting
Update	
Reboot	

SNTP:  On  Off

Primary Server:

Secondary Server:

Time Zone: GMT    (hh:mm)

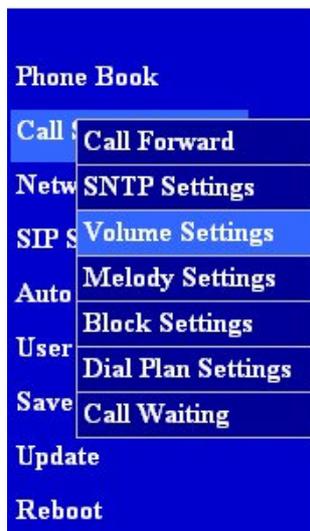
Sync. Time:    (dd:hh:mm)

## Volume Setting:

7.22. You can setup the Handset Volume, Ringer Volume, and the Handset Gain in this page. When you finished the setting, please click the “Submit” button. Handset Volume is to set the volume to hear from the handset. Ringer Volume is to set the ringer volume. PSTN-Out Volume is to set the PSTN volume for you to hear. Handset Gain is to set the volume send out to the other side's handset. PSTN-In Gain is to set the volume send out to the other side's handset.

## Volume Setting

You could set the volume of your phone in this page.



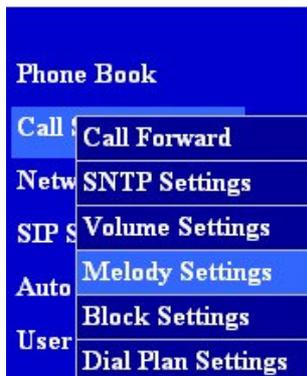
Handset Volume:	<input type="text" value="10"/>	(0~15)
Speaker Volume:	<input type="text" value="10"/>	(0~15)
Ringer Volume:	<input type="text" value="10"/>	(0~10)
Handset Gain:	<input type="text" value="10"/>	(0~15)
Speaker Gain:	<input type="text" value="10"/>	(0~15)

## Melody (Ringer) Settings:

7.23. You may set ON the ringer and select different ringer type for Melody settings.

## Ringer Settings

You could set your favorite ringer in this page.



Ringer:  On  Off

Ringer Type:

## Block Setting:

7.24. You can setup the Block Setting to keep the phone silence. You can choose either Always Block or a Block period.

7.25. Always Block: All incoming call will be blocked until this feature is disabled.

7.26. Block Period: Set a time period and the phone will be blocked during the time period. If the time in “From” is greater than that in “To” time, the Block time will be from Day 1 to Day 2.

7.27. After you finished the setting, please click the “Submit” button.

## Block Setting

You could set the block period of your phone in this page.

Phone Book	
Call	Call Forward
Netw	SNTP Settings
SIP s	Volume Settings
Auto	Melody Settings
User	Block Settings
Save	Dial Plan Settings
	Call Waiting
Update	
Reboot	

Always Block:  On  Off

Block Period:  On  Off

From:  :  (hh:mm)

To:  :  (hh:mm)

Submit

Reset

## Dial Plan Setting:

7.28. Dial plan and auto dial settings can be set in this page. The dial plan allows you to map the dialing into an easy-to-remember phone number system. The auto dial timer specifies the elapse time to start sending out calling number after finished dialing. When replace prefix code is OFF, the calling number are the same as the dialing number. When the prefix code is ON, the auto prefix rules will be applied in accord with the settings.

7.29. Symbol explanations:

Symbol	Representations
x or X	0,1,2,3,4,5,6,7,8,9
+	or

7.30. Replace rule: If replace prefix code is ON and prefix number is matched with rule 001 or 006 or 009 then the prefix will be replaced with 005 as the example below.

7.31. Dial Plan: When the first dialing digits matched with one of the patterns, VP301 will send out the matched corresponding number immediately.

7.32. Example:

Dial Plan	Descriptions
*xx	To dial one of *00, *01, ..., *99 will send out the number immediately
#xx	To dial one of #00, #01, ..., #99 will send out the number immediately
10x	To dial one of 100,101, ...,109 will send out the number immediately
11x	To dial one of 110,111, ...,119 will send out the number immediately
Xxxxxxxx	To dial 8 digits will send out the number immediately

7.33. Auto Prefix: Prefix number will be added if the Dial Plan or Unset Plan are NOT matched.

7.34. Prefix Unset Plan: When first dialing digits or dial numbers match with pattern then VP301 will ignore auto prefix.

7.35. Example:

Prefix Unset Plan	Descriptions
0	Ignore auto prefix if first digit is '0'
1	Ignore auto prefix if first digit is '1'
xxxx	Dialing with 4 digits will ignore auto prefix
xXxXxX	Dialing with 6 digits will ignore auto prefix

7.36. Auto Dial Timer : The inter-digit timer. Default is 5 seconds.

7.37. When you finish the setting, please click the Submit button.

7.38. Click the Save Change Item in the left side, then click the Save button. The changes you have made will be saved into the system and the system will Reboot automatically.

## Dial Plan Settings

You could the set the dial plan in this page.



Replace prefix code:  On  Off

Replace rule:  ->

Dial Plan:

Auto Prefix:  (0000~9999)

Prefix Unset Plan:

Auto Dial Time:  (3~9 sec)

### Call Waiting Setting:

7.39. You can enable the call waiting function in this page. It allows answering another coming call by pressing flash key while holding the current call. You may switch back to previous call by pressing flash key again. When you finished the setting, please click the “Submit” button.

## Call Waiting Setting

You could enable/disable the call waiting setting in this page.



Call Waiting:  On  Off

## Network

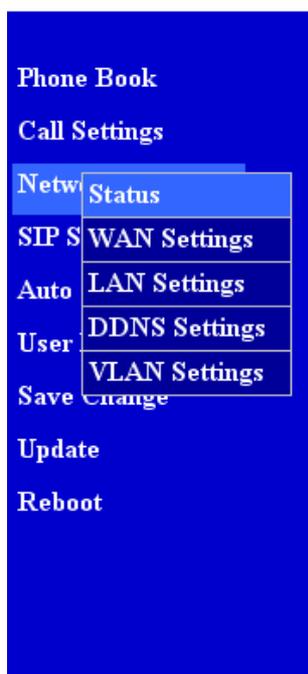
7.40. You can check the Network status, and configure the WAN, LAN, DDNS, and VLAN settings in this section.

### Network Status:

7.41. You can check and show the current Network setting in this page.

## Network Status

This page shows current status of network interfaces of the system.



A vertical navigation menu with a blue background and white text. The items are: Phone Book, Call Settings, Network Status (highlighted with a white background), SIP Settings, WAN Settings, Auto, LAN Settings, User, DDNS Settings, Save, Change, VLAN Settings, Update, and Reboot.

Interface WAN	
Type:	DHCP Client
IP:	192.168.0.200
Mask:	255.255.255.0
Gateway:	192.168.0.254
DNS Server 1:	168.95.192.1
DNS Server 2:	168.95.1.1

Interface LAN	
Type:	DHCP Server
IP:	192.168.123.1
Mask:	255.255.255.0
Gateway:	192.168.123.1
DNS Server 1:	168.95.192.1
DNS Server 2:	168.95.1.1

## WAN Settings:

- 7.42. The WAN setting is used to configure the Ethernet port connects to the ADSL Modem/Router.
- 7.43. The default setting is NAT mode for VP301, and this enables the embedded NAT router between the VP301 LAN port and PC port. You may change to Bridge Mode if you need NOT use the embedded NAT router. When setting to Bridge Mode, only the WAN settings will get effective and the LAN setting in the next section will be ignored.
- 7.44. There are three selections for WAN: Fixed IP, DHCP Client, and PPPoE modes. This WAN setting is for the VP301 LAN port when set in NAT mode. The WAN default is at DHCP Client Mode.
- 7.45. For Fix IP Mode, please make sure the IP address, Net Mask, Gateway, and DNS settings are suitable in your current network environment.
- 7.46. For PPPoE Mode, you have to enter correct username and password to get the IP address from your Internet Service Provider.
- 7.47. When you finished the setting, please click the Submit button.

## WAN Settings

You could configure the WAN settings in this page.

- Phone Book
- Call Settings
- Network
  - Status
  - WAN Settings
  - LAN Settings
  - DDNS Settings
  - VLAN Settings
- Save Change
- Update
- Reboot

LAN Mode:  Bridge  NAT

### WAN Setting

IP Type:  Fixed IP  DHCP Client  PPPoE

IP:

Mask:

Gateway:

DNS Server1:

DNS Server2:

MAC:

### PPPoE Setting

User Name:

Password:

## LAN Settings:

- 7.48. The default IP address is 192.168.123.1 for VP301, with Net Mask 255.255.255.0., and DHCP Server enabled. The IP addresses for DHCP are from 150 to 200.
- 7.49. Connect your PC to the PC port, set your PC as DHCP Client mode, then the PC will get an IP address from the TA automatically.
- 7.50. When you finished the setting, please click the Submit button.

## LAN Settings

You could configure the LAN settings in this page.

- Phone Book
- Call Settings
- Network
  - Status
  - WAN Settings
  - LAN Settings
  - DDNS Settings
  - VLAN Settings
- Auto Change
- User
- Save
- Update
- Reboot

LAN Setting	
IP:	<input type="text" value="192.168.123.1"/>
Mask:	<input type="text" value="255.255.255.0"/>
MAC:	<input type="text" value="000926ccddee"/>

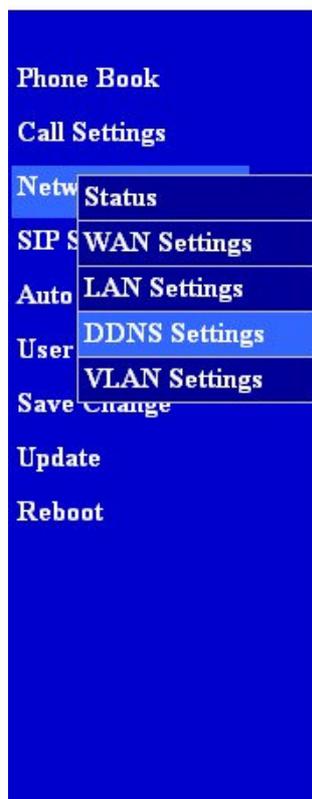
DHCP Server	
DHCP Server:	<input checked="" type="radio"/> On <input type="radio"/> Off
Start IP:	<input type="text" value="150"/>
End IP:	<input type="text" value="200"/>
Lease Time:	<input type="text" value="1"/> : <input type="text" value="0"/> (dd:hh)

## DDNS Setting:

7.51. You can configure the DDNS setting in this page. You need to have the DDNS account before entering the information. When you finished the setting, please click the Submit button.

## DDNS Settings

You could set the configuration of DDNS in this page.



DDNS:  On  Off

Host Name:

User Name:

Password:

E-mail Address:

DDNS Server:

DDNS Server List:

Type:

Wild Card:

BACKMX:  On  Off

Off Line:  On  Off

Submit

Reset

## VLAN Setting:

7.52. There are two parts for VLAN settings. One is to set for VoIP packets related to VP301, and the other is for the VLAN setting in the NAT Mode.

7.53. There are two kinds of destination packets coming to the TA's LAN port, one is VoIP packets for VP301, and the other will go through the LAN port to the PC port.

7.54. VLAN Packets: If you enable VLAN Packets and set the VID, User Priority, and CFI, then all the incoming packets will be checked with the IP Address and the VID.

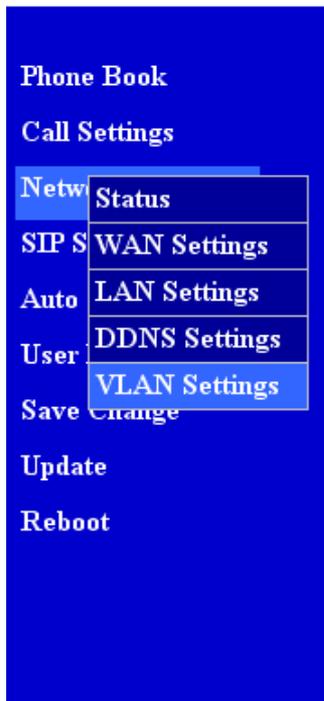
7.55. VID: Please set your VID in accordance with your service provider.

7.56. User Priority: Defines user priority with eight ( $2^3$ ) priority levels. IEEE 802.1P defines the operation for these 3 user priority bits. Usually, this will be defined by your service provider.

- 7.57. CFI: Canonical Format Indicator is always set to zero for Ethernet switches. CFI is used for compatibility between Ethernet type network and Token Ring type network. If a frame received at an Ethernet port has a CFI set to 1, then that frame should not be forwarded as it is to an untagged port. When you enable the first VLAN Packets and set the VID, User Priority, and CFI, then all the incoming packets with the TA's IP address and the same VID will be accept by the TA. If the incoming packets with TA's IP address but different VID then the packets will be discard by the TA. The Other incoming packets with different IP address will go through the LAN port to the PC.
- 7.58. NAT VLAN Setting: When VP301 is set in embedded NAT mode, the TA will filter out the wrong incoming packets. You can separate the other devices connected behind the embedded NAT into 4 VLAN groups by assigning different VID for these 4 groups. The VP301 will check the VID of the incoming packets from ADSL modem. If the packet is not with the VP301 IP address and the right VID, or the VID is not of of these 4 VIDs you set, then the packets will be discarded by the VP301

## VLAN Settings

You could set the VLAN settings in this page.



VLAN Packets:  Off  On

VID:  (2 ~ 4094)

User Priority:  (0 ~ 7)

CFI:  (0 ~ 1)

**NAT VLAN Setting**

VLAN Packets:  Off  On

VID1:  (2 ~ 4094), 0->Off

VID2:  (2 ~ 4094), 0->Off

VID3:  (2 ~ 4094), 0->Off

VID4:  (2 ~ 4094), 0->Off

## SIP Settings

7.59. You can setup the Service Domain, Port Settings, Codec Settings, RTP Setting, RPort Setting and Other Settings for SIP Proxy Server registrations in this page.

### Service Domain Settings:

7.60. You may register up to three SIP accounts in the VP301. You can call your friends via firstly enabled SIP account and receive the phone calls from all the three SIP accounts.

7.61. Click “**Active**” ON to enable the Service Domain, then enter the following items:

7.62. **Display Name:** enter the name you want to display.

7.63. **User Name:** enter the User Name given by your ITSP.

7.64. **Register Name:** enter the Register Name given by your ITSP.

7.65. **Register Password:** enter the Register Password given by your ITSP.

7.66. **Domain Server:** enter the Domain Server given by your ITSP.

7.67. **Proxy Server:** enter the Proxy Server given by your ITSP.

7.68. **Outbound Proxy:** enter the Outbound Proxy of ITSP. If not provided, you may skip this.

7.69. **Register Period:** enter the Register Period in minute given by your ITSP.

7.70. When it shows “**Registered**” in the Register Status, it indicates a successful registration to the ITSP, and the “**PHONE**” LED will start flashing. The VP301 is then ready for VoIP call.

7.71. If you have more than one SIP account, please follow the steps to register to other ITSPs.

7.72. After you finished the setting, please click the “Submit” button.

### DTMF Settings:

7.73. You can setup the options for DTMF function in this page. The options include RFC2833 (Outband DTMF), Inband DTMF, and Send DTMF SIP info. The default is set at Inband DTMF. If you are making two-stage callings for extension to PSTN, you might need to select Outband DTMF option.

### Port Settings:

7.74. You can setup the SIP and RTP port number in this page. Each ITSP provider might have different SIP/RTP port setting, please refer to the ITSP to setup the port number correctly. When you finished the setting, please click the “Submit” button. The defaults for SIP port and RTP port are 5060 and 60000, respectively.

### STUN Settings:

7.75. The STUN function must be enabled to work properly behind NAT when registered in SIP server. You may enter the STUN server IP address and the STUN port number as shown in the following example.

# Service Domain Settings

You could set information of service domains in this page.

Phone Book

Call Settings

Network

SIP S **Service Domain**

Auto **Codec Settings**

User **Codec ID Setting**

Save **Other Settings**

Update

Reboot

## Realm

Active:  On  Off

Display Name:

User Name:

Register Name:

Register Password:

Domain Server:

Proxy Server:

Outbound Proxy:

Status: Not Registered

## DTMF Setting

2833

Inband DTMF

Send DTMF SIP Info

## Port Setting

SIP Port:  (1024~65535)

RTP Port:  (1024~65535)

## STUN Setting

STUN:  On  Off

STUN Server:

STUN Port:

Submit

Reset

## Codec Settings:

7.76. You can setup the Codec priority, RTP packet length, and VAD function in this page. You need to follow the ITSP recommendations to setup these items.

# Codec Settings

You could set the codec settings in this page.

- Phone Book
- Call Settings
- Network
- SIP S
  - Service Domain
  - Codec Settings
  - Codec ID Setting
  - Other Settings
- Auto
- User
- Save
- Update
- Reboot

### Codec Priority

Codec Priority 1:	G.711 u-law
Codec Priority 2:	G.711 a-law
Codec Priority 3:	G.729
Codec Priority 4:	G.723
Codec Priority 5:	G.726 - 16
Codec Priority 6:	G.726 - 24
Codec Priority 7:	G.726 - 32
Codec Priority 8:	G.726 - 40

### RTP Packet Length

G.711 & G.729:	20 ms
G.723:	30 ms

### G.723 5.3K

G.723 5.3K:  On  Off

### Voice VAD

Voice VAD:  On  Off

### Codec ID Settings:

7.77. You can setup the Codec ID in this page. You need to follow the ITSP suggestion to setup these items.

## Codec ID Setting

You could set the value of Codec ID in this page.

- Phone Book
- Call Settings
- Network
- SIP S
  - Service Domain
- Auto
  - Codec Settings
- User
  - Codec ID Setting
- Save
  - Other Settings

Codec Type	ID	Default Value
G726-16 ID:	<input type="text" value="23"/> (95~255)	<input checked="" type="checkbox"/> 23
G726-24 ID:	<input type="text" value="22"/> (95~255)	<input checked="" type="checkbox"/> 22
G726-32 ID:	<input type="text" value="2"/> (95~255)	<input checked="" type="checkbox"/> 2
G726-40 ID:	<input type="text" value="21"/> (95~255)	<input checked="" type="checkbox"/> 21
RFC 2833 ID:	<input type="text" value="101"/> (95~255)	<input checked="" type="checkbox"/> 101

### Other Settings:

7.78. You can setup the Hold by RFC and QoS in this page. To change these settings please follows your ITSP information. When you finished the setting, please click the Submit button. The QoS is used to set the voice packet priority. Higher value other than zero will get higher priority for the voice packets in Internet. However, the QoS function still needs to cooperate with the other Internet devices.

## Other Settings

You could set other settings in this page.

- Phone Book
- Call Settings
- Network
- SIP S
  - Service Domain
- Auto
  - Codec Settings
- User
  - Codec ID Setting
- Save
  - Other Settings

Hold by RFC:  On  Off

Voice QoS:  (0~63)

SIP QoS:  (0~63)

SIP Expire Time:  (60~86400 sec)

## Auto Configuration Setting

7.79. Auto Configuration function can be used to download the configurations stored in the TFTP, HTTP, or FTP server. After enabling the function, please click the “Submit” button. Remember to click “Save” in the **Save Change** section. The VS110 will then reboot and automatically download the configurations from the corresponding server. Note that the TFTP download works only for public IP address.

### Auto Configuration Setting

You could enable/disable the auto configuration setting in this page.

- Phone Book
- Call Settings
- Network
- SIP Settings
- Auto Config**
- User Password
- Save Change
- Update
- Reboot

Auto Configuration:  Off  TFTP  FTP  HTTP

TFTP Server:	<input type="text" value="61.66.159.237"/>
HTTP Server:	<input type="text"/>
FTP Server:	<input type="text"/>
FTP Username:	<input type="text"/>
FTP Password:	<input type="text"/>
File Path:	<input type="text"/>

- Phone Book
- Call Settings
- Network
- SIP Settings
- Auto Config**
- User Password
- Save Change
- Update
- Reboot

## Auto Configuration Setting

You could enable/disable the auto configuration setting in this page.

Auto Configuration:  Off  TFTP  FTP  HTTP

TFTP Server:	<input type="text"/>
HTTP Server:	<input type="text" value="www.yoda.com.tw"/>
FTP Server:	<input type="text"/>
FTP Username:	<input type="text"/>
FTP Password:	<input type="password"/>
File Path:	<input type="text" value="/vsaps/"/>

- Phone Book
- Call Settings
- Network
- SIP Settings
- Auto Config**
- User Password
- Save Change
- Update
- Reboot

## Auto Configuration Setting

You could enable/disable the auto configuration setting in this page.

Auto Configuration:  Off  TFTP  FTP  HTTP

TFTP Server:	<input type="text"/>
HTTP Server:	<input type="text"/>
FTP Server:	<input type="text" value="ftp.yoda.com.tw"/>
FTP Username:	<input type="text" value="anonymous"/>
FTP Password:	<input type="password" value="••••"/>
File Path:	<input type="text" value="/vsaps/"/>

## User Password

7.80. You may change the login name and password in this page.



## User Password

You could change the login username/password in this page.

---

New username:

New password:

Confirmed password:

## Save Changes

7.81. You can save the changes you have made, and click the Save button. After clicking the "Save" button, the VP301 will automatically save the new settings.



## Save Changes

You have to save changes to effect them.

---

Save Changes:

## Update

- 7.82. VP301 provides two methods, HTTP or TFTP, to update new firmware as the following steps:
- 7.83. Select the firmware code type, Risc or DSP code. (mostly for Risc code)
- 7.84. Click the “Browse” button to choose the updated file location for HTTP download, or
- 7.85. Select TFTP and enter the IP address of TFTP server for firmware download, then click the “Update” button.



## Update Firmware

You could update the newest firmware.

**Method:**  HTTP  TFTP

### HTTP

Code Type: Risc

File Location:

### TFTP

TFTP Server:

## Update Firmware

You could update the newest firmware.

**Method:**  HTTP  TFTP

### HTTP

Code Type: Risc

File Location:

### TFTP

TFTP Server:



- 7.86. After clicking the “Update” button, the firmware list will be displayed from server to indicate the available firmware for download.
- 7.87. Select the new file you want to download to the VP301 then click the “Select” button.
- 7.88. The LCD display will start showing **Loading Program** and **System Initialized**. Then, you need to login again new IP address which is available from LCD display. Press **MENU / 4.Network / 2.Status** from the phone keypad to check the IP address.

## Firmware List

You could choose one of the firmware to update.

No	Risc Version List	Select
0	ny00li.gz	<input type="radio"/>
1		
2		<input type="radio"/>
3		
4		<input type="radio"/>
5		
6		<input type="radio"/>
7		
8		<input type="radio"/>
9		

No	DSP Version List	Select
0		<input type="radio"/>
1		
2		<input type="radio"/>
3		
4		<input type="radio"/>

- 7.89. **NOTE: Do NOT power OFF the VP301 after clicking the “Select” button, or you may damage the VP301.**
- 7.90. **NOTE: The remote TFTP download works only for public IP address.**

### Default Settings:

7.91. You can restore the VP301 to factory default in this page. By clicking the “Restore” button, the VP301 will restore to default and automatically restart again.

## Restore Default Settings

You could click the restore button to restore the factory settings.

---



Restore default settings:

## Reboot

7.92. You may click the Reboot button to restart, then VP301 will automatically reboot with the stored configurations.

## Reboot System

You could press the reboot button to restart the system.

---



Reboot system:

## 8. LCD Display with Keypad Settings

You can use keypad to configure and to check the status of VP301. Make sure that the WAN port is connected to ADSL Ethernet, or you may hear a busy tone from the telephone.

### Keypad descriptions

Key Name	Description	Note
1	"1", "-", " ", "!", "?"	
2	"2", "a", "b", "c", "A", "B", "C"	
3	"3", "d", "e", "f", "D", "E", "F"	
4	"4", "g", "h", "i", "G", "H", "I"	
5	"5", "j", "k", "l", "J", "K", "L"	
6	"6", "m", "n", "o", "M", "N", "O"	
7	"7", "p", "q", "r", "s", "P", "Q", "R", "S"	
8	"8", "t", "u", "v", "T", "U", "V"	
9	"9", "w", "x", "y", "z", "W", "X", "Y", "Z"	
0	"0", "space"	
*	"*" " " " " @"	
#	Start dialing or sending process	
UP/DOWN	This is Up ↑ and Down ↓ key	
LEFT/RIGHT	This is Left ← and Right → key	
MENU	This is the "Menu" key to set the IP Phone	
ENTER	This is "OK", accept setting	
CID	This is Incoming caller ID	
OUT	This is out going call list	
PHONEBOOK	This shows the phonebook list	
VOLUME -/+	This is volume setting	
TRANSFER	This is same as the Flash key	
DEL	This is "Delete", Delete word or phone number	
REDIAL	This is "REDIAL" the last number again	
H-F	This key is Hand-Free Speaker Phone	
M1~M6	M1 to M6 are keys for 6 speed dial numbers.	
HOLD	This is "HOLD" function	
CONF	This is for three way conference function	
FWD	This is "Forward" function	
DND	This is "Denial/No Disturb" function	

## LCD Display with Keypad Settings

### 1. Phone Book

- 1.1 Search: Search Phone Book.
- 1.2 Add entry: Add new phone number to phone book.
- 1.3 Speed dial: Add speed dial phone number to speed dial list.
- 1.4 Erase all: Erase all phone number from Phone Book.

### 2. Call history

- 2.1 Incoming calls: Show all incoming call.
- 2.2 Dialed numbers: Show all dialed call.
- 2.3 Erase record: Delete call history.
  - 2.3.1 All: Delete all call history.
  - 2.3.2 Incoming: Delete all incoming call.
  - 2.3.3 Dialed: Delete all dialed out call.

### 3. Phone setting

#### 3.1 Call forward:

- 3.1.1 All Forward:
  - 3.1.1.1 Activation: To Enabled/Disabled this function.
  - 3.1.1.2 Number: Forward to a Speed Dial Number.
- 3.1.2 Busy Forward.
  - 3.1.2.1 Activation: To Enabled/Disabled this function.
  - 3.1.2.2 Number: Forward to a Speed Dial Number.
- 3.1.3 No Answer Forward.
  - 3.1.3.1 Activation: To Enabled/Disabled this function.
  - 3.1.3.2 Number: Forward to a Speed Dial Number.
- 3.1.4 Ring Timeout: Set the Ring times to start the No Answer Forward function.  
Ex: 2 means after 2 rings to forward to the number.

#### 3.2 Block Setting

- 3.2.1 All: Block all calls
- 3.2.2 By Time: Block calls by the time
- 3.2.3 Duration: Set the start time and end time to Block calls.

#### 3.3 Date/Time setting:

- 3.3.1 Date & Time: Set the IP Phone Date and Time.:
- 3.3.2 SNTP setting:
  - 3.3.2.1 SNTP: Enabled / Disable SNTP.
  - 3.3.2.2 Primary SNTP: Set Primary SNTP server IP address.
  - 3.3.2.3 Secondary SNTP: Set Secondary SNTP server IP address.
  - 3.3.2.4 Time zone: Set Time zone.
  - 3.3.2.5 Adjustment Time: Set adjustment time period.

### 3.4 Volume and Gain

- 3.4.1 Handset volume: Set Handset volume from 0~15 (max.) for you to hear.
- 3.4.2 Speaker volume: Set Speaker phone volume from 0~15 (max.) for you to hear.
- 3.4.3 Handset Gain: Set Handset Gain from 0~15 (max.) for remote site to hear.
- 3.4.4 Speaker Gain: Set Speakerphone Gain from 0~15 (max.) for remote to hear.

### 3.5 Ringer:

- 3.5.1 Ringer volume: Ringer volume setting from 0~15 (max.).
- 3.5.2 Ringer type: Ringer tone selection from 1~4.

3.6 Auto Dial: Set Auto Dial time from 3~9 seconds.

## 4. Network

### 4.1 WAN Setup:

- 4.1.1 IP Type:
  - 4.1.1.1 Fixed IP client
  - 4.1.1.2 DHCP client:
  - 4.1.1.3 PPPoE client:
- 4.1.2 Fixed IP setting:
  - 4.1.2.1 Host IP
  - 4.1.2.2 Network mask
  - 4.1.2.3 Gateway IP
  - 4.1.2.4 MAC address
- 4.1.3 PPPoE setting:
  - 4.1.3.1 User name
  - 4.1.3.2 Password

### 4.2 LAN Setup:

- 4.2.1 Bridge
- 4.2.2 NAT

### 4.3 DNS Server:

- 4.3.1 Primary DNS
- 4.3.2 Secondary DNS

### 4.4 VLAN:

- 4.4.1 Activation
- 4.4.2 VID
- 4.4.3 Priority
- 4.4.4 CFI

4.5 Status: Show IP address and MAC address.

## 5. SIP Settings

### 5.1 Service Domain

If you use keypad to set the SIP setting, you have to go to **Administrator/System Authentication** to input the password, or the SIP setting may not be changed.

#### 5.1.1 First realm

##### 5.1.1.1 Activation:

##### 5.1.1.2 User name:

##### 5.1.1.3 Display name:

##### 5.1.1.4 Register name:

##### 5.1.1.5 Register password:

5.1.1.6 Proxy server: Proxy Server IP Address

5.1.1.7 Domain server: Domain Server IP Address

5.1.1.8 Outbound proxy: Outbound Proxy IP Address

### 5.2 Codec

#### 5.2.1 Codec type

5.2.1.1 G.711 uLaw: G.711 uLaw

5.2.1.2 G.711 aLaw: G.711 aLaw

5.2.1.3 G.723: G.723.1

5.2.1.4 G.729: G.729A

5.2.1.5 G.726-16: G.726 16Kbps

5.2.1.6 G.726-24: G.726 24Kbps

5.2.1.7 G.726-32: G.726 32Kbps

5.2.1.8 G.726-40: G.726 40Kbps

5.2.2 VAD: Voice Activity Detection Enable/Disable.

### 5.3 RTP Setting:

5.3.1 Outband DTMF: Outband DTMF Enabled/Disabled

#### 5.3.2 Duplicate RTP

5.3.2.1 No duplicate:

5.3.2.2 One duplicate:

5.3.2.3 Two duplicate:

5.4 RPort Setting: RPort Enabled/Disabled

5.5 Hold by RFC: Hold by RFC3261

5.6 Status: Use UP/Down key to show the SIP Proxy register status.

## 6. NAT Transversal

### 6.1 STUN setting

6.1.1 STUN: STUN Enabled/Disabled

6.1.2 STUN server: Server IP Address

## 7. Administrator

### 7.1 Auto Config

7.1.1 Config Mode: Select Disable/TFTP/FTP to do the auto config function.

This function must work with the Auto Config Server.

7.1.2 TFTP server: Setting the TFTP server IP address.

7.1.3 FTP server: Setting the FTP server IP address.

7.1.4 FTP Login Name: Setting the login name to the FTP server.

7.1.5 FTP Password: Setting the Password to the FTP server.

7.2 Default setting: You can restore to the default setting.

7.3 System Authentication: To do the SIP setting from Keypad, you need to enter the password first. Default is "test".

7.4 Version: This shows the firmware version.

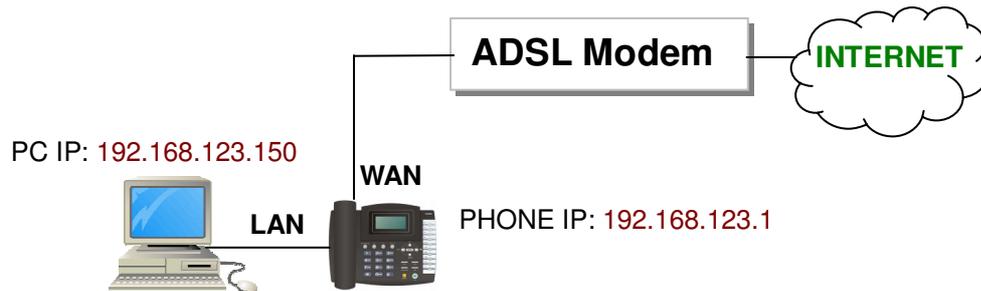
7.5 Watch Dog: This enables Watch Dog function for debugging.

7.6 Restart: This function will restart your IP Phone.

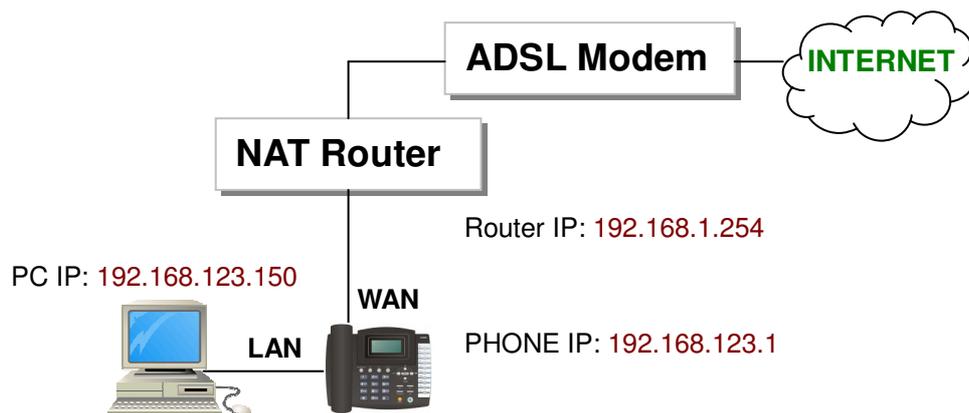
## 9. VoIP Application Examples

You can use PC Web browser to configure VP301. For example, enter <http://192.168.123.1> from PC web browser.

### A. ADSL Connections with embedded NAT Router in VP301



### B. ADSL Connections with external NAT Router for VP301



## Example 1: Point-to-Point SIP Calling/Answering

### Applications:

The applications can be for ADSL connections as in both Diagrams A and B. Both parties are registered to SIP server with private IP under NAT router. The Point-to-Point SIP calling works when both calling and answering parties are registered to SIP server with given registered phone numbers. Please refer to **Example 6** for detailed SIP server registrations.

### Configurations:

1. Select “**DHCP Client**” in the “**Network / WAN settings**” pages,
2. Remember to click the “**Submit**” button,
3. Select Active “**ON**” in the “**SIP settings / Service Domain**” pages,
4. Enter the **Register Name, Register Password, Proxy Server, and Outbound Proxy**,
5. Select “**ON**” in “**STUN setting**” section, if Outbound Proxy is NOT available.
6. Upon successful SIP registration, the LCD will show registered <phone number>.

### Callings:

7. Pick up the phone, and you should hear a dial tone.
8. Press **1688#** or **1688** to call the party with the registered SIP phone number **1688**. Note that **#** key will dial out the number immediately. Dialing without **#** will not dial out until the auto dial timer (default=5 seconds) elapsed.

## Example 2: SIP to Direct IP Calling

### Applications:

The application is for the calling party with ADSL connection as in either Diagrams A or B. The calling party is registered to SIP server with either fixed real IP or private IP under NAT router. The answering party is with fixed real IP.

### Configurations:

1. Same as in **Example 1**.
2. Select “**ON**” in “**STUN setting**” page, if Outbound Proxy is NOT available.
3. Upon successful SIP registration, the LCD will show registered <phone number>.

### Callings:

4. Press Hand-Free key for speakerphone, and you should hear a dial tone.
5. Press **211\*21\*191\*4#** or **211\*21\*191\*4** to call the party with the real IP address of **211.21.191.4**. In a moment, you should hear a ring back tone, and wait for the VoIP called party to answer.

### Example 3: Direct IP to Direct IP Calling/Answering

#### Applications:

The applications are for ADSL connection without NAT router as in Diagram A. Both parties are with fixed real IP. The Direct IP calling works when both calling and answering parties are with known fixed IP. SIP server registrations are not required in this application.

#### Configurations:

1. Select “**Fixed IP**” in the “**Network / WAN settings**” page,
2. Enter the items of **IP, Subnet Mask, Gateway IP,**
3. Click the “**Submit**” button.

#### Callings:

4. Pick up the phone, and you should hear a dial tone.
5. Press **211\*21\*191\*4#** or **211\*21\*191\*4** to call the party with the real IP address of **211.21.191.4**. Note that # key will dial out the number immediately. Dialing without # will not dial out until the auto dial timer (default=5 seconds) elapsed. In a moment, you should hear a ring back tone, and wait for the VoIP called party to answer.

### Example 4: Direct IP to Direct IP Calling within NAT Router

#### Applications:

For the calling party in ADSL connection with NAT router as in Diagram B, this Direct IP calling can work when the answering parties are with fixed **private** IP addresses within the same VPN network, or with fixed **real** IP addresses.

#### Configurations:

1. Select “**Fixed IP**” in the “**Network / WAN settings**” page,
2. Enter the items of **IP, Subnet Mask, Gateway IP,**
3. Click the “**Submit**” button.

#### Callings:

4. Pick up the phone, and you should hear a dial tone
5. Press **192\*168\*1\*51#** or **192\*168\*1\*51** to call the party with the private IP address of **192.168.1.51**. Press **211\*21\*191\*4** to call the party with the real IP address of **211.21.191.4**. In a moment, you should hear a ring back tone, and wait for the called party to answer.

## **Example 5: 3-Way Conference Call, Call Waiting, Call Hold**

### **3-Way Conference Calling Application:**

This is for 3-way conference call among Parties A, B, and C. Three parties are registered to SIP server with either fixed real IP or private IP. The Flash/Transfer key is used to switch to the other phone line or HOLD, and is quite useful for the 3-way conference call and the call waiting function.

### **Callings:**

1. Make a phone call from Party A to the first phone number Party B.
2. After the first call is established, press Flash key (or Transfer key) from Party A to hold the call, and Party A should hear a dial tone.
3. Make another phone call from Party A to the second phone number Party C.
4. After the second call is established, press Flash key (or Transfer key) again from Party A to join in Party B for three-way conference call.

### **Call Waiting Application:**

When a new call is coming while you are talking, you can push the Flash key to switch to the new call. You can push the Flash key to switch between the two calls.

### **Call Hold Application:**

You may push the Hold key to hold the current call for a while, then push Hold key again to resume talking.

## Example 6: SIP-to-SIP Calling for FreeWorld Dialup (FWD)

### Applications:

This shows how to use FWD as an example for free ITSP provider. The applications are for both parties registered to FWD SIP server.

1. Visit <http://www.freeworlddialup.com> and sign up for a new registered account number. Follow the instructions for registration.
2. After finished, you will receive a mail sent by the FWD mail system, and you will get one FWD phone number and password in the mail. For example, the register name/phone number is **636346** with password **xxxx**.
3. Login to the Web configuration page.

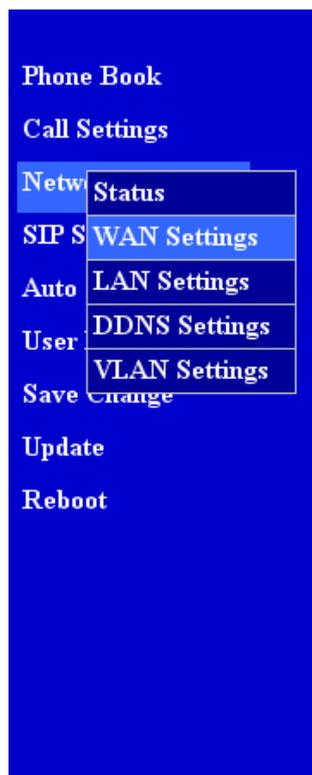
### Configurations:

#### 4. WAN Settings

Select NAT mode, and set DHCP Client for IP Type to automatically get an IP from ITSP. You may select PPPoE for IP Type and enter username and password to get an IP from ITSP.

## WAN Settings

You could configure the WAN settings in this page.



A vertical navigation menu with a blue background and white text. The items are: Phone Book, Call Settings, Network (highlighted), SIP Settings, Auto, User, Save Change, Update, and Reboot. A sub-menu is open for Network, showing: Status, WAN Settings (highlighted), LAN Settings, DDNS Settings, and VLAN Settings.

LAN Mode:  Bridge  NAT

### WAN Setting

IP Type:  Fixed IP  DHCP Client  PPPoE

IP:

Mask:

Gateway:

DNS Server1:

DNS Server2:

MAC:

### PPPoE Setting

User Name:

Password:

## 5. LAN Settings

Set DHCP Server ON for embedded NAT router.

<b>Phone Book</b>
<b>Call Settings</b>
<b>Network</b>
<b>Status</b>
<b>SIP Settings</b>
<b>WAN Settings</b>
<b>LAN Settings</b>
<b>DDNS Settings</b>
<b>VLAN Settings</b>
<b>User</b>
<b>Save</b>
<b>Change</b>
<b>Update</b>
<b>Reboot</b>

# LAN Settings

You could configure the LAN settings in this page.

---

<b>LAN Setting</b>	
IP:	<input type="text" value="192.168.123.1"/>
Mask:	<input type="text" value="255.255.255.0"/>
MAC:	<input type="text" value="000926ccdde"/>

<b>DHCP Server</b>	
DHCP Server:	<input checked="" type="radio"/> On <input type="radio"/> Off
Start IP:	<input type="text" value="150"/>
End IP:	<input type="text" value="200"/>
Lease Time:	<input type="text" value="1"/> : <input type="text" value="0"/> (dd:hh)

## 6. SIP Settings

You have to enter the user name (including Display Name, User Name, Registered Name), Registered Password, Domain Server (fwd.pulver.com), Proxy Server (fwd.pulver.com), Outbound Proxy (fwdnat.pulver.com:5082), and Register Preiod (15 min). After finished the setting, click the Submit button and the Save Change button. The system will reboot automatically. After system boot up, the SIP setting page will show "Registered", and the PHONE LED will start flashing.

## Service Domain Settings

You could set information of service domains in this page.

- Phone Book
- Call Settings
- Network
  - SIP S
    - Service Domain**
    - Auto Codec Settings
    - User Codec ID Setting
    - Save Other Settings
- Update
- Reboot

Realm	
Active:	<input checked="" type="radio"/> On <input type="radio"/> Off
Display Name:	<input type="text" value="636346"/>
User Name:	<input type="text" value="636346"/>
Register Name:	<input type="text" value="636346"/>
Register Password:	<input type="password" value="xxxx"/>
Domain Server:	<input type="text" value="fwd.pulver.com"/>
Proxy Server:	<input type="text" value="fwd.pulver.com"/>
Outbound Proxy:	<input type="text" value="fwdnat.pulver.com:5082"/>
Status:	Registered

DTMF Setting	
<input checked="" type="radio"/> 2833	
<input type="radio"/> Inband DTMF	
<input type="radio"/> Send DTMF SIP Info	

Port Setting	
SIP Port:	<input type="text" value="5060"/> (1024~65535)
RTP Port:	<input type="text" value="60000"/> (1024~65535)

STUN Setting	
STUN:	<input type="radio"/> On <input checked="" type="radio"/> Off
STUN Server:	<input type="text" value="66.7.238.210"/>
STUN Port:	<input type="text" value="3478"/>
<input type="button" value="Submit"/> <input type="button" value="Reset"/>	

FWD sip server || register name: 636346 Password: xxxx  
Domain server: fwd.pulver.com, Proxy server: fwd.pulver.com, Stun server: stun.fwdnet.net

# Codec Settings

You could set the codec settings in this page.

---

## Codec Priority

Codec Priority 1:  ▼

Codec Priority 2:  ▼

Codec Priority 3:  ▼

Codec Priority 4:  ▼

Codec Priority 5:  ▼

Codec Priority 6:  ▼

Codec Priority 7:  ▼

Codec Priority 8:  ▼

## RTP Packet Length

G.711 & G.729:  ▼

G.723:  ▼

## G.723 5.3K

G.723 5.3K:  On  Off

## Voice VAD

Voice VAD:  On  Off

### Callings:

7. Pick up the phone, and the LCD will show FWD phone number <**636346**>
8. Press **12345** to call the party with registered FWD phone number **12345**. In a moment, you should hear the ring back tone, and wait for the called party to answer.

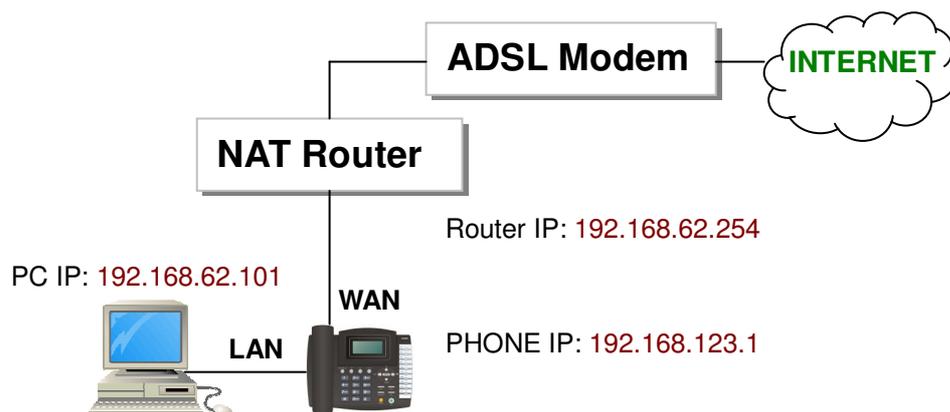
## 10. Trouble Shooting for Web Configurations

### 10.1. DO NOT HEAR DIAL TONE?

When you pick up the phone and hear a busy tone, it indicates the WAN port is NOT connected. The LCD will show **Ethernet Error!** Make sure the ADSL Ethernet cable is connected to the WAN port of VP301 and Power Reset again.

### 10.2. CAN NOT ACCESS WEB PAGE?

If you encounter the problem when accessing <http://192.168.123.1> (VP301's default IP address) from web browser, it's likely that your PC is not in the same subnet as **192.168.123.xxx**. In this case, you must change VP301 IP address to the same subnet as PC and NAT router. You can find your PC's IP setting, using "ipconfig" command in "Command Prompt" window. Then, change VP301's IP address to the same subnet as PC and NAT router.

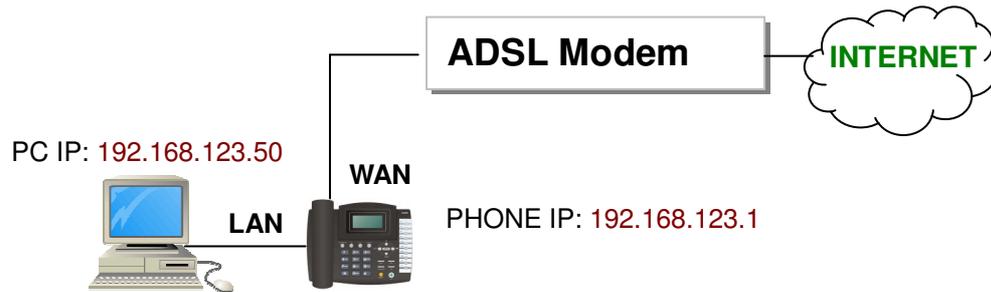


**Example:** To change VP301 IP address to the same subnet as PC and NAT router

1. Press **MENU / 4.Network / 1.General / 1.IP Type / 1.DHCP client** from the keypad to enable DHCP Client mode. The **MENU** key is used for escape, and the **ENTER** key for selection.
2. Press **MENU / 7.Administrator / 6.Restart** to reboot VP301 and get an IP address from NAT DHCP server. Then, Press **MENU / 4.Network / 2.Status** from the keypad to obtain the VP301 IP address, for example, **192.168.62.51**.
3. Enter from IE web browser <http://192.168.62.51> to login VP301 web page for configurations.

### 10.3. CONFIGURE PC'S IP SETTINGS FOR VP301 EMBEDDED NAT FUNCTION?

If you don't have a router to connect both PC and VP301 for sharing the only one IP address from ADSL/Cable modem, you should enable the embedded NAT function inside VP301. You need to change your PC's IP settings to recognize VP301 as the default gateway. In this case, you should enable the embedded NAT router of VP301 to provide more than one IP addresses for PC and VP301.



**Example:** To change PC IP address to the same subnet as **192.168.123.1** for VP301

1. As in Window 2000 (my computer),
  - At "Network and Dialup Connections", right click on "Local Area Connection", then click on property.
  - The "Local Area Connection Properties" window will pop up.
  - Double click on "Internet Protocol (TCP/IP)".
  - The "Internet Protocol (TCP/IP) Properties" window will pop up.
  - Click on "Use the following IP Address".
  - Enter IP: **192.168.123.50** (50 can be any number other than 1, which is used by VP301).
  - Enter Subnet mask: **255.255.255.0**
  - Enter Default gateway: **192.168.123.1**
  - Click on OK button.
2. You will lose internet connection at this time.
3. At IE browser, type <http://192.168.123.1>
4. Follow the example in "Advanced Settings for Embedded NAT" for web login.
5. At LAN setting, turn on DHCP server.
6. At WAN setting, choose "DHCP client" to work with your ADSL/Cable modem.
7. Save change, wait for VP301 to reboot.
8. Change your PC's "Internet Protocol (TCP/IP) Properties" back to "obtain an IP address automatically".