PLANET
Networking & Communication

Internet Telephony Gateway

VIP-160/VIP-260

User's manual

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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.

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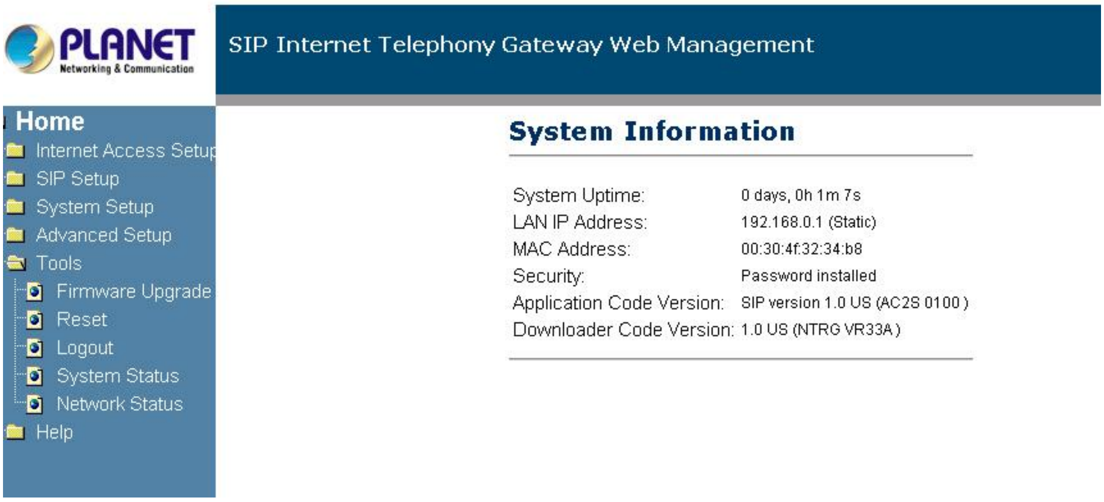
Home



System Uptime: specifies the amount of time, which the system has been up. This time is reset every time the system is reset.

LAN IP Address: indicates the IP Address of your LAN.

MAC address: MAC address is the address of your MAC.

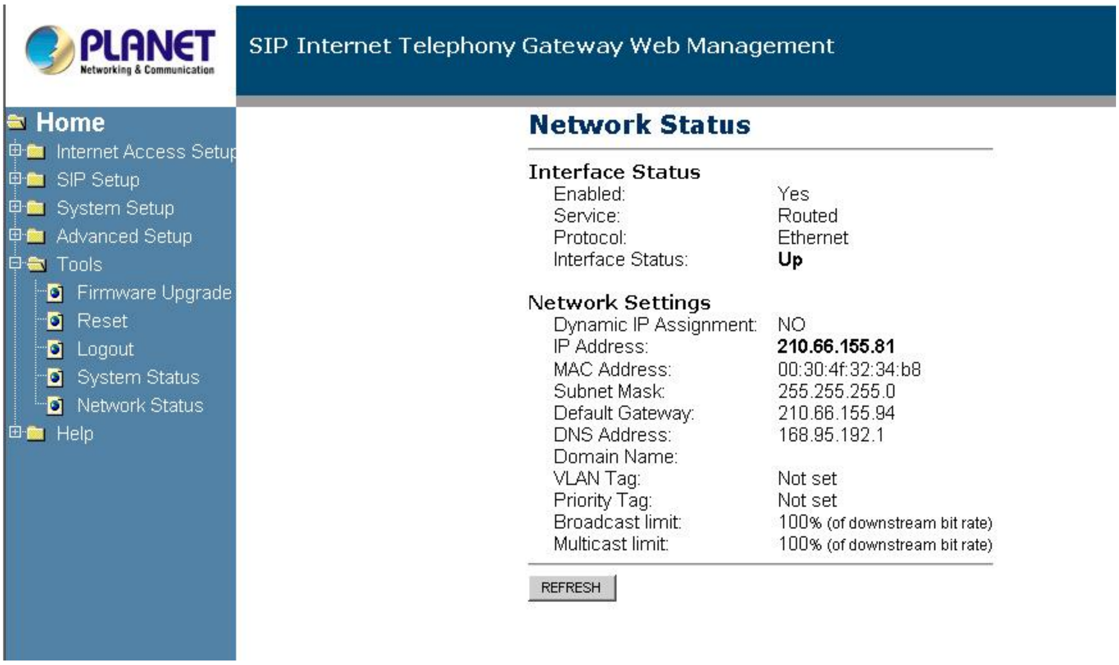
Security: for your password, which is configured in the “System” section.

Application Code Version: tells the version of the application code which you are using.

Download Code Version: tells the version of the download code which you are using.

Network

Network status



Interface Status: these are the details of your interface's status.

Enabled: "Yes", lets you know that your interface is enabled and ready to be used.

Service: either "Routed or Bridged", tells you the level of your interface's connection.

Protocol: refers to how you are transmitting data. (i.e. Ethernet)

Interface Status: either "Up" or "Down".

Under Network Settings: these are the details of your network settings.

Dynamic IP Assignment: "Yes" or "No", depending on whether or not you are using a dynamic IP.

IP address: your specified IP.

MAC address: Your specified MAC address.

Subnet Mask: indicates the IP address of your mask.
Default Gateway: is the IP address of the gateway. The gateway IP could be retrieved from DHCP offer in DHCP mode, or be set up manually in fixed IP mode.

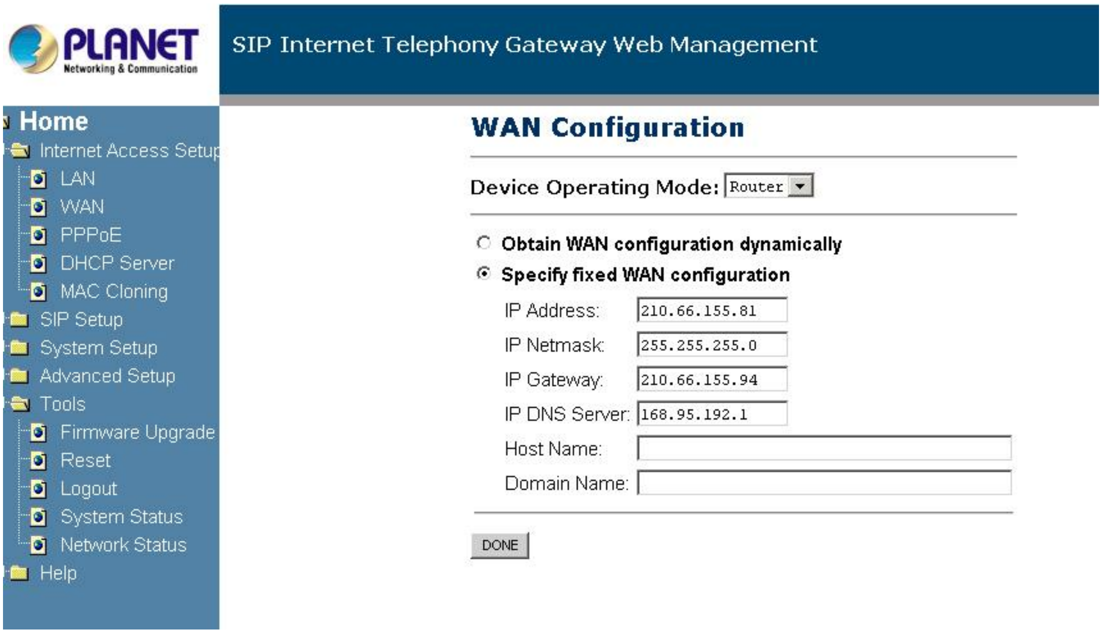
DNS address: refers to the address of your dynamic name server, if applicable.

VLAN: VLAN tag value encoded in the Ethernet header in all outgoing packets

Priority Tag: Priority Tag value encoded in the Ethernet header in outgoing packets.

Broadcast Limit & Multicast Limit: Please see the **WAN Configuration**

WAN Configuration



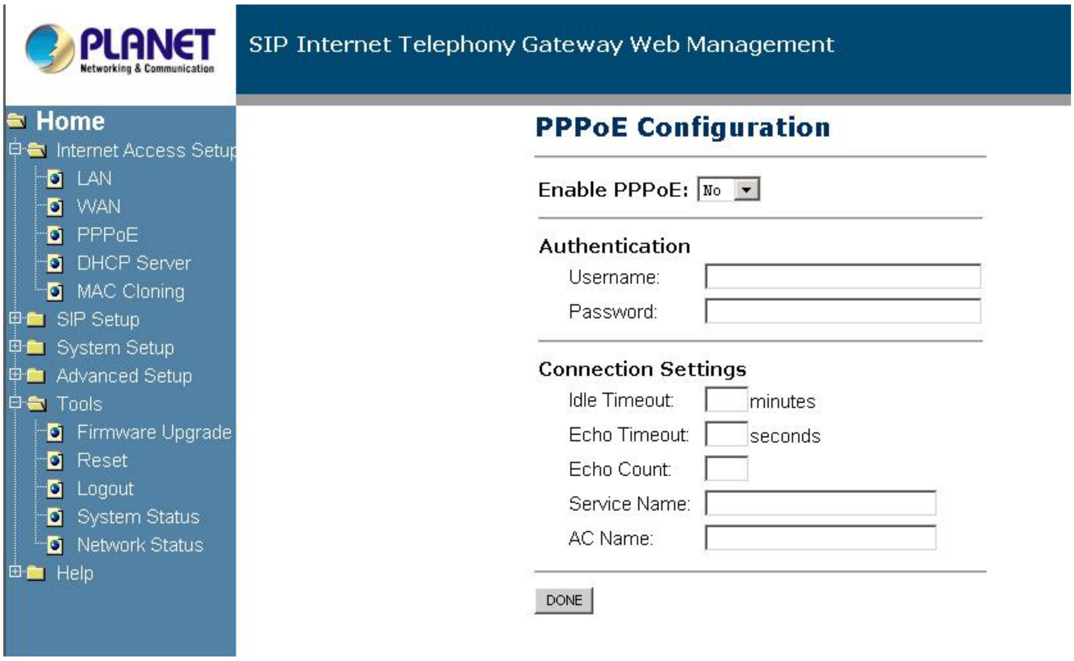
1. Device Operating Mode: you choose either “Router” or “Bridge”, depending on your operation.

2. You will check either “**Obtain WAN configuration dynamically**” or “**Specify fixed WAN configuration**”.

When you choose “**Obtain WAN configuration dynamically**”, the information is detected automatically through DHCP.

If you choose “**Specify fixed WAN configuration**”, you are required to enter the IP address, IP of the Sub mask, IP of the Gateway, and IP of the DNS Server, if applicable.

WAN PPPoE Configuration



1. Enable PPPoE: "Yes" or "No", to enable/disable PPPoE

2. Under "**Authentication**", you enter the username and password given by your ISP.

3. Settings:

Idle Timeout: Idle timeout before PPP connection is closed due to inactivity

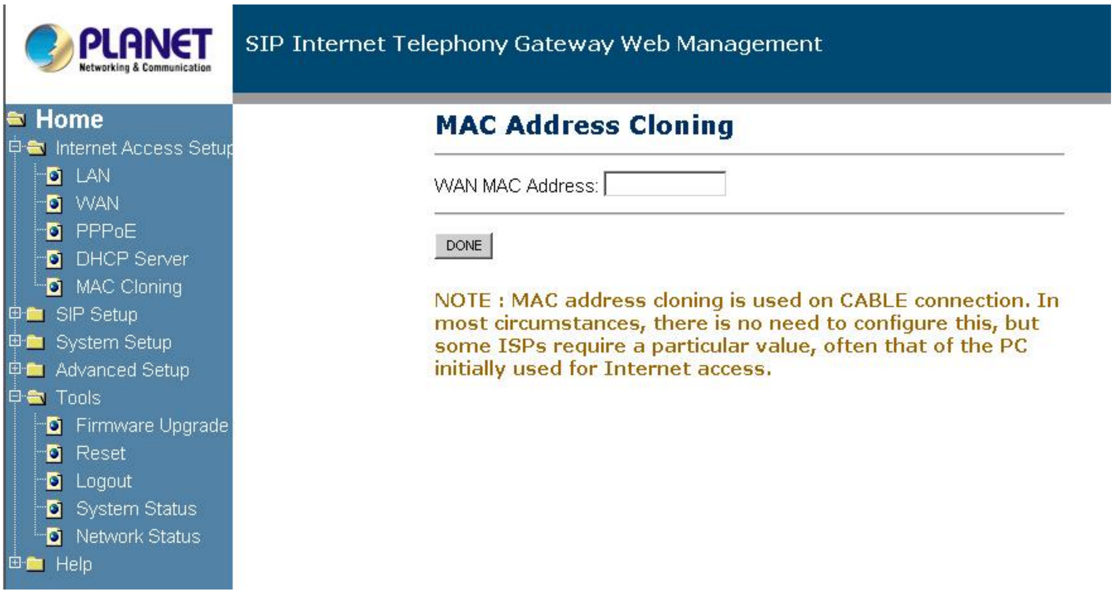
Echo Timeout: the duration between PPP echo requests being sent to the server.

Echo Count: the number of unanswered PPP echo requests before the PPP connection is closed.

Service Name: PPPoE Service name

AC Name: PPPoE AC name

MAC Cloning Configuration

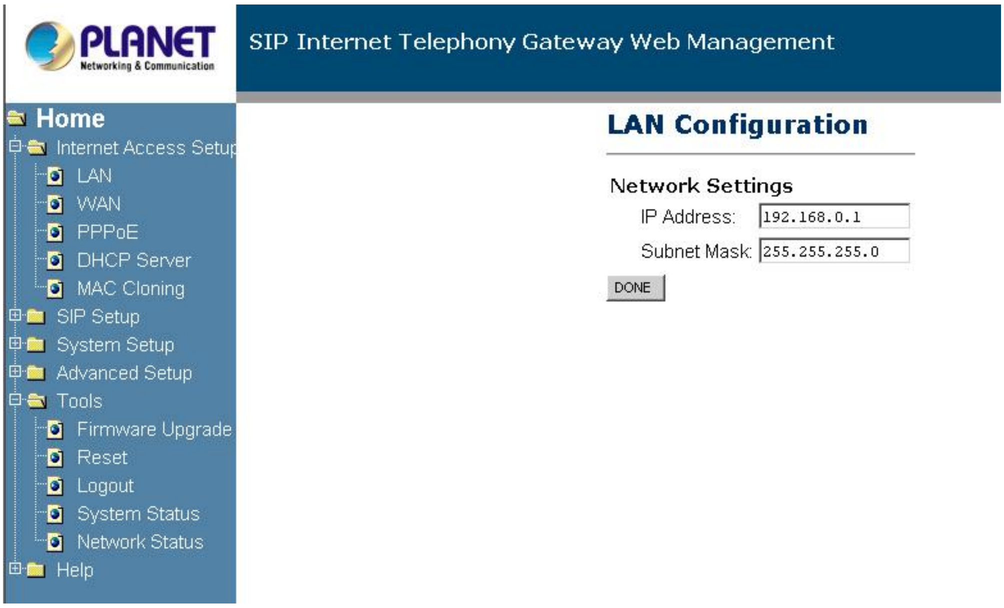


WAN MAC Address (Spoofed):

This is only available when devices are under the router mode. The spoofed MAC address to be used by the device’s WAN interfaces, the Ethernet address of the outgoing packets from the WAN interface would be replaced with this address. If blank, the WAN interfaces will use the value of MAC.

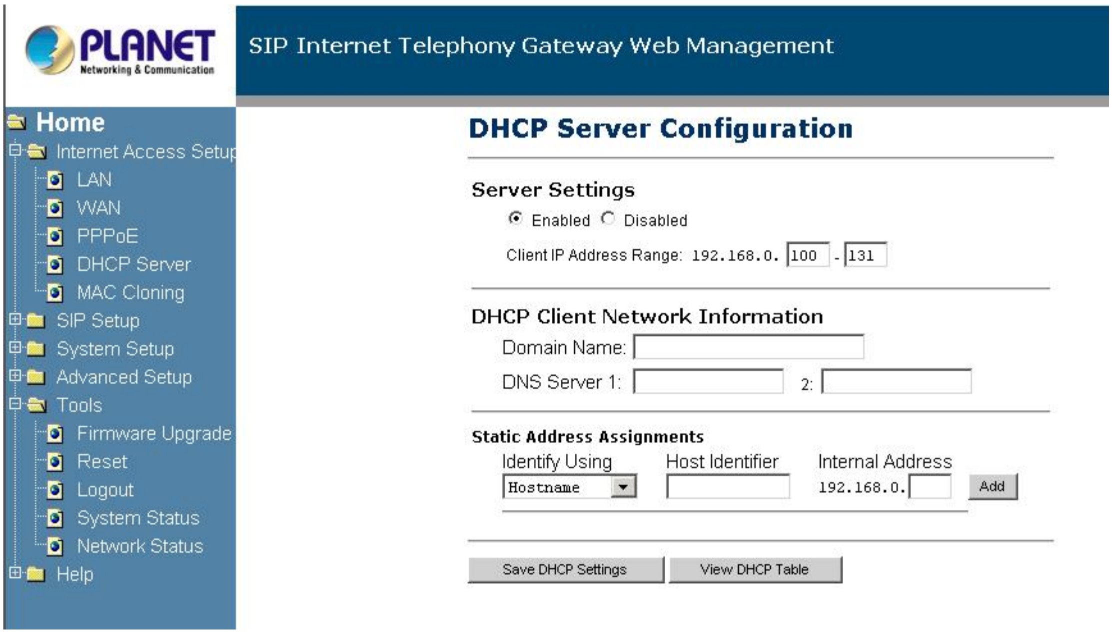
LAN

LAN Configuration



1. Under "**Network Settings**", you enter the **IP address** and **subnet mask** of your network.

DHCP Server Configuration



These configuration parameters are for the device's internal DHCP server.

1. Server Setting: "Yes" or "No", to enable/disable DHCP

Client IP Address Range: Minimum and Maximum limit on the DHCP IP address pool

2. Client Network Information

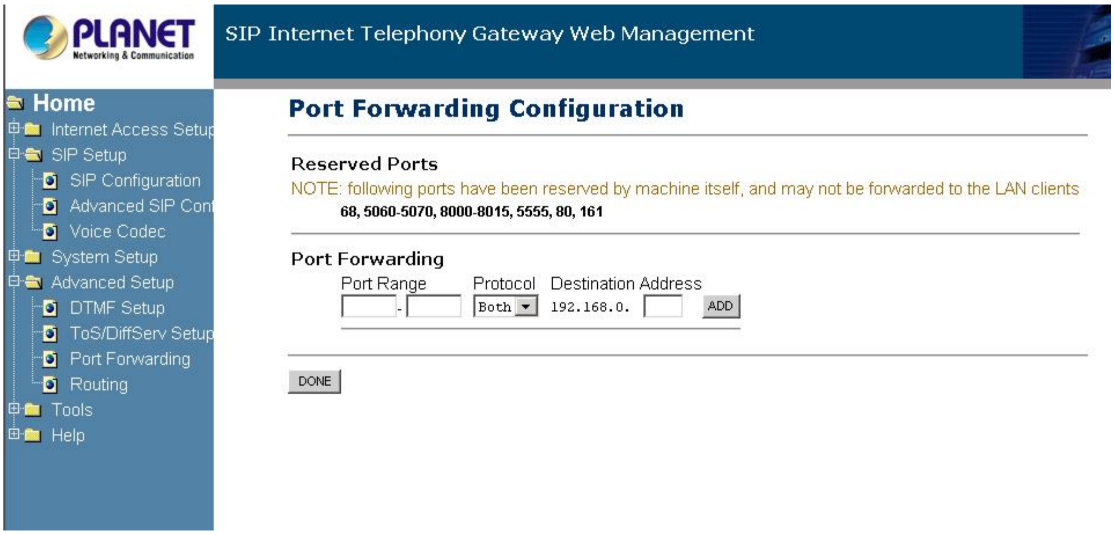
Domain Name: LAN domain name provided to DHCP clients during the OFFER process.

DNS Server: This statically assigned DNS server IP address will be provided to clients during the OFFER process.

3. Static Address Assignment

Up to eight static DHCP address assignments can be configured. To add a static IP assignment, enter the LAN device's **host name** (must be unique in the private network) and/or **MAC address**. Specify the **Internal address** to be assigned and press the "Add" button.

Port Forwarding Configuration



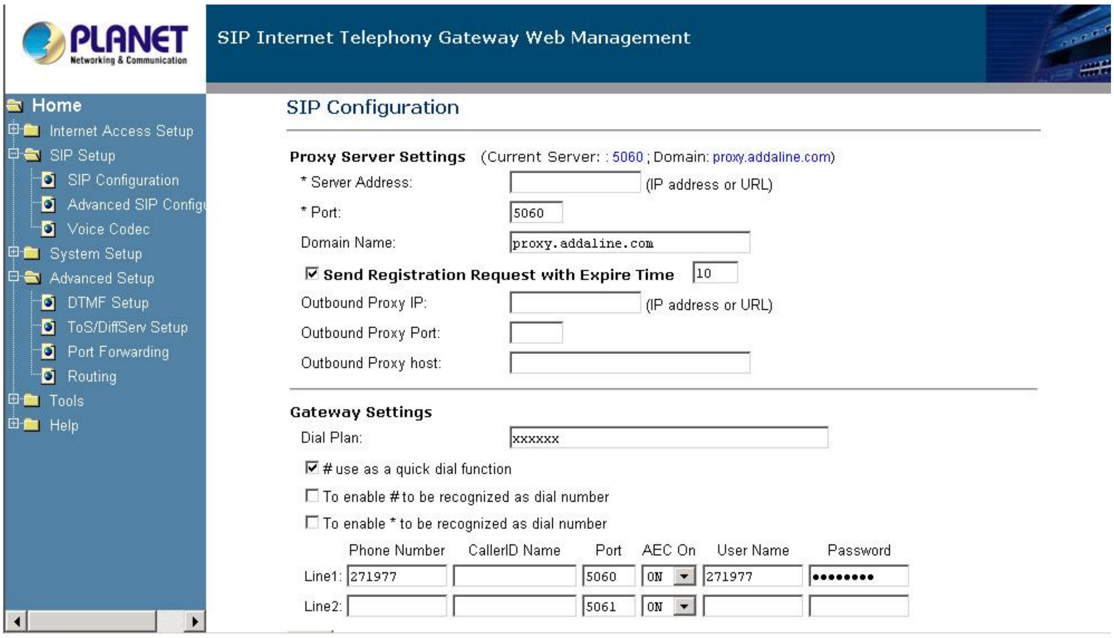
1. Under “**Reserved Ports**”, specified are the ports, which cannot be forwarded to the LAN.

2. Under “**Port Forwarding to LAN**”, you enter the specifications, which you will be forwarding to the LAN, including **port range**, **protocol**(Both, TCP or UDP), and **destination IP address**.

Click on “**DONE**” to save your configurations.

SIP

SIP Configuration

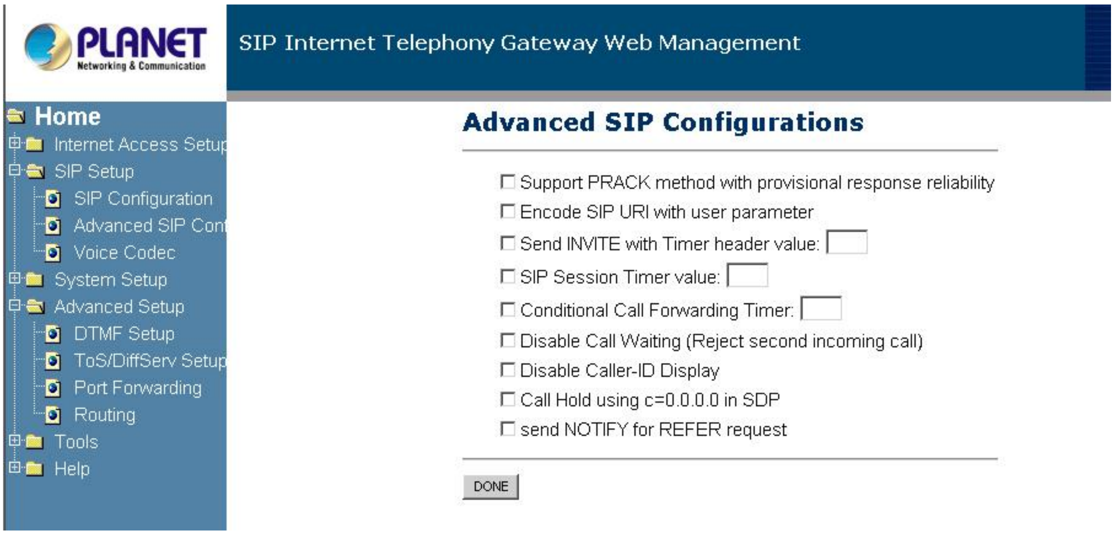


1. Under "**SIP Server Settings**", you enter the **server address**, **port**, **domain name**, and **expiration time** unit, if you choose to send a registration request with an expiration time.

2. Gateway Settings

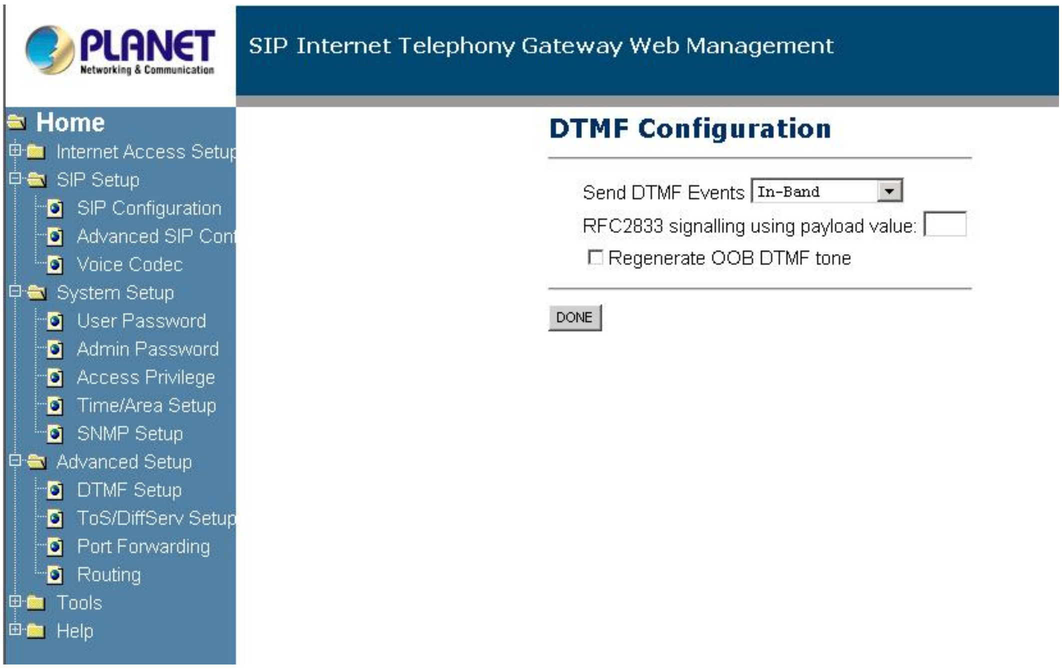
- **Dial Plan:** refer to appendix A of this guide
- **# use as a quick dial function:** If this box is checked, the dialed digits would be sent out when the '#' key is pressed.
- **Enable # to be recognized as dial number:** allow the '#' key to appear in the INVITE request URI
- **Enable * to be recognized as dial number:** allow the '*' key to appear in the INVITE request URI
- For the line on the endpoint, enter the **Line Phone Number**, **Caller-ID Name**, **signalling port value**, **authentication Username and Password**, and select if **AEC** is to be performed on this line.

SIP Extensions



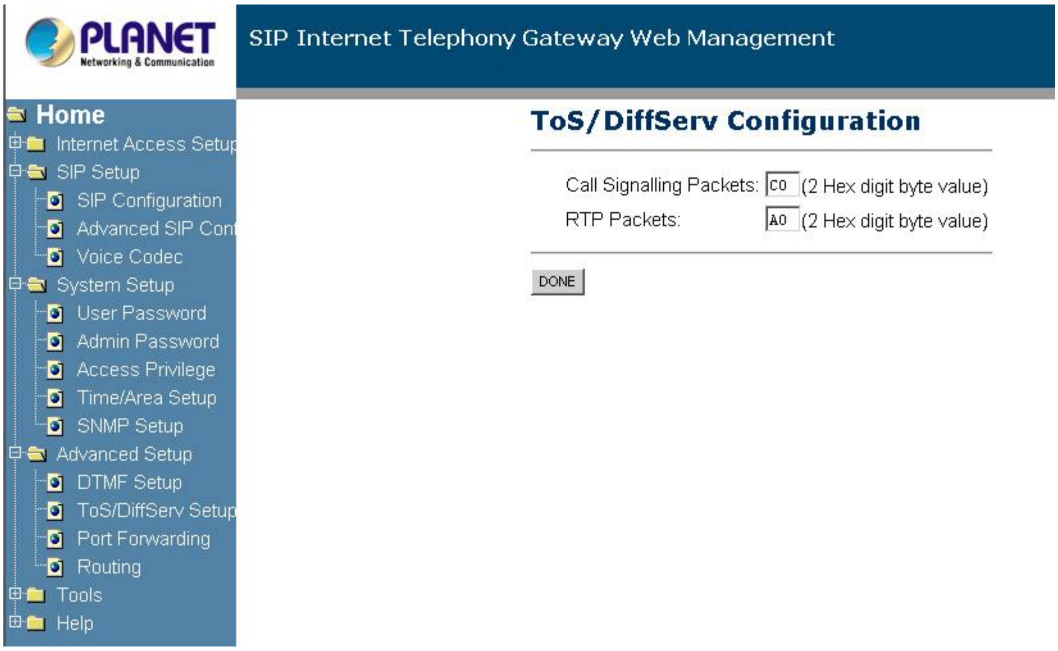
1. **Support PRACK method:** enable SIP PRACK support.
2. **Encode SIP URI with user parameter:** encode user=phone parameter in SIP URI.
3. **Send INVITE with Timer header:** encode Timer header in all INVITE requests for ringing timeout
4. **SIP session timer:** enable SIP session timer function.
5. **Conditional Call Forwarding Timer:** Forward the call to the pre-configured number if the phone does not pick up within the timer.
6. **Disable Call Waiting:** disable the call waiting tone.
7. **Disable Caller-ID display:** disable the caller-id display of incoming calls.
8. **Call Hold using C=0.0.0.0:** using the call hold method described in RFC2543. If unchecked, the call hold would follow RFC3263 method
9. **Send NOTIFY:** send out NOTIFY request to transferor for unattended and attended call transfer.

DTMF Configuration



This sub-page allows configuration of the out-of-band signalling options for SIP. Select whether OOB telephone event signalling is to be done using the SIP INFO message, or to be done via RFC2833 RTP signalling. For additional information please refer to the RFC2833.

ToS/DiffServ

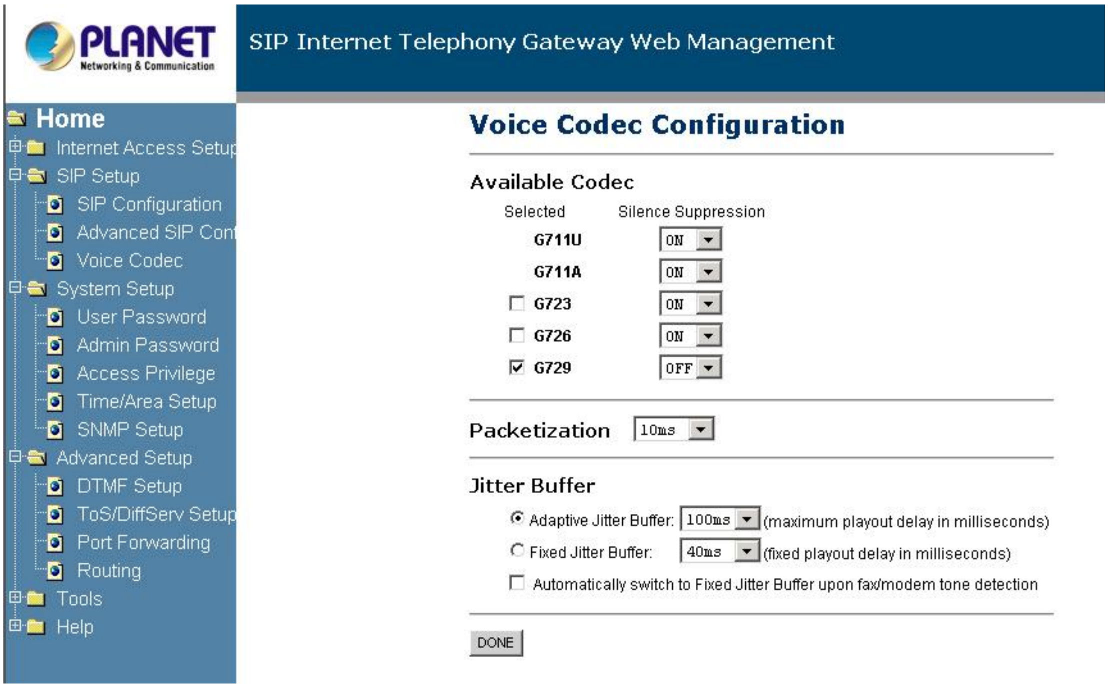


This sub-page is used to configure the Type-of-Service/Diffserv byte values, which are to be used in the IP header of all transmitted SIP signalling packets and RTP packets. The ToS/DiffServ byte values are entered as two-digit hexadecimal values. If no special ToS/DiffServ value is to be used for a particular traffic type, enter “00” or leave the setting empty.

Press “**DONE**” to save these new settings.

CODEC

Voice Codec Configuration



1. CODECS: configure the silence suppression to your desired settings.

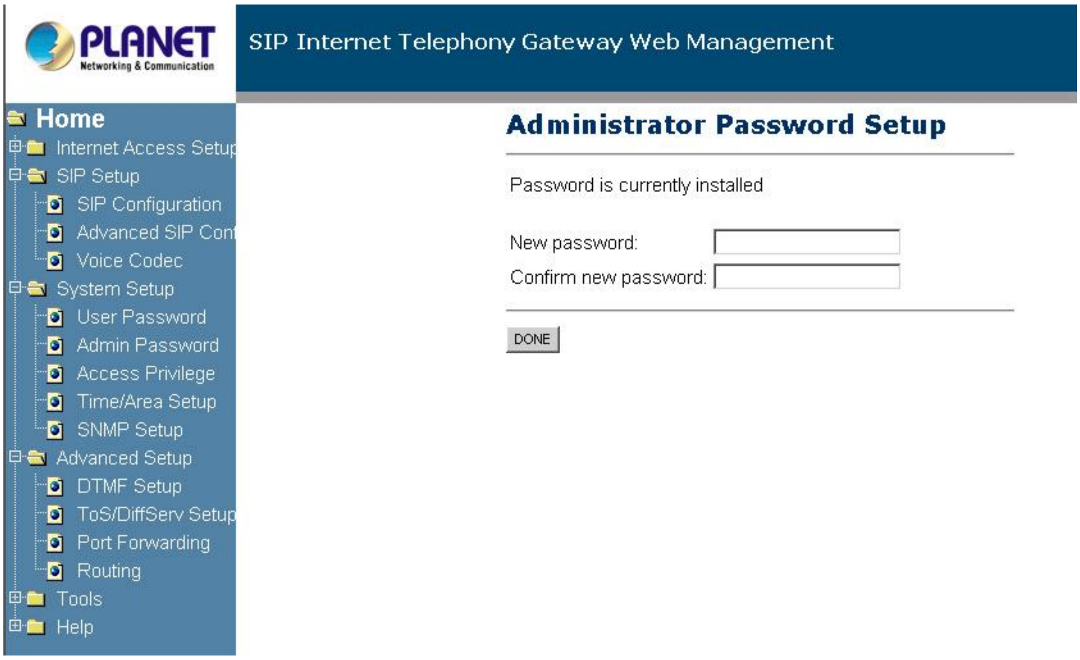
2. Packetization: configure the packet sending increments.

3. Jitter Buffer: configure the timing of the voice buffering.
Selection between adaptive or fixed jitter buffer. Default = ADAPTIVE
Set the adaptive jitter buffer maximum playout delay. Default = 100ms
or Fixed jitter buffer playout delay. Default = 40ms
Whether or not to automatically switch from an adaptive jitter buffer to a fixed jitter buffer upon fax/modem tone detection

Click on “**Save CODEC Configuration**” to save the configurations made.

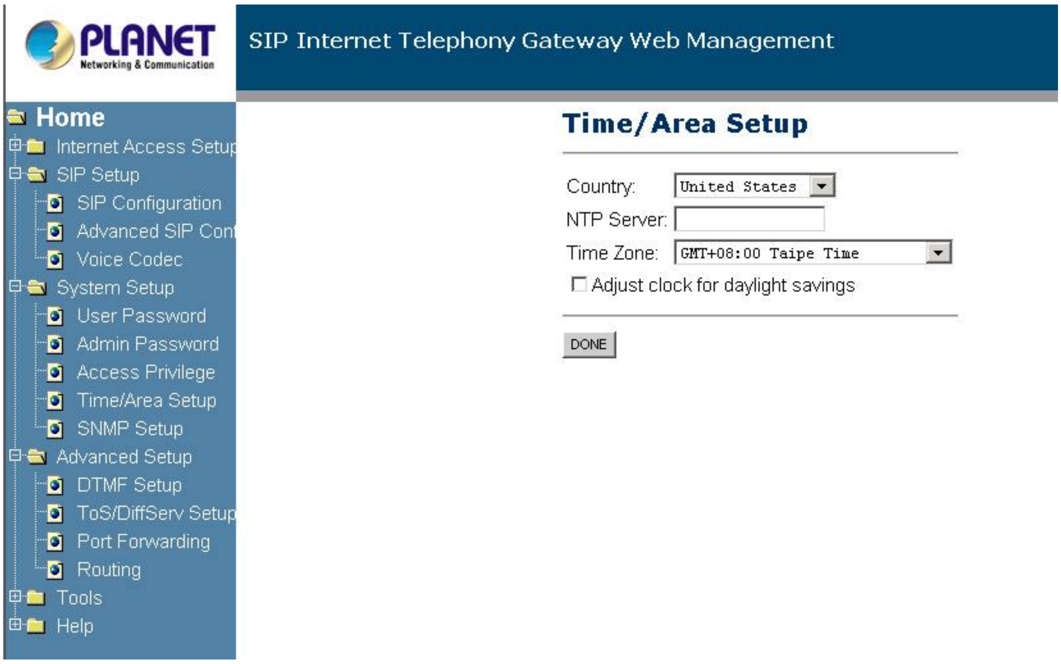
SYSTEM

Set Administrator Password



Configure a **password** for the system.

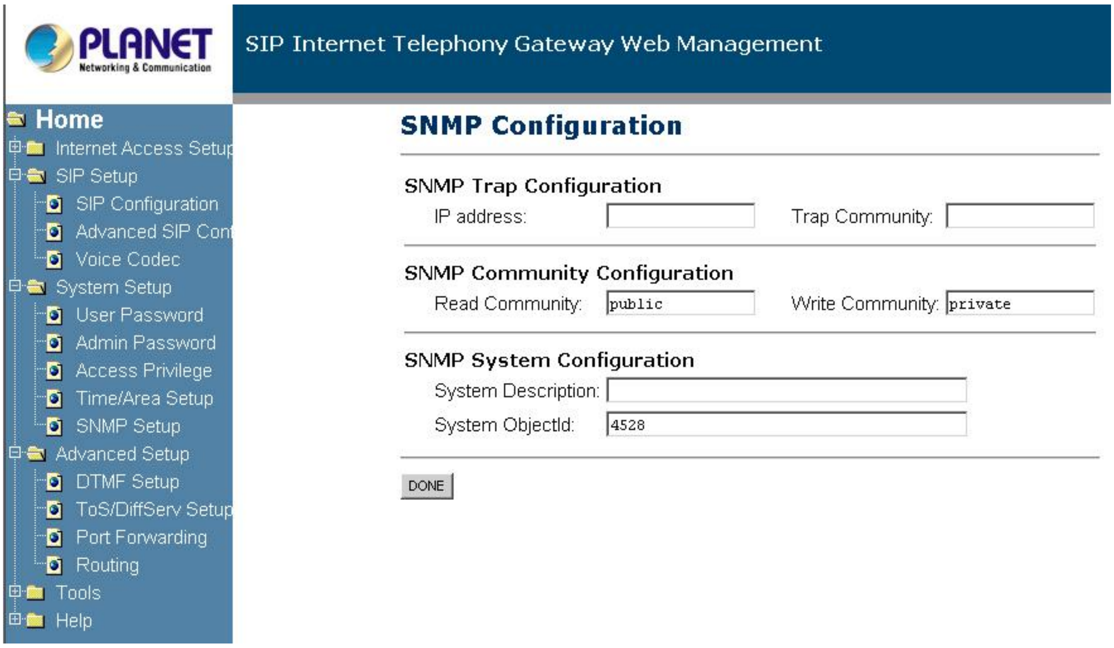
Time /Area Setup



Choose the correct country for a proper impedance match, as well as the NTP Server, and Time Zone. Check the “**Adjust clock for daylight savings**”, when applicable.

Click on “**Save Localization Settings**”, to save your configurations.

SNMP Configuration



1. SNMP Trap Configuration

IP address: Trap host IP address

Trap Community: The community name used by the SNMP manager to verify traps. The default value is 'public'

2. SNMP Community Configuration

Read Community: The community name used by the SNMP manager when reading SNMP data items from a client MIB. The default value is 'public'

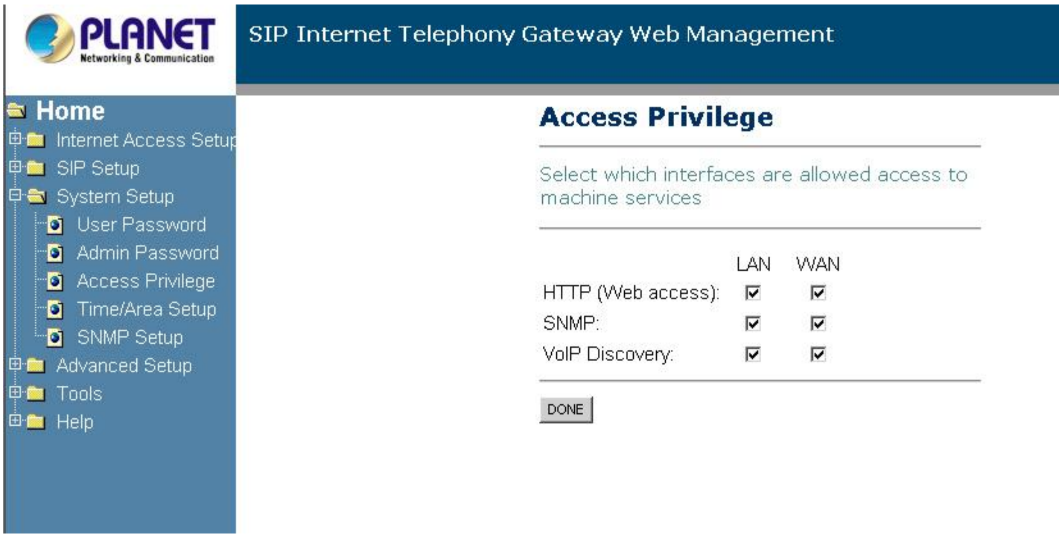
Write Community: The community name used by the SNMP manager when setting SNMP data items in a client's MIB. The default value is 'public'

3. SNMP System Configuration

System Description: Description of the unit (e.g. "John's phone")

System Object Id: A vendor's enterprise ID

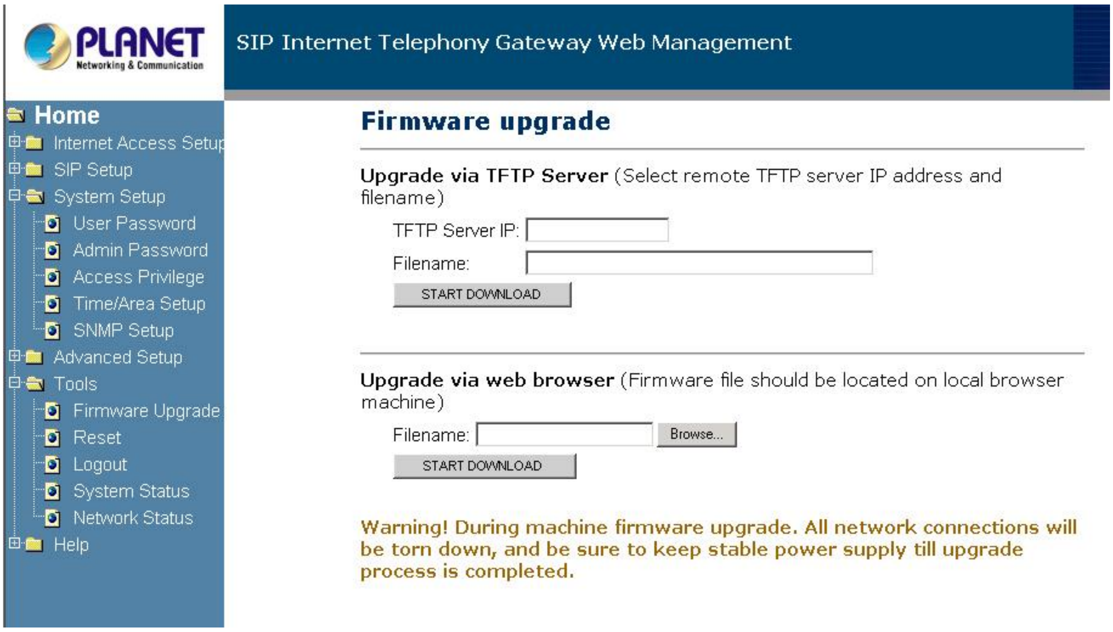
Access Privilege Configuration



Check the proper boxes enabling LAN and WAN for the **HTTP, SNMP,** and **VoIP Discovery.**

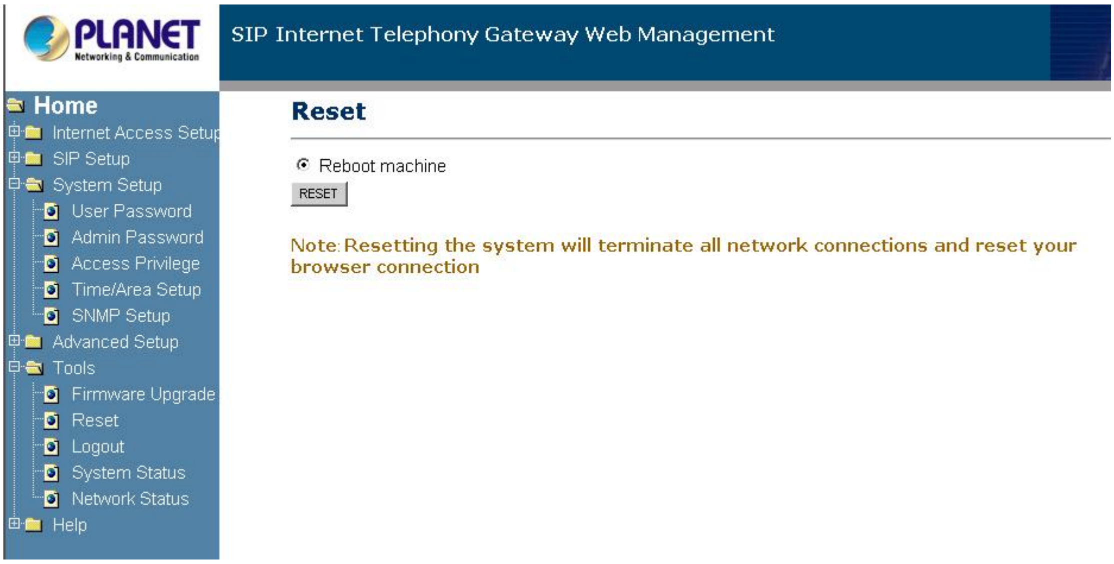
Click on "**DONE**", to save the configurations.

Firmware upgrade



For both **HTTP and TFTP methods**, the device will reboot itself into downloader mode if the main application is being executed, and proceed with the ROM file download and permanent write of the application to the device's flash memory. After the download is completed, the download status page will be displayed.

Reset



Chose the “**Reboot machine**” option to reset the system.

Appendix A. Dial Plans

The machine will allow provisioning (via web browser) of the dial plan. A dial plan gives the unit a map to determine when a complete number has been entered and should be passed to the gatekeeper for resolution into an IP address. Dial plans are expressed using the same syntax as used by MGCP NCS specification.

The formal syntax of the dial plan is described in the following notation:

Digit ::= "0" | "1" | "2" | "3" | "4" | "5" | "6" | "7" | "8" | "9"

Timer ::= "T" | "t"

Letter ::= Digit | Timer | "#" | "*" | "A" | "a" | "B" | "b" | "C" | "c"| "D" | "d"

Range ::= "X" | "x" -- matches any digit

| "[" Letters "]" -- matches any of the specified letters

Letters::= Subrange | Subrange Letters

Subrange::= Letter -- matches the specified letter

| Digit "-" Digit -- matches any digit between first and last

Position::= Letter | Range

StringElement::= Position -- matches any occurrence of the position

| Position "." -- matches an arbitrary number of occurrences

including 0

String ::= StringElement | StringElement String

StringList::= String | String "|" StringList

DialPlan::= String | "(" StringList ")"

A dial plan, according to this syntax, is defined either by a (case insensitive) string or by a list of strings. Regardless of the above syntax, a timer is only allowed if it appears in the last position in a string (12T3 is not valid). Each string is an alternate numbering scheme. The unit will process the dial plan by comparing the current dial string against the dial plan. If the result is under-qualified (partial matches at least one entry), then it will do nothing further. If the result matches or is over-qualified (no further digits could possibly produce a match), then it sends the string to the gatekeeper and clear the dial string. The Timer T is activated when it has all that is required to produce a match. The period of timer T is 4 seconds. For example, a dial plan of (xxxT|xxxxx) will match immediately if 5 digits are entered. It will also match after a 4 second pause when 3 digits are entered.

Sample Dial Plans

Simple Dial Plan

Allows the dialing of 7 digit numbers (e.g. 5551234) or an operator on 0. Dial plan is (0T|xxxxxxx)

Non-dialed Line Dial Plan

As soon as the handset is lifted, the unit contacts the gatekeeper (used for systems where dtmf detection is done in-call). Dial plan is (x.) i.e. match against 0 (or more) digits. Note: the dot '.'

Complex Dial Plan

Local operator on 0, long distance operator on 00, four digit local extension number starting with 3,4 or 5, seven digit local numbers are prefixed by an 8, two digit star services (e.g. 69), ten digit long distance prefixed by 91, and international numbers starting with 9011+variable number of digits.

The dial plan for this is:

(0T|00T|[3-5]xxx|8xxxxxxx|*xx|91xxxxxxxxxx|9011x.T)