PLANET
Networking & Communication

User's Manual

VIP-256T

Enterprise SIP IP Phone

Copyright

Copyright (C) 2012 PLANET Technology Corp. All rights reserved.

The products and programs described in this User's Manual are licensed products of PLANET Technology, This User's Manual contains proprietary information protected by copyright, and this User's Manual and all accompanying hardware, software, and documentation are copyrighted.

No part of this User's Manual may be copied, photocopied, reproduced, translated, or reduced to any electronic medium or machine-readable form by any means by electronic or mechanical. Including photocopying, recording, or information storage and retrieval systems, for any purpose other than the purchaser's personal use, and without the prior express written permission of PLANET Technology.

Disclaimer

PLANET Technology does not warrant that the hardware will work properly in all environments and applications, and makes no warranty and representation, either implied or expressed, with respect to the quality, performance, merchantability, or fitness for a particular purpose.

PLANET has made every effort to ensure that this User's Manual is accurate; PLANET disclaims liability for any inaccuracies or omissions that may have occurred.

Information in this User's Manual is subject to change without notice and does not represent a commitment on the part of PLANET. PLANET assumes no responsibility for any inaccuracies that may be contained in this User's Manual. PLANET makes no commitment to update or keep current the information in this User's Manual, and reserves the right to make improvements to this User's Manual and/or to the products described in this User's Manual, at any time without notice.

If you find information in this manual that is incorrect, misleading, or incomplete, we would appreciate your comments and suggestions.

CE mark Warning

The is a class B device, In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

Energy Saving Note of the Device

This power required device does not support Stand by mode operation.

For energy saving, please remove the DC-plug or push the hardware Power Switch to OFF position to disconnect the device from the power circuit.

Without remove the DC-plug or switch off the device, the device wills still consuming power from the power circuit. In the view of Saving the Energy and reduce the unnecessary power consuming, it is strongly suggested to switch off or remove the DC-plug for the device if this device is not intended to be active.

WEEE Warning

To avoid the potential effects on the environment and human health as a result of the presence of hazardous substances in electrical and electronic equipment, end users of electrical and electronic equipment should understand the meaning of the crossed-out wheeled bin symbol. Do not dispose of WEEE as unsorted municipal waste and have to collect such WEEE separately.

Trademarks

The PLANET logo is a trademark of PLANET Technology. This documentation may refer to numerous hardware and software products by their trade names. In most, if not all cases, their respective companies claim these designations as trademarks or registered trademarks.

Revision

User's Manual for PLANET SIP IP Phone:

Model: VIP-256T

Rev: 1.0 (2012, March)

Part No. EM-VIP-256T_v1.0

Table of Contents

Chapter 1 Introduction 6
Overview 6
Package Content 7
Physical Details 7
Front View and Keypad function 7
Rear View 8
Phone Screen Features 10
Chapter 2 Preparations & Installation 11
Physical Installation 11
Administration Interface 13
Web configuration access 13
Chapter 3 Network Service Configurations 14
Configuring and monitoring your IP Phone from web browser 14
Manipulation of IP Phone via web browser 14
Chapter 4 VoIP IP Phone Status 15
Status 15
Basic 15
DHCP 17
Syslog 17
Chapter 5 SIP Account Setting 18
SIP Account 18
SIP setting 18
NAT setting 19
Line settings 20
Basic 20
Audio Configuration 21
Supplementary Services Subscription 22
Advanced 22
Chapter 6 Network Setting 24
Basic 24
Internet Port (WAN) 25
PC Port(LAN) 27
Network Address Server Settings (DHCP) 28
MAC Address Clone 29
VPN 30
DMZ 31
QoS 32
Chapter 7 Phone Configurations 33
Performance 33

Volume 33
Regional 34
Call Forward 35
Miscellaneous 35
Multi-Functional Key 36
Dial Plan 38
Phonebook 42
Phonebook 42
Black List 43
Call Log 44
Chapter 8 VoIP IP Phone Administration 45
Management 45
Time/Date 45
Password Reset 47
Web Access 48
System Log Setting 48
Factory Defaults 50
Update Firmware 50
Security 50
Provision 52
SNMP 54
TR 069 55
Appendix A Frequently Asked Questions List 56
Appendix B Specifications 58

Chapter 1 Introduction

Overview

Combining the cutting edge of Voice over IP and Internet telephony manufacturing experience, PLANET IP phones make your employee's jobs easier while combining your company's voice and data systems and making it simple to expand as you add new employees or locations. PLANET IP phone systems save money on long distance charges, allow call transferring to anyone at any location, and remote workers are dialed in through a Unified Communications system of voice and IP communications products and applications enables organizations to communicate more effectively-enabling them to streamline business processes.

Cost-Effective and High Performance

For a cost-effective and high performance VoIP communications today, PLANET now introduces the latest member of low cost- high performance IP phone: the VIP-256T, a 2-line professional IP Phone.

Full-Featured Enhanced Business IP phone

The Planet IP Phone VIP-256T is a full-featured enhanced business IP phone that addresses the communication needs of the transaction worker. It provides 2 voice lines, dual 10/100 switched Ethernet ports. To give users most flexibility, the VIP-256T contains a 128×32 Graphic LCD with white back light, 2 Line keys and 4 soft keys, 10 Multi-functional key with dual-color LED.

Support all the SIP Protocol

SIP V2 (RFC 3261,3262,3263,3264), Backward Compatible with RFC2543, Session Timer (RFC4028), SDP (RFC2327), RTP/RTCP (RFC1889 and RFC1890), NAPTR for SIP URI Lookup (RFC2915), STUN (RFC 3489), ARP/RARP (RFC 826/903), SNTP (RFC 2030), DHCP, HTTP Server for Web Management, TFTP/HTTP/HTTPS for Auto Provisioning, Message Waiting Indicator (RFC3842), DNS/DNS SRV (RFC1706 and RFC 2782), IEEE802.1Q VLAN/802.1p and IP TOS.

Professional Application and Feature

For VIP-256T we do support all kinds of SIP base phone feature, like Call Waiting, Auto Answer, Music on hold, Caller ID and call waiting ID, 3-way Conference, Call Hold, Call Forwarding, Black List, Hotline, DTMF Relay: In-band, Out-band (RFC2833) and SIP INFO……., Besides for office use, the VIP-256T is the ideal solution for VoIP service offered by Internet Telephony Service Provider (ITSP). It is a perfect delivery platform of IP voice services for business class communication services.

➢ **PRODUCT FEATURES**

- Full-duplex Speakerphone
- 128×64 Graphic LCD with white back light
- Efficient installation deployment of IP PBX solution
- Reversible base stand and wall mount installation options
- 2 lines Registration
- SMS Functions
- Support BLF(Busy Lamp Field)
- Black List
- TR069
- DNS Srv

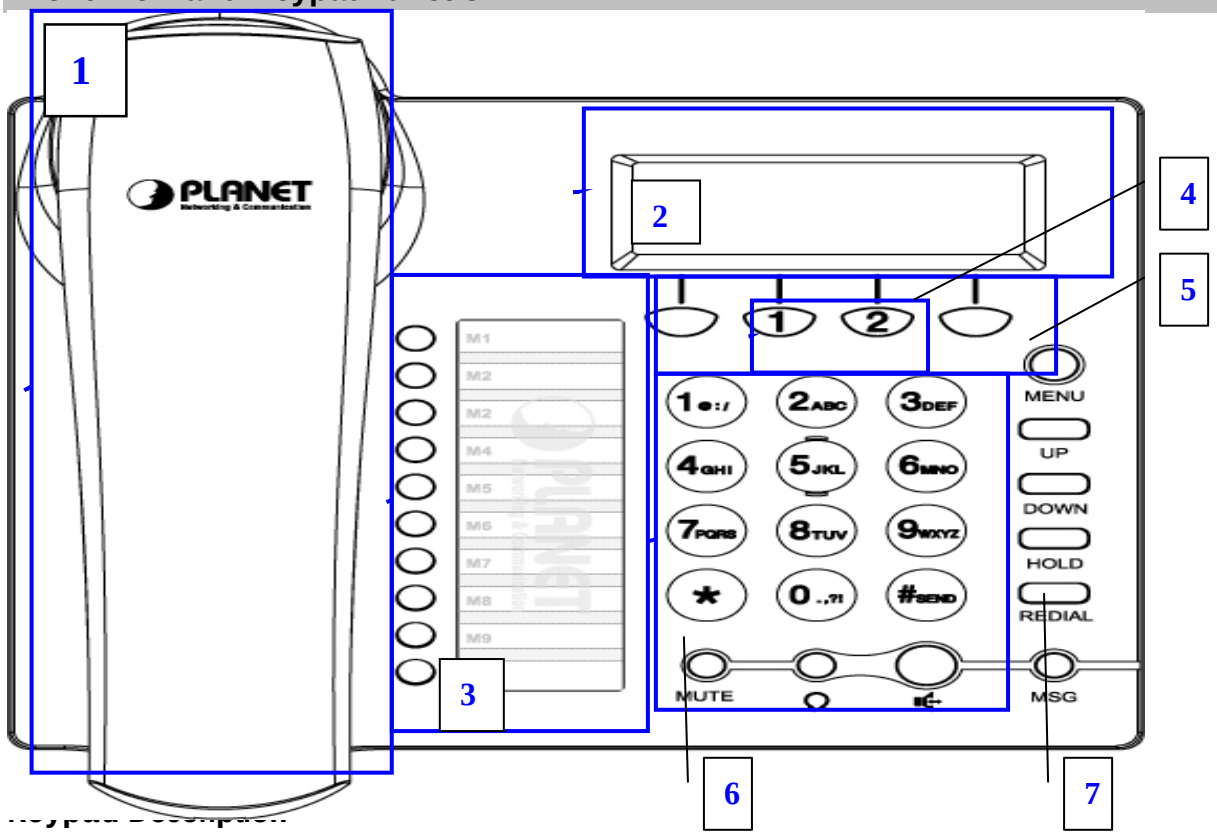
Package Content

- SIP IP Phone unit
- Power Adapter
- Quick Installation Guide
- CD-ROM containing the on-line manual.
- RJ-45 cable x1

Physical Details

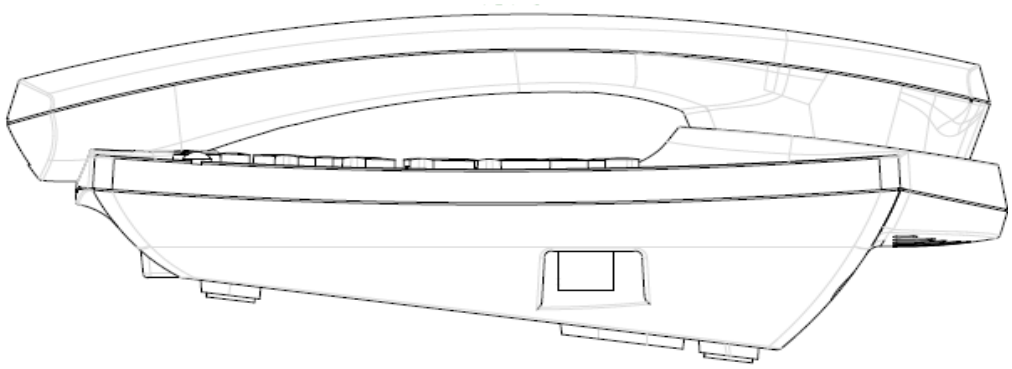
The following figure illustrates the front/rear panel of IP Phone.

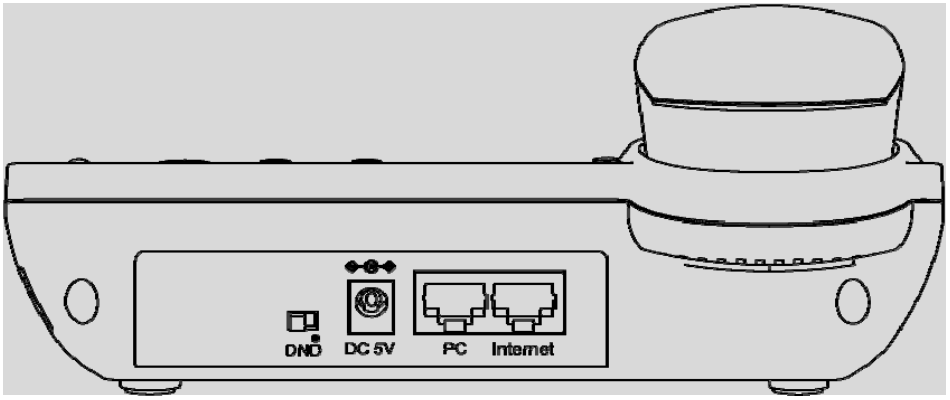
Front View and Keypad function



1	Handset top cradle	For the placement of handset (Receiver end)
	Hook switch	For hang-up and hang-off of handset
	Cradle latch	To prevent the handset from dropping when it is wall-mounted.
	Handset bottom cradle	For the placement of handset (Transmitter end)
	Handset cord port	RJ-11 jack on the left side of the IP phone
	Headset wire port	RJ-11 jack on the bottom of the handset
	Headset	To mount mouthpiece and earpiece on the single handle.
2	LCD screen	The LCD screen is for displaying your settings, such as phone number, line status and so on.
3	Multi-Functional Key	These keys can be used as speed dial, BLF, shortcut key, pick up and call park.
4	Line Keys	In standby: These keys are used as line keys; you can press the line button to select the corresponding line, and then user can make call or do other functions. The LED under the keys used to display the status of each extension.
5	Soft keys	These keys are used as soft keys. These can be used for item selection or control on the LCD screen. The Soft key function depends on their corresponding content displayed on the LCD at that time.
6	Numeric Keypad	Enters numeric digits for initiating a call or for entering configuration information.
7	Other Function and numeric key	Include MENU, UP, DOWN, REDIAL, and numeric keys

Rear View



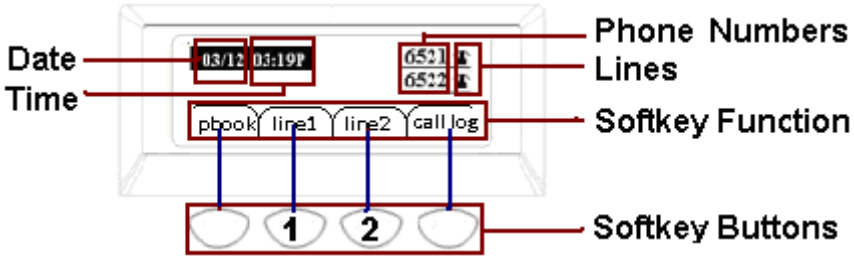


Keypad Description

1	Headset	Headset console, connect to headset
2	DND Switch	The Switch is used to turn on or turn off DND. Under the character DND is a dot. When the switch near the dot, DND is on, otherwise DND is off. Taking the left picture for example, DND is on.
3	DC 5V,1A	Power port
4	PC	Connects to a PC.
5	Internet	Connects to the Ethernet switch, router or Internet.

Phone Screen Features

This is what your main phone screen might look like with an active call.



Graphic Icon Description

1	**Date**	To display the current date. Date format is mm/dd
2	**Time**	To display the current time. Time format is mm:ss (A or P)
3	**Phone Numbers**	To display the phone number of lines.
4	**Lines**	To display the status of lines. The icon means unregistered. The icon mean registered.
5	**Softkey Function**	To display the current softkey function.
6	**Softkey Buttons**	User can use the softkey button to highlight the item displayed on the LCD screen and then configuration. One button directs to one softkey function, the blue line in the left picture displays the corresponding relationship.

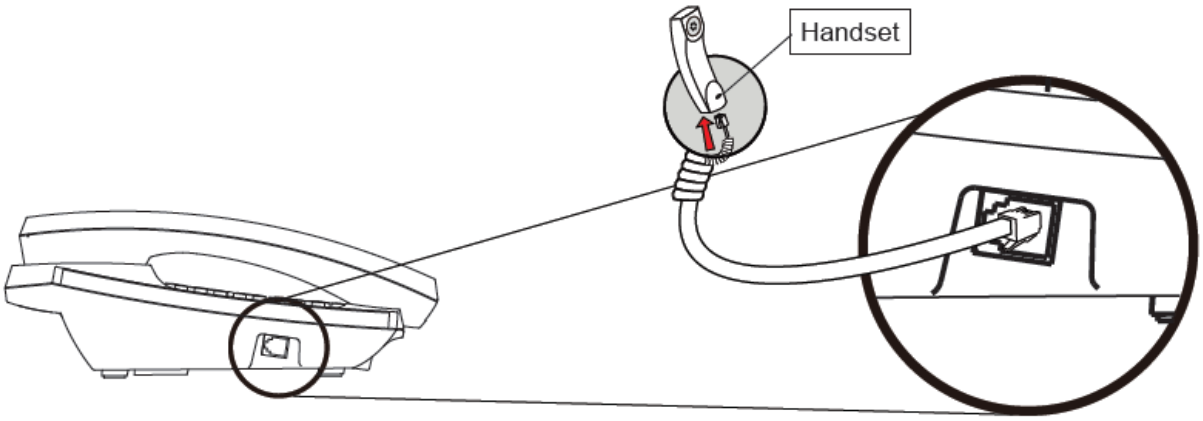
Chapter 2
Preparations & Installation

Physical Installation

VIP-256T: Enterprise SIP IP Phone (2 x RJ-45, 1 x Internet interface)

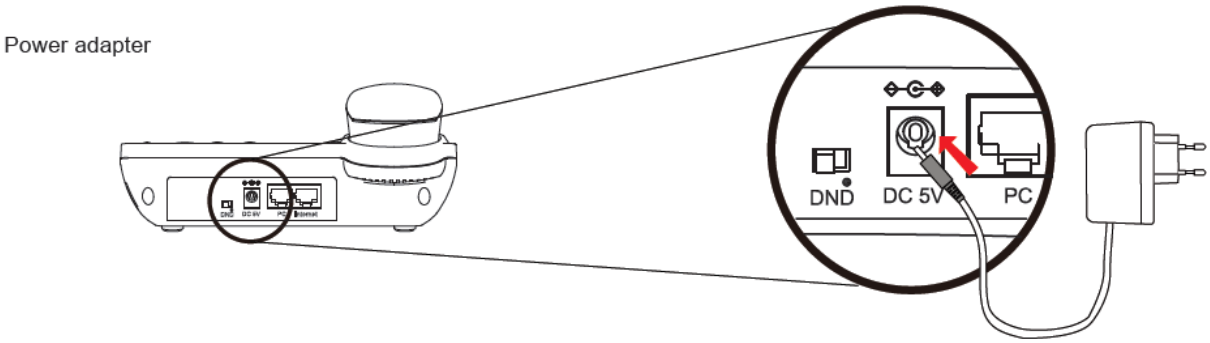
Step 1. Handset Connection

Plug Handset Core with Handset and Handset Jack

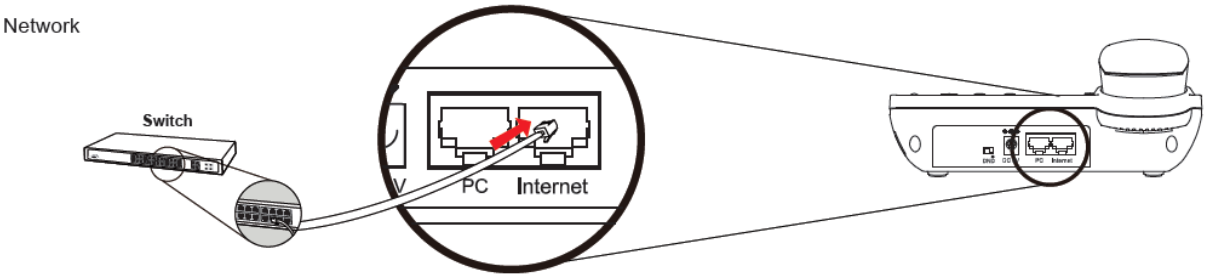


Step 2. Connecting Power Adapter and Network

Power adapter



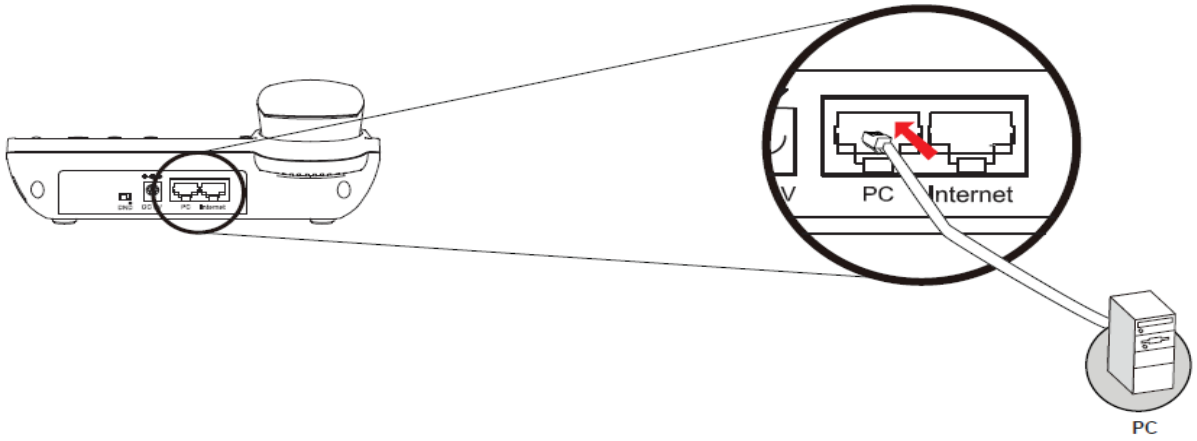
Network



NOTE: Use only the power adapter shipped with the unit to ensure correct functionality

Step 3. Computer Network Setup

Set your computer's IP address to 192.168.0.x, where x is a number between 2 to 254 (except 1 where is being used for the IP Phone by default). If you don't know how to do this, please ask your network administrator.



Step 4. Login Prompt

Use web browser (Internet Explorer 6.0 or above) to connect to 192.168.0.1 (type this address in the address bar of web browser).

You'll be prompted to input user name and password: **admin** / 123

Administration Interface

The IP Phone provides GUI (Web based, Graphical User Interface) for machine management and administration. Key pad administration also available for simple configuration.

Web configuration access

To start IP Phone web configuration, you must have one of these web browsers installed on computer for management

- Microsoft Internet Explorer 6.0.0 or higher with Java support

Default IP address of IP Phone is **192.168.0.1**. You may now open your web browser, and insert ***http://192.168.0.1*** in the address bar of your web browser to logon IP Phone web configuration page. IP Phone will prompt for logon username/password, please enter: ***admin*** / **123** to continue machine administration.

Note

In order to connect machine for administration, please locate your PC in the same network segment (192.168.0.x) of IP Phone. If you're not familiar with TCP/IP, please refer to related chapter on user's manual CD or consult your network administrator for proper network configurations.

Chapter 3

Network Service Configurations

Configuring and monitoring your IP Phone from web browser

The IP Phone integrates a web-based graphical user interface that can cover most configurations and machine status monitoring. Via standard, web browser, you can configure and check machine status from anywhere around the world.

Manipulation of IP Phone via web browser

Log on IP Phone via web browser

After TCP/IP configurations on your PC, you may now open your web browser, and input http://192.168.0.1 to logon IP Phone web configuration page.

IP Phone will prompt for logon username/password: ***admin / 123***

When users login the web page, users can see the IP Phone system information like firmware version, company…etc in this main page.

Chapter 4

VoIP IP Phone Status

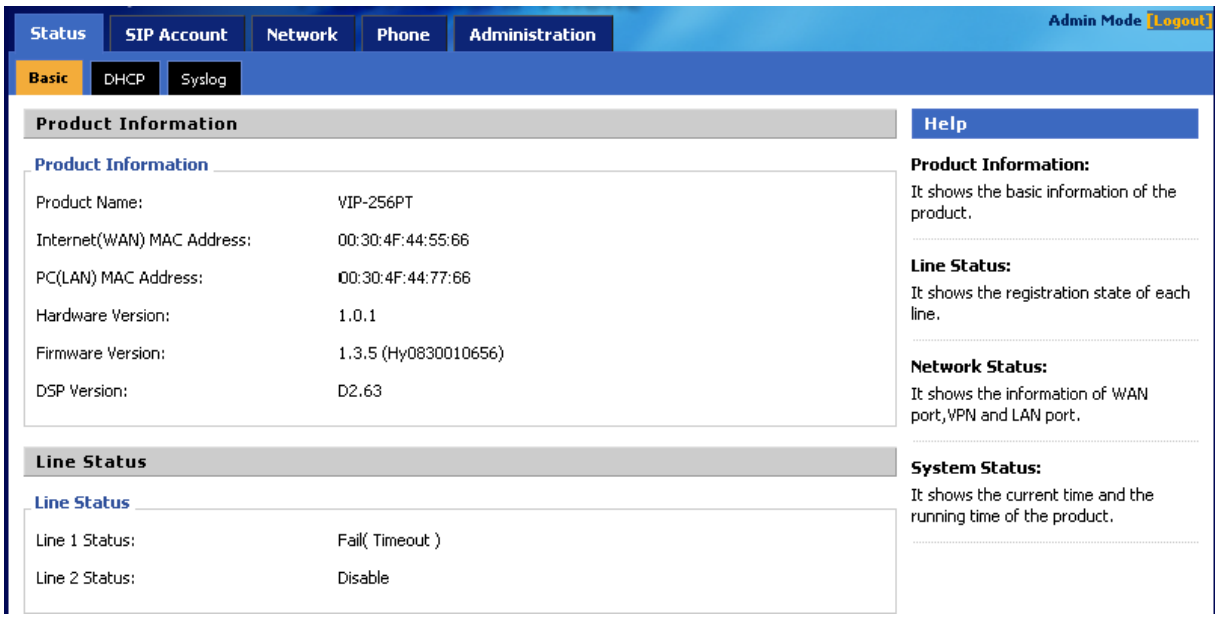
Status

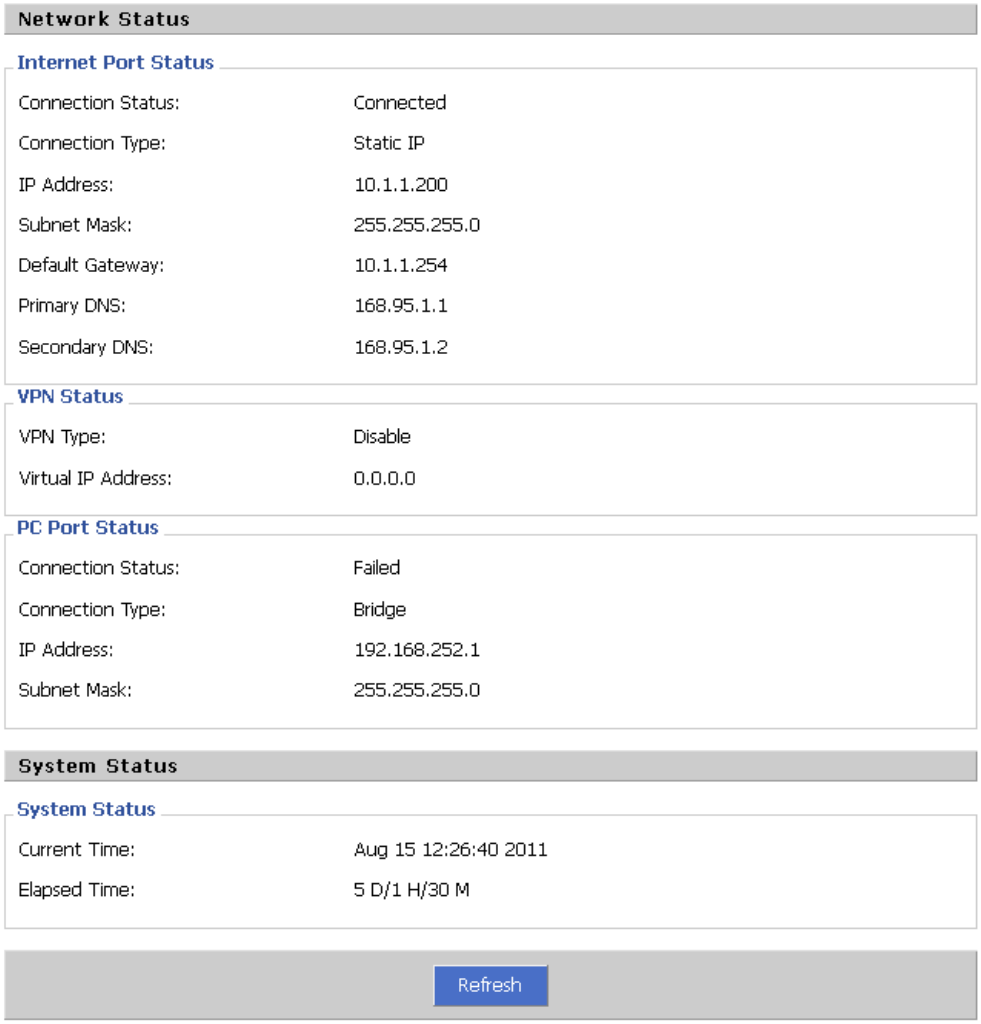
You can check the basic phone status to find out more information about the phone.

They include three parts Basic, DHCP and Syslog.

Basic

In this page include Product Information, Line Status, Network Status, and System Status.

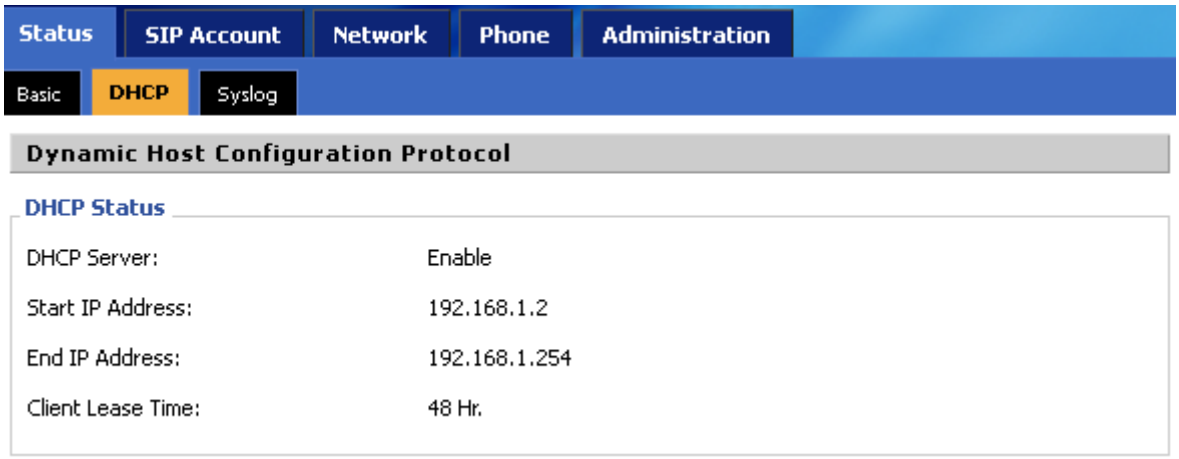




Item	Descriptions
Product Information	It shows the basic information of the product.
Line Status	It shows the registration state of each line.
Network Status	It shows the information of Internet port, VPN and PC port.
System Status	It shows the current time and the running time of the product.
Refresh	Click **Refresh** button to refresh status of phone.

DHCP

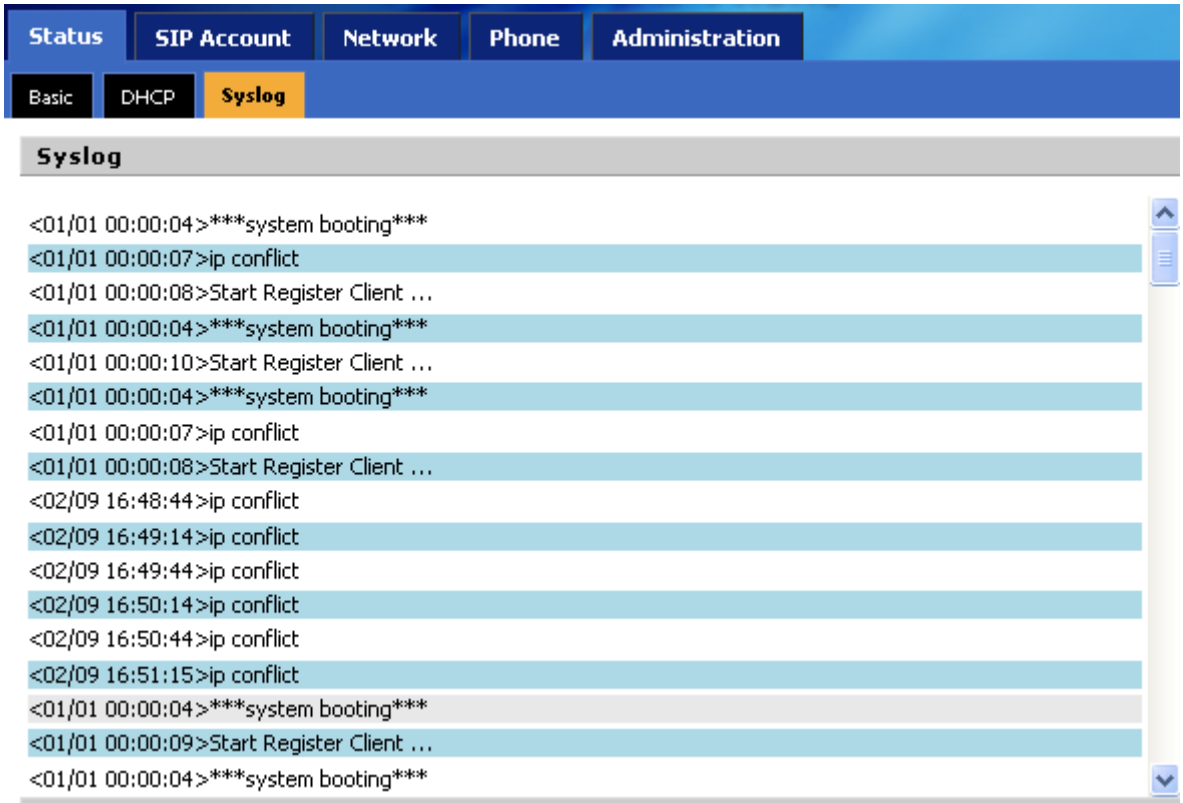
This page displays the status about DHCP server enable/disable, start IP address, end IP address and client lease time. Click **Refresh** button to refresh status of DHCP server.



Item	Descriptions
DHCP Status	It shows the information of the DHCP Server.

Syslog

It shows all the log information of system.



Chapter 5

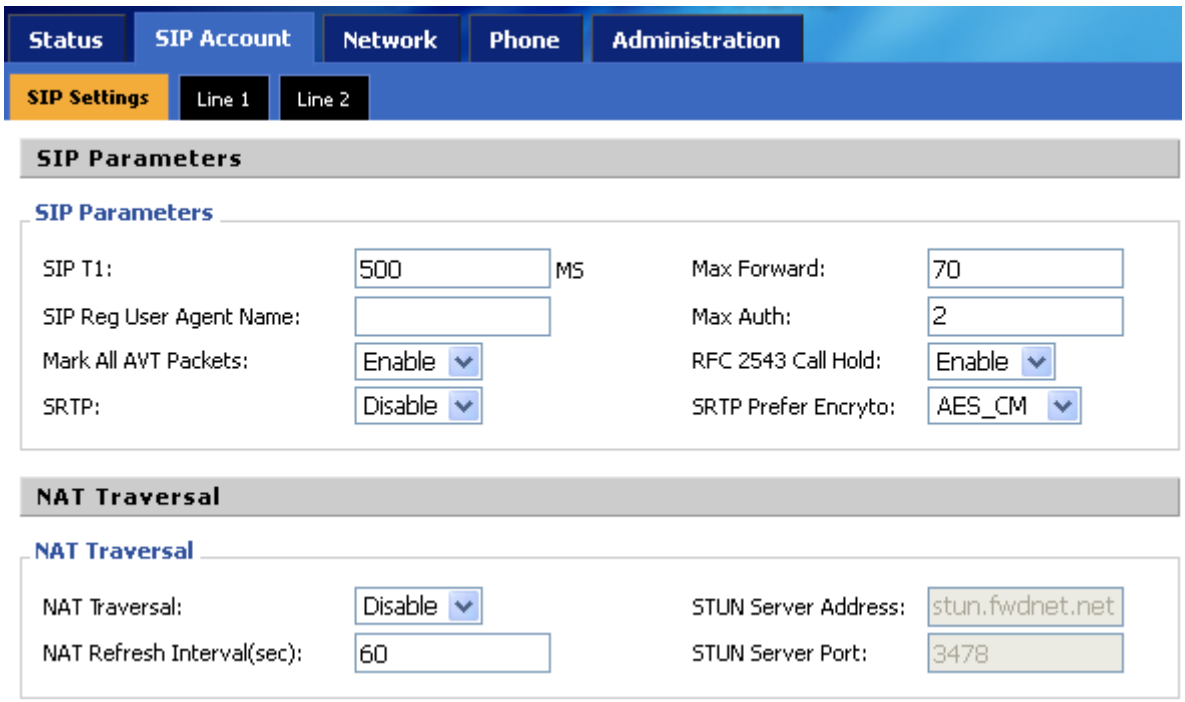
SIP Account Setting

SIP Account

SIP is a request-response protocol, dealing with requests from clients and responses from servers. Participants are identified by SIP URLs. Requests can be sent through any transport protocol. SIP establishes call parameters at either end of the communication, and handles call transfer and termination.

SIP setting

Set your SIP server in the following interface. These parameters are related to registration and call.

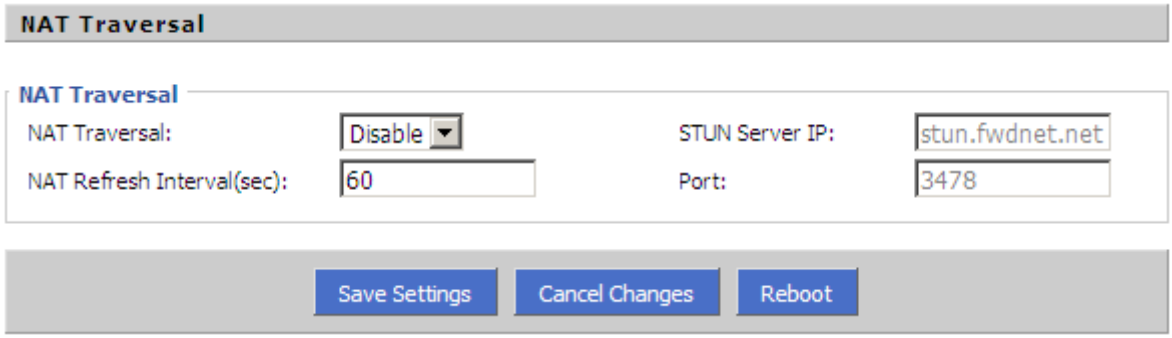


Item	Descriptions
SIP T1	RFC 3261 T1 value (RTT estimate), which can range from 0 to 64 second. Defaults to .5 seconds
Max forward	SIP Max Forward value, which can range from 1 to 255. Defaults to 70.

SIP Reg User Agent Name	User-Agent name to be used in a REGISTER request. If this is not specified, the <SIP User Agent Name> is also used for the RE GISTER request. Defaults to blank
Max Auth	Maximum number of times (from 0 to 255) a request may be challenged. Default is 2.
Make ALL AVT Package	For second dial tone, enable this item package Mark position is 1, disable this item will be 0.
RFC 254.3 Call Hold	If set to yes, unit will include c=0.0.0.0 syntax in SDP when sending a SIP re-INVITE to the peer to hold the call. If set to no, unit will not include the c =0.0.0.0 syntax in the SDP. The unit will always include a=sendonly syntax in the SDP in either case. Defaults to yes
SRTP	Enable/Disable SRTP(Secure Real-time Transport Protocol)
SRTP Prefer Encryto	SRTP encryption type.

NAT setting

Set your NAT Traversal parameters in the following interface. It is helpful for the device behind NAT



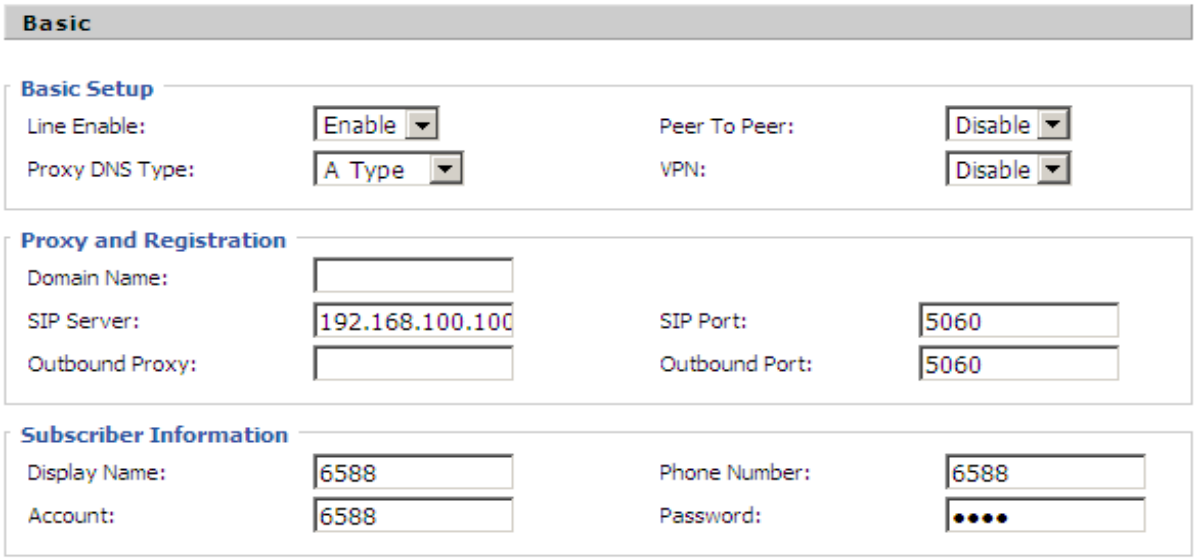
Item	Descriptions
NAT Traversal	Enable/Disable NAT. VIP-256T supports STUN traversal, choose “STUN” in the “NAT Traversal Mode” if you want traverse NAT/Firewall.
STUN Server IP	STUN server IP address, default is stun.fwdnet.net
NAT Refresh Interval (sec)	the interval to refresh
Port	STUN port

Line settings

In this webpage, users can configuration the information about SIP account1, including the following 4 parts: Basic, Audio Configuration, User and Advanced, user can program all the SIP parameters. For VIP-256T it can support 2 lines registered.

Basic

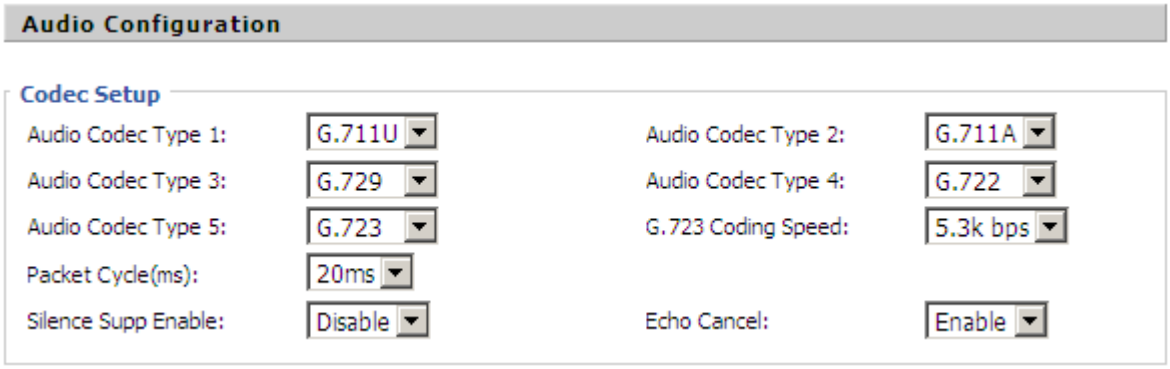
Set the basic information provided by your VOIP Service Provider, such as Phone Number, Account, password, SIP Proxy and so on.



Item	Descriptions
Line Enable	Enable/Disable SIP Line
Peer to Peer	Enable/Disable PEER to PEER If enable, SIP line will not send register request to SIP server; In System Status, SIP line Status is Registered; SIP-1 can make call out, but others can not call SIP line.
Proxy DNS Type	Choose DNS type from A Type and DNS SRV.
Use VPN	Enable/Disable VPN
Domain Name	The domain of SIP Server
SIP Server	The IP address of SIP Server
SIP Port	The port which SIP Server supports for VOIP service, default is 5060
Outbound Proxy	Outbound Proxy IP or domain name
Outbound Port	Outbound Proxy's Service port
Display Name	The number will display in callee
Phone Number	Number of telephone provided by SIP Proxy
Account	SIP account provided by SIP Proxy
Password	SIP password provided by SIP Proxy

Audio Configuration

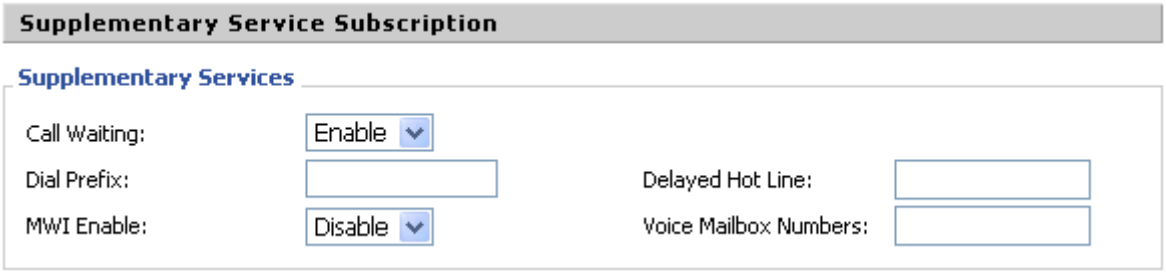
Select the audio Codec you want to use...



Item	Descriptions
Audio Codec Type1	Choose the audio codec type from G.711U, G.711A, G.722, G.729, G.723
Audio Codec Type2	Choose the audio codec type from G.711U, G.711A, G.722, G.729, G.723
Audio Codec Type3	Choose the audio codec type from G.711U, G.711A, G.722, G.729, G.723
Audio Codec Type4	Choose the audio codec type from G.711U, G.711A, G.722, G.729, G.723
Audio Codec Type5	Choose the audio codec type from G.711U, G.711A, G.722, G.729, G.723
G.723 Coding Speed	Choose the speed of G.723 from 5.3kbps and 6.3kbps
Packet Cycle	The RTP packet cycle time

Supplementary Services Subscription

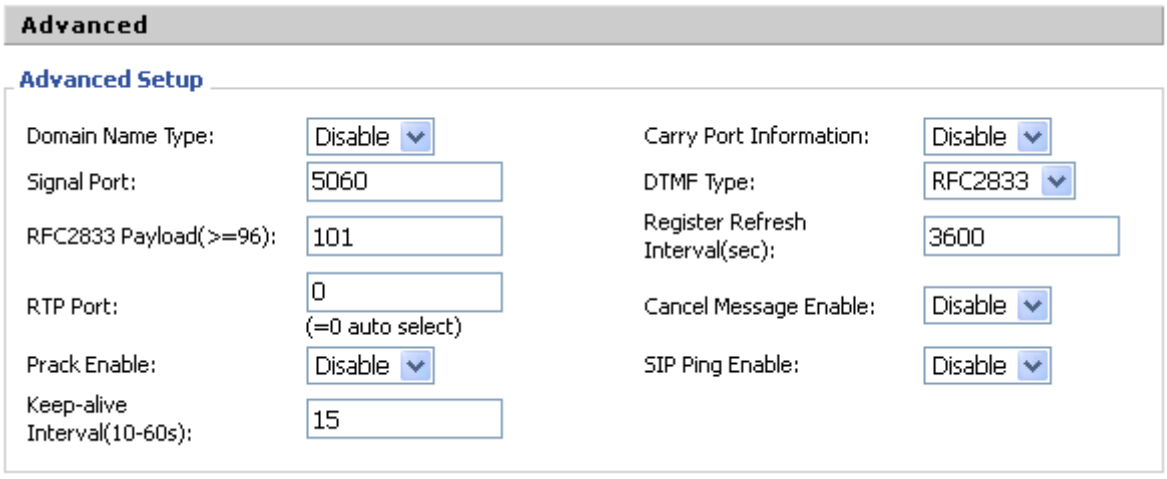
Call Waiting - This call feature allows your phone to accept other incoming calls during the conversation.



Item	Descriptions
Call Waiting	Enable / Disable Call waiting.
Call Pickup	Enable / Disable Call Pickup.
Delayed Hot Line	Fill in the hotline number. Pickup handset or press speaker/headset button, VIP-256T will dial out the hotline number automatically. Ex: xxxT4 will delay 4 seconds, then transfer to xxx (set to T0 will not delay.)
MWI Enable	Enable / Disable MWI (message waiting indicate).
Voice Mailbox Numbers	Fill in the voice mailbox phone number

Advanced

IP phone make calls based on SIP accounts, IP phone can support 4 independent SIP account, and each account can be configured to different SIP server.



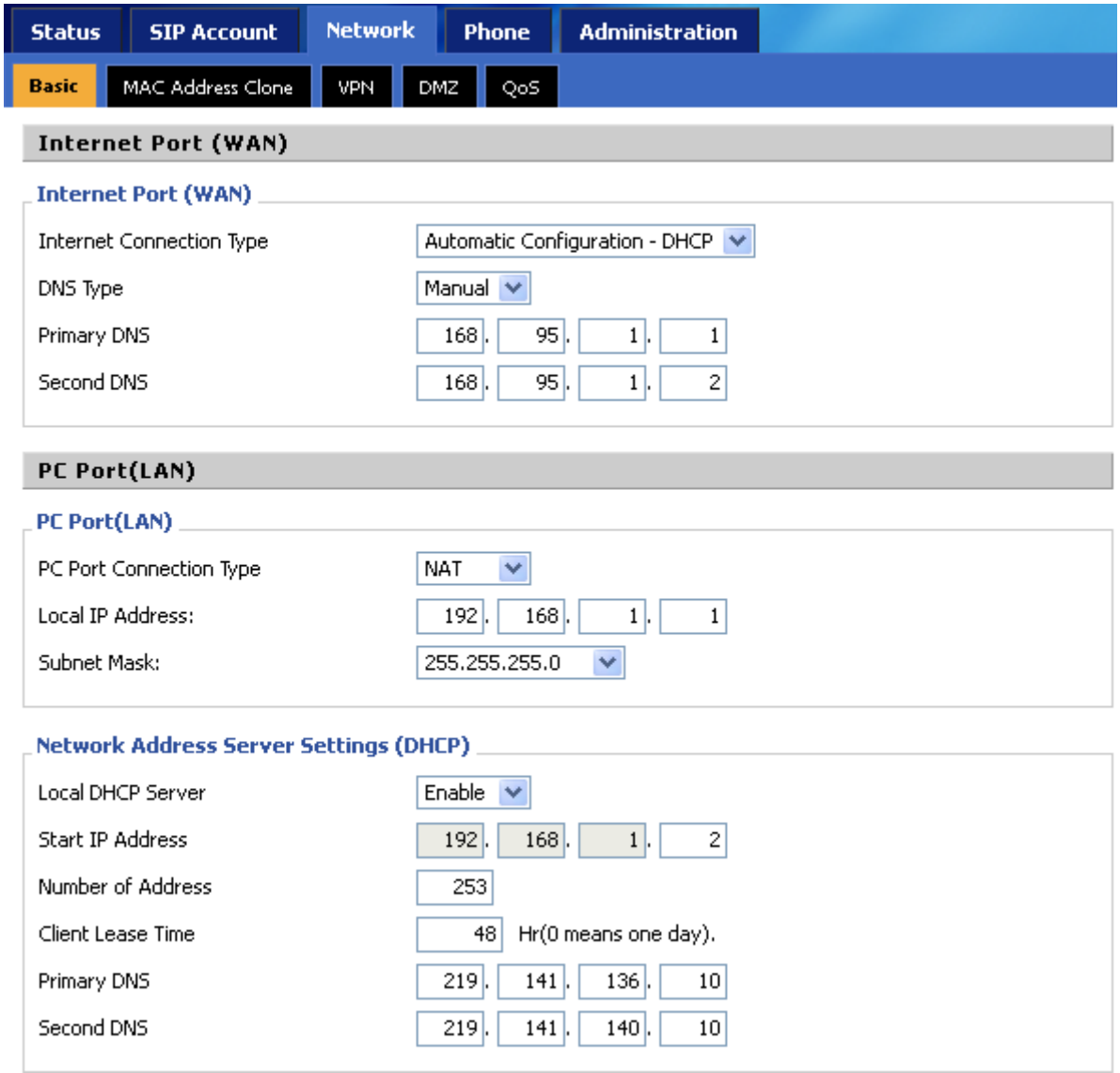
Item	Descriptions
Domain name Mode	If or not use domain name in the SIP URI
Carry Port Information	If or not carry Port information in the SIP URI.
Signal Port	The local port of SIP protocol, default is 5060
DTMF Type	Choose the DTMF type from IN_band, RFC2833 and SIP INFO.
RFC2833 Payload (>=96)	User can use the default setting
Register Refresh Interval	The interval between two normal Register messages. You can use the default setting.
RTP Port	Set the port to send RTP. IP Phone will select one idle port for RTP if you set “0”, otherwise use the value user set.
Cancel Message Enable	When you set enable, an unregistered message will be sent before registration, while you set disable, unregistered message will not be sent before registration. You should set the option for different Proxy.
Prack Enable	Enable / Disable prack.
SIP Ping Enable	If this option enable, IP Phone will send SIP-PING to Server periodically instead of sending hello packet. The send interval is Keep-alive interval.
Keep-alive interval (10-60s)	The interval that IP Phone will send an empty packet to Proxy.

Chapter 6

Network Setting

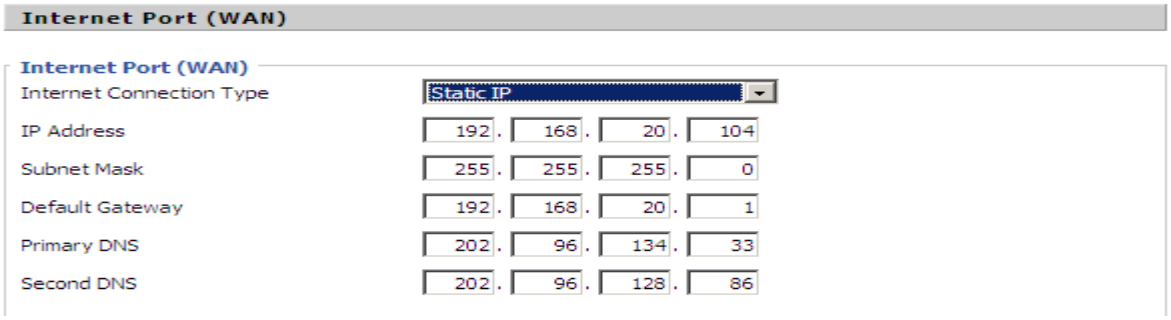
Basic

In this item you can program all the Network parameters.



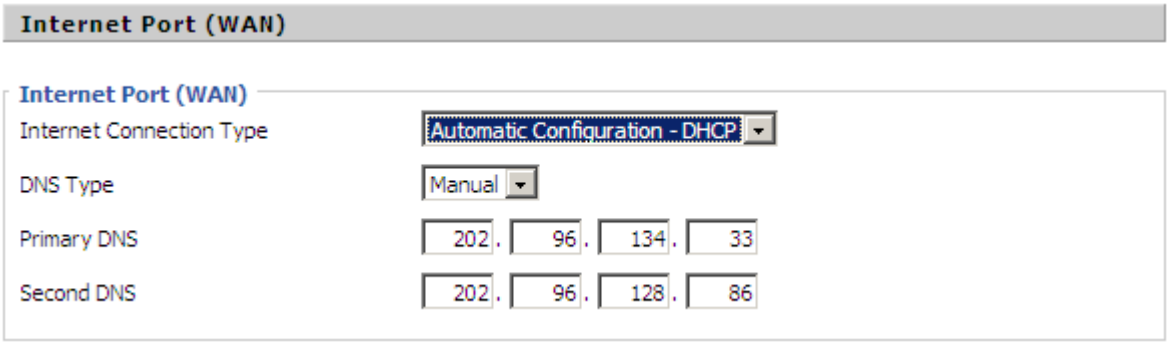
Internet Port (WAN)

Internet Port WAN (Static IP)



Item	Descriptions
Internet Connection Type	Choose Static IP.
IP Address	The IP address of Internet port
Subnet Mask	The subnet mask of Internet port.
Default Gateway	The default gateway of Internet port.
Primary DNS	The primary DNS of Internet port.
Second DNS	The second DNS of Internet port.
Internet Connection Type	Choose Static IP.

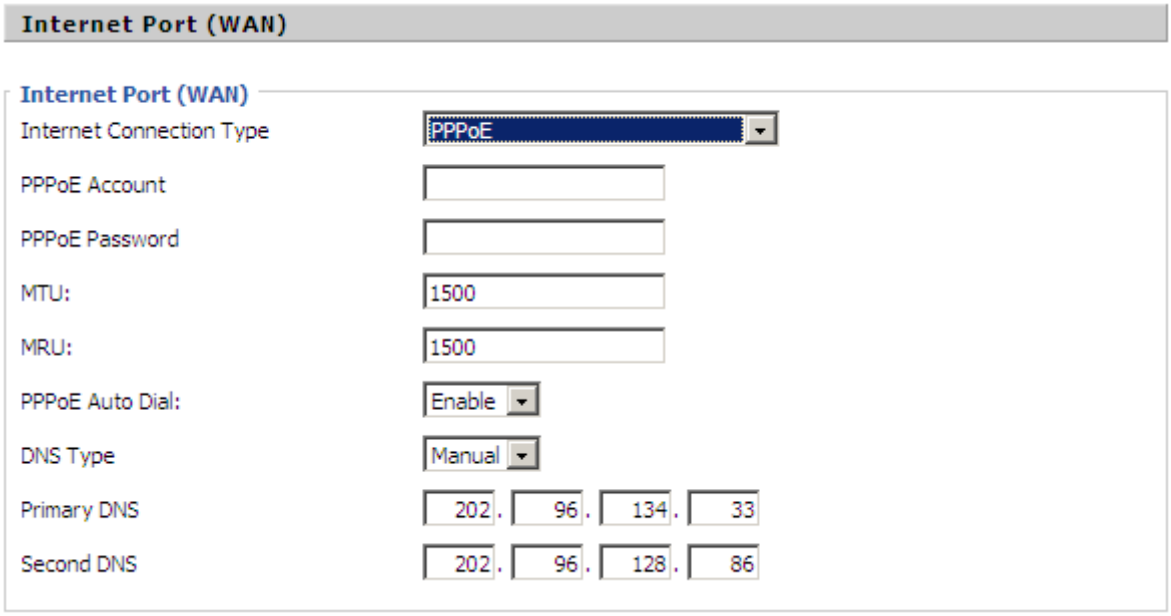
Internet Port WAN (DHCP)



Item	Descriptions
Internet Connection Type	Choose Automatic Configuration-DHCP.
DNS type	Choose DNS type from Manual and Automatic 1. In Manual: user should set the Primary DNS and Second DNS manually.

	2. In Automatic: IP Phone will get the Primary DNS and Second DNS from DHCP Server automatically.

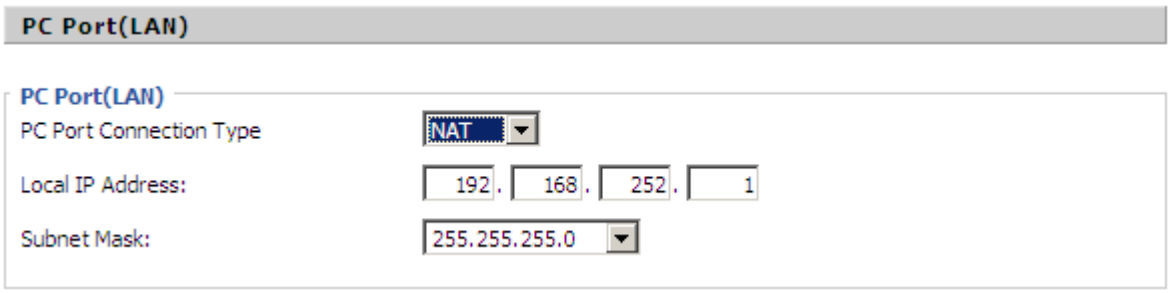
Internet Port WAN (PPPoE)



Item	Descriptions
Internet Connection Type	Choose PPPoE.
PPPoE Account	Fill in the PPPoE account which get from Internet Service Provider
PPPoE Password	Fill in the PPPoE account get from Internet Service Provider
PPPoE Auto-Dial	Enable / Disable PPPoE Auto-Dial.
DNS Type	Choose DNS type from Manual and Automatic 1. In Manual: user should set the Primary DNS and Second DNS manually. 2. In Automatic: IP Phone will get the Primary DNS and Second DNS from DHCP Server automatically.
Primary DNS	The primary DNS of Internet port.
Second DNS	The second DNS of Internet port.

PC Port(LAN)

Support Three mode disable,NAT, Bridge mode



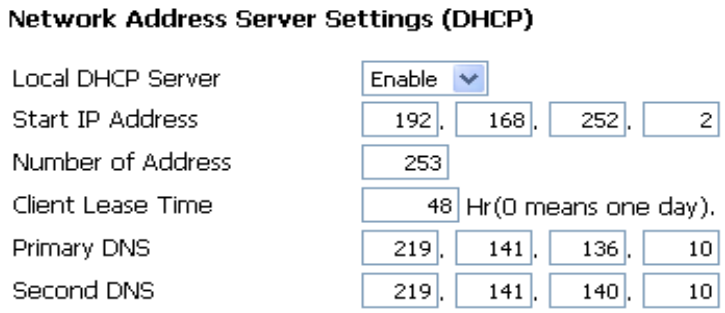
Item	Descriptions
PC Port Connection Type	Choose the PC port connection type from disable, NAT and Bridge. *NAT* - The product will be same as a router. *Bridge* - The LAN port is same as the WAN port *Disable* - PC port switch to NAT mode, but Internet port and PC port can't communication to each other.(The device behind the PC port still can connect to each other)
Local IP Address	Set the IP address of PC port. Efficient when user choose NAT.
Subnet Mask	Set the subnet mask of PC port. Efficient when user choose NAT.

Network Address Server Settings (DHCP)

Support Three mode disables, NAT, Bridge mode,

DHCP Server - It will assign the IP Addressed set here to devices that connect to the LAN port.

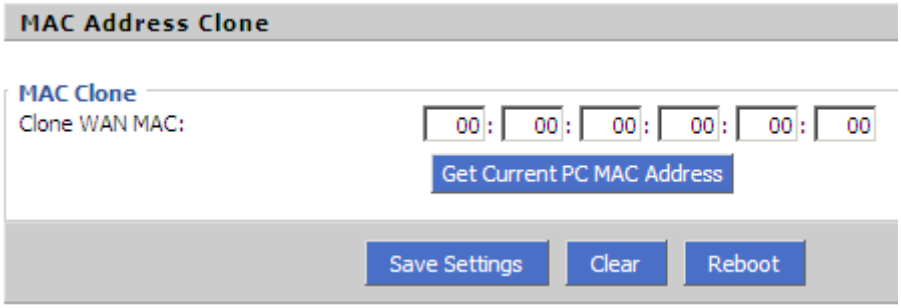
Number of Address - You may limit the number of addresses your router hands out.



Item	Descriptions
Local DHCP Server	Enable / Disable DHCP Server. If PC port is not in NAT mode, user can not enable DHCP server.
Start IP Address	The starting IP address which IP phone will attribute to clients. Note: The Network Sect of DHCP Server Start Address should be the same with the one that VIP-256T's PC port. Generally speaking, you can use the default setting.
Number of Address	Number of IP address will distribute to clients.
Client Lease Time	The interval of DHCP will send request to continue in period of validity. Unit is hour.
Primary DNS	Primary DNS that DHCP Server will distribute. You can use the default setting.
Secondary DNS	Secondary DNS that DHCP Server will distribute. You can use the default setting.
Local DHCP Server	Enable / Disable DHCP Server. If PC port is not in NAT mode, user can not enable DHCP server.

MAC Address Clone

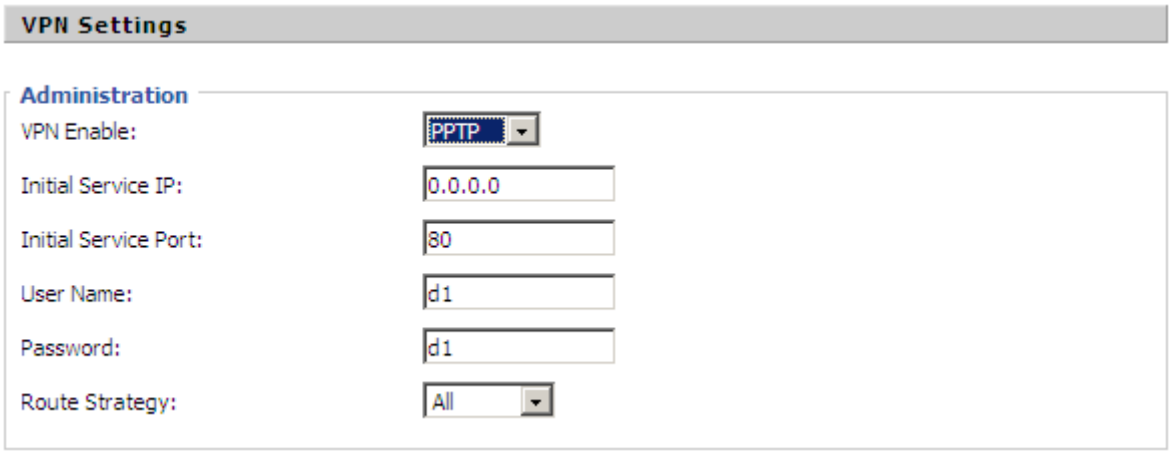
MAC Address Clone: Some ISPs will require you to register your MAC address. If you do not wish to re-register your MAC address, you can have the router clone the MAC address that is registered with your ISP.



Item	Descriptions
MAC Clone	MAC is the hardware address of network equipment. Sometimes, network providers may bind network account with the network equipment's MAC address. So you may not pass the provider's authentication when you use a new VIP-256T. In this case, you can use MAC Clone to copy your PC's MAC address to VIP-256T's Internet port. MAC is an important parameter for network equipments, so you should make sure that the MAC is right, in order to prevent to make VIP-256T unusable. You can login VIP-256T's Web via PC port if you are incautious to make it wrong. And then cloning the right MAC or resume the default settings.
MAC Clone Step	Step 1 Press Get Current PC MAC Address button to get the PC's MAC address Step 2 Press Save Settings to save the changes Step 3. Press Clear to cancel MAC address clone. Step 4. Press Reboot to reboot VIP-256T.

VPN

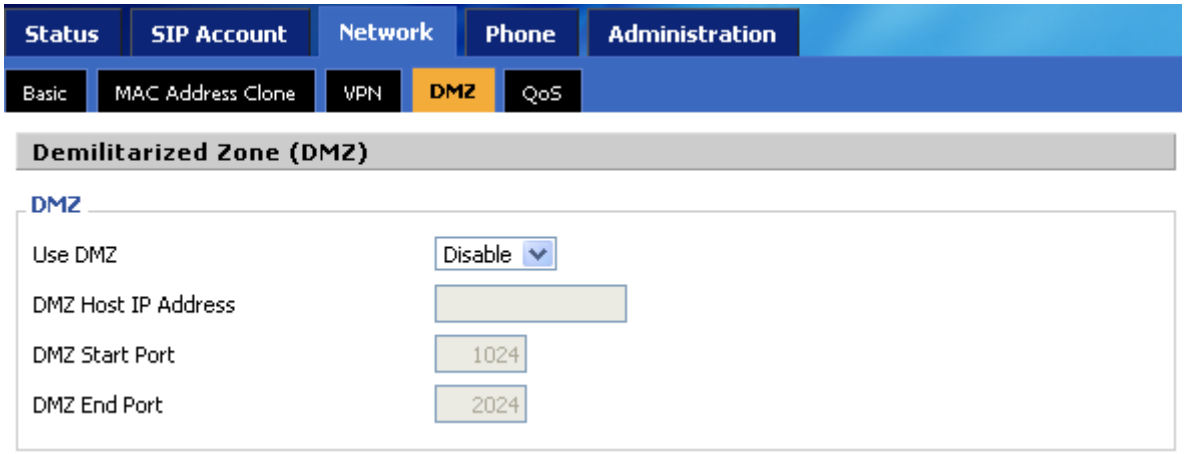
A Virtual Private Network (VPN) is the extension of a private network that encompasses links across shared or public networks like the Internet. In short, by VPN technology, you can send data between two computers across a shared or public network in a manner that emulates the properties of a point-to-point private link.



Item	Descriptions
VPN Enable	Enable / Disable VPN. And user can choose the VPN mode from PPTP and L2TP.
Initial Service IP	VPN server IP address.
Initial Service Port	VPN server port.
User Name	The user name for authentication.
Password	Password for authentication.
Route Strategy	Choose route mode from All or SIP.

DMZ

Enabling this option will expose the specified host to the Internet. All ports between the DMZ Start Port and the DMZ End Port will be accessible from the Internet.

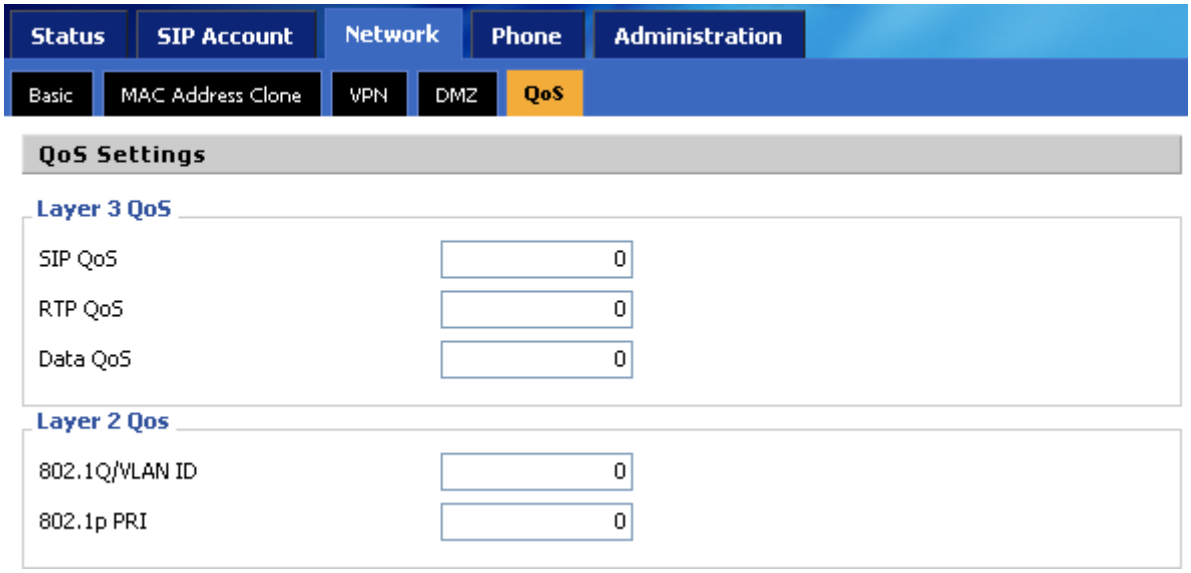


Item	Descriptions
Use DMZ	Enable / Disable DMZ
DMZ Host IP Address	set the IP address of DMZ host
DMZ Start Port	set the start port of DMZ host
DMZ End Port	set the end port of DMZ host
DMZ Example: For example, the DMZ computer's IP is "192.168.1.2", "DMZ start port" and "DMZ end port" is 20 and 1023. The DMZ function is that DMZ computer can get the requests from the ports (20 to 1023) of VIP-256T's Internet port.	

QoS

Layer 3 QoS: Set the IP TOS value of SIP and RTP Packets.

Layer 2 Qos: Set the value of 802.1Q and 802.1p priority



Item	Descriptions
Some ISP supply QoS services. The QoS services can make the best of improving the quality of Voice application. You can get the settings from the ISP if they supply QoS services. Please connect with them if you need it.	

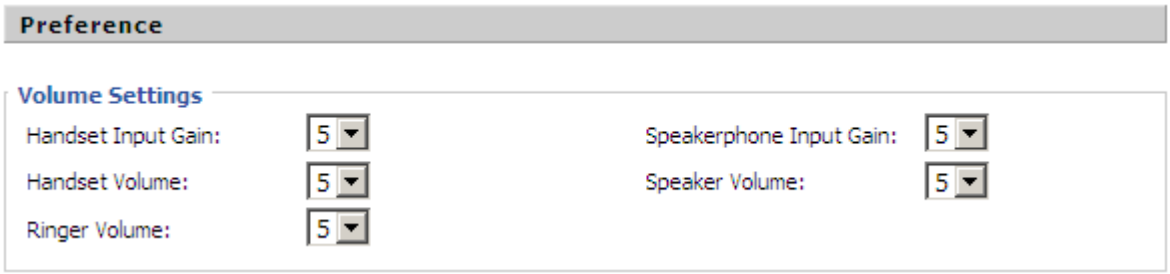
Chapter 7
Phone Configurations

Performance

User can configuration the value of ring volume, speakerphone volume, handset volume and so on.

Volume

Volume Settings - Adjust the input gain or the volume of handset/speaker/ring



Items	Description
Handset Input Gain	Adjust the handset input gain from 0-7
Handset Volume Gain	Adjust the output gain from 0-7
Speakerphone Input Gain	Adjust the speakerphone input gain from 0-7
Speaker Volume	Adjust the speaker volume form 0-7
Ringer Volume	Adjust the ringer volume form 0-7.

Regional

Modification the Tone type and tone parameters.

Items	Description
Tone Type	Choose tone type form China, US, Hong Kong and KR…..Beside Custom item the other tone type already defin in the system.
Min Jitter Delay (ms)	The Min value of VIP-256T's jitter delay, VIP-256T's jitter is an adaptive jitter mechanism.
Max Jitter Delay (ms)	The Max value of VIP-256T's jitter delay, VIP-256T's jitter is an adaptive jitter mechanism.
Hook-On Tone Delay (sec)	How long VIP-256T will delay to sound hook-on tone when call party end call.
Ringing Time(Sec)	How long VIP-256T will ring
Busy Tone Delay(Sec)	Before the busy tone VIP-256T will send the delay tone (like di,di.), this parameter defind how long the delay tone is.

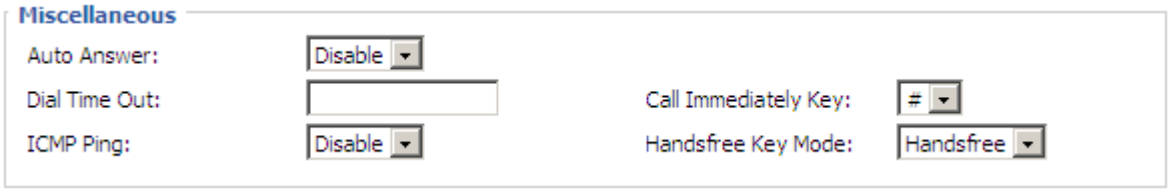
Call Forward

Call Forward - This feature allows you to forward an incoming call to another phone number.

Items	Description
All Forward	The phone number which will be forwarded to. IP Phone will forward all calls to the phone number immediately when there is an incoming call.
Busy Forward	The phone number which will be forwarded to when line is busy.
No Answer Forward	The phone number which will be forwarded to when there's no answer at your phone.
No Answer Timeout	The seconds to delay forwarding calls, if there is no answer at your phone.

Miscellaneous

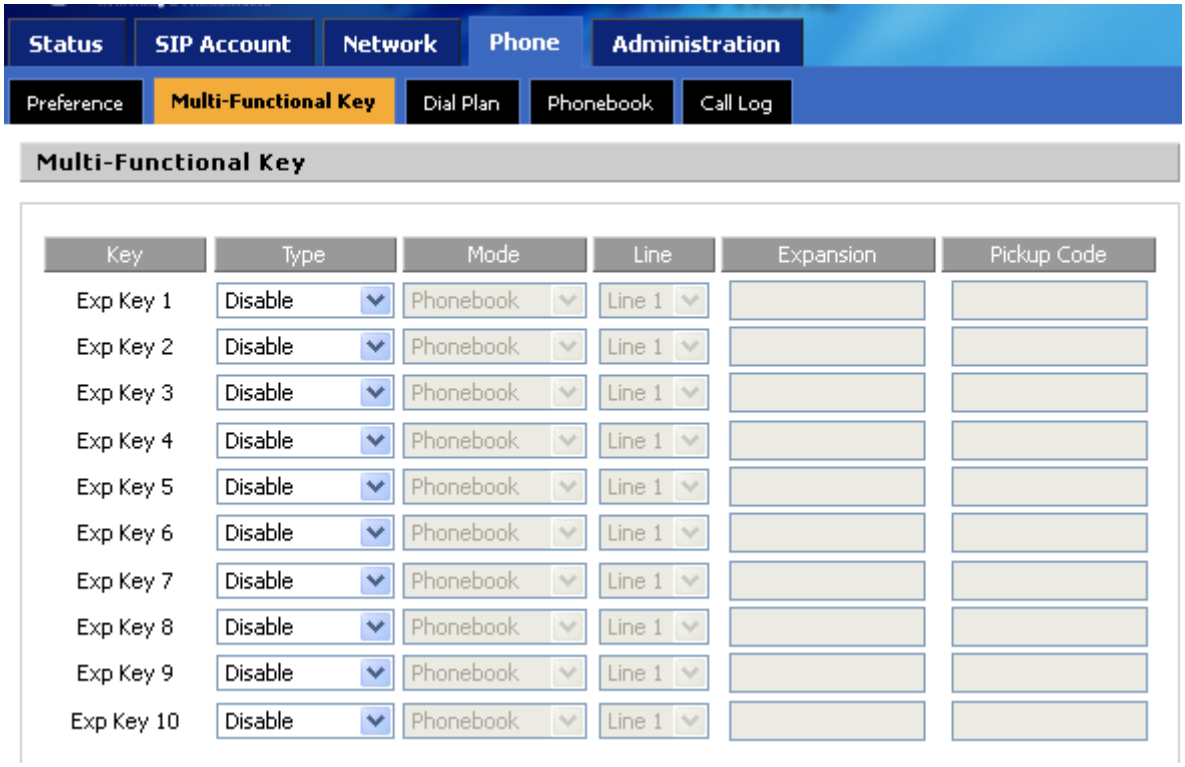
Auto Answer - All the incoming calls will be put through automatically.



Items	Description
Auto Answer	Enable / Disable auto answer. If enable, VIP-256T will auto answer all incoming call immediately.
Dial Time Out	How long VIP-256T to sound dial out tone when VIP-256T dialing number.
Call Immediately Key	Choose call immediately key form * or #.
ICMP Ping	Enable / Disable ICMP Ping. If enable this option, VIP-256T will ping the SIP Server every interval time, otherwise, It will send “hello” empty packet to the SIP Server.
Handsfree Key Mode	Choose the hands free key mode from hands free and headset.

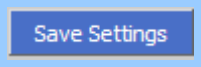
Multi-Functional Key

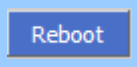
In here user can program the Multi-Function Key like Speed dial , BLF, Shortcut Key, Call Pick up



Items	Description
Program Step: Step 1.Choose one current key board to configuration from Basic Board, Expansion Board 1, Expansion Board 2, Expansion Board 3, Expansion Board 4, Expansion Board 5 and Expansion Board 6. Step 2.Choose one Exp Key from Exp Key 1 to Exp Key 20. Step 3.Choose one function type from speed dial, BLF, shortcut key, call pickup and call park. Step 4.Set the other corresponding parameters. Step 5.Press Save Settings button to save changes, press Cancel Changes button to cancel changes.	
Adding speed dial: Speed Dial: You can configure the key as simplified speed dial key.This key function allows you to easily access the most frequently dialed numbers. 1. Choose one Exp Key to configuration 2. Select the speed dial from the drop down list 3. Choose the Line from auto (the first line registered), line1, line2, line3, line 4 and line 5	

4. Fill the phone number in Expansion

5. Press  to save changes and you can see the status of corresponding LED is solid green.

6. Press  button to make changes effective.

If set properly, press the corresponding key to make call immediately, and the status of LED is solid red.

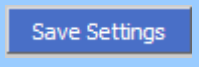
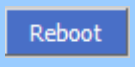
Adding BLF:

BLF: The button can be configured Busy Line Field function with specified account. This feature must be supported by the sip server.

1) Choose one Exp Key to configuration
2) Select the BLF from the drop down list
3) Choose the Line from line1, line2, line3, line 4 and line 5.
4) Fill the monitored phone number in Expansion
5) Fill the pickup code in Pickup Code if user wants to pickup the call when there is a new call coming in monitored phone.
6) Press to save changes and you can see the status of corresponding LED is solid green.
7) Press button to make changes effective.

Adding shortcut key:

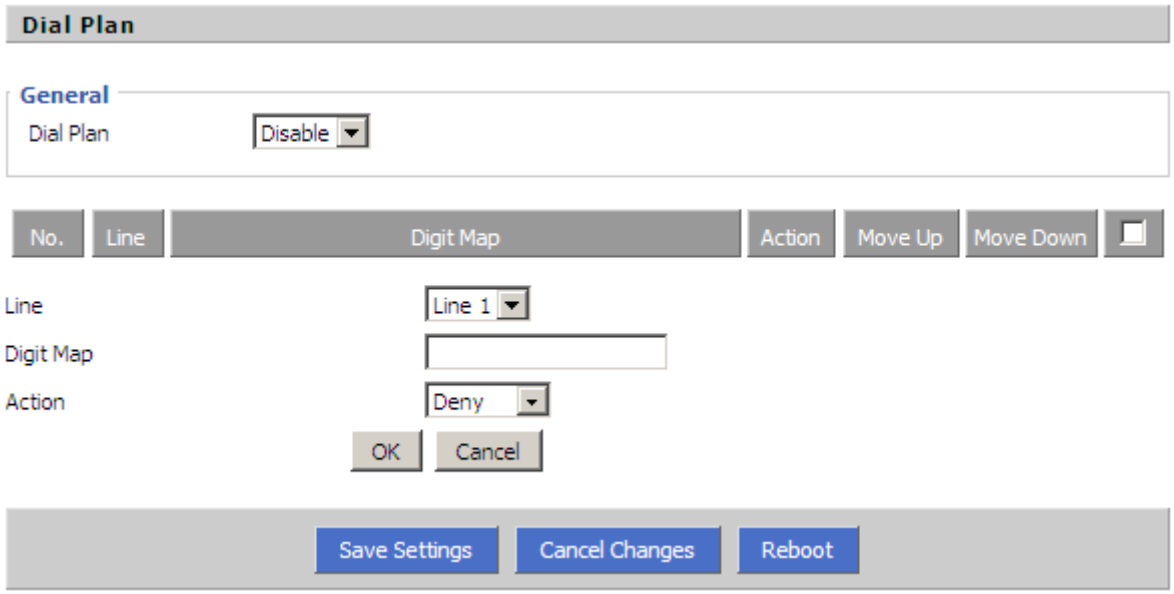
Shortcut Keys: Shortcut Keys are predefined shortcuts to phone and call functions.

1. Choose one Exp Key to configuration
2. Select the shortcut key from the drop down list
3. Select the mode from the phonebook, call history, text message, volume+, volume- and login/logout in the drop down list.
4. Press  to save changes and you can see the status of corresponding LED is solid green.
5. Press  button to make changes effective.
6. If set properly, press the corresponding button to access to phonebook, call history, text message, volume+, volume- and login/logout menu directly.

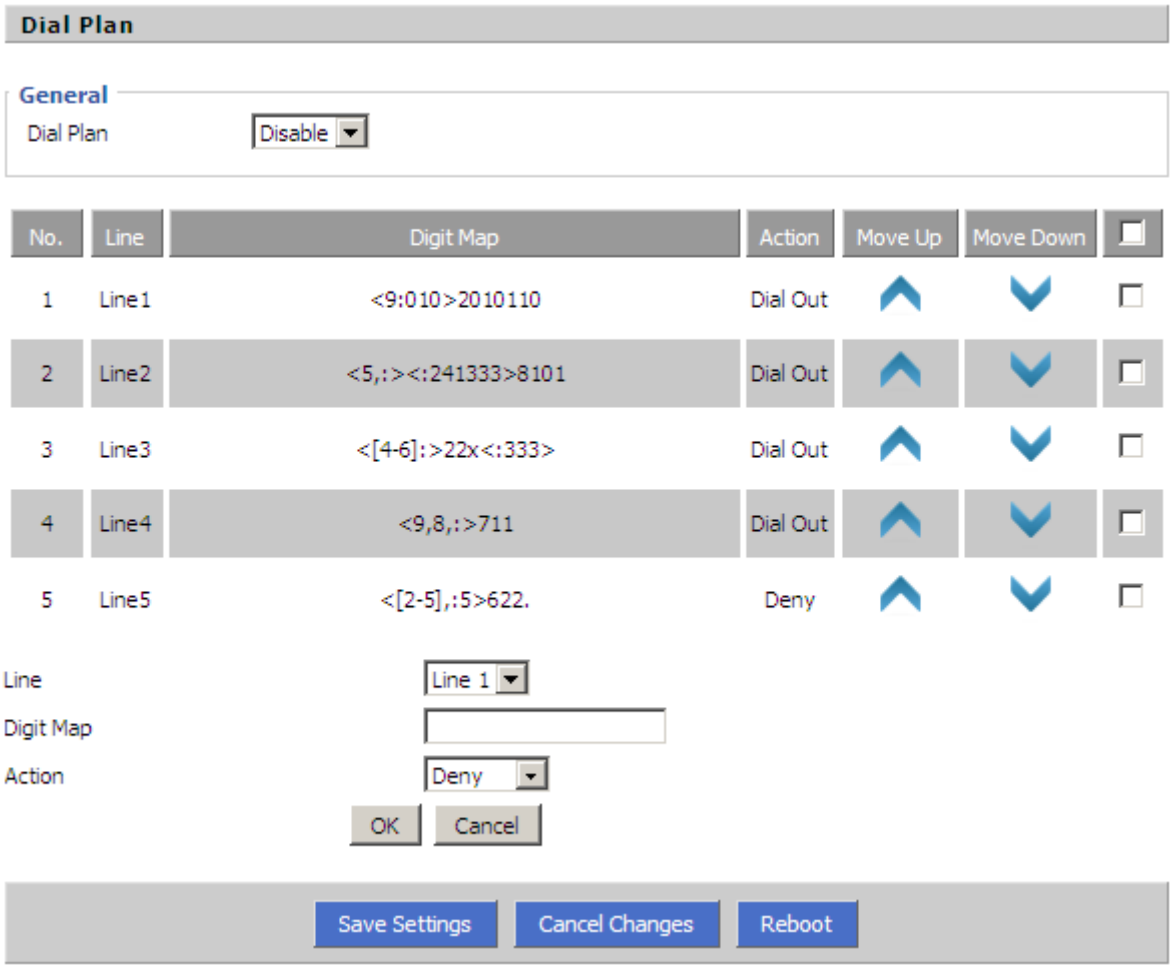
Adding call park:

1. Choose one Exp Key to configuration
2. Select the Call Park from the drop down list in type
3. Choose the Line from line1, line2, line3, line 4 and line 5.
4. Fill the pickup extension code in Expansion
5. Press Save Settings to save changes and you can see the status of corresponding LED is solid green.
6. Press Reboot button to make changes effective.

Dial Plan



Items	Description
Dial Plan	Enable / Disable dial rule.
Line	Choose the call mode from line1, line2, line3, line4 and line5.
Digit Map	Fill in the sequence used to match input number
	The syntactic, please refer to the following Dial Plan Syntactic
Action	Choose the dial plan mode from Deny and Dial Out. Deny means VIP-256T will reject the matched number, while Dial Out means VIP-256T allow dial out the matched number.
Move Up	Press it to move up.

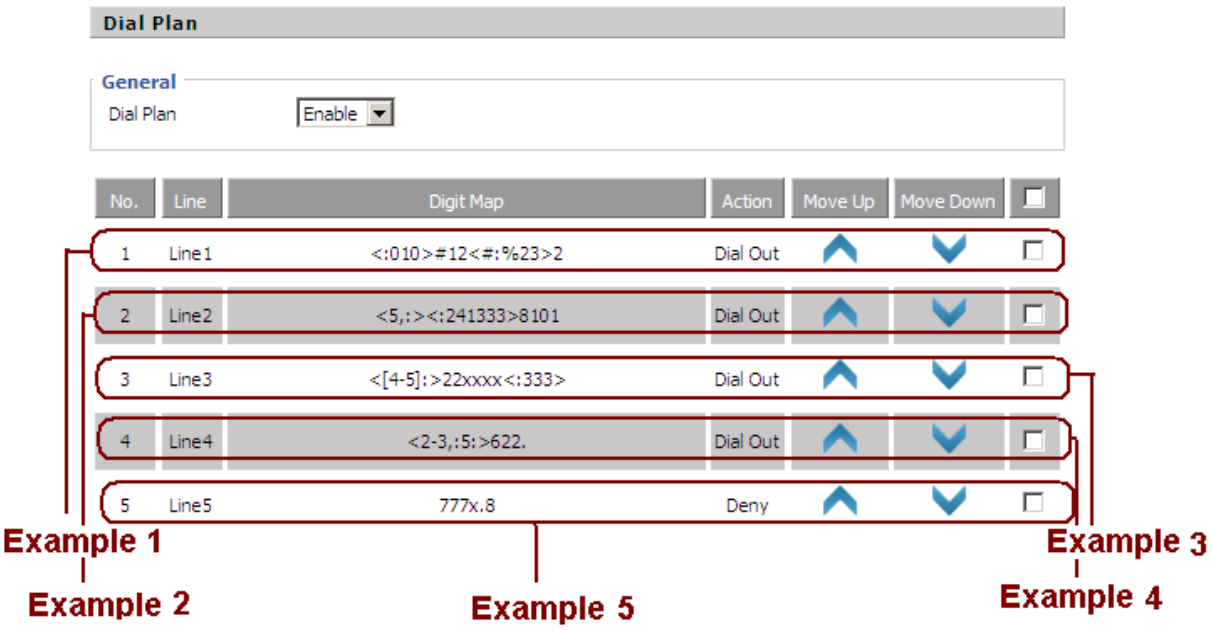


Items	Description
Adding one dial plan: Step 1. Enable Dial Plan Step 2. Click Add button, and the configuration table Step 3. Fill in the value of parameters. Step 4.Press OK button to end configuration. Step 5. Press Save Settings button to save changes.	
Editing one dial plan: Step 1. Enable Dial plan Step 2. Choose one dial plan Step 3. Click Edit button, and the configuration table Step 4. Change the value of parameters. Step 5.Press OK button to end configuration. Step 6. Press Save Settings button to save changes.	
Deleting one dial plan: Step 1. Enable Dial plan Step 2. Choose one dial plan	

Step 3. Click Delete button to delete the dial plan

Dial Plan Syntactic

Items	Description
0 1 2 3 4 5 6 7 8 9 * #	Legal characters
X	Lowercase letter x stands for one legal character
[sequence]	To match one character form sequence. For example: 1.[0-9]: match one digit form 0 to 9 2.[23-5*]: match one character from 2 or 3 or 4 or 5 or *
x.	Match to x^0, x^1, x^2, x^3..... x^n For example: “01.”: can match ”0”, “01”, “011”, ”0111”, ……., ”01111…”
<dialed: substituted>	Replace dialed with substituted. For example： <8:1650>123456：input is “85551212”, output is“16505551212”
x,y	Make outside dial tone after dialing “x”, stop until dialing character “y” For example： “9,1xxxxxxxxx”:VIP-256T make outside dial tone after inputting “9”, stop tone until inputting “1” “9,8,010x”: make outside dial tone after inputting “9”, stop tone until inputting “0”
T	Set the delayed time. For example: “<9:111>T2”: VIP-256T will dial out the matched number “111” after 2 seconds.



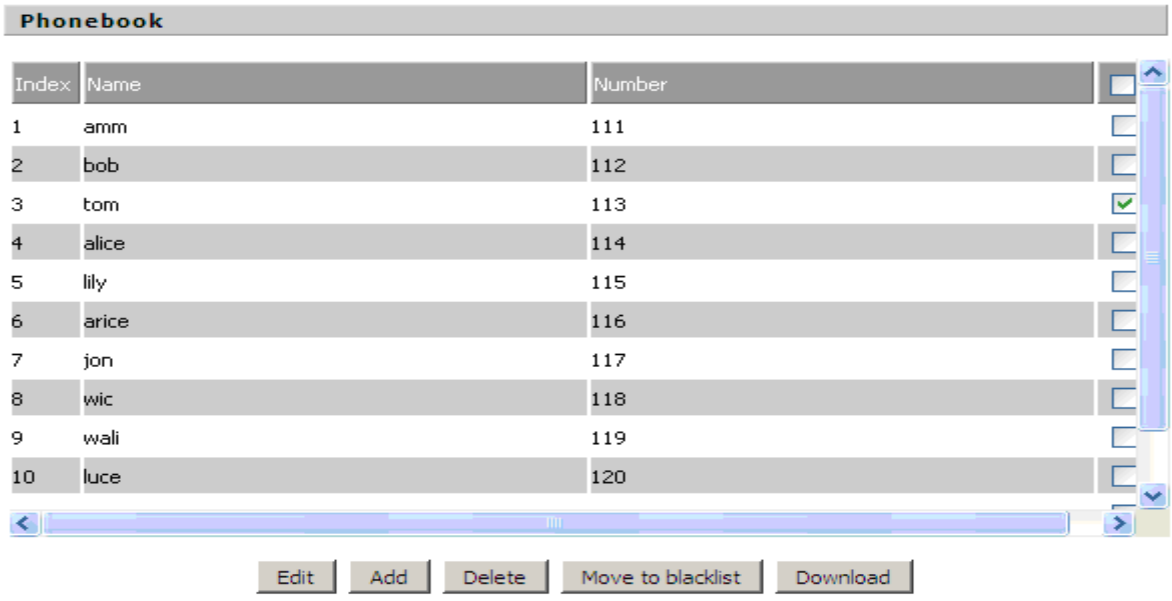
Items	Description
Example 1	If user dials #12#2, VIP-256T will call 010#12%232 immediately.
Example 2	If user dials 5,8101, VIP-256T will call 2413338101 immediately, And VIP-256T will make outside dial tone after inputting “5”, stop tone until inputting “8”.
Example 3	If user dials 422xxxx or 522xxxx, VIP-256T will call 22xxxx333 immediately.
Example 4	If user dials 2,622 or 2,6222 or 2,62222 or 2.62222 or 3.62222, VIP-256T will call 5622 or 56222 or 562222 or 5622222 or 5622222 immediately. And VIP-256T will make outside dial tone after inputting “2” or “3”, stop tone until inputting “6”.
Example 5	If user dials 777x8, VIP-256T will reject the phone number out.

Phonebook

Phonebook

The list Show all the directory entries. Please click "Save Settings" button to save this list after you edit or add an item.

Items	Description
Name	Input the name
Number	Input the phone number



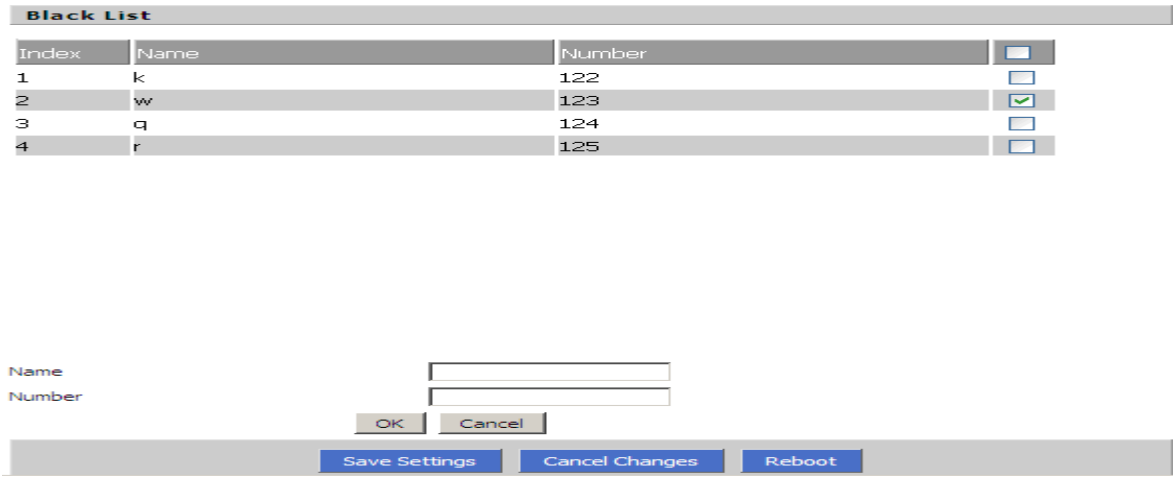
Items	Description
Adding one phone book: Step 1. Click Add button, and the configuration table Step 2. Fill in the value of parameters. Step 3. Press OK button to end configuration. Step 4. Press Save Settings button to save changes.	
Editing one phone book:	

Step 1. Choose one phone book Step 2. Click Edit button, and the configuration table Step 3. Change the value of parameters. Step 4. Press OK button to end configuration. Step 5. Press Save Settings button to save changes.
Deleting one phone book: Step 1. Choose one phone book Step 2. Click Delete button to delete the phone book
Move one phone book to Black list: Step 1. Choose one phone book Step 2. Click Move to blacklist button to delete the phone book

Black List

Calls from this list can not get through.

Items	Description
Name	Input the name
Number	Input the phone number

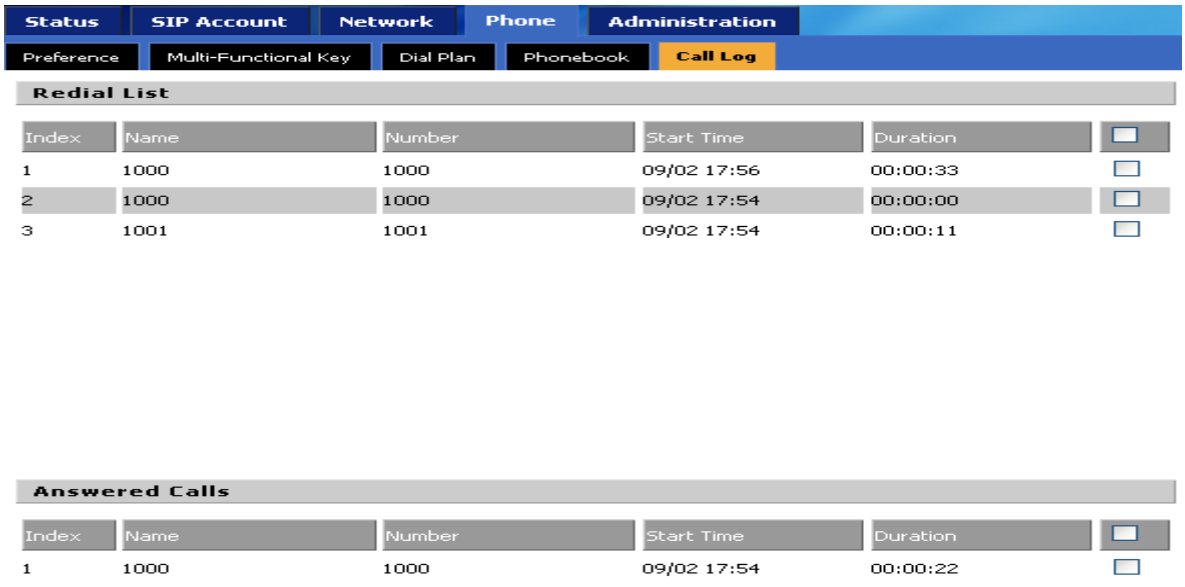


Items	Description
Adding one Black List:	

Step 1. Click Add button, then the configuration table. Step 2. Fill in the value of parameters. Step 3. Press OK button to end configuration. Step 4. Press Save Settings button to save changes.
Editing one Black List: Step 1. Choose one black list Step 2. Click Edit button, and the configuration table Step 3. Change the value of parameters. Step 4. Press OK button to end configuration. Step 5. Press Save Settings button to save changes.
Deleting one Black List: Step 1. Choose one black list Step 2. Click Delete button to delete the black list
Moving one Black List to phonebook: Step 1. Choose one black list Step 2. Click Move to phonebook button to move the black list to the phonebook

Call Log

To view the call log information such as redial list (incoming call), answered call and missed call



Chapter 8

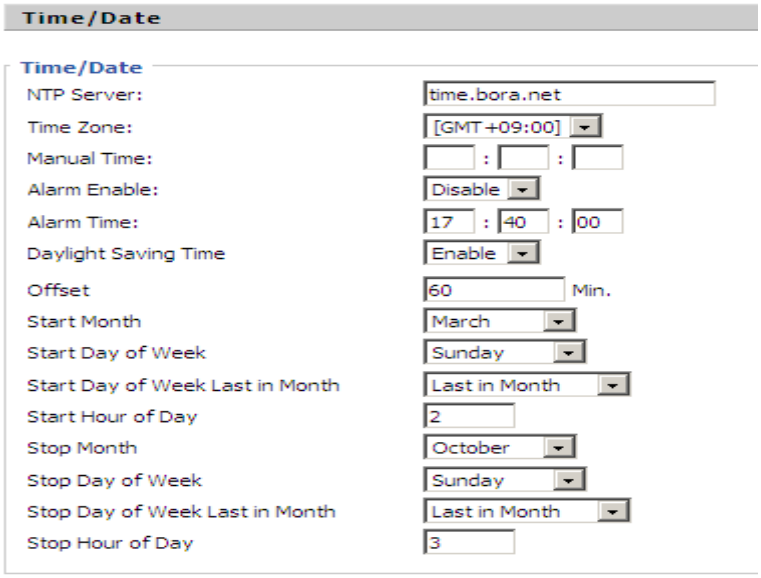
VoIP IP Phone Administration

Management

In this page can configuration the value of Time/Date, password, web access, and system log and so on

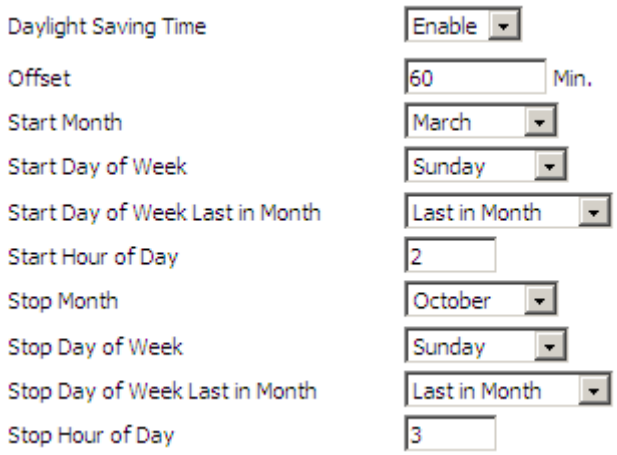
Time/Date

Items	Description
NTP Server	Fill in the NTP server IP address or Domain name
Time Zone	Choose the time zone
Manual Time	Adjust time by manual
Alarm Enable	If or not enable alarm
Alarm Time	Set alarm time
Daylight Saving Time	If or not enable daylight saving time.
Offset	Offset time, “-60” means advancing 60miniter, “60” means delaying 60minite
Start Month	Choose starting month
Start Day of Week	Choose starting day
Start Day of Week Last in Month	Choose starting week
Start Hour of Day	Choose starting hour
Stop Month	Choose stopping month
Stop Day of Week	Choose stopping day
Stop Day of Week Last in Month	Choose stopping week
Stop Hour of Day	Choose stopping the function hour



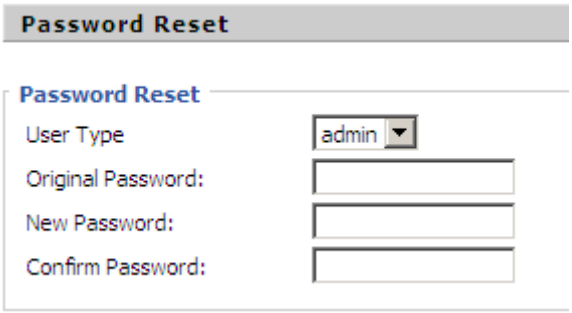
Items	Description
Alarm Setting: Step 1. Enable alarm Step 2.Set alarm time Step 3. Press Save Settings button to save changes and then press Reboot button to active changes	

Items	Description
Daylight Saving Time: Step 1. Enable Daylight Saving Time. Step 2. Set value of offset, Step 3: Set staring Month/Week/Day/Hour in Start Month/Start Day of Week Last in Month/Start Day of Week/Start Hour of Day, analogously set stopping Month/Week/Day/Hour in Stop Month/Stop Day of Week Last in Month/Stop Day of Week/Stop Hour of Day. Step 5.Press Saving Settings button to save and press Reboot button to active changes.	



Password Reset

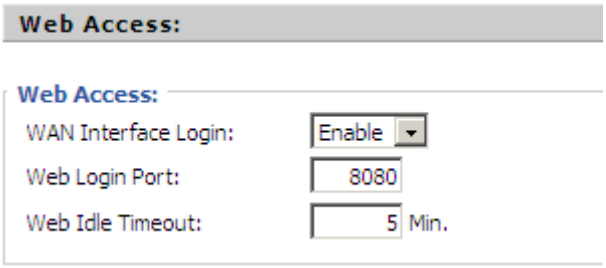
Items	Description
User Type	Choose the user type from admin and user.
Original Password	Input original password
New Password	Input the new password
Password Confirm	Input the new password again



Items	Description
Change the password: Step 1. Choose the admin from the drop-down list. Step 2. Input original password, default setting is null. Step 3. Input a new password twice time in New Password and Confirm	

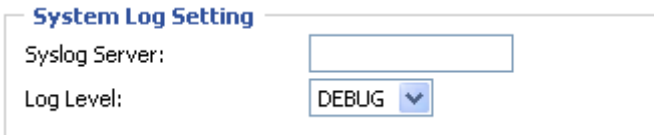
Web Access

Items	Description
WAN Interface Login	If or not enable user login WEB via Internet port. If enable, user can access Web to administration.
Web Login Port	Set the port which used to login WEB via Internet port and PC port, Default is 8080, that is why URL should have 8080.
Web Idle Timeout	Set the web idle timeout time. The web page can be logged out after Web Idle Timeout without any operation.

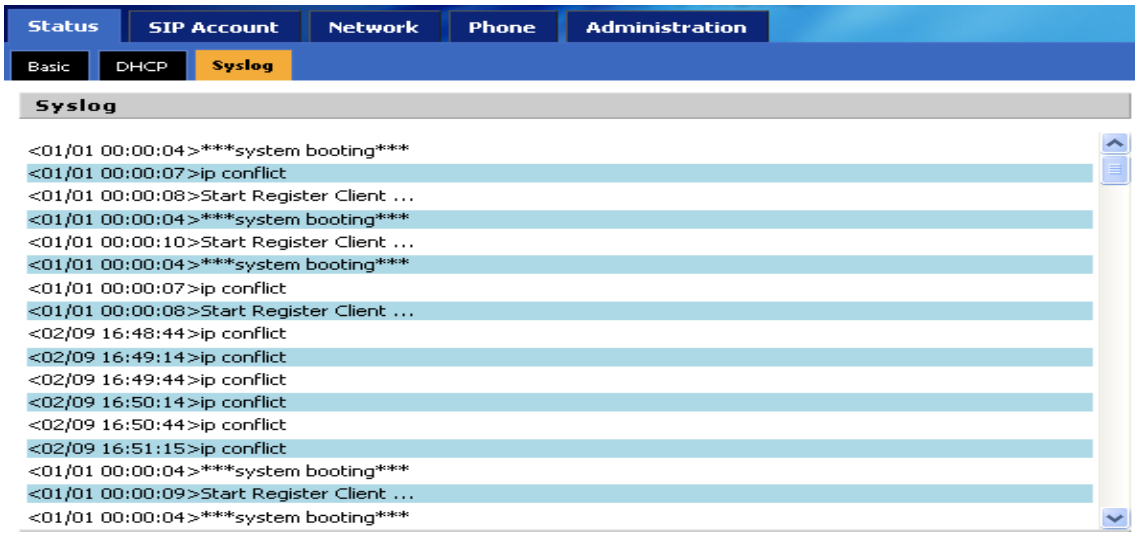


System Log Setting

Items	Description
SysLog Server	Set the SysLog Server IP address or domain name for VIP-256PE.
Log Level	Choose log level from None/Error/Warn/INFO/Debug. The priority changes from left to right, left is the lowest, right is the highest; the higher priority, the more information in syslog.

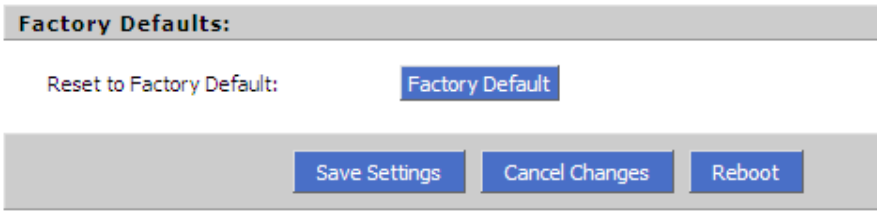


Local and remote Syslog
In local: Step 1. Set syslog server null and choose one kind of Log Level. Step 2. Press Saving Settings button to save and press Reboot button to active changes. Step 3. User can view syslog in Status/Syslog webpage.
In remote: Step 1. Fill in syslog server IP address or domain name Step 2. Choose one kind of Log Level. Step 3. Press Saving Settings button to save and press Reboot button to active changes. Step 4. User can view syslog in syslog server, and you can also view the syslog in Status/Syslog webpage.



Factory Defaults

Items	Description
Factory Default	Press Factory Default button to set VIP-256PE to default.



Update Firmware

Click on the *Browse...* button to select the firmware file to be uploaded to the router.

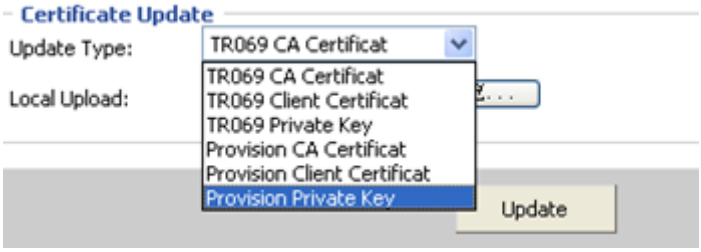
Security

CA Certificate - The issuer of the certificate.

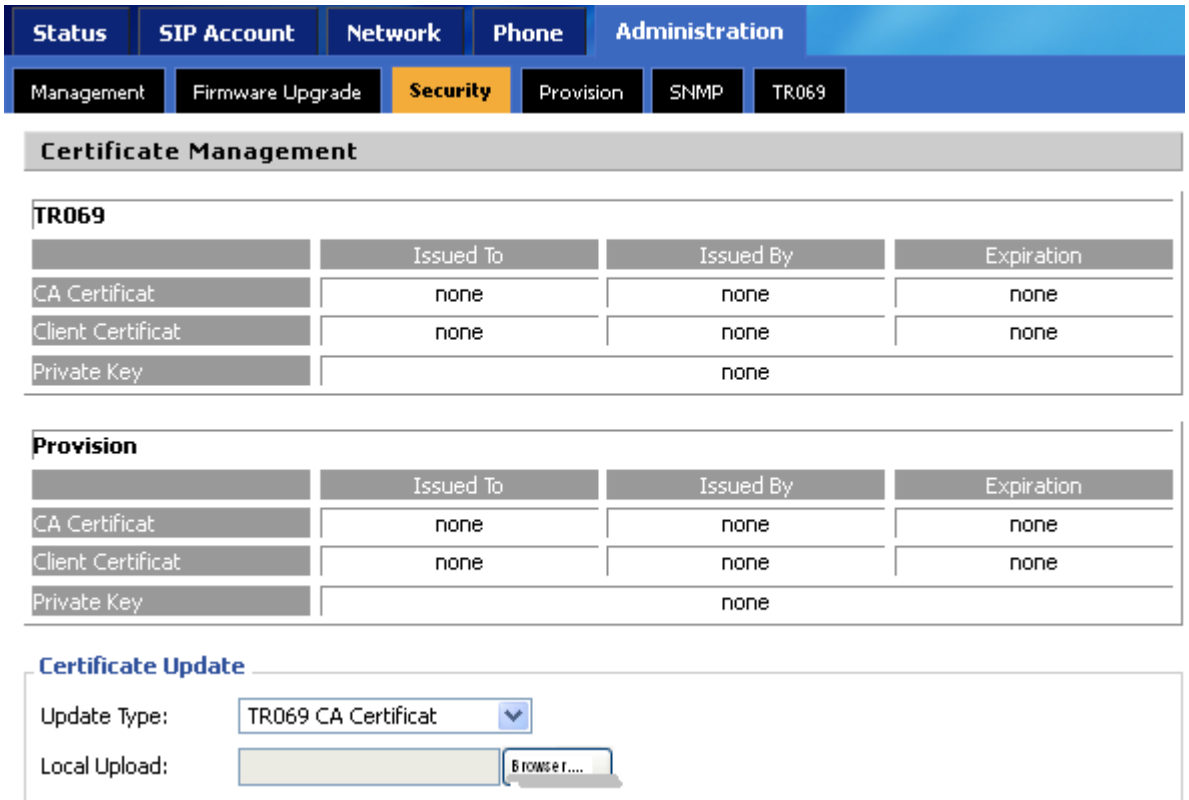
Client Certificate - user's certificate issued by CA.

Private Key - user's private key file.

Items	Description
TR069 CA Certificate	The CA certificate file of TR069
TR069 Client Certificate	The Client Certificate file of TR069
TR069 Private Key	The Private Key file of TR069
Provision CA Certificate	The CA certificate file of provision
Provision Client Certificate	The Client Certificate file of provision
Provision Private Key	The Private Key file of provision



Upload TR069 and Provision
User can upload cert files for TR069 and Provision as follows: Step 1. Choose one File Type from TR069 Private ke. Step 2. Press browser to browser file. Step 3. Press Update to start upgrading. Next is the webpage which all files have well uploaded.



Provision

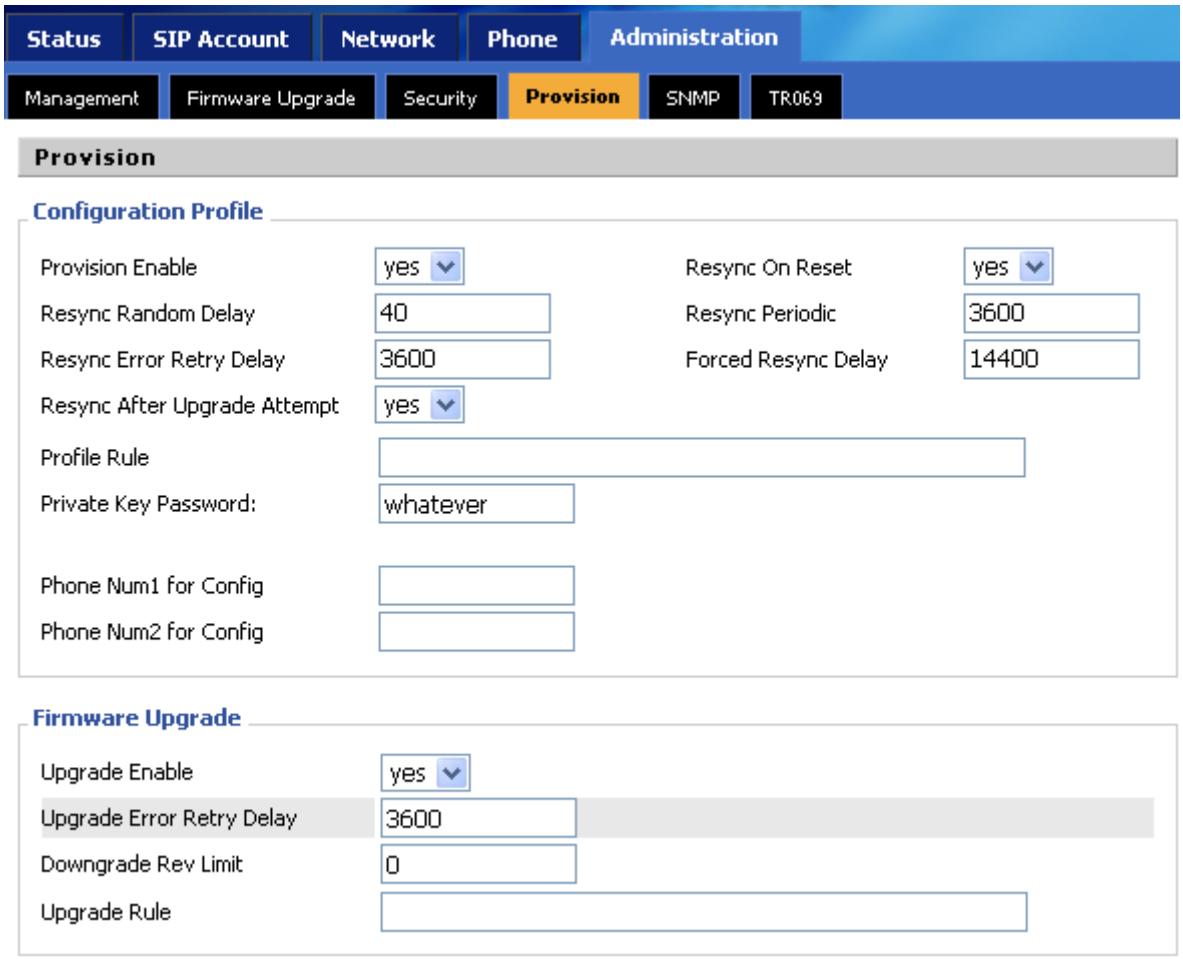
Provision allow a device automatically resync to a specific configuration file on a TFTP server or a web server which use HTTP or HTTPS.

1) Provisioning allow VIP-256T auto-upgrading or auto-configuring
2) VIP-256T supports 3 ways to provision: TFTP, HTTP and HTTPS.

- Before testing or using TFTP, user should have tftp server and upgrading file and configuring file.
- Before testing or using HTTP, user should have http server and upgrading file and configuring file.
- Before testing or using HTTPS, user should have https server and upgrading file and configuring file and CA Certificate file(should same as https server's) and Client Certificate file and Private key file

3) User can uploading CA Certificate file and Client Certificate file and Private Key file in Equipment Manage/Cert Manage page.

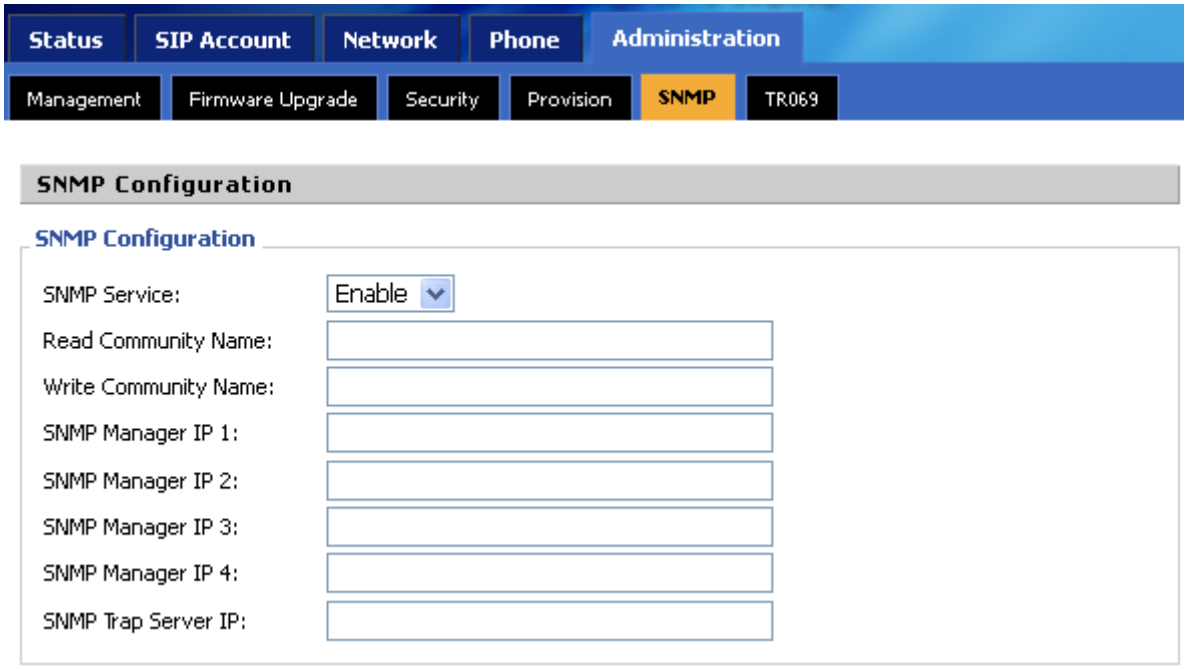
Items	Description
Provision Enabled	If or not enable provision
Resync On Reset	If or not enable resync after VIP-256T restart
Resync Random Delay	Set the maximum delay for request the synchronization file
Resync Periodic	Set the periodic time for resync, default is 3600s
Resync Error Retry Delay	If the last resync was failure, VIP-256T will retry resync after the "Resync Error Retry Delay" time, default is 3600s
Forced Resync Delay	If it's time to resync, but VIP-256T is busying now, in this case, VIP-256T will wait for a period time, the longest is "Forced Resync Delay" , default is 14400s, when the time over, VIP-256T will forced to resync
Resync After Upgrade Attempt	If or not enable firmware upgrade after resync, "yes" is enable
Profile Rule	URL of profile provision file
Phone Num1 for Config	The first phone number which used to reboot VIP-256T in remote.
Phone Num2 for Config	The second phone number which used to reboot VIP-256T in remote.
Auto-upgrade Enabled	If or not enable firmware upgrade.
Auto-upgrade Error Retry Delay	Set the time to retry upgrade, effective when the last upgrade was failure
Upgrade Rule	URL of upgrade file


Status
SIP Account
Network
Phone
Administration
Management
Firmware Upgrade
Security
Provision
SNMP
TR069
Provision
Configuration Profile
Provision Enable
yes
Resync On Reset
yes
Resync Random Delay
40
Resync Periodic
3600
Resync Error Retry Delay
3600
Forced Resync Delay
14400
Resync After Upgrade Attempt
yes
Profile Rule
Private Key Password:
whatever
Phone Num1 for Config
Phone Num2 for Config
Firmware Upgrade
Upgrade Enable
yes
Upgrade Error Retry Delay
3600
Downgrade Rev Limit
0
Upgrade Rule

SNMP

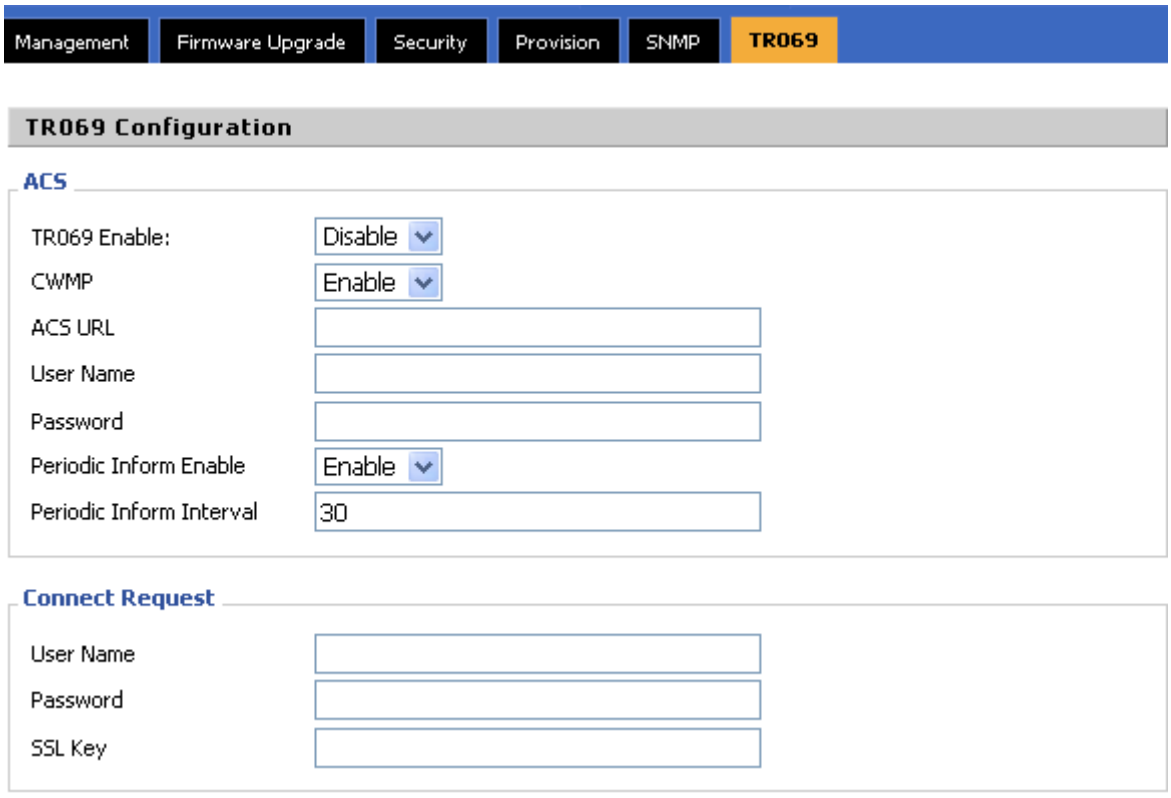
Allow the device to be managed by the Manager which is set in the SNMP Manager IP.

Items	Description
SNMP Enable	If or not enable SNMP
Get Community	String, as an express password between management process and the agent process
Set Community	String, as an express password between management process and the agent process
SNMP Manager IP 1-4	The IP address of SNMP Manager



TR 069

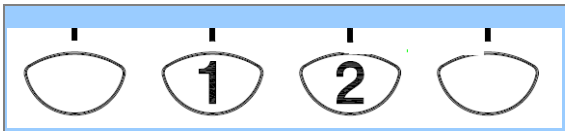
Allow the device to be managed by the ACS server which is set in the ACS URL.



Items	Description
TR069 Enable	If or not enable TR069
CWMP	If or not enable TR069
ACS URL	The URL of TR069 server
User Name	The VIP-256T's user name for connecting to TR069 server
Password	The VIP-256T's password for connecting to TR069 server
Periodic Inform Enable	If or not enable periodic information
Periodic Inform Interval	The interval to send information to TR069 server
User Name	The TR069 server's user name for connecting to VIP-256T
Password	The TR069 server's password for connecting to VIP-256T
SSL Key	Fill in SSL key.

Appendix A Frequently Asked Questions List

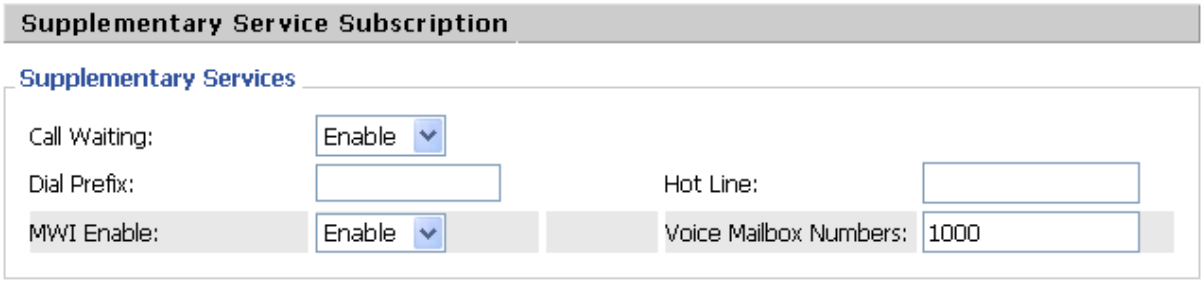
Q1: No Operation after Power On?
A1: Check if the power adapter is properly connected.
Q2: No Dial Tone?
A2: Check if the handset cord is properly connected.
Q3: Can not Make a Call?
A3: Check the status of your SIP registration status or contact your administrator, supplier, or ITSP for more information or assistance.
Q4: Can not Receive Any Phone Call?
A4 : Check the status of your SIP registration status, or contact your administrator, supplier, or ITSP for more information or assistance
Q5: No Voice during an Active Call?
A5: Check if the servers support the current audio codec type, or contact your administrator, supplier, or ITSP for more information or assistance.
Q6: **Can not connect to the configuration Website?**
A6: Check if the Ethernet cable is properly connected. Check if the URL is right wrote, the format of URL is: http:// the Internet port IP address Check if your firewall/NAT settings are correct. Check if the version of IE is IE8, or use other browser such as Firefox or Mozilla, or contact your administrator, supplier, or ITSP for more information or assistance.
Q7: **Forget the Password?**
A7: Default password of website and menu is null. If user changed the password and then forgot, you can not access to the configuration website or the menu items which need password. Solution: Factory default: press Menu button and choose 16Factory Default, then a notice will appear, choose OK by using the corresponding softkey button. If you choose factory default, you will return the phone to the original factory settings and will erase ALL current settings, including the directory and call logs.
Q8: How to switch to different line to dial out?
A8: Before dial out, press the correspondence line number you want to use, ex: want to use Line 4 to dial out, must press 2, to switch to line 2 then dial out.



Q9: Why my MSG light would not show any information, when I receive the message?

A9: In SIP accounts / Lines / Supplementary service

Please enable the MWI (Message Waiting Indicate) and in Voice Mailbox numbers, please also assign the Voice mail number.



Appendix B Specifications

Product	SIP IP Phone (2 lines)
Model	VIP-256T
Hardware	
Internet	10/100M, Half or Full Duplex, auto-negotiation
PC	10/100M, Half or Full Duplex, auto-negotiation
Display	128x64 Graphic LCD with white back light
Headset Jack	RJ-9
Function Keys	2 Line keys and 4 soft keys
	12 Dialing Buttons (0~9, *, #)
	10 Multi-functional key with dual-color LED
Protocols and Standard	
Standard	SIP V2 (RFC 3261,3262,3263,3264) Backward Compatible with RFC2543 Session Timer (RFC4028) SDP (RFC2327) RTP/RTCP (RFC1889 and RFC1890) NAPTR for SIP URI Lookup (RFC2915) STUN (RFC 3489) ARP/RARP (RFC 826/903) SNTP (RFC 2030) DHCP HTTP Server for Web Management TFTP/HTTP/HTTPS for Auto Provisioning Message Waiting Indicator (RFC3842) DNS/DNS SRV (RFC1706 and RFC 2782) IEEE802.1Q VLAN/802.1p and IP TOS
VPN Network	PPTP and T2TP c encryption
Voice Code	G.711 (A-Law, μ-Law), G.729, G.723, G.722
Voice Standard	Adaptive Jitter Buffer Management Voice Activity Detection Comfort Noise Generation Echo Cancellation
Security	802.1p (QoS) User Authentication for configuration pages
Features	
Call Features	2 lines Call Waiting Auto Answer Caller ID and call waiting ID 3-way Conference Call Mute ,Redial, Speed Dial, Pick up, Call park ,Dial Plan ,DND, Call Hold, Call Forwarding Call Transfer: blind transfer and attended transfer SMS Functions Support BLF(Busy Lamp Field) Phonebook Black List Call log: redial list, answered calls and missed calls Full-duplex Speakerphone Volume Adjustment: Handset/Headset, Speaker and Ringer
Application	MAC address cloning SIP proxy redundancy: dynamic via DNS SRV, A records Direct IP to IP calling

	NAT Traversal: Traversal by STUN Built-in NAT Router QoS with Layer 2 and Layer 3 DHCP Server and Client IP conflict detection
Network and Configuration	
Internet Connection Type	Fixed IP, DHCP, PPPoE
Management	LCD / Keypad UI Web (HTTP) Auto Provision (TFTP/HTTP/HTTPS)
Dimension (W x D x H)	191 x 205 x 75 (W x D x H) mm
Operating Environment	0~50 Degree C, 10~90% humidity
Power Requirement	5 V DC, 1A
EMC/EMI	FCC, CE