

Click on Add to create a new Static Route. Enter the destination network address, subnet mask, gateway AND/OR available WAN interface then click "Save Settings" to add the entry to the routing table. (Figure 6-10-1, 6-10-2)



Figure 6-10-2. Advanced Setup – Route – Static Route – Add

6.4.3.2 RIP

To activate RIP for the device, select the 'Enabled' radio button for Global RIP Mode. To configure an individual interface, select the desired RIP version and operation, followed by placing a check in the 'Enabled' checkbox for the interface. Click the 'Apply' button to save the configuration, and to start or stop RIP based on the Global RIP mode selected. (Figure 6-11)

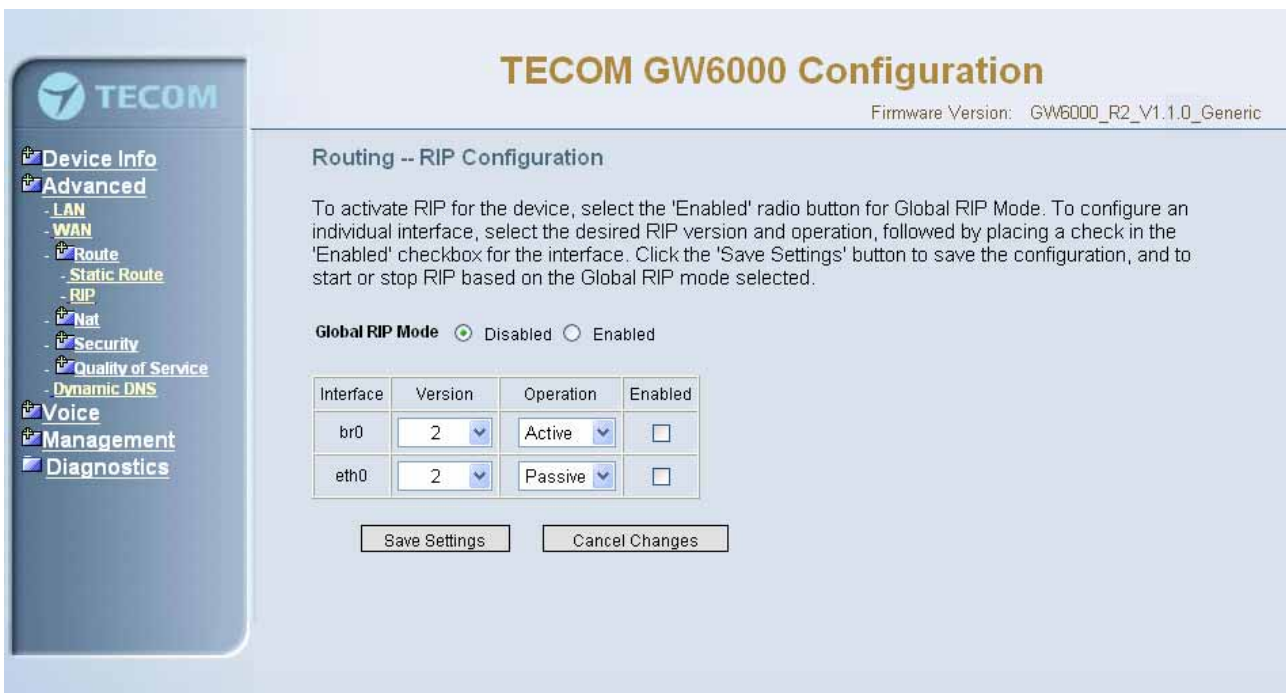


Figure 6-11. Advanced Setup – Route – RIP

6.4.4 NAT

It's separated into three parts: Virtual Servers, Port Trigger, and DMZ.

6.4.4.1 Virtual Servers

Virtual Server allows you to direct incoming traffic from WAN side (identified by Protocol, IP address and service port) to the internal server with private IP address on the LAN side. The Internal port is required only if the external port needs to be converted to a different port number used by the server on the LAN side. (Figure 6-12-1, Figure 6-12-2)

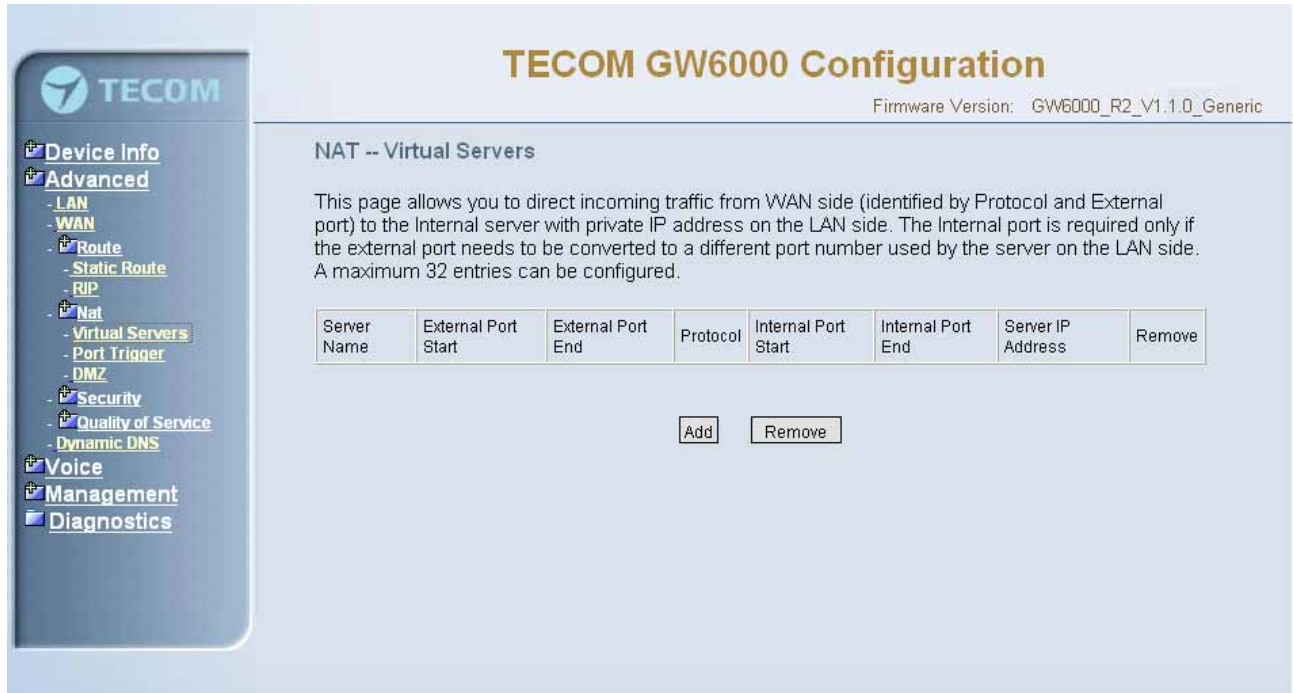


Figure 6-12-1. Advanced Setup – NAT – Virtual Servers



Figure 6-12-2. Advanced Setup – NAT – Virtual Servers – Add

6.4.4.2 Port Triggering

Some applications require that specific port(s) in the Router's firewall be opened for access by the remote parties. Port Trigger dynamically opens up the 'Open Ports' in the firewall when an application on the LAN initiates a TCP/UDP connection to a remote party using the 'Triggering Ports'. The Router allows the remote party from the WAN side to establish new connections back to the application on the LAN side using the 'Open Ports'. (Figure 6-13-1, 6-13-2)

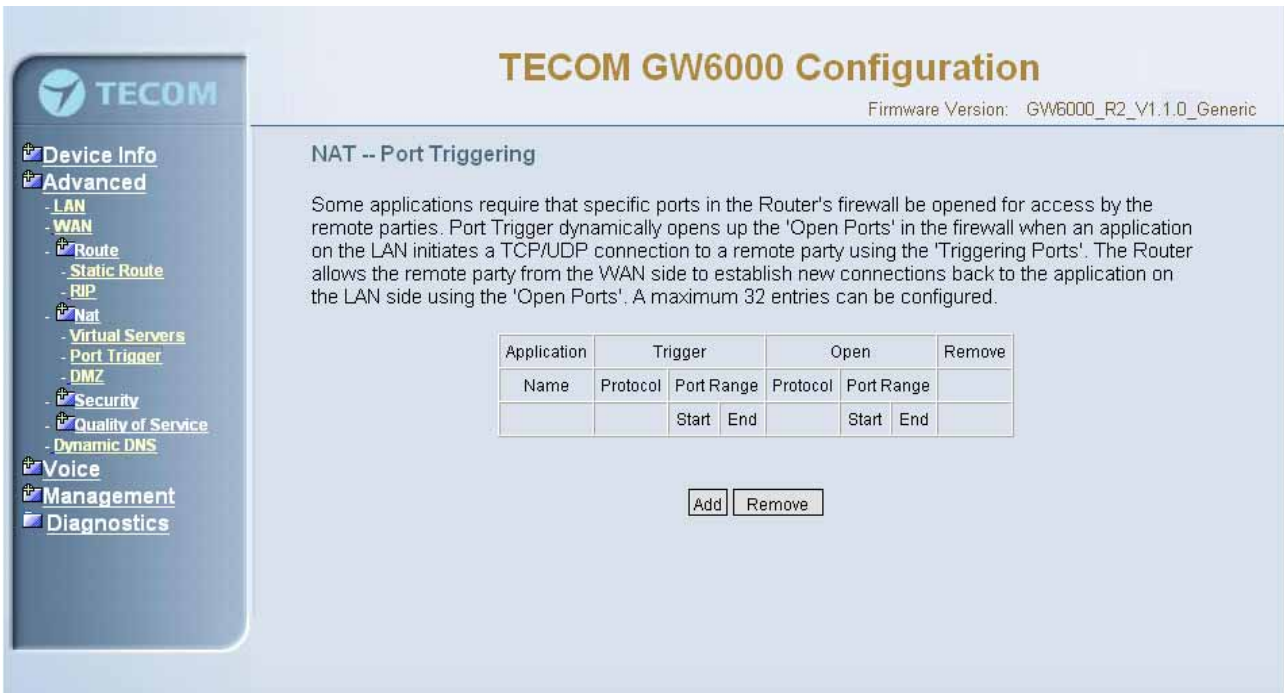


Figure 6-13-1. Advanced Setup – NAT – Port Triggering



Figure 6-13-2. Advanced Setup – NAT – Port Triggering – Add

6.4.4.3 DMZ

The EUT will forward IP packets from the WAN that do not belong to any of the applications configured in the Virtual Servers table to the DMZ host computer. (Figure 6-14)

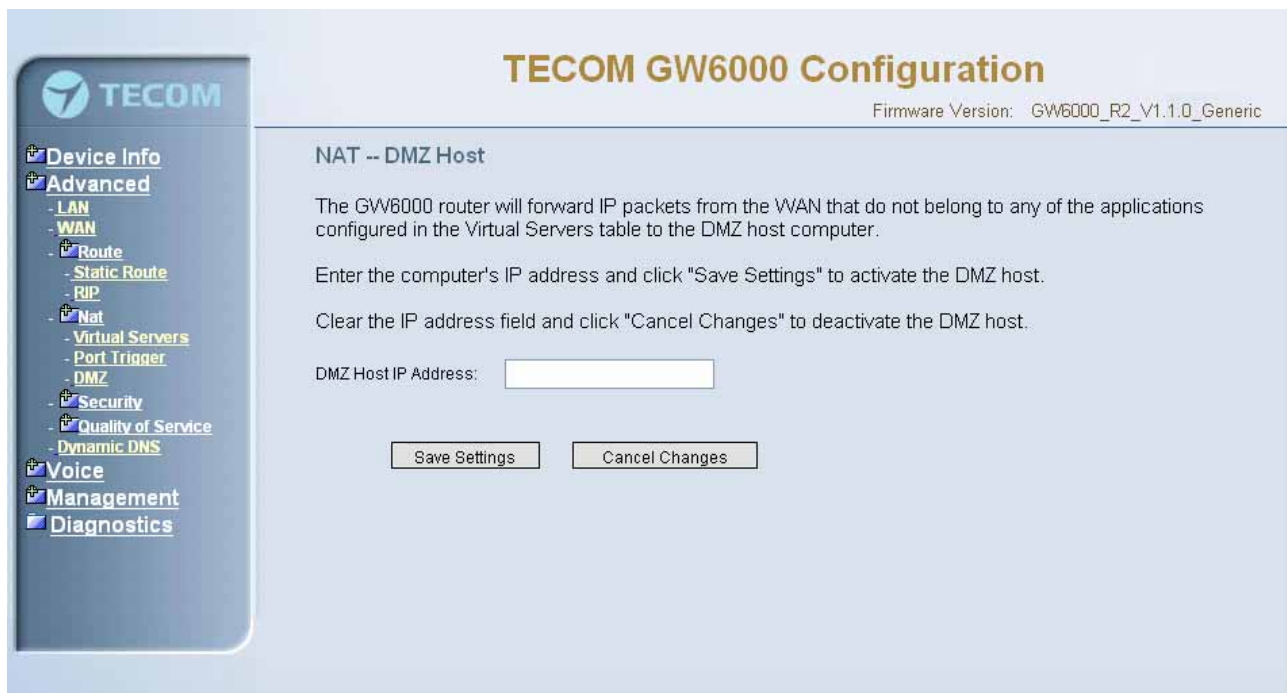


Figure 6-14. Advanced Setup – NAT – DMZ

6.4.5 Security

The configuration display only when WAN page's security option is selected. It's separated into three parts: Incoming Filter, Output Filter, and Parental Control.

6.4.5.1 Incoming Filter

It allows the users to create a filter rule to identify incoming IP traffic by specifying a new filter name and at least one condition. All of the specified conditions in this filter rule must be satisfied for the rule to take effect. (Figure 6-15-1, Figure 6-15-2)

By default, all incoming IP traffic from the WAN will be blocked if it is not consistent with the incoming filter rules. In fact, EUT has opened some necessary ports such as web port, sip ports and rtp ports, to make sure that voice application can communicate well.

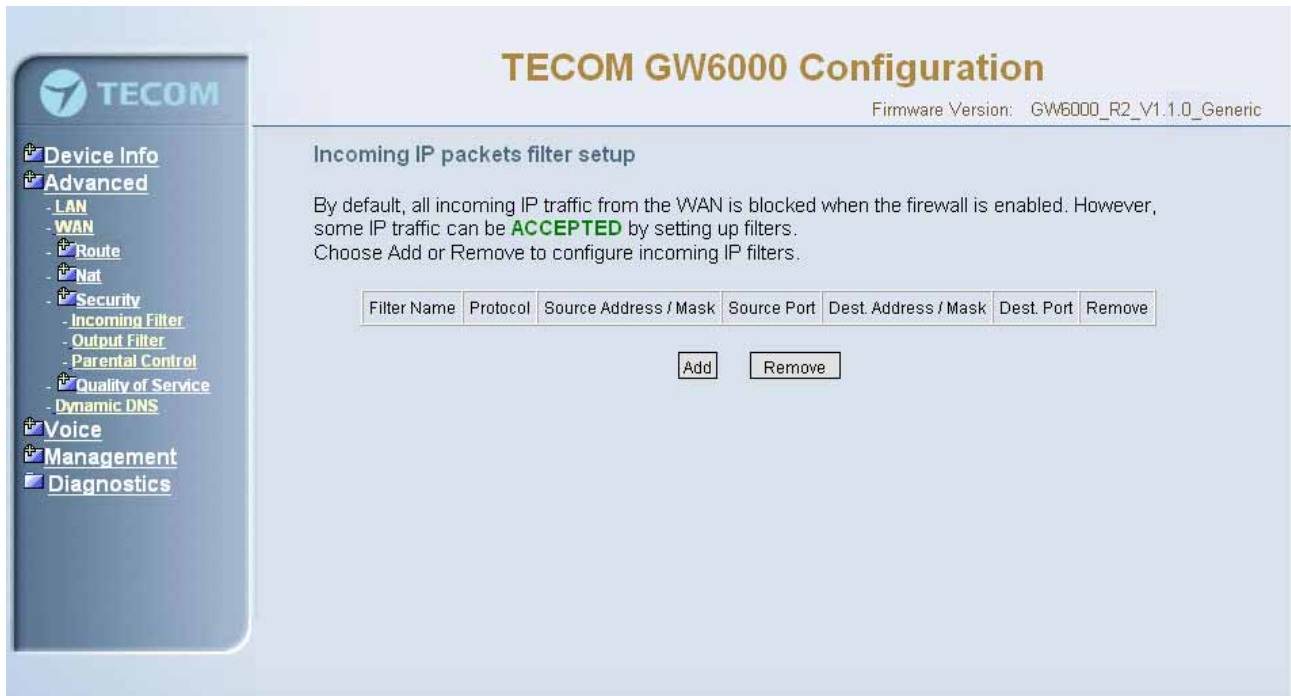


Figure 6-15-1. Advanced Setup – Security – Incoming IP Filtering



Figure 6-15-2. Advanced Setup – Security – Incoming IP Filtering – Add

6.4.5.2 Output Filter

It allows the users to create a filter rule to identify outgoing IP traffic by specifying a new filter name and at least one condition. All of the specified conditions in this filter rule must be satisfied for the rule to take effect. (Figure 6-16-1, Figure 6-16-2)

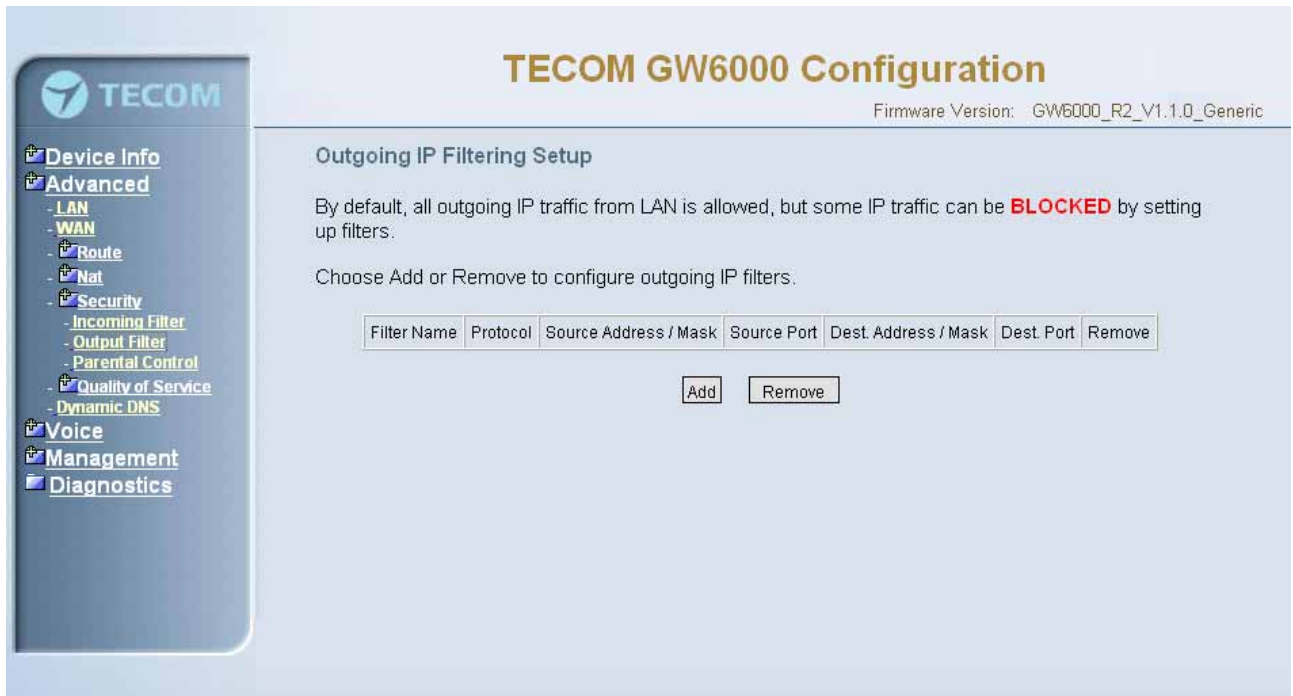


Figure 6-16-1. Advanced Setup – Security – Outgoing IP Filtering

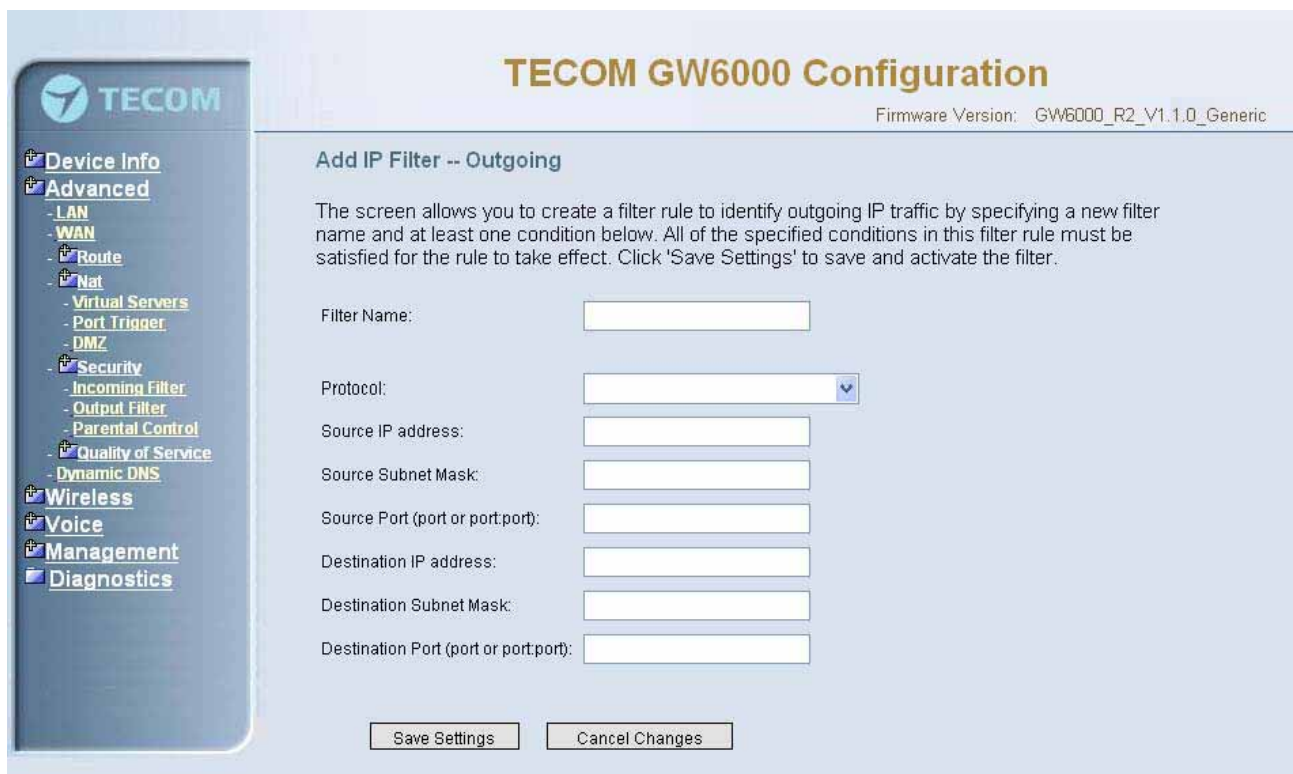


Figure 6-16-2. Advanced Setup – Security – Outgoing IP Filtering – Add

6.4.5.3 Parental Control

It adds time restriction to a special LAN device connected to the Router. The 'Browser's MAC Address' automatically displays the MAC address of the LAN device where the browser is running. To restrict other LAN device, click the "Other MAC Address" button and enter the MAC address of the other LAN device. (Figure 6-17-1, Figure 6-17-2)



Figure 6-17-1. Advanced Setup – Security –Parental Control

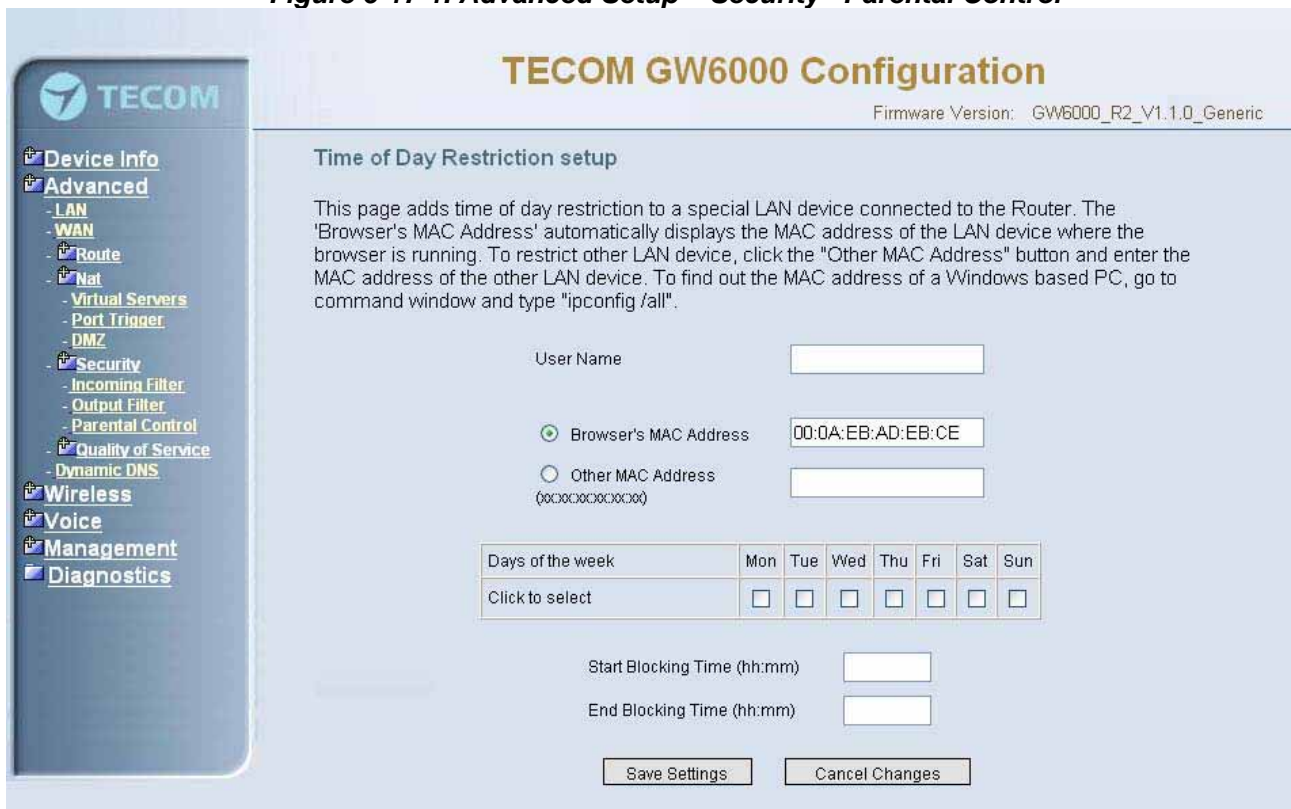


Figure 6-17-2. Advanced Setup – Security –Parental Control – Add

6.4.6 Quality of Service

It's separated into two parts: Traffic Class, and Bandwidth Control.

6.4.6.1 Traffic Class

Click on Add to create a class to identify the IP traffic by specifying at least one condition below. If multiple conditions are specified, all of them should be satisfied to make sure the rule will take effect. (Figure 6-18-1, Figure 6-18-2)

IP QoS is applied to the traffic from LAN to WAN; the traffic from WAN to LAN will not be applied.

Enter the QoS class name for this policy. Define the priority for this policy, and the priority will be used by the next bandwidth control setting. EUT will modify the IP header with new IP Precedence and/or IP Type Of Service fields.

It's a IP Layer QoS policy. At least (but not limited to) one condition must be configured.



Figure 6-18-1. Advanced Setup – Quality of Service – Traffic Class

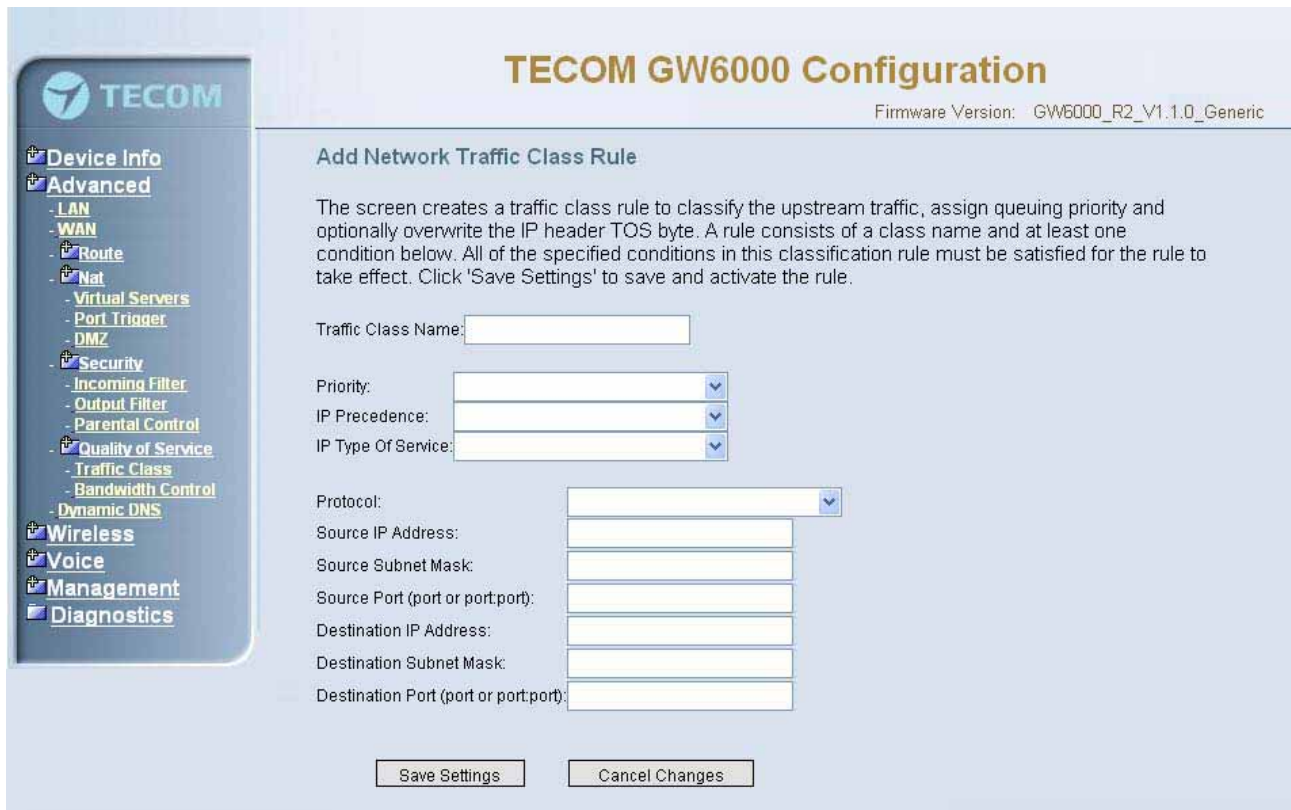


Figure 6-18-2. Advanced Setup – Quality of Service – Traffic Class – Add

6.4.6.2 Bandwidth Control

This page allows you to control WAN port's upstream bandwidth according to your settings (Figure 6-19). And it can ensure the highest priority IP packets' traffic firstly. By default, all voice packets has been queued in the highest IP packets, and the others has been queued in the normal IP packets if they have not been set in the priority field of the traffic class rule.

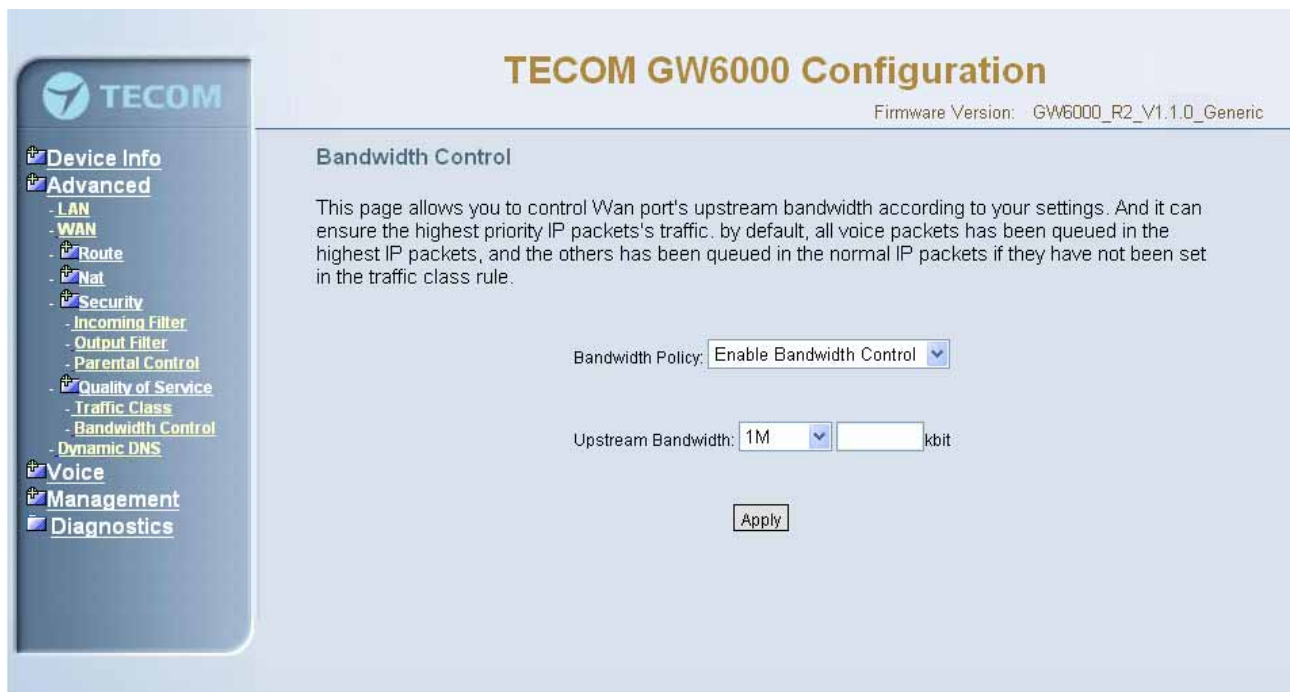


Figure 6-19. Advanced Setup – Quality of Service – Bandwidth Control

6.4.7 Dynamic DNS

The Dynamic DNS service allows you to alias a dynamic IP address to a static hostname in any of the many domains, allowing your DSL router to be more easily accessed from various locations on the Internet. (Figure 6-20-1, Figure 6-20-2)



Figure 6-20-1. Advanced Setup – Dynamic DNS



Figure 6-20-2. Advanced Setup – Dynamic DNS - Add

6.5 Wireless

This directory display only when wireless card is installed in your EUT board. Use the Wireless screen to configure the EUT for wireless access. It is separated into 6 parts:

- Basic
- Security
- MAC Filter
- Wireless Bridge
- Advanced
- Station Info

The configurable items for each part would be described in the following.

6.5.1 Basic

The page (Figure 6-21) allows you to configure basic feature of the wireless LAN interface. You can enable or disable the wireless LAN interface, hide the network from active scans, set the wireless network name (also known as SSID) and restrict the channel set based on country requirement.



The screenshot displays the 'TECOM GW6000 Configuration' interface. On the left is a navigation menu with options: Device Info, Advanced, Wireless (selected), Voice, Management, and Diagnostics. Under 'Wireless', sub-options include Basic, Security, Mac Filter, Wireless Bridge, Advanced, and Station Info. The main content area is titled 'Wireless Basic' and contains the following settings:

- Enable Wireless:
- Hide Access Point:
- SSID:
- BSSID: 00:03:C9:8C:60:11
- Country:

At the bottom of the configuration area are three buttons: 'Reboot', 'Save Settings', and 'Cancel Changes'. A descriptive text block at the top of the main area reads: 'This page allows you to configure basic features of the wireless LAN interface. You can enable or disable the wireless LAN interface, hide the network from active scans, set the wireless network name (also known as SSID) and restrict the channel set based on country requirements.' The firmware version is noted as 'GW6000_R2_V1.1.0_Generic'.

Figure 6-21. Wireless – Basic

6.5.2 Security

The page allows you to configure security features of the wireless LAN interface. You can set the network authorization method, select data encryption, specify whether a network key is required to authenticate to this wireless network and specify the encryption strength.

The following items will be configured in the page:

Network Authentication: Set the network Authentication method. 802.1X and WPA require setting valid RADIUS parameters. WPA-PSK requires a valid WPA Pre-Shared Key to be set. (Figure 6-22-1)

802.1X: As the IEEE standard for access control for wireless and wired LANs, 802.1x provides a means of authentication and authorizing devices to attach to a LAN port. This standard defines the Extensible Authentication Protocol (EAP), which uses a central authentication server to authenticate each user on the network.

WPA/WPA2: The Wi-Fi Alliance put together WPA/WPA2 as a data encryption method for 802.11 wireless LANs. WPA is an industry-supported, pre-standard version of 802.11i utilizing the Temporal Key Integrity Protocol (TKIP), which fixes the problems of WEP, including using dynamic keys.

WPA/WPA2 Pre-Shared Key: Set the WPA/WPA2 Pre-Shared Key (PSK).

WPA/WPA2 Group Rekey Interval: Set the WPA/WPA2 Group Rekey Interval in seconds. Leave blank or set to zero to disable periodic re-keying.

TECOM GW6000 Configuration
Firmware Version: GW6000_R2_V1.1.0_Generic

This page allows you to configure security features of the wireless LAN interface. You can sets the network authentication method, selecting data encryption, specify whether a network key is required to authenticate to this wireless network and specify the encryption strength.

Wireless Security

Network Authentication: 802.1X

RADIUS Server IP Address: 0.0.0.0

RADIUS Port: 1812

RADIUS Key:

WEP Encryption: Enabled

Encryption Strength: 128-bit [Set Encryption Keys](#)

[Save Settings](#) [Cancel Changes](#)

Figure 6-22-1. Wireless – Security

Radius Server: Set the IP address of the RADIUS server to use for authentication and dynamic key derivation.

RADIUS Server is responsible for receiving user connection requests, authenticating the user, and then returning all of the configuration information necessary for the client to deliver the server to the user.

Radius Port: Sets the UDP port number of the RADIUS server. The port number is usually 1812 or 1645 and depends on the server.

Radius Key: Set the shared secret for the RADIUS connection.

WEP Encryption: Selecting Disabled disables WEP data encryption. Selecting Enabled enables WEP data encryption and requires that a valid network key be set and selected unless 802.1X is enabled.

WEP, short for Wired Equivalent Privacy, is a protocol for wireless LANs or local area networks. This WEP is defined in the 802.11 Standard. WEP is designed so security levels are maintained at the same level as the wired LAN. WEP's aim is to provide security by encrypting data over radio waves. WEP protects data as it's transmitted from one end point to another. WEP is used at two lowest layers, the data link and physical layer. WEP is designed to make up for the inherent security in wireless transmission as compared to wired transmission.

Shared Key Authentication: Set whether shared key authentication is required to associate. A valid network key must be set and selected if required. (Figure 6-22-2)



Figure 6-22-2. Wireless – Security – Encryption Keys

6.5.3 MAC Filter



Figure 6-23-1. Wireless – MAC Filter

This page allows users to Add/Remove hosts with the specified MAC addresses that are able or unable to access the wireless network. When users decide to use Allow, only the MAC addressed in the user-defined list can access the wireless network. When users use Deny, only the user specified MAC addresses are unable to access to wireless network. And if the Disable option is selected, all users will be able to access to wireless network.

Note: The MAC addresses in the list would immediately take effect when Allow or Deny is checked.



Figure 6-23-2. Wireless – MAC Filter – Allow/Deny

6.5.4 Wireless Bridge

It allows the users to configure wireless bridge features of the wireless LAN interface. You can select Wireless Bridge (also known as Wireless Distribution System) to disables access point functionality. Selecting Access Point enables access point functionality. Wireless bridge functionality will still be available and wireless stations will be able to associate to the AP. Select Disabled in Bridge restricts which disables wireless bridge restriction. Any wireless bridge will be granted access. Selecting Enabled or Enabled (Scan) enables wireless bridge restriction. Only those bridges selected in Remote Bridges will be granted access.(Figure 6-24).

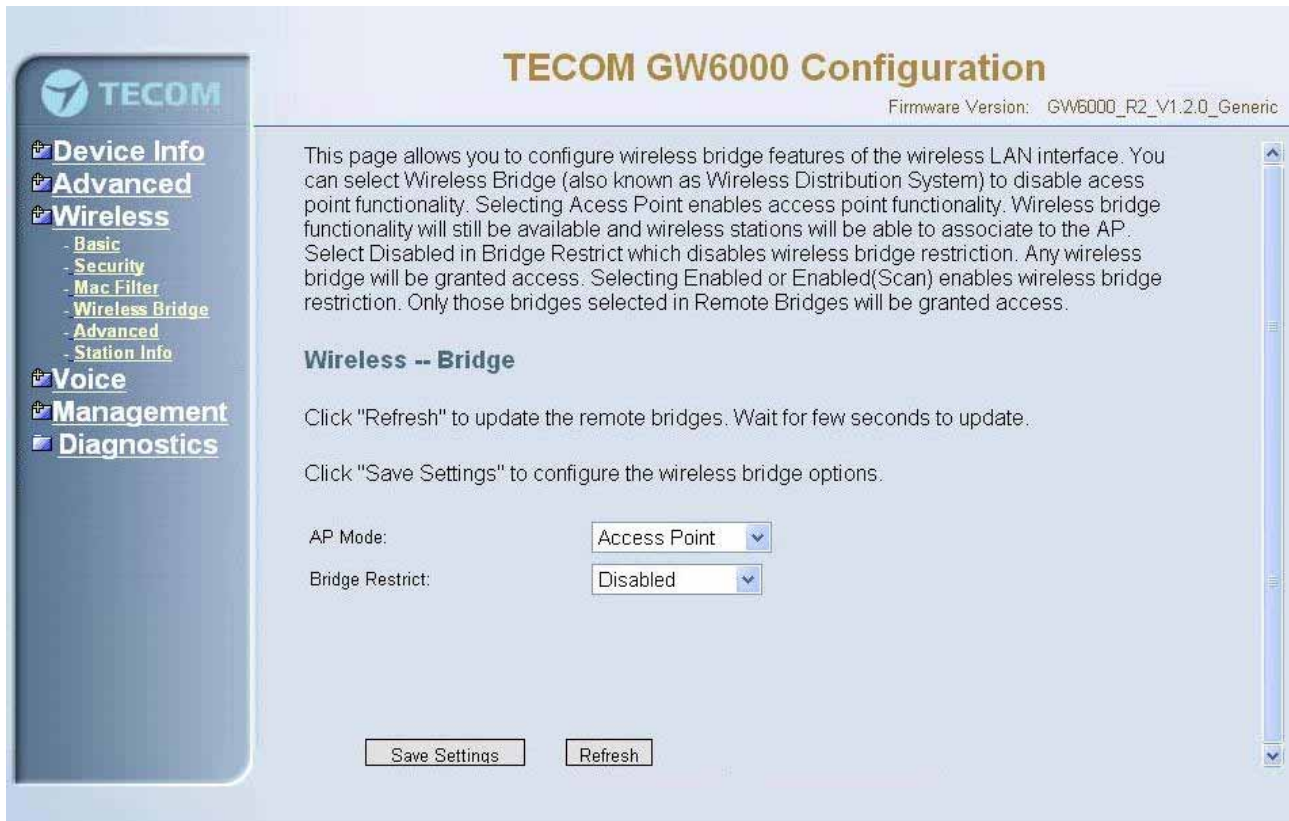


Figure 6-24. Wireless – Wireless Bridge

6.5.5 Advanced

It allows you to configure advanced features of the wireless LAN interface. You can select a particular channel on which to operate, force the transmission rate to a particular speed, set the fragmentation threshold, set the RTS threshold, set the wakeup interval for clients in power-save mode, set the beacon interval for the access point, set XPress mode and set whether short or long preambles are used

Channel: Select the appropriate channel from the list provided to correspond with your network settings. All devices in your wireless network must use the same channel in order to function correctly.

Rate: The default setting is Auto. The range is from 1 to 54Mbps. The rate of data transmission should be set depending on the speed of your wireless network. You can select from one transmission speed, or keep the default setting, Auto, to have the IAD automatically use the fastest possible data rate.

Multicast Rate: The default setting is 54Mbps. The range is from 1 to 54Mbps. The rate of data transmission should be set depending on the speed of your wireless network. You can select from one transmission speed, or keep the default setting, to have the IAD automatically use the fastest data rate for multicast packets.

Basic Rate: Select the basic rate that wireless clients must support.

Fragmentation Threshold: This value should remain at its default setting of 2346. The range is 256~2346 bytes. It specifies the maximum size for a packet before data is fragmented into multiple packets. If you experience a high packet error rate, you may slightly increase the Fragmentation Threshold. Setting this value too low may result in poor network performance. Only minor modifications of this value are recommended.

TECOM GW6000 Configuration
Firmware Version: GW6000_R2_V1.1.0_Generic

This page allows you to configure advanced features of the wireless LAN interface. You can select a particular channel on which to operate, force the transmission rate to a particular speed, set the fragmentation threshold, set the RTS threshold, set the wakeup interval for clients in power-save mode, set the beacon interval for the access point, set XPress mode and set whether short or long preambles are used.

Wireless -- Advanced

AP Isolation: Off
 Band: 2.4GHz - 802.11g
 Channel: 11
 Rate: Auto
 Multicast Rate: Auto
 Basic Rate: Default
 Fragmentation Threshold: 2346
 RTS Threshold: 2347
 DTIM Interval: 1
 Beacon Interval: 100
 XPress™ Technology: Disabled
 54g™ Mode: 54g Auto
 54g Protection: Auto
 WMM(Vi-Fi Multimedia): Disabled

Save Settings Cancel Changes

Figure 6-25. Wireless – Advanced

RTS Threshold: This value should remain at its default setting of 2347. The range is 0~2347 bytes. Should you encounter inconsistent data flow, only minor modifications are recommended. If a network packet is smaller than the packet RTS threshold size, the RTS/CTS mechanism will not be enabled. The IAD sends Request of Send (RTS) frames to a particular receiving station and negotiates the sending of a data frame. After receiving an RTS, the wireless station responds with a Clear to Send (CTS) frame to acknowledge the right to begin transmission.

DTIM Interval: The default value is 3. This value, between 1 and 255 milliseconds, indicates the interval of the Delivery Traffic Indication Message (DTIM). A DTIM field is a countdown field informing clients of the next window for listening to broadcast and multicast messages. When the router has buffered broadcast or multicast for associated clients, it sends the next DTIM with a DTIM Interval value. Its clients hear the beacons and awaken to receive the broadcast and multicast message.

Beacon Interval: The default value is 100. Enter a value between 1 and 65535 milliseconds. The Beacon Interval value indicates the frequency interval of the beacon. A beacon is a packet broadcast by the router to synchronize the wireless network.

XPress™ Technology: Select to enable/disable this proprietary mode.

54g™ Mode: Select the mode to 54g Auto for the widest compatibility. Select the mode to 54g Performance for the fastest performance among 54g certified equipment. Set the mode to 54g LRS if you are experiencing difficulty with legacy 802.11b equipment.

54g protection: In Auto mode the IAD will use RTS/CTS to improve 802.11g performance in mixed 802.11g/802.11b networks. Turn protection off to maximize 802.11g throughput under most conditions.

WMM (WiFi Multimedia): Select to enable/disable the support.(Figure 6-25)

6.5.6 Station Info

Authenticated wireless stations and their status will be shown here.(Figure 6-26)



Figure 6-26. Wireless – Station Info

6.6 Voice

Use the Voice screen to configure the EUT function related parameters. It allows system administrator to configure the following topics:

- Phone
 - Phone Extension
 - Extension Linekey
- Trunk
 - IP Trunk
 - Trunk Group
 - Answering Positions
 - Call Restriction Table
 - Call Routing Table
- System
 - Numbering Plan
 - Service Mode
 - Transmission
 - IG Dynamic Discovery
 - IG Expansion Table
- Voice Mail
 - General
 - Extension
 - Holiday
 - Advanced

The configurable items for each part would be described in the following.

6.6.1 Phone

Use the phone extension screen to configure EUT's phone extension authentication and IP2007's extension line key default setting.

6.6.1.1 Phone Extension

The EUT combines Proxy and Registrar servers in its application. The all phones registered to the internal Registrar are set here. (Figure 6-27)

The screenshot shows the 'TECOM GW6000 Configuration' web interface. The left sidebar contains a navigation menu with categories: Device Info, Advanced, Wireless, Voice, Management, and Diagnostics. Under 'Voice', there are sub-items: Phone, Phone Extension, Extension Linekey, Trunk, System, and Voice Mail. The main content area is titled 'Sip Authentication' and includes a sub-header 'Sip Authentication'. Below this is a table with 24 rows, each representing a phone. The columns are: No., Phone Number, Password, Day COS, and Night COS. Each row has input fields for the first three columns and dropdown menus for the last two, all currently set to '0'. Below the table, there are fields for 'FXS Phone Start Number' (set to 201), 'Day COS' (set to 0), and 'Night COS' (set to 0). The 'Registration Configuration' section below has fields for 'Minimal Expire' (set to 60) and 'SIP Port' (set to 5060). At the bottom, there are three buttons: 'Reboot', 'Save Settings', and 'Cancel Changes'.

No.	Phone Number	Password	Day COS	Night COS
1	<input type="text"/>	<input type="text"/>	0	0
2	<input type="text"/>	<input type="text"/>	0	0
3	<input type="text"/>	<input type="text"/>	0	0
4	<input type="text"/>	<input type="text"/>	0	0
5	<input type="text"/>	<input type="text"/>	0	0
6	<input type="text"/>	<input type="text"/>	0	0
7	<input type="text"/>	<input type="text"/>	0	0
8	<input type="text"/>	<input type="text"/>	0	0
9	<input type="text"/>	<input type="text"/>	0	0
10	<input type="text"/>	<input type="text"/>	0	0
11	<input type="text"/>	<input type="text"/>	0	0
12	<input type="text"/>	<input type="text"/>	0	0
13	<input type="text"/>	<input type="text"/>	0	0
14	<input type="text"/>	<input type="text"/>	0	0
15	<input type="text"/>	<input type="text"/>	0	0
16	<input type="text"/>	<input type="text"/>	0	0
17	<input type="text"/>	<input type="text"/>	0	0
18	<input type="text"/>	<input type="text"/>	0	0
19	<input type="text"/>	<input type="text"/>	0	0
20	<input type="text"/>	<input type="text"/>	0	0
21	<input type="text"/>	<input type="text"/>	0	0
22	<input type="text"/>	<input type="text"/>	0	0
23	<input type="text"/>	<input type="text"/>	0	0
24	<input type="text"/>	<input type="text"/>	0	0

FXS Phone Start Number Day COS Night COS

Registration Configuration

Minimal Expire
SIP Port

Figure 6-27. Voice – Phone – Phone Extension

SIP Authentication: It provides 24 IP phones registered.

Phone Number: The phone number is a station number. If it conflicts with the setting in Numbering Plan, it fails to add or make the change. Its value range is limited by Start Extension Number and End Extension Number settings in Numbering Plan page.

Password: The user password of this phone. The length is up to 24 digits or characters. It's used for Digest Authentication.

Day COS: The field assigns Class of Service for day mode operation. Acceptable values are 0-7. At default, all extensions are unrestricted.

Night COS: The field assigns Class of Service for night mode operation. Acceptable values are 0-7. At default, all extensions are unrestricted.

FXS Phone Start Number: It shows the FXS phone number. It's programmed in System – Numbering Plan.

Registration Configuration

Minimal Expire: the minimum refresh interval registrar time supported for these IP phones managed by the Gateway Server.

SIP Port: The Gateway Server listens for requests on the SIP port. This port is used for UDP application and 5060 is its recommended value.

6.6.1.2 Extension Linekey

This page allows you to configure the default settings for IP2007's linekeys. While a new-allocated IP2007 is registering to IG, IG will send these settings to the phone.(Figure 6-28)

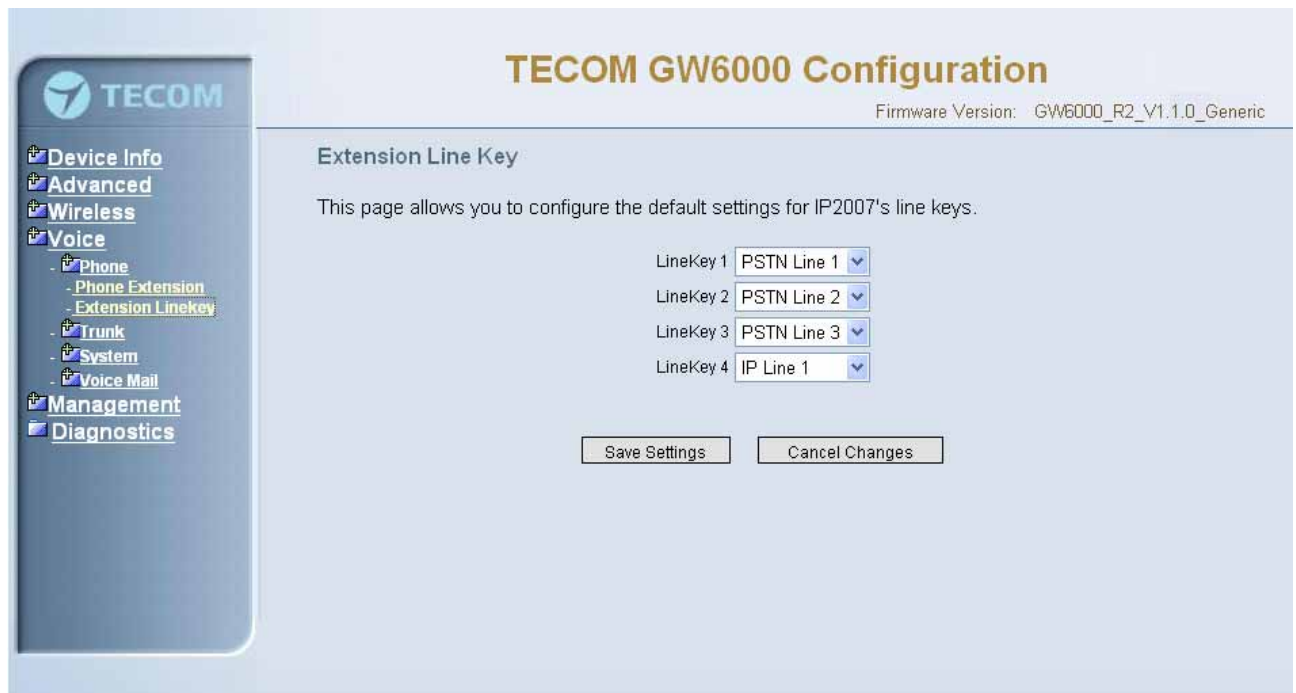


Figure 6-28. Voice – Phone – Extension Linekey


6.6.2 Trunk

Use the Trunk screen to configure the PSTN/IP Trunk function related parameters. It is separated into 5 parts:

- IP Trunk
- Trunk Group
- Answering Positions
- Call Restriction Table
- Call Routing Table

6.6.2.1 IP Trunk

This page allows you to configure the proxy and registration server of IP Trunk, up to 8 lines of IP Trunk are supported. (Figure 6-29)



- Device Info
- Advanced
- Wireless
- Voice
 - Phone
 - Trunk
 - IP Trunk**
 - Trunk Group
 - Answering Positions
 - Call Restriction Table
 - Call Routing Table
- System
- Voice Mail
- Management
- Diagnostics

TECOM GW6000 Configuration

Firmware Version: GW6000_R2_V1.2.0_Generic

This page allows you to configure the proxy and registration of IP Trunk, up to 8 lines of IP Trunk are supported.

Subscriber Information

IP Trunk 1			
Phone Number	<input type="text"/>	Register Expires	<input type="text" value="60"/>
Auth ID	<input type="text"/>	Auth Password	<input type="text"/>
SIP Proxy	<input type="text"/>	Port	<input type="text" value="5060"/>
Outbound Proxy	<input type="text"/>	Port	<input type="text" value="5060"/>

IP Trunk 2			
Phone Number	<input type="text"/>	Register Expires	<input type="text" value="60"/>
Auth ID	<input type="text"/>	Auth Password	<input type="text"/>
SIP Proxy	<input type="text"/>	Port	<input type="text" value="5060"/>
Outbound Proxy	<input type="text"/>	Port	<input type="text" value="5060"/>

IP Trunk 3			
Phone Number	<input type="text"/>	Register Expires	<input type="text" value="60"/>
Auth ID	<input type="text"/>	Auth Password	<input type="text"/>
SIP Proxy	<input type="text"/>	Port	<input type="text" value="5060"/>
Outbound Proxy	<input type="text"/>	Port	<input type="text" value="5060"/>

IP Trunk 4			
Phone Number	<input type="text"/>	Register Expires	<input type="text" value="60"/>
Auth ID	<input type="text"/>	Auth Password	<input type="text"/>
SIP Proxy	<input type="text"/>	Port	<input type="text" value="5060"/>
Outbound Proxy	<input type="text"/>	Port	<input type="text" value="5060"/>

IP Trunk 5			
Phone Number	<input type="text"/>	Register Expires	<input type="text" value="60"/>
Auth ID	<input type="text"/>	Auth Password	<input type="text"/>
SIP Proxy	<input type="text"/>	Port	<input type="text" value="5060"/>
Outbound Proxy	<input type="text"/>	Port	<input type="text" value="5060"/>

IP Trunk 6			
Phone Number	<input type="text"/>	Register Expires	<input type="text" value="60"/>
Auth ID	<input type="text"/>	Auth Password	<input type="text"/>
SIP Proxy	<input type="text"/>	Port	<input type="text" value="5060"/>
Outbound Proxy	<input type="text"/>	Port	<input type="text" value="5060"/>

IP Trunk 7			
Phone Number	<input type="text"/>	Register Expires	<input type="text" value="60"/>
Auth ID	<input type="text"/>	Auth Password	<input type="text"/>
SIP Proxy	<input type="text"/>	Port	<input type="text" value="5060"/>
Outbound Proxy	<input type="text"/>	Port	<input type="text" value="5060"/>

IP Trunk 8			
Phone Number	<input type="text"/>	Register Expires	<input type="text" value="60"/>
Auth ID	<input type="text"/>	Auth Password	<input type="text"/>
SIP Proxy	<input type="text"/>	Port	<input type="text" value="5060"/>
Outbound Proxy	<input type="text"/>	Port	<input type="text" value="5060"/>

Local Port

Local SIP Port for IP Trunk

Local RTP Port for IP Trunk

Figure 6-29. Voice – Trunk – IP Trunk

Subscriber Information

Trunk Number: The assigned phone number from Uplink Server.

Register Expires: how long the Gateway sends REGISTER to uplink registrar server. It counts based on second.

Auth ID: The Account ID of registration to uplink server. It's used for Digest Authentication.

Auth Password: The Password of registration to uplink server. It's used for Digest Authentication.

SIP Proxy: the position of uplink registrar server. Digital IP address and domain name are all supported.

SIP Proxy Port: SIP signal port of uplink registrar server.

Outbound Proxy: the address of uplink outbound proxy server. All sip request packet will be sent to this server that will determine their next hops.

Outbound Proxy Port: SIP signal port of uplink outbound proxy server.

Local Port

Local SIP Port for IP Trunk: SIP control signal packet Port of IP Trunk Client.

Local RTP Port for IP Trunk: Real-Time Protocol packet Port of IP Trunk Client. It's the start RTP port address for these IP Trunks.

6.6.2.2 Trunk Group

This page allows you to configure the virtual Trunk Group, up to 4 Trunk Groups are supported.(Figure 6-30)

Trunk Group & Label

This item allows you to assign physical Trunk to virtual Trunk Group. And you can configure your personal string as incoming Caller ID number. For three PSTN lines and eight IP lines you can choose from Group1 to Group 4.

Trunk Group Priority

This Item allows you to define 4 Trunk Group's interior priority. For four groups you can choose IP first or PSTN first. This will take effect if call routing entry's destination has been set as Group choice.

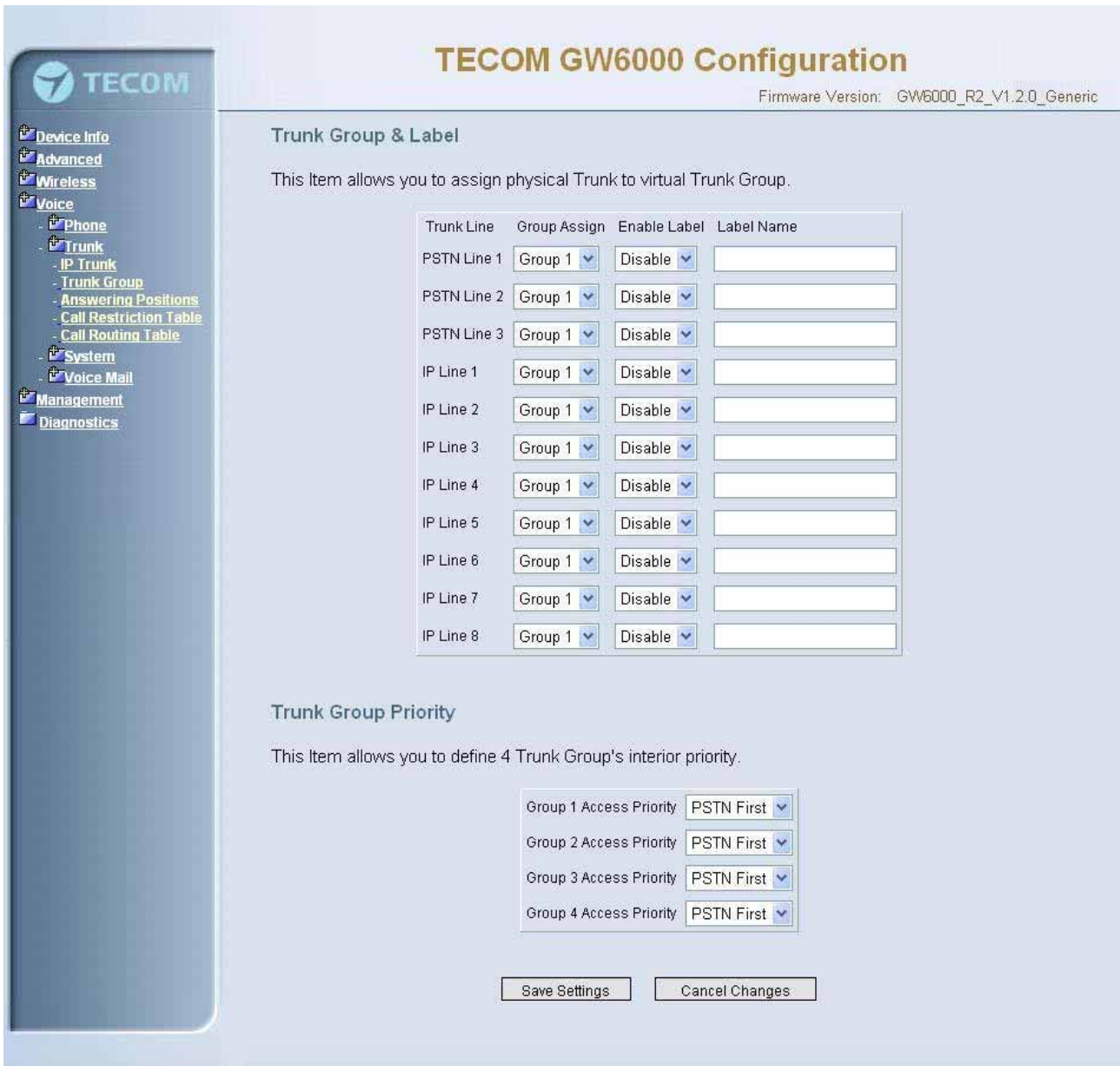


Figure 6-30. Voice – Trunk –Trunk Group

6.6.2.3 Answering Positions



Figure 6-31-1. Voice – Trunk – Answering Positions – AA(Yes)

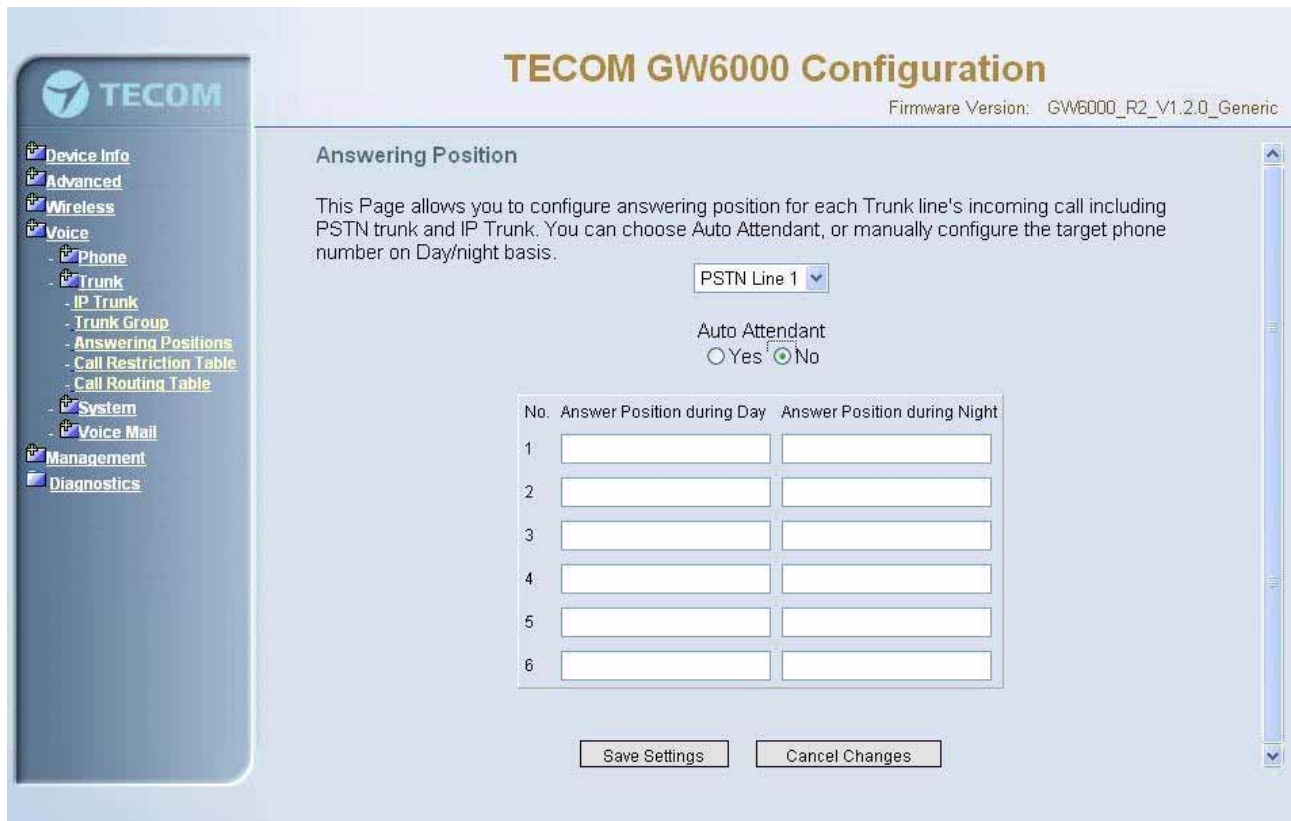


Figure 6-31-2. Voice – Trunk – Answering Positions – AA(No)

This Item allows you to configure answering position for each Trunk line including PSTN trunk and IP Trunk. You can choose Auto Attendant, or manual configure the target phone number on Day/night basis.

Auto Attendant: Yes/No.

Day Answering Position: 6 extension numbers maximum

Night Answering Position: 6 extension numbers maximum

If choose Auto Attendant as Yes, an idle VAA will auto-answer this incoming trunk call. You can continue your operation by following its indicative words. Otherwise some extension will be called and ringing. If you pick up one of them, the other extensions will stop ringing.(Figure 6-31)

6.6.2.4 Call Restriction Table

This page allows you to configure the call restriction table. If you choice YN in "Trunk Access" option, it means that the entry is used in both trunk access and call routing judge. Y means that it is only valid in trunk access judge, and N is vice versa. Only the caller's COS priority is higher than the entry's COS value, the call is allowed.

From/To


The allowed intervals are made up of a From and To entry which establish a numeric range. For example, an entry of "From 1700" , "To 1800" would include the following range of numbers as the leading: 1700, 1701, 1702, ...1799, 1800. Each From/To entry can be from 1 to 13 digits long and may contain any digit 0-9, or X (X representing any digit). The :From" entry must be less than or equal to the "To" entry.

Trunk Access

EUT checks the field only when a call matches the associated allowed interval. If the field is set to "Y", the entry is valid when the trunk is accessed previously. If the field is set to "N", the trunk isn't accessed previously. The trunk will be accessed through Call Routing Table. If he option is set to "YN", the entry is valid no matter the trunk is accessed or not previously.

COS

The COS setting is defined by the allowed intervals. "Y" allows an extension with the COS or higher priority to dial the number(s) specified in that range.



- Device Info
- Advanced
- Wireless
- Voice
 - Phone
 - Trunk
 - IP Trunk
 - Trunk Group
 - Answering Positions
 - Call Restriction Table
 - Call Routing Table
 - System
 - Voice Mail
- Management
- Diagnostics

TECOM GW6000 Configuration

Firmware Version: GW6000_R2_V1.2.0_Generic

Call Routing Table Configuration

This page allows you to configure the call routing table. Each item will be a routing rule for outgoing call. From/To define the number range, Min/Max define the match length, Del/Insert can change the target number, Destination to define the outbound call interface.

No.	From	To	Min	Max	Del	Insert	Destination	
1	0	9	1	99	0		PSTN Line 1	
2			1	99	0		PSTN Line 1	
3			1	99	0		PSTN Line 1	
4			1	99	0	0	PSTN Line 1	
5			1	99	0		PSTN Line 1	
6			1	99	0		PSTN Line 1	
7			1	99	0		PSTN Line 1	
8			1	99	0		PSTN Line 1	
9			1	99	0		PSTN Line 1	
10			1	99	0		PSTN Line 1	

<< < > >>

Save Settings Cancel Changes

Figure 6-32. Voice – Trunk – Call Restriction Table

6.6.2.5 Call Routing Table

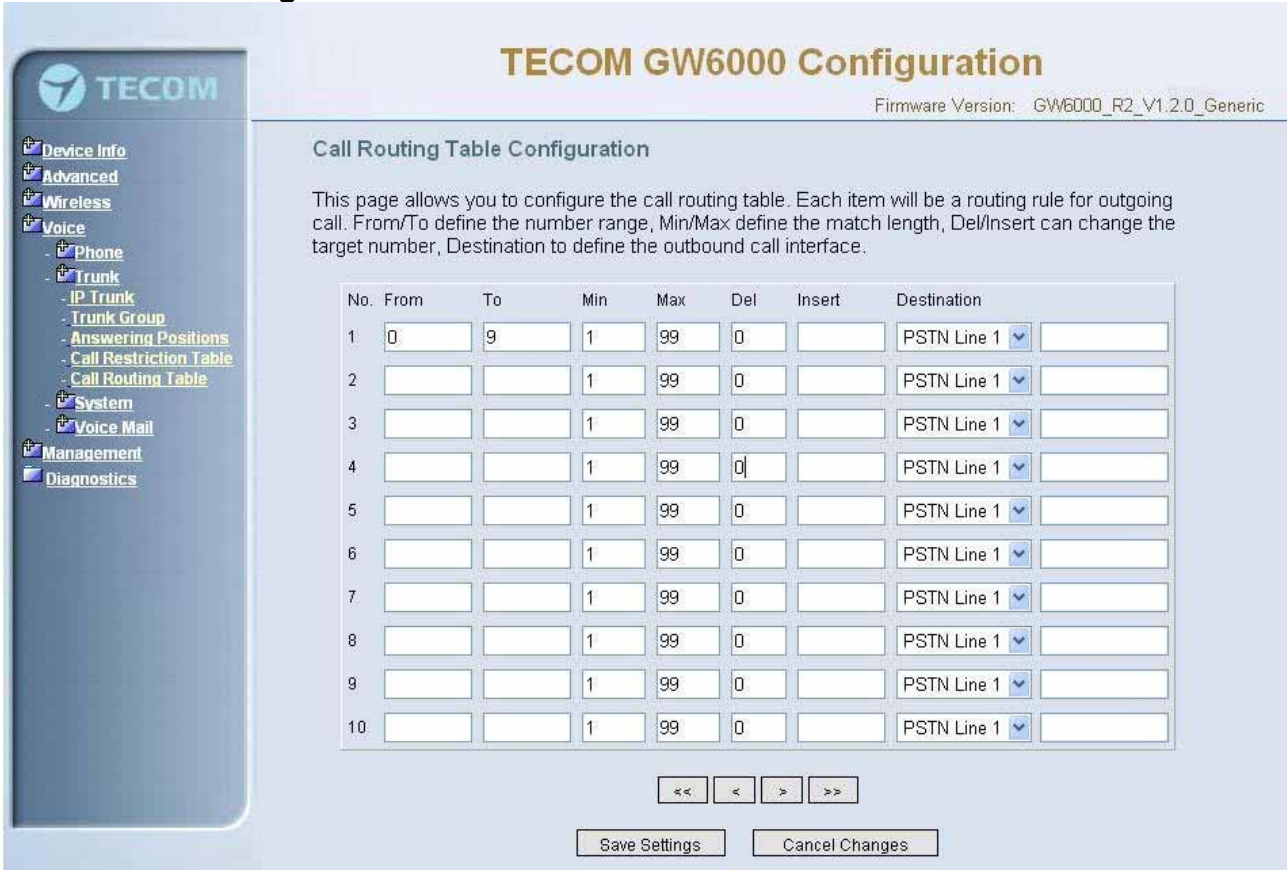


Figure 6-33. Voice – Trunk – Call Routing Table

This page allows you to configure the call routing table. Each item will be a routing rule for outgoing call. From/To define the number range, Min/Max define the match length, Del/Insert can change the target number, Destination to define the outbound call interface. You can click the buttons under the table to choose pages.

In the Destination field, the drop list includes a particular option: “IG Expansion”. When selecting “IG Expansion”, the next field is a drop list, the drop list contains the founded IG name which is maintained by the EUT, and you can select a suitable IG name to route your calls (Figure 6-33).

6.6.3 System

Use the System screen to configure the System function related parameters. It is separated into 4 parts:

- Numbering Plan
- Service Mode
- Transmission
- IG Dynamic Discovery
- IG Expansion Table

6.6.3.1 Numbering Plan

Figure 6-34. Voice – System – Numbering Plan

This page allows you to configure extension number range. You can also define some special service numbers in the table.(Figure 6-33)

Start extension number: start phone number of system internal extension. All valid extension number can't be smaller than it.

End extension number: end phone number of system internal extension. All valid extension number can't be greater than it. If receiving an IP2007's Plug & Play request, IG will allocate the first unused number from this limited region.

Operator extension during day: system operator number. If dial Operator speed-dial number, this extension will be called during day.

Operator extension during Night: system operator number. If dial Operator speed-dial number, this extension will be called during night.

FXS Phone Number: It determines the FXS phone number.

Operator speed-dial number: If dial this number, the operator extension will be called. Also it is limited on length 1 character.

Voice mail service number: If dial this number, internal user can enter IG's vm system and do some operations such as listening personal message.

Start PSTN Line number: IG provides 3 PSTN line at most. Every line has its own internal alias number. You can dial these numbers directly to access PSTN trunks.

Start IP Trunk number: IG provide 8 IP Trunk line at most. Every line has also its own internal alias number. You can dial these numbers directly to access IP Trunks.

Start Trunk Group number: IG provides 4 trunk groups at most. If dialing trunk group number, IG will choose the first idle line for caller automatically.

All Paging number: If dialing this number, all internal IP2007s will be paged.

Start Paging Group number: 3 paging groups are defined in IG. If dialing a Paging Group number, the call will page to all internal IP2007s of the called paging group.

While pressing “Configuration” in “Start Paging Group number”, it shows Paging Group Configuration screen (Figure 6-34).

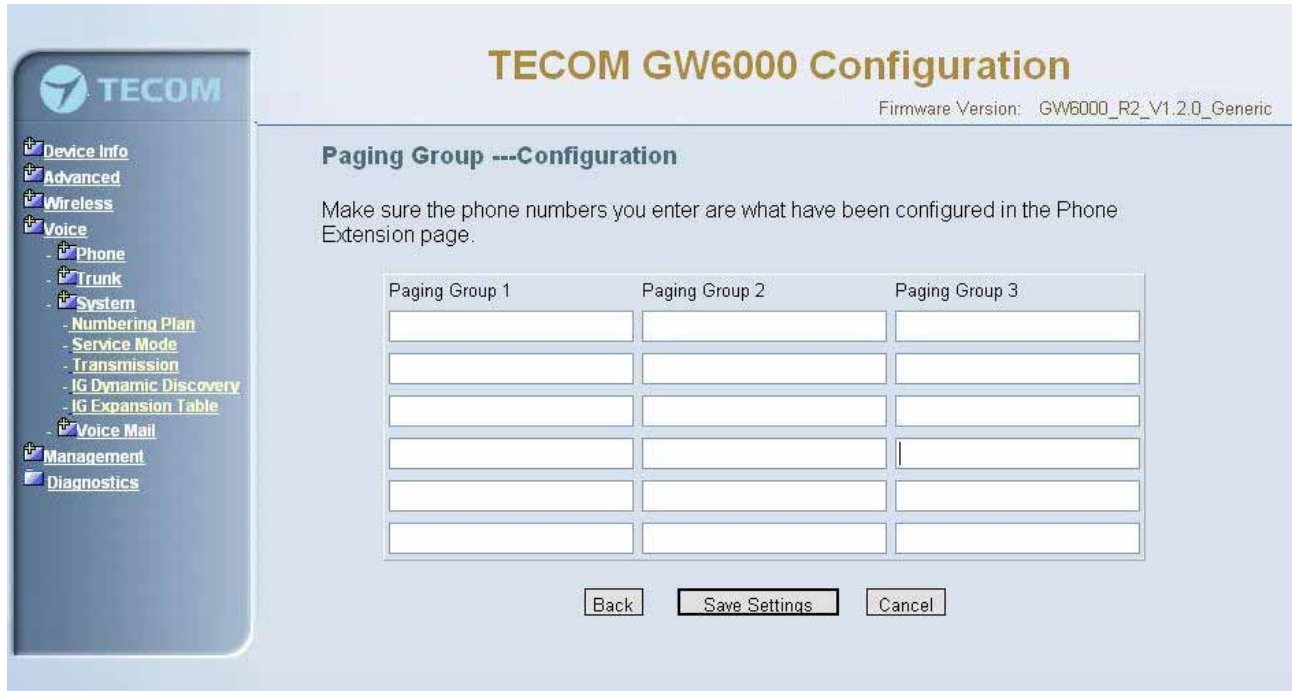


Figure 6-35. Voice – System – Numbering Plan – Paging Group

6.6.3.2 Service Mode

This page allows you to configure the day/night service mode. You can also customize the working time manually for each weekday.

If you choose Time Mode, it's for the specified day of week. The time is entered in 24-hour format. Valid entries are 00:00 to 23:59 in 1-minute increments.(Figure 6-35)



Figure 6-36. Voice – System – Service Mode

6.6.3.3 Transmission

This page allows you to configure the Audio, FXS, FXO settings. Click “Save Settings” button to save the new configuration. Click “Cancel Changes” button you can cancel the changes. (Figure 6-36)

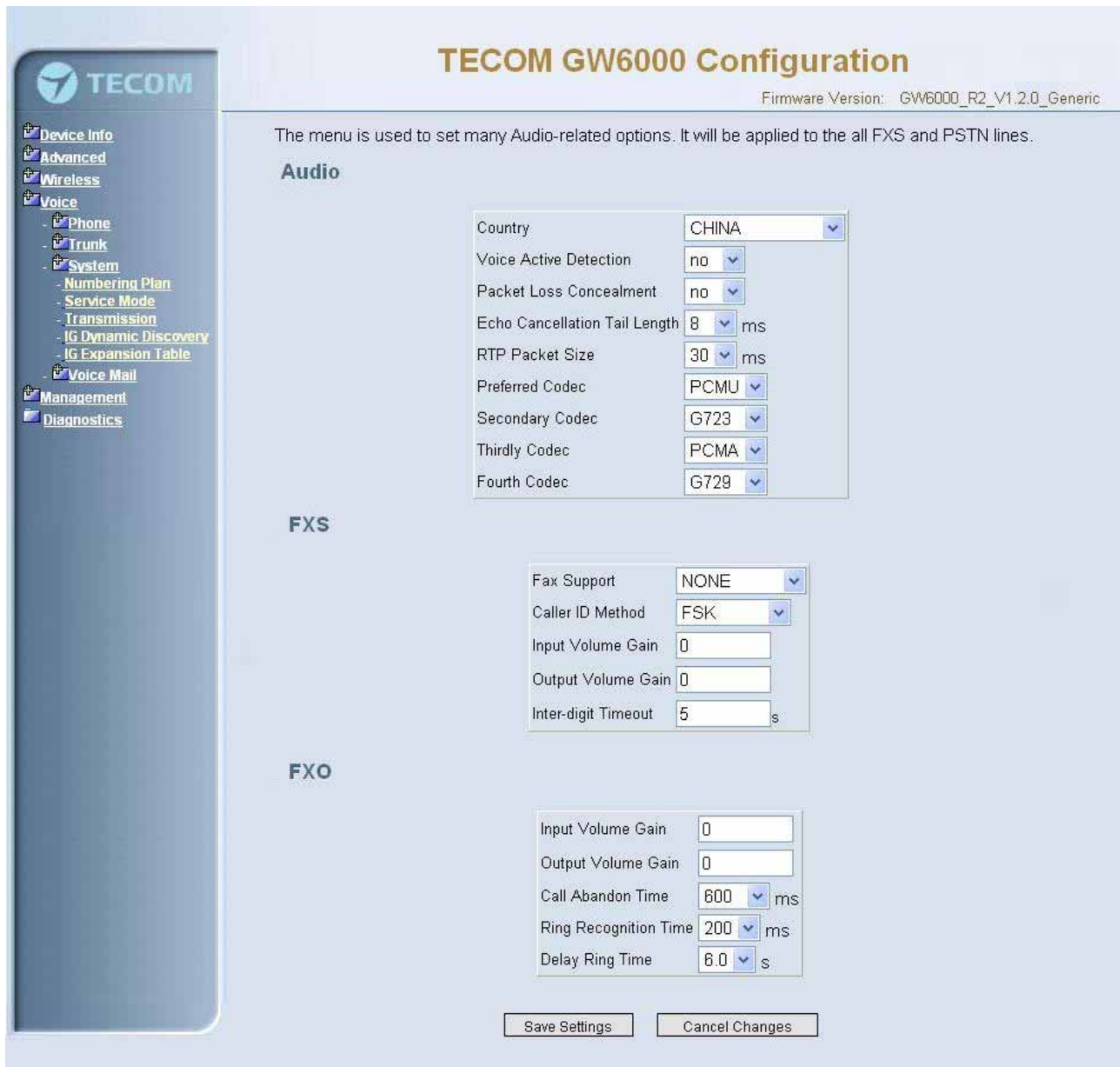


Figure 6-37. Voice – System – Transmission

Audio: It is used to set many Audio-related options. It will be applied to the all FXS and PSTN lines.

Country: It may be used to determine not only the Caller ID detection / transmission method but also ring/tone cadence/frequency.

Voice Active Detection: Enable or Disable; VAD is a technique that detects the absence of audio and conserved bandwidth by preventing the transmission of “silence packets” over the network. Normally, this is set to On.

Packet Loss Concealment: Enable or Disable

Echo Cancellation Tail Length: Echo cancel time; 0 value disables Echo Canceller.

RTP Packet Size: 10/20/.../60 ms

Codec Priority: EUT can support different audio Codec (G711u, G711a, G723, G729a) but only one is active at one time. You can choose "Preferred Codec", "Secondary Codec", "Thirdly Codec" and "Fourth Codec" properly.

FXS: It is used to set many FXS-related options.

Fax Support: The system supports FAX/modem tone detection with G.711 mode.

Call ID Method: The system provides the ability to detect the calling party identification provided by PSTN lines. It also transmits the calling party identification to POTS ports. There are four choices: NONE, DTMF_BR, DTMF_AR, FSK

Input Volume Gain: value range: -20 ~ 20. If the value increased 1, the actual analog-voice will become louder 0.5dB. Otherwise the voice will become lower 0.5dB.

Output Volume Gain: value range: -20 ~ 20.

Inter-digit Timeout: Its range is from 0 to 30 seconds.

FXO: It is used to set many central office line options.

Input Volume Gain: value range: -20 ~ 20

Output Volume Gain: value range: -20 ~ 20

Call Abandon Time: For every PSTN/FXO call, system provides the facility to monitor the call status. If the remote party hangs up, the ongoing call must be terminated. The PSTN line monitor is done by the loop-break signal or busy tone. The value range is: 100/200/.../1000 ms.

Ring Recognition Time: The timer determines the minimum ring duration recognized as a valid incoming ring on a PSTN port. Shorter ring signals are ignored. The timer range is 200ms to 60ms in 40ms increments.

Delay Ring Time: The timer is to allow the Central Office to send ICLID before the call is answered. Once the timer expires, the programmed extensions will ring and the ICLID number will be sent to the ringing extensions. The timer range is 3 to 6 seconds on 0.5 second increments.

6.6.3.4 IG Dynamic Discovery

This page allows you to configure IG dynamic discovery settings.(Figure 6-37)

IG Name: The name of IG. It will be referred for the other IGs.

Run Mode: The mode that IG is running. IG can run in Master Mode or Slave Mode.

Master Mode: When IG is running in master mode, it maintains an IG list table. When the master found that some slave IG changes its name or IP address, it will broadcast to all of other slave IGs in this list and let them update their own IG list table.

Slave Mode: When IG is running in slave mode, the master IG IP address should be configured. When its name or IP address changed, it will inform the master IG. And then the master IG will let other IG know this change.



Figure 6-38-1. Voice – System – IG Dynamic Discovery

6.6.3.5 IG Expansion Table

This page shows the all cooperated IGs. It can be got through *IG Dynamic Discovery*. It also allows you to add the specified IG that our calls want to be routed into.

IG Host Name: The cooperated IG’s name.

IP Address: The cooperated IG’s IP address.

Sip Port: The cooperated IG’s SIP port.

COS: The cooperated IG’s Class of Service.

Valid: If setting “N”, it rejects the direct call from the cooperated IG.

