TECOM GW6000



Administrator's Manual

Copyright © 2006 by TECOM CO. LTD.

Table of Contents

1.	Introduction	5
2.	Getting to Know the Router	7
	2.1 Specifications	
	2.2 Front Panel	
	2.3 Rear Panel	8
3.	System Features	9
	3.1 Answering Position	
	3.2 Auto Attendant & Voice Mail	
	3.3 Call Abandon	
	3.4 Call Operator (Call Attendant)	10
	3.5 Call Routing	.10
	3.6 Caller ID	
	3.7 Caller ID to Extension	
	3.8 Class Of Service (COS)	
	3.9 Daylight Saving Time	
	3.10 Default Set	
	3.11 Direct Inward System Access (DISA) via Auto Attendant	
	3.12 Dynamic DNS	
	3.13 Extension Password	
	3.14 Fax/Modem	
	3.15 Feature Key Programming	
	3.16 Flash - Analog Port (SLT) Flash Recognition	. 11
	3.18 IP Trunk	
	3.19 Line Group Assignment	
	3.20 Make an Outside Call	
	3.21 Message Waiting Indication	
	3.22 Multi-Line Appearance	
	3.23 Music On Hold	
	3.24 Night Switching	
	3.25 Numbering Plan	
	3.26 Paging	.12
	3.27 Plug and Play	.12
	3.28 Polarity Reversal (PR) Detection	
	3.29 PSTN Backup	
	3.30 Registration	
	3.31 Remote Management via PC	
	3.32 System Time & Date	
	3.33 Toll Restriction	
	3.34 Transfer	
	3.35 Trunk Group	
	3.36 Wizard Setup	
4.	Phone Features	
	4.1 Alphanumeric Display	
	4.2 Basic Call	
	4.3 Call Forward via Auto Attendant	
	4.4 Call Hold	
	4.5 Call Transfer	
	4.6 Call Waiting	
	4.7 Conference	
	4.9 Distinctive Ringing	
	4.9 Distinctive Kinging	
	4.11 External Call Forward (ECF) via Auto Attendant	
	4.12 Feature Key Programming	
	4.13 Last Number Redial (LNR).	
	4.14 LCD & Interactive Buttons	

4.15 Mute	
4.16 On Hook Dialing	
4.17 Page Allow/Deny	
4.18 Phone Book	
4.19 Phone Lock/Unlock	
4.20 Speed Dial	
4.21 Volume Control	18
5. Quick Installation	19
5.1 Connecting the GW6000	
5.2 Wizard Setup	
5.2.1 WAN Setting	
5.2.2 LAN Setting	
5.2.3 Wireless Basic	
5.2.4 Wireless Security	
5.2.5 Internet Time	
5.2.6 Numbering Plan	
5.2.7 IP Trunk	
5.2.8 Call Routing Table	
5.2.9 Wizard Setup Finished	
6. Configuration	
6.1 Setup	
6.2 Establish The Connection	
6.3 Device Info	
6.3.1 Summary	
6.3.2 Statistics	
6.3.3 Route	
6.3.4 ARP	
6.4 Advanced Setup	
6.4.1 LAN	
6.4.2 WAN	
6.4.3 Route	
6.4.4 NAT	
6.4.5 Security	
6.4.6 Quality of Service	
6.4.7 Dynamic DNS	
6.5 Wireless	
6.5.1 Basic	
6.5.2 Security	
6.5.3 MAC Filter	
6.5.4 Wireless Bridge	
6.5.5 Advanced	
6.5.6 Station Info	
6.6 Voice	
6.6.1 Phone	
6.6.2 Trunk	
6.6.3 Voice Mail	
6.7 Management	
6.7.1 Settings	
6.7.2 Log	
6.7.3 Internet Time	
6.7.4 Access Control	
6.7.5 Update Software	
6.7.6 Save & Reboot	
6.8 Diagnostics	
Appendix 1: Product Summary	
Appendix 2: Auto Attendant and Voicemail System	
Appendix 2.1 System Voice Prompts	
Appendix 2.1.1 Preset Voice Prompts	
Appendix 2.1.2 Voice Prompts Recording	

Appendix 2.2 Flowchart	
Appendix 2.2.1 Automated Attendant	
Appendix 2.2.2 Subscriber Voicemail Flowchart	
Appendix 2.2.3 Mailbox Administer Flowchart	
Appendix 2.2.4 System Administrator's Voicemail Flowchart	
Appendix 3: Feature Access Codes Assignment	
- + F	

1. Introduction

Congratulate on becoming the owner of the GW6000.Your LAN (local area network) and WAN (wide area network) will now be able to access the Internet using your high-speed Ethernet connection. This Administrator Manual will show you how to install and set up your GW6000.

The IG (Intelligent Gateway) provides a variety of functions for users and can support a wide range of application in a complicated environment. Therefore, it needs Administrator to plan, install and set the whole environment of VoIP communication. And the knowledge of modern network and Internet technologies are essential for administrator.



Figure 1-1. Router Connection Diagram

Interfaces

- WAN Interface: 10/100Base-T Ethernet port
- CO Interface: 3 FXO (Loop Start, for PSTN)
- Analog Device Interface: 1 FXS (for analog Telephone or FAX)
- LAN Interface: 4 Ethernet (10/100Base-T)
- Built-in 802.11g Wi-Fi access point

Terminals

- 1 Analog Terminal
- 24 IP Stations (Wired/Wi-Fi IP Phone)

In principle, the Administration is required to do the following things:

- (1) To understand the architecture, resources, and devices of whole environment which will be involved with the VoIP communications.
- (2) To build a common setting file for most users.

- (3) To configure each phone and install them into the network.
- (4) To configure each interfaces and install them into IG.
- (5) And to solve the problems what users encounter during operation.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Notice : The changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

IMPORTANT NOTE: To comply with the FCC RF exposure compliance requirements, no change to the antenna or the device is permitted. Any change to the antenna or the device could result in the device exceeding the RF exposure requirements and void user's authority to operate the device. The antenna used for this transmitter must be installed to provide a separation distance of at least 20cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

FCC INFORMATION

The Federal Communication Commission Radio Frequency Interference Statement includes the following paragraph:

The equipment has been tested and found to comply with the limits for a Class B Digital Device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction, may cause harmful interference to radio communication. However, there is no grantee that interference will not occur in a particular installation. If this equipment dose cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on , the user is encouraged to try to correct the interference by one or more of the following measures:

--Reorient or relocate the receiving antenna.

- --Increase the separation between the equipment and receiver.
- --Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- --Consult the dealer or an experienced radio/TV technician for help.

The user should not modify or change this equipment without written approval form TECOM CO., LTD. Modification could void authority to use this equipment.

2. Getting to Know the Router

2.1 Specifications

Feature		Additional Info				
Main Processor	240MHZ MIPS32 CP	U U				
Processor SDRAM	External 32MB					
Processor Flash ROM	External 4MB	External 4MB				
Supplementary Processor	1x DSP Voice Pump	VP101-4 (4 channel/each)				
System Flash (Voice Mail)	128MB					
Switch controller	Broadcom BCM5325	E				
System Power:	15V/1A					
Standards	IEEE802.11g,IEEE802.11b,IEEE802.3					
Ports	1 × WAN , 4 × LAN , 1 × FXS , 3 × FXO					
Button	Reset, Power on/off					
Cabling	RJ-45,RJ-11					
LEDs	POWER, WIRELESS, 3 × LINE, TEL, 4 × ETHERNET, WAN					
EMI/EMC:	FCC Part15 Class B					
	Operating Temp	.0°C to40°C (32°F to 104°F)				
Environmental	Storage Temp.	-20°C to 70°C (-4°F to 158°F)				
	Operating Humidity	10% to 80% relative humidity, Non-Condensing				
	Storage Humidity	10% to 90% Non-Condensing				

2.2 Front Panel

The front panel contains several LEDs that indicate the status of the unit.

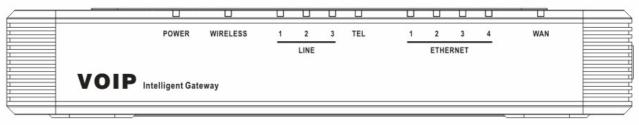


Figure 2-1. Front Panel of GW6000

LED Name	Color	Status	Description
POWER	Blue	On	Power on.
		Off	Power off.
WIRELESS	Blue	On	Wireless LAN initialization success.
		Off	Wireless LAN is not present.
LINE (1-3)	Blue	Off	PSTN Line is idle.
		On	PSTN Line is busy.
TEL	Blue	Off	Phone is idle.
		On	Phone is busy.
ETHERNET(1-4)	Blue	On	LAN connected.
		Off	LAN network connection not present.
		Flashing	LAN activity present (traffic in either direction).
INTERNET	Blue On WAN connected.		WAN connected.
		Off	WAN network connection not present.
		Flashing	WAN activity present (traffic in either direction).

2.3 Rear Panel

The rear panel contains the ports for the unit's data and power connections.



Figure 2-2. Rear Panel of GW6000

Label Function				
WAN	RJ-45 connector: Connects the device to your cable modem, or to your			
	ADSL Modem, It's to connect to the remote network			
LAN1-4	RJ-45 connector: Connects the device to your PC's Ethernet port, or to			
	the uplink port on your LAN's hub,			
TEL1	RJ-11 connector: Connects the device to your analog phone,			
Line 1-3	RJ-11 connector: Connects the device to your PSTN lines			
Power Connects to the supplied power converter cable				
On/Off	Switches the device on and off			

3. System Features

3.1 Answering Position

For incoming calls from PSTN (FXO ports), system provides the flexibility to ring to different destinations. System also provides the ability to have the calls to ring to 1-6 different extensions according to the system service mode (day or night modes).

It is also for those incoming VoIP calls from the registered ISP (Uplink Server) to be routed with the same method.

3.2 Auto Attendant & Voice Mail

The IG Auto Attendant can greatly enhance business office productivity by providing either a full-duty automated attendant to handle all incoming system calls or part-duty automated attendant to handle overflow traffic.

The Automated Attendant & Voice Mail Module provides 128MB of programmable voice announcements. It provides four ports to handle four (4) simultaneous callers. It provides the following functions:

- Auto Attendant Functions
 - It provides an incoming caller with a customized welcome greeting that describes the actions available to an incoming caller:
 - Provide four kinds of main greeting messages: Day, Night, Noon, and Holiday greeting messages.
 - Dial an extension number or operator code to reach the appreciate destination.
 - Press a digit to leave a message in a particular mailbox.
 - Press a digit to make an outside call via the specified check.
 - Provide the phone to forward the call to its voicemail box.
 - Provide the phone to set Direct Call Forward, Busy Call Forward or No Answer Call Forward. It will forward the incoming trunk call to another extension.
 - Provide the phone to set Do Not Disturb to stop the incoming line call from ringing.
- Voice Mail Functions
 - All mailbox users have access to these mailbox features
 - Delete, save, or skip messages.
 - Send messages to other mailbox.
 - Receive message information indicating the date, time, and sender information, if available.
 - Change personal greeting, and password.
 - Playback controls when reviewing messages.
 - Record a temporary greeting.
 - Send a notification via email when getting a leaving message.
 - The maximum recording length for each call is 60 seconds.
 - The maximum total length for each user is about 18 minutes.
 - For each leaving message, it's saved 1 7 days
- Voice Messages
 - Provide two languages service for the all voice files.
 - Administrators can record the all voice messages by themselves.

Administrators can update, backup or delete the all voice messages on the PC.

3.3 Call Abandon

For every PSTN call, system provides the facility to monitor the call status. If the remote party hangs up, the ongoing call must be terminated.

3.4 Call Operator (Call Attendant)

One primary operator may be assigned in the system. The standard IP phone will serve as the operator telephone. When assigned as operator, this extension supports general system functions.

While the internal extension dials Operator Directory Number ("0" at default), or the outside party dials "0" when Auto Attendant plays the Welcome message, these calls will be stored into Operator Queue. The Operator is First-In-First-Out to service these calls. At the waiting time, the calling party will be on Music-On-Hold state.

3.5 Call Routing

The Call Routing feature automatically routes outgoing calls using the most appropriate route. The appropriate route is determined based on the number dialed. If necessary, GW6000 can automatically modify the dialed number by deleting and inserting digits.

The call routing destination is a PSTN line, an IP line, a line group or another GW6000.

3.6 Caller ID

GW6000 provides the ability to detect the calling party identification provided by CO via PSTN lines or by Uplink Server via IP trunks. This data when received by the telephone carrier will be displayed on all ringing IP phones or Caller ID equipped Single Line Telephone.

3.7 Caller ID to Extension

When Caller ID data is received on PSTN Lines or IP Lines of the IG system, this caller ID data is re-broadcast to analog devices or IP phones. This means that Caller ID will be supported even when connected "behind" the IG system as a system extension.

3.8 Class Of Service (COS)

GW6000 provides eight (8) Classes of Service (COS) for assignment of outside line dialing-privileges. Each extension may be assigned one Day-COS and one Night-COS. The Extension COS is primarily used for restriction and control of long distance dialing.

COS 0 is the highest priority. COS 7 is the lowest one.

3.9 Daylight Saving Time

Daylight Saving Time (DST) feature supports auto adjustment for daylight saving time.

3.10 Default Set

When the feature is active, the extension will return to default settings. It will affect the following options:

Cancel any Call Forward via AA Cancel DND via AA Paging Accept **Default Feature Key Setting**

3.11 Direct Inward System Access (DISA) via Auto Attendant

The current PSTN/IP lines are all DISA lines. While ringing to AA, the outside callers have direct access to extensions, PSTN/IP lines, Call Routing and Trunk Groups.

3.12 Dynamic DNS

GW6000 support Dynamic DNS to see the DDNS host name as GW6000's WAN IP address in SIP application. Let the GW6000 have a static domain name for dynamic IP address.

Before using the feature, you must register domains on DynDNS.org or TZO.

3.13 Extension Password

All extensions of the IG system have an associated User Password. Password length is system programmable from 0 to 24 characters.

3.14 Fax/Modem

GW6000 supports FAX/modem tone detection and auto-fallback to G.711.

3.15 Feature Key Programming

Feature Keys can be programmed by phone users. A feature key can be programmed for line appearance.

3.16 Flash - Analog Port (SLT) Flash Recognition

Flash is the momentary operation of the hook-switch at the analog device, which can be deciphered by the IG system in such a way that the previous call in progress is held, or placed in a status of transfer awaiting further instructions from the user.

3.17 IG to IG

While dialing a number, it may route to another GW6000 through Call Routing Table. It allows the user to make a direct call to an extension in another GW6000. It also allows the user to share the PSTN or IP Trunks in another GW6000 to make an outside call.

3.18 IP Trunk

GW6000 can register up to 8 SIP Uplink Servers. The extensions may make a call to the users of the Uplink Servers, or any user in the world through the Uplink Servers.

- SIP message, including INVITE, re-INVITE, ACK, CANCEL, OPTIONS, BYE, REGISTER, INFO, REFER, SUSCRIBE/NOTIFY and REPLACE messages.
- SIP Outbound Proxy, SIP Proxy and Registrar
- Auto-Registration when power-on or period
- Session Timer support
- Support IP address, domain name, user name, display name for SIP URL

3.19 Line Group Assignment

System assigns each PSTN/IP line to a specific Line Group. Each line can be assigned to only one Line Group. The Line group assignment is used for Line pool access.

If setting some PSTN lines and some IP lines into the same Line Group, the line access depends on the access priority.

3.20 Make an Outside Call

System provides three methods to make an outside call.

- The extension user dials the phone number directly. System automatically routes the outgoing call using the least expensive line via Call Routing Table.
- The extension user dials a Line number or a Line Group number first. After hearing the dial tone, the user dials the phone number.
- The extension presses a Line key first. After hearing the dial tone, the user dials the phone number.

3.21 Message Waiting Indication

It's a Voice Mail feature. When somebody leave messages, the router will inform the phones, and phones' LCD will display new voice mails information, and its led will flash accordingly.

3.22 Multi-Line Appearance

GW6000 provides PSTN line and IP line status to the phones. Trunk LED:

Dark – the line is Null or Idle Lit – the line is in Talk

3.23 Music On Hold

Any PSTN/IP line calls which placed on hold will give music to the other external party.

3.24 Night Switching

GW6000 provide Day and night settings in service mode page. And during different time, Trunk incoming call will be forwarded to different extensions according to the settings.

3.25 Numbering Plan

The Numbering Plan refers to the structure of dialed access to the various resources that are part of the system. GW6000 also allows for a very flexible configuration numbering for the various system resources.

3.26 Paging

A Page can be initiated from any extension in the system. Dialing a Paging Group Directory number allows an extension to broadcast a page to all assigned members of the selected paging group.

3.27 Plug and Play

While connecting IP2007/2008 phones to GW6000 LAN port, it will register to GW6000 automatically.

3.28 Polarity Reversal (PR) Detection

When making an outgoing PSTN call, the system must know if the remote party answers the call or not (for SMDR recording purpose). If the CO provides the PR signal, the system can monitor the signal to determine whether the remote party answers the call or not.

3.29 PSTN Backup

In case of power failure, GW6000 automatically switches the first PSTN line to the Single-line analog phone. The other PSTN lines are not supported.

3.30 Registration

The IG combines Proxy and Registrar servers in its application. For a Registrar server, it acts as the front end to the location service for a domain, reading and writing mappings based on the contents of REGISTER requests. The location service is then typically consulted by a Proxy server.

3.31 Remote Management via PC

Programming the IG system database is possible via PC. IG build-in a web server for remote administration.

3.32 System Time & Date

The IG system provides a built-in time clock to track System Time for reference in certain features such as System Night Service Mode Change. This clock has the ability to automatically adjust with network NTP server through Internet.

3.33 Toll Restriction

GW6000 provides sophisticated monitoring of digits dialed on PSTN/IP Trunks. If a digit or range of digits dialed on a Trunk line is inconsistent with the dialing extension's COS, the call is denied. This calling COS criteria can be applied to local calls, long distance calls, and specific numbers that are considered allowed in areas where other numbers may be restricted.

3.34 Transfer

Transfer is used to deliver calls at your extension to another extension. It means that calls can be routed to IG system destinations: an extension or an outside phone number.

3.35 Trunk Group

System assigns each PSTN Trunk and IP Trunk to a specific Trunk Group. Each Trunk can be assigned to only one Trunk Group. The Trunk group assignment is used for Trunk pool access.

If setting some PSTN trunks and some IP trunks into the same Trunk Group, the trunk access depends on the access priority.

System provides up to 4 Trunk Groups. All PSTN Trunks and IP Trunks are assigned to default Trunk Group 1 and PSTN Trunks has higher access priority.

3.36 Wizard Setup

Wizard Setup allows system administrator to select the appropriate mode and configure the corresponding settings step by step to create a basic GW6000 operation.

The following eight operation setting items are supported

WAN Setting

LAN Setting

Wireless Basic

Wireless Security Internet Time Numbering Plan IP Trunk Call Routing Table

.

4. Phone Features

Feature	Tecom IP 2007/8	FXS	Other SIP Phones
Alphanumeric Display	Yes	Depends	Depends
Basic Call	Yes	Yes	Yes
Call Forward via Auto Attendant	Yes	Yes	No
Call Hold	Yes	Yes	Yes
Call Transfer	Yes	Yes	Depends
Call Waiting	Yes	No	Depends
Conference	Yes	No	Depends
COS Following	Yes	No	No
Distinctive Ringing	Yes	No	No
Do Not Disturb via Auto Attendant	Yes	Yes	No
External Call Forward (ECF) via Auto Attendant	Yes	Yes	Yes
Feature Key Programming	Yes	No	No
Last Number Redial	Yes	Yes	Depends
LCD & Interactive Buttons	Yes	No	Depends
Mute	Yes	No	Depends
On Hook Dialing	Yes	No	Depends
Page Allow / Deny	Yes	No	No
Phone Book	Yes	No	Depends
Phone Lock/Unlock	Yes	No	No
Speed Dial	Yes	No	Depends
Volume Control	Yes	Depends	Depends

The following features depend on whether the phone provides.

Tips: the word "Depends" means that the features depend on whether the phone provides.

4.1 Alphanumeric Display

The IP Phone extension provides a graphic LCD that supports 64 alphanumeric characters. The LCD enhances many system features.

4.2 Basic Call

To make an intercom call, dial a Station number (IP Terminal, POTS) or a Voice Mail number.

To make an outgoing call, dial a phone number. System chooses a line (PSTN line or IP trunk) via Call Routing Table to dial out. If it includes "*" in the phone number, and the call is dialed through PSTN Trunk, it will be as a one second Pause time.

To make an outgoing call, dial a PSTN, an IP Trunk or a Trunk Group number first. After hearing dial tone, dial the phone number.

4.3 Call Forward via Auto Attendant

Auto Attendant Call Forwarding reroutes incoming trunks calls from one extension to another destination. The destination of a call forward can be another extension or an outside phone number (External Call Forward; ECF).

GW6000 support the following Call Forwards:

Direct Call Forward: Forward all of the calls without regard to the extension status. To enable, dial *21 + Ext No. *21 + * + (PSWD) + * + Destination To disable, dial **21. **Busy Call Forward** Forwards the calls if the extension is busy. To enable, dial *22 + Ext No *22 + * + (PSWD) + * + Destination To disable, dial **22. No Answer Call Forward Forward the calls if the extension doesn't answer the call within No Answer Time. To enable, dial *23 + Ext No + * + Time. *23 + * + (PSWD) + * + Destination + * + Time. To disable, dial **23. Direct Call Forward to VM Forward all of the calls to its own Voice Mail box. To enable, dial *24. To disable, dial **24.

4.4 Call Hold

Trunk and Intercom calls can be placed on hold at any extension. Callers on hold hear the Music On Hold.

For the Single Line phone, it's to put a call on hold, press flash then hang up (optional). It's to return to the original call, press flash or pick up the phone.

For Tecom IP2007/2008, please refer to "IP Phone User Guide".

4.5 Call Transfer

It allows a user to perform a screened or unscreened transfer to an extension or an outside phone number.

For the Single Line phone, it's to transfer a call, press flash then dial the new number. To transfer immediately, hang up (Unscreened). To transfer with consultation, wait for the party to answer, consult, and then hang up (Screened). To abort the transfer (if the third party does not answer), press flash to return to the original call.

For Tecom IP2007/2008, please refer to "IP Phone User Guide".

4.6 Call Waiting

If call waiting is disabled on a line, it returns busy response while getting second call at non-idle state.

To enable the call waiting feature, dial *99.

To disable the call waiting feature, dial **99.

4.7 Conference

The Conference feature allows the user to connect to two or more parties into a single conversation.

For Tecom IP2007/2008, please refer to "IP Phone User Guide".

4.8 COS Following

You can change the individual Class of Service of each extension temporarily. You may want to do this when the user goes to the office of low-priority COS extension and try to make an outgoing call, the user can use the function to use his/her own COS.

When setting COS following, the effective time of following is 1 minute.

To make a COS Following, dial *55+(phone number)+(password)

4.9 Distinctive Ringing

Distinctive ring cadences can be selected allowing adjacent users to discern which extension is ringing. It also provides the different ring tones for intercom and trunk calls.

4.10 Do Not Disturb (DND) via Auto Attendant

Extension users can enable DND to stop incoming PSTN or IP Trunk calls from ringing at their phone. The DND on an extension can be allowed or denied through the feature access code.

If an extension has DND and Call Forward enabled at the same time, Calls follow the DND.

To enable the do not disturb feature, dial *4.

To disable the do not disturb feature, dial **4.

4.11 External Call Forward (ECF) via Auto Attendant

Auto Attendant Call Forwarding reroutes incoming trunks calls from one extension to another destination. The destination of a call forward can be an outside phone number.

4.12 Feature Key Programming

Feature Keys can be programmed by phone users. A feature key can be programmed for line appearance, or a function such as Call Forward, Do Not Disturb.

It's also allowed to program the Feature Keys by dialing feature Access Code:

*70 + (Feature Key number; 1 - 4) + (PSTN, IP Trunk or Trunk Group number)

4.13 Last Number Redial (LNR)

The features depend on whether the phone provides.

The Last Number Redial feature automatically dials the last number dialed from the phone. For the Single Line phone, it's to dial *8. For Tecom IP2007/2008, please refer to "IP Phone User Guide".

4.14 LCD & Interactive Buttons

The IP phone is equipped with Liquid Crystal Display to enhance features operation. And incorporates four-screen-prompt and interactive buttons that simplify feature operation.

4.15 Mute

The Mute feature allows the user to disable the handset transmitter or the speakerphone microphone.

For Tecom IP2007/2008, please refer to "IP Phone User Guide".

4.16 On Hook Dialing

IP phone extensions may make outgoing calls without lifting the handset and monitor the dialing status through the built-in speaker. The button lamp is lit when monitoring a call.

4.17 Page Allow/Deny

You can block one-way pages (internal, group, and all page) over the IP phone speaker by dialing the Page Deny code.

To enable Page Deny feature, dial *99.

To disable Page Deny feature, dial **99.

4.18 Phone Book

In Phone book, each entry is containing of Phone Number and User Name. The phone number could be extension number, phone number or IP address.

For Tecom IP2007/2008, please refer to "IP Phone User Guide".

4.19 Phone Lock/Unlock

You can use the Lock feature to prevent unauthorized trunk calls from being made from extension. A locked extension continues to receive incoming trunk calls, and a user can continue to place and receive intercom calls. Outgoing Trunk calls are blocked.

To lock the phone, dial *97 + (password)

To unlock the phone, dial **97 + (password)

4.20 Speed Dial

Speed Dialing allows you to store frequently dialed numbers.

For Tecom IP2007/2008, please refer to "IP Phone User Guide".

4.21 Volume Control

The IP phone is equipped with a volume control that is used to adjust the various volume settings of the telephone. The following functions can be adjusted:

- Ringing
- Handset
- Speaker
- Headset

For Tecom IP2007/2008, please refer to "IP Phone User Guide".

5. Quick Installation

This Quick Installation help to you install the product quickly and easily. For detailed instructions on installation, and further setup option, please refer to the configuration chapter.

5.1 Connecting the GW6000

(1) Place GW6000 in an optimum location.

(2) Connect the included Category 5 Ethernet network cable to the GW6000's LAN port or WAN port. Then connect the other end of the network cable to a switch or hub or directly your PC's Ethernet port. The GW6000 will then be connected to your 10/100 network.

(3) Connect the AC power adapter to the GW6000's Power port. Only use the power adapter supplied with the GW6000. Use of a different adapter may result in product damage.

(4) Press the reset button on the rear panel to set the GW6000 to factory default settings.(5) Now that you have connected the GW6000 to your network, you are ready to begin setting it up. The Setup Wizard will take you through all necessary steps to help you to configure the GW6000 easily.

5.2 Wizard Setup

This system administrator can configure the GW6000 remotely or locally via a Web Browser. When GW6000 return to default factory settings, its LAN address is "192.168.1.1", and username is "admin", password is "admin".

Wizard Setup allows system administrator to select the appropriate operation mode and configure the corresponding setting step by step. The following eight items are supported.

- WAN Settings
- LAN Settings
- Wireless Basic
- Wireless Security
- Internet Time
- Numbering Plan
- IP Trunk
- Call Routing Table

In the configuration, the administrator presses "Next" or "Back" button to choose the setting item. If pressing "Exit & Reboot", it will asks whether store settings. If choose Yes, the settings will be saved and the GW6000 will be reboot automatically. From now on, if entering the GW6000 Web configuration, it goes to home page "*Intelligent Gateway*" directly.

5.2.1 WAN Setting

There are three modes that you can configure WAN IP address: Static IP mode, DHCP mode and PPPoE mode. You can also select to enable or disable Firewall and IGMP.

Note that Network Address Translation function (NAT) is default enabled and is not showing on the page to prevent it from being disabled.

This page shows that the current existing WAN interfaces in the system is Static IP mode. (Figure 5-1-1).

		TECON	/ GW6000	Wizard S	etup		
VVe	n Settings Lan Setting	s Wireless Basic Wi	reless Security	Internet Time	Numbering Plan	IP Trunk	Call F
IP Settings							
ii oettiiigs							
Enter informati	on provided to you by you	r ISP to configure the WA	AN IP settings.				
Static IP	~						
Internet IP Addres	s: 192.168.10.210						
Subnet Mask:	255.255.255.0						
Gateway:	192.168.10.1						
Static DNS 1:	202.103.24.68						
Static DNS 2:	202.103.0.68						
Wan Service							
wan Service	5						
Enable Firewall 💽							
Enable Igmp	1						
			Next	Exit & Reboot			

Figure 5-1-1. Wan Settings (Static IP mode)

The Dynamic Host Configuration Protocol (DHCP) is an Internet protocol for automating the configuration of computers that use TCP/IP. DHCP can be used to automatically assign IP addresses, to deliver TCP/IP stack configuration parameters such as the subnet mask and default router, and to provide other configuration information.

This page shows the current existing WAN interfaces in the system by DHCP mode (Figure 5-1-2).

Manustan	ngs Lan Settings Wireless Basic Wireless Security Internet Time Numbering Plan IP Trunk Call Routing Table
IP Settings	
Enter information provi	ded to you by your ISP to configure the WAN IP settings.
Automatic Configuration	- DHCP 💌
-	
 Automatic Assigned D Static DNS 	No.
	202.103.24.68
Secondary DNS serve	r 202 103 0.68
Wan Services	
Enable Firewall 🖓	
Enable Igmp 📋	
	Next Exit & Reboot

Figure 5-1-2. Wan Settings (DHCP mode)

The Point-to-Point Protocol over Ethernet (PPPoE) requires a user name and password that your ISP has provided to you to establish your connection. This page shows that the current existing WAN interfaces in the system is PPPoE mode (Figure 5-1-3).

		TEC	OM GW6000	Wizard S	Setup		
Wan Seth	Lan Settings	Wireless Basic	Wireless Security	Internet Time	Numbering Plan IP Tr	unk Call Routing Table	
IP Settings							
Enter information provi PPP usually requires t ISP has provided to yo	iat you have a user	SP to configure the name and passwe	e WAN IP settings ord to establish your c	connection. In the	r boxes below, enter the	user name and password	that your
PPPoE							
PPP Usemame:		1					
PPP Password.							
Authentication Method: Al	ло	×					
Automatic Assigned D Static DNS	NS						
Primary DNS server:	202 103 24 68						
Secondary DNS serve	202.103.0.68						
Wan Services							
Enable Firewall 💽							
Enable Igmp 🔲							
			Next	Exit & Reboot			

Figure 5-1-3. Wan Settings (PPPoE mode)

5.2.2 LAN Setting

It allows you giving LAN IP and Subnet Mask for LAN interface (Figure 5-2-1). You can also select to enable or disable DHCP Server and configure related settings for that mode.

	TECOM G	V6000 Wizard Setup	
Wan S	ttings Lan Settings Wireless Basic Wireless	Security Internet Time Numbering Plan IP Trunk	Call Routing Table
Configure Route	IP Address and Subnet Mask for LAN inter	ace	
IP Address: Subnet Mask:	192.168.1.1 265.255.255.0		
Dhcp Info			
 Disable DHCP Se Enable DHCP Ser 	er		
Start IP Address: End IP Address: Leased Time (hour	192.168.1.2 192.168.1.254 24		
Configure the seco	d IP Address and Subnet Mask for LAN interface		
	Back	Next Exit & Reboot	

Figure 5-2-1. Lan Settings

If necessary, check the "Secondary IP" to configure the secondary IP address and Subnet Mask for LAN (Figure 5-2-2). This IP address is used for management only.

	TECOM GW6000 Wizard Setup
Wans	Settings Lan Settings Wireless Basic Wireless Security Internet Time Numbering Plan IP Trunk Call Routing Table
Configure Rout	ter IP Address and Subnet Mask for LAN interface
IP Address: Subnet Mask:	192.168.1.1 255.255.255.0
Dhcp Info	
O Disable DHCP S	
 Enable DHCP Se Start IP Address: 	
End IP Address:	192.168.1.254
Leased Time (ho	ui): 24
Configure the sec IP Address:	cond IP Address and Subnet Mask for LAN interface
Subnet Mask:	
	Back Next Exit & Reboot

Figure 5-2-2. Lan Settings (Secondary LAN IP checked)

5.2.3 Wireless Basic

The page (Figure 5-3) 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.

TECOM GW6000 Wizard Setup
Wan Settings Lan Settings Wireless Basic Wireless Security Internet Time Numbering Plan IP Trunk Call Routing Table
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.
Wireless Basic
Configure basic features of the wireless LAN interface.
Enable Wireless
Hide Access Point
SSID: GW6000
BSSID: 00:03:C9:8C:60:11
Country: ALL
Back Next Exit & Reboot

Figure 5-3. Wireless Basic

5.2.4 Wireless Security

The page (Figure 5-4) 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.

	TECOM GW6000 Wizard Setup
Wan Setting	s Lan Settings Wireless Basic Wireless Security Internet Time Numbering Plan IP Trunk Call Routing Table
	configure security features of the wireless LAN interface. You can sets the network authentication method, selecting data encryption, key is required to authenticate to this wireless network and specify the encryption strength.
Wireless Security	
Configure security feature	es of the wireless LAN interface.
Network Authentication:	Open 💌
WEP Encryption:	Disabled 💌
	Back Next Exit & Reboot

Figure 5-4. Wireless Security

The item will be clearly described in 6.5.2.

5.2.5 Internet Time

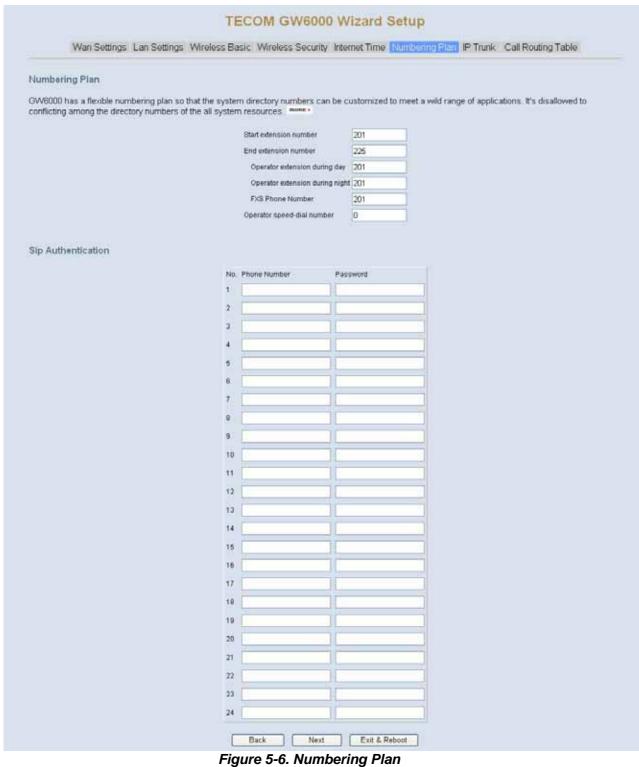
The page allows you to configure the NTP time server so the GW6000 can have correct system time. It is useful such as reviewing the System Log.

TECOM GW6000 Wizard Setup						
Wan Setting	s Lan Settings Wireless Basic Wireless Security Internet Time Numbering Plan IP Trunk Call Routing Table					
Time Settings						
	server so the GW6000 can have correct system time. onize with Internet time servers					
First NTP time server:	clock.via.net					
Second NTP time server:	None					
Time zone offset:	(GMT+08:00) Taipei					
	Back Next Exit & Reboot					

Figure 5-5. Internet Time

5.2.6 Numbering Plan

GW6000 has a flexible numbering plan so that phone or trunk numbers can be customized to meet a wild range of applications. It will check the numbers what you enter to prevent from conflicting among the all system resources.



5.2.7 IP Trunk

GW6000 can register up to 8 SIP Uplink Servers. The extensions may make a call to the users of the Uplink Servers, or any user in the world through the Uplink Servers.

TECOM GW6000 Wizard Setup

Wan Settings Lan Settings Wireless Basic Wireless Security Internet Time Numbering Plan PTruck Call Routing Table

GW6000 can register up to 8 SIP Uplink Servers. The extensions may make a call to the users of the Uplink Servers, or any user in the world through the Uplink Servers.

Subscriber Information

Phone NumberRegister ExpiresDDAuth IDAuth PasswordSDEDOutbound ProyPortSDEDAuth DPortSDEDAuth DAuth PasswordSDEDAuth DAuth PasswordSDEDAuth DAuth PasswordSDEDOutbound ProyPortSDEDOutbound ProyPortSDEDOutbound ProyPortSDEDOutbound ProyPortSDEDAuth DAuth PasswordSDEDAuth DAuth PasswordSDEDAuth DAuth PasswordSDEDOutbound ProyPortSDEDOutbound ProyPortSDEDPhone Number<		IP T	unk 1	
SIP Provy Port 5050 Outbound Provy Port 5050 Auth ID Auth Password S050 Auth ID Auth Password S050 Outbound Provy Port 5050 Outbound Provy Port 5050 Outbound Provy Port 5050 Outbound Provy Port 5050 Auth ID Auth Password S050 Auth ID Auth Password S050 Auth ID Auth Password S050 Outbound Provy Port 5050 Outbound Provy	Phone Number		Register Expires	60
Outbound Proxy Port 6060 Phone Number Register Expires 60 Auth ID Auth Password 5060 Outbound Proxy Port 5060 Outbound Proxy Port 5060 Auth ID Auth Password 5060 Outbound Proxy Port 5060 Auth ID Auth Password 5060 Auth ID Auth Password 5060 Auth ID Auth Password 5060 Outbound Proxy Port 5060 Outbound Proxy Port 5060 Outbound Proxy Port 5060 Outbound Proxy Port 5060 SIP Proxy Port 5060 Outbound Proxy Port 5060 SIP Proxy Port 5060 Outbound Proxy	Auth ID		Auth Password	
IP Trunk 2 Phone Number Register Expires 60 Auth ID Auth Password 5060 Outpound Prow Port 5060 Outpound Prow Port 5060 Auth ID Auth Password 60 SIP Prow Port 5060 Outbound Prow Port 5060 Outbound Prow Port 5060 Auth ID Auth Password 60 Auth ID Auth Password 5060 Outbound Prow Port 5060 Outbound Prow	SIP Proxy		Port	5060
Phone Number Register Expires ED Auth ID Auth Password SDE SIP Frony Port SDED Outbound Prony Port SDED Phone Number Register Expires ED Auth ID Auth Password SDED Auth ID Auth Password SDED Outbound Prony Port SDED Outbound Prony Port SDED Outbound Prony Port SDED Outbound Prony Port SDED Auth ID Auth Password SDED SIP Frony Port SDED Outbound Prony Port SDED SIP Prony	Outbound Proxy		Port	5060
Auth ID Auth Password SIP Prow Port 5050 Outbound Prow Port 5060 Auth ID Auth Password 50 Auth ID Auth Password 50 Auth ID Auth Password 50 SIP Prow Port 5060 Outbound Prow Port 5060 Auth ID Auth Password SIP Prow Outbound Prow Port 5060 Outbound Prow Port 5060 <	20 10 10 1	IP TI		per
BIP Prov Port 5050 Outbound Prow IP Trunk 3 Phone Number Register Expires 80 Auth ID Auth Password 5050 Outbound Prow Port 5050 Outbound Prow Port 5050 Outbound Prow Port 5050 Outbound Prow Port 5050 Auth ID Auth Password SIP Prow Outbound Prow Port 5060				60
Outbound Proxy Port 5050 IP Trunk 3 Phone Number Register Extress 60 Auth 10 Auth Password 5050 Outbound Proxy Port 5050 Outbound Proxy Port 5050 Auth 10 Auth Password 50 Outbound Proxy Port 5050 Outbound Proxy	Auth ID			
IP Trunk 3 Phone Number Register Exerces Auth ID Auth ID SIP Prony Outbound Prony IP Trunk 4 Phone Number Register Expires Auth ID SIP Prony Port SIP Prony Outbound Prony IP Trunk 5 Phone Number Register Expires Outbound Prony IP Trunk 6 Phone Number Register Expires Outbound Prony IP Trunk 7 Phone Number Register Expires Outbound Prony IP Trunk 8 Phone Number Register Expires	SIP Proxy		Port	5060
Phone Number Register Expires 60 Auth ID Auth Password 5060 SIP Proxy Port 5060 Outbound Proxy Port 5060 Auth ID Auth Password 50 Auth ID Auth Password 5060 Auth ID Auth Password 5060 Outbound Proxy Port 5060 Outbound Proxy Port <t< td=""><td>Outbound Proxy</td><td>-</td><td></td><td>5060</td></t<>	Outbound Proxy	-		5060
Auth ID Auth Password SIP Provy Port 5060 Outbound Proxy Port 5060 Auth ID Port 5060 Auth ID Auth Password SIP Prove Outbound Proxy Port 5060	Distant Manhard	IPT		00
SIP Provy Port 5060 Outbound Proxy Port 5060 Auth IO Auth Password SIP Auth IO Auth Password SIP SIP Proxy Port 5060 Outbound Proxy Port 5060 <		-		00
Outbound Proxy Port 6060 IP Trunk 4 Phone Number Register Expires 60 Auth ID Auth Password				Prove la
IP Trunk 4 Phone Number Auth ID Auth ID Auth ID SIP Proxy Port SIP Proxy Phone Number IP Trunk 5 Phone Number Register Expires BO Auth ID Auth Password SIP Proxy Port 5060 Outbound Proxy Port 5060 Outbound Proxy Port SIP Prony Port Outbound Proxy Port SIP Prony Port Sup Prony Port <td>R. M. Sterner</td> <td></td> <td></td> <td>1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -</td>	R. M. Sterner			1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -
Phone Number Register Expires 60 Auth ID Auth Password 5060 SIP Proxy Port 5060 Outbound Proxy Port 5060 IP Trunk 5 Phone Number Register Expires 60 Auth ID Auth Password 5060 5060 Auth ID Auth Password 5060 5060 Outbound Proxy Port 5060 5060 S	Outbound Praxy	10.7		5060
Auth ID Auth Password SIP Prow Port 5060 Outbound Prow Port 5060 Muth ID Port 5060 Auth ID Auth Password IP Trunk 5 Phone Number Register Expires 60 Auth ID Auth Password IP Trunk 6 Phone Number Register Expires 60 Outbound Proxy Port 5060 Outbound Proxy Port 5060 <td>Phone Number</td> <td>11 A</td> <td></td> <td>60</td>	Phone Number	11 A		60
SIP Proy Port 5060 Outbound Proy Port 5060 Auth ID Auth Password 5060 Outbound Proy Port 5060 Outbound Proy Port 5060 Outbound Proy Port 5060 Auth ID Auth Password 5060 Outbound Proy Port 5060				
Outbound Proxy Port £060 IP Trunk 5 Phone Number Register Expires 60 Auth ID Auth Password	2N82.4			4060
IP Trunk 5 Phone Number Port Port SIP Prov Port S060 Outbound Prov Port S060 IP Trunk 6 Phone Number Register Expires S0 Auth ID Auth Password SIP Prov Port S060 Outbound Port S060 Outb				
Auth ID Auth Password SIP Prony Port 5060 Outbound Prony Port 5060 IP Trunk 6 Phone Number Register Expires 60 Auth ID Auth Password SIP Prony Port 5060 Outbound Prony Port 5060 SIP Prony Port	Calculation ranky	IP T		
SIP Prony Port 5060 Outbound Prony Port 5060 IP Trunk 6 Phone Number Register Expires 60 Auth ID Auth Password S060 S060 S060 Outbound Prony Port 5060 S060 S060 <t< td=""><td>Phone Number</td><td></td><td></td><td>60</td></t<>	Phone Number			60
Outbound Proxy Port 5060 IP Trunk 6 Phone Number Register Expires 60 Auth ID Auth Password	Auth ID		Auth Password	
IP Trunk 6 Phone Number Register Expires 60 Auth ID Auth Password SIP Proxy Port 6060 Outbound Proxy IP Trunk 7 Phone Number Register Expires 60 Auth ID Auth Password SIP Proxy Port 6060 Outbound Proxy Port 6060 IP Trunk 8 Phone Number Register Expires 60 Auth ID Auth Password SIP Proxy Port 6060 Outbound Proxy Port 6060 Outbound Proxy Port 6060 Outbound Proxy Port 6060 Outbound Proxy Port 6060	SIP Proxy		Port	5060
Phone Number Register Expires 60 Auth ID Auth Password	Outbound Proxy		Port	5060
Auth ID Auth Password SIP Prony Port 5060 Outbound Prony Port 6060 IP Trunk 7 Phone Number Register Expires Auth ID Auth Password 600 Auth ID Auth Password 6060 Outbound Prony Port 5060 SIP Prony Port 5060 Outbound Prony Port 5060 Local SIP Port for IP Trunk 6060 600		IP T	runk 6	
SIP Proxy Port 5060 Outbound Proxy Port 6060 IP Trunk 7 Phone Number Register Expires 60 Auth ID Auth Password SIP Proxy Port 5060 Outbound Proxy Port 5060 IP Trunk 8 Phone Number Register Expires 60 Auth ID Auth Password SIP Proxy Port 5060 Outbound Proxy Port 5060 Outbound Proxy Port 5060	Phone Number		Register Expires	60
Outbound Proxy Port 6060 IP Trunk 7 Phone Number Register Expires Auth ID Auth Password SIP Proxy Port Outbound Proxy Port Outbound Proxy Port Begister Expires 60 Outbound Proxy Port Begister Expires 60 Outbound Proxy Port Begister Expires 60 Outbound Proxy Port SIP Proxy Port SIP Proxy Port Outbound Proxy Port SIP Proxy Port Coutbound Proxy Port SIP Proxy Port SIP Proxy Port Coutbound Proxy Port	Auth ID		Auth Password	
IP Trunk 7 Phone Number Register Expires 60 Auth ID Auth Password SIP Proxy Port 6060 Outbound Proxy IP Trunk 8 Phone Number Register Expires 60 Auth ID Auth Password SIP Proxy Port 6060 Outbound Proxy Port 6060 Outbound Proxy Port 6060	SIP Proxy		Port	5060
Phone Number Register Expires 60 Auth ID Auth Password	Outbound Proxy		Port	5060
Auth ID Auth Password SIP Prow Port 5060 Outbound Proxy Port 6060 IP Trunk 8 Phone Number Register Expires Auth ID Auth Password SIP Proxy SIP Proxy Port 5060 Outbound Proxy Port 5060 Local SIP Port for IP Trunk 6060		IP TI		
SIP Proxy Port 5060 Outbound Proxy Port 5060 IP Trunk 8 Phone Number Register Expires 60 Auth ID Auth Password SIP Proxy Port 5060 Outbound Proxy Port 5060	Phone Number		Register Expires	60
Outbound Proxy Port 6060 IP Trunk 8 Phone Number Register Expires Auth ID Auth Password SIP Proxy Port Outbound Proxy Port Coutbound Proxy Port				
IP Trunk 8 Phone Number Register Expires 60 Auth ID Auth Password SIP Proxy Port 5060 Outbound Proxy Port 6060 Local SIP Port for IP Trunk 6060			Port	
Phone Number Register Expires 60 Auth ID Auth Password SIP Proxy Port 5060 Outbound Proxy Port 5060	Outbound Proxy			5060
Auth ID Auth Password SIP Proxy Port 5060 Outbound Proxy Port 5060	Dhono blumbor	IP TI		(m)
SIP Proxy Port 5060 Outbound Proxy Port 5060 Local SIP Port for IP Trunk 6060				00
Outbound Proxy Port 6060				
Local SIP Port for IP Trunk 6060				
	Outbound Proxy		Port	5060
			6060	
Back Next Exit & Reboot				

Figure 5-7. IP Trunk

Local Port

5.2.8 Call Routing Table

The Call Routing Table automatically routes outgoing calls using the most appropriate route. The appropriate route is determined based on the number dialed. If necessary, GW6000 can automatically modify the dialed number by deleting and/or inserting digits.

Call Routing Table Co	nfigurati	on							
The Call Routing Table au	tomatical	v routes (outaoina c	alls using t	the most	appropr	iate route	The appropriate route is determi	ned based on the number dialed
necessary, GW6000 can									
	No	From	То	Min	Max	Del	insert	Destination	
	1	0	9	1	99	0		PSTN Line 1 😁	
	2		1	1	99	0][]	PSTN Line 1 🛩	
	3			1	99	0	1	PSTN Line 1 💌	
	4			1	99	0		PSTN Line 1 💌	
	5		1	1	99	0		PSTN Line 1 💌	
	6		1	1	99	0	1	PSTN Line 1 💌	
	1		1	1	99	0	1	PSTN Line 1 🛩	
	8		3	1	99	0	1	PSTN Line 1 🖌	
	9		10	1	99	0	1	PSTN Line 1 💌	
	10	-	10	1	99	0	1/	PSTN Line 1 💌	

Figure 5-8. Call Routing Table

5.2.9 Wizard Setup Finished

When you click "Save & Reboot" Button at above page, the wizard setup will save your setting and the wizard setup will finished. Then the system will reboot as shown below.

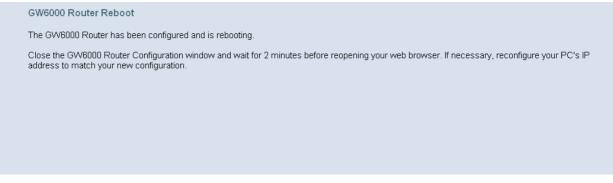


Figure 5-9. Wizard Setup finished

Congratulations! The installation of the GW6000 is complete. For additional details, advanced configuration, or any other questions, refers to the next chapter.

6. Configuration

6.1 Setup

- Connect the GW6000 and PC.
- The default LAN IP of the GW6000 is 192.168.1.1.
- The default WAN IP of the GW6000 is 192.168.10.210.
- For web login, the default user name is "admin", the default password is "admin".
- For telnet login, the default user name is "admin", the default password is "admin" in LAN port. But in WAN port, the default user name is "support", the default password is "support".

6.2 Establish The Connection

Enter the IP address of GW6000 from the Web Browser.

A Dialogue Box will pop up to request the user to enter username and password. (Figure 6-1)

7	E
GW6000 Router 用户名 (U):	
ホーコ (1). 密码(2):	🖸 admin 💌
	☑ 记住我的密码 (图)
	确定 取消

Figure 6-1. Authentication

Please enter the management username/password into the fields then click the OK button (default username/password is admin/admin).

When the authentication is OK, the home page "*Intelligent Gateway*" will be displayed on the browser (Figure 6-2).

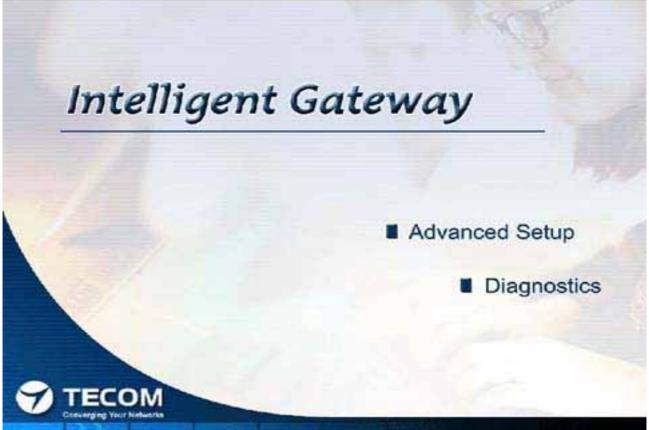


Figure 6-2. Intelligent Gateway

If choosing "Advanced Setup" in the Web Configuration of "*Intelligent Gateway*", the home page "*Device Info – Summary*" will be displayed. In the Web Configuration, if a wireless card is in the GW6000, it is divided into six categories (Figure 6-3):

- Device Info
- Advanced
- Wireless
- Voice
- Management
- Diagnostics

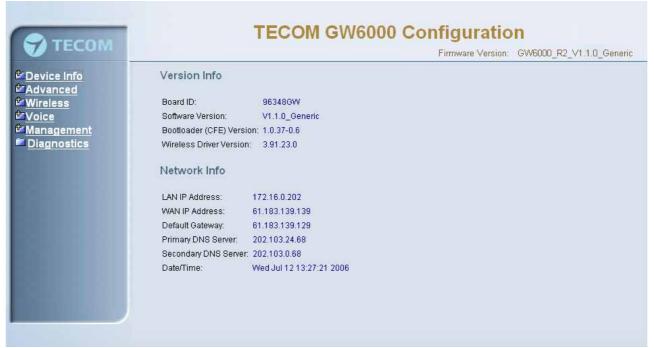


Figure 6-3. Device Info - Summery

If there is no wireless card plugged in the GW6000, it is divided into five categories (Figure 6-4)

- Device Info
- Advanced
- Voice
- Management
- Diagnostics

TECOM GW6000 Configuration TECOM Firmware Version: GW6000_R2_V1.1.0_Generic Device Info Version Info Summary Board ID: 96348GW Software Version: V1.1.0_Generic Advanced Bootloader (CFE) Version: 1.0.37-0.6 Voice Management Network Info Diagnostics LAN IP Address: 192.168.1.1 WAN IP Address: 172.16.15.120 Default Gateway: 172.16.0.1 Primary DNS Server: 202.103.24.68 Secondary DNS Server: 202.103.0.68 Date/Time: Sat Jan 1 03:07:01 2000

Figure 6-4. Device Info – Summary (no Wireless card)

6.3 Device Info

This information reflects the current Status of GW6000 connection. It includes the following topics:

- Summary
- Statistics
- Route
- ARP

6.3.1 Summary

In the page (Figure 6-4) you can get the information reflects the current software version and connection status. It includes Version Info and Network Info.

6.3.2 Statistics

In this page (Figure 6-5) you can get the network statistics of the specific interface.

imary	Network Statistics											
istics le	Interface	Receive	р			Transmitt	ed					
		Bytes	Pkts	Errs	Drops	Bytes	Pkts	Errs	Drops			
e e	Ethernet Lan	119611	1110	0	0	1052469	1374	0	0			
agement	Ethernet Wan	23925	201	0	0	155379	397	0	0			

Figure 6-5. Device Info – Statistics

6.3.3 Route

In this page (Figure 6-6) you can get the IP route information of the device.

evice Info Summary	Route Info	ç.						GW6000_R2_V1.1.0_Ger
Statistics Route	Destination	Gateway	Subnet Mask	Flag	Metric	Service	Interface	
RP	192.168.1.0	0.0.0.0	255.255.255.0	U	0		br0	
<u>dvanced</u> bice	172.16.0.0	0.0.0.0	255.255.224.0	U	0	eth_0	eth0	
anagement	0.0.0	172.16.0.1	0.0.0.0	UG	0	eth_0	eth0	

Figure 6-6. Device Info – Route

6.3.4 ARP

This page (Figure 6-7) shows an ARP table which map IP network addresses to hardware addresses used by data link level protocol.

😙 тесом		Т	ECOM GV	V6000) Configuratio Firmware Version:	n GW6000_R2_V1.1.0_Generic
- <u>Summary</u>	P Info					
- <u>Statistics</u> - <u>Route</u>	address	Flags	HW Address	Device		
- <u>ARP</u> 172	2.16.0.1	Incomplete	00:00:00:00:00:00	eth0		
[™] Advanced 17. [™] Voice	2.16.15.129	Complete	00:0A:EB:AD:EB:CE	eth0		
Diagnostics						
			6-7 Dovice			

Figure 6-7. Device Info – ARP

6.4 Advanced Setup

Advanced Setup allows system administrator to configure the following topics:

- LAN
- WAN
- Route
 - Static Route
 - RIP
- NAT
 - Virtual Servers
 - Port Trigger
 - DMZ
- Security
 - Incoming Filtering
 - Outgoing Filtering
 - Parental Service
 - Quality of Service
 - Traffic Class
 - Bandwidth Control
- Dynamic DNS

6.4.1 LAN

It allows you to set LAN IP and Subnet Mask for LAN interface (Figure 6-8-1). You can also enable or disable DHCP Server and configure related settings for that mode.

	TECOM GW6000 Configuration
TECOM	Firmware Version: GW6000_R2_V1.1.0_Generic
Device Info Advanced -Lan -UN WAN Broute Br	Configure Router IP Address and Subnet Mask for LAN interface IP Address: 192.168.1.1 Subnet Mask: 255.255.255.0
- <u>Omamic ONS</u> [™] Wireless [™] Voice [™] Management [™] Diagnostics	Dhcp Info Disable DHCP Server Enable DHCP Server Start IP Address: 192.168.1.2 End IP Address: 192.168.1.254 Leased Time (hour): 24 Configure the second IP Address and Subnet Mask for LAN interface
	Reboot Save Settings Cancel Changes

Figure 6-8-1. Advanced Setup – LAN

If necessary, check the "Secondary IP" to configure the secondary IP address and Subnet Mask for LAN interface (Figure 6-8-2). This IP address is used for management only.

🏹 ТЕСОМ	alog in the second		Firmware Versio	n: GW6000_R2_V1.1.0_Generic
Device Info Advanced -LAN		ddress and Sub 2.168.1.1	onet Mask for LAN interface	
- <u>WAN</u> - ^{Conte} - ^{Conte} Nat - ^{Conte} Security - ^{Conte} Quality of Service	Subnet Mask: 25	5.255.255.0		
- <u>Dynamic DNS</u> Wireless	Dhcp Info			
Voice Management	 Disable DHCP Server Enable DHCP Server 			
Diagnostics		168.1.2	1	
	End IP Address: 192.1	168.1.254		
	Leased Time (hour): 24		_	
	Configure the second IP Ad IP Address: Subnet Mask:	ldress and Subnet Ma	sk for LAN interface	
	Reboot Save Setting	gs Cance	I Changes	

Figure 6-8-2. Advanced Setup – LAN (Secondary LAN IP checked)

6.4.2 WAN

There are three modes that you can give to WAN IP address: Static IP mode, DHCP mode and PPPoE mode. You can also enable or disable Firewall and IGMP.

When the Firewall option is selected, you can configure firewall settings in the followed Security directory. Or, the Security directory will hide and firewall settings is disabled.

Network Address Translation (NAT) allows you to share one Wide Area Network (WAN) IP address for multiple computers on your Local Area Network (LAN). In GW6000, NAT is default enabled and is not showing on the page to prevent it from being disabled.

This page shows the current existing WAN interfaces in the system is Static IP mode (Figure 6-9-1).

🏹 ТЕСОМ	and the second s		Firmware Version:	GW6000_R2_V1.1.0_Generic
[₽] Device Info ■Advanced	IP Settings			
- LAN	Static IP	~		
- <mark>WAN</mark> - ^{CE} Route - ^{CE} Nat	Internet IP Address	172.16.15.100		
- Descurity	Subnet Mask:	255.255.224.0		
- Duality of Service	Gateway:	172.16.0.1		
- <u>Dynamic DNS</u> Wireless	Static DNS 1:	202.103.24.68		
Voice	Static DNS 2:	202.103.0.68		
Management				
Diagnostics	Wan Services			
	Enable Firewall 🗹			
	Enable Igmp 🔲			
	Reboot Sa	ve Settings Cancel Chang		

Figure 6-9-1 Advanced Setup – WAN (Static IP Mode)

The Dynamic Host Configuration Protocol (DHCP) is an Internet protocol for automating the configuration of computers that use TCP/IP. DHCP can be used to automatically assign IP addresses, to deliver TCP/IP stack configuration parameters such as the subnet mask and default router, and to provide other configuration information.

This page shows the current existing WAN interfaces in the system is DHCP mode (Figure 6-9-2).

🌍 тесом	Firmware Version: GW6000_R2_V1.1.0_Gen	eric
Device Info Advanced	IP Settings	
- <u>LAN</u> - WAN	Automatic Configuration - DHCP 💌	
- ¹ Route - ¹ Nat - ¹ Security	Automatic Assigned DNS Static DNS	
- Contraction - Contraction - Contraction - Contraction - Dynamic DNS	Primary DNS server: 202.103.24.68	
Voice	Secondary DNS server: 202.103.0.68	
Management Diagnostics	Wan Services	
	Enable Firewall 🔽	
	Enable Igmp 🗌	
	Reboot Save Settings Cancel Changes	

Figure 6-9-2 Advanced Setup – WAN (DHCP Mode)

This page shows the current existing WAN interfaces in the system is PPPoE mode (Figure 6-9-3).

	TECOM GW6000 Configuration
TECOM	Firmware Version: GW6000_R2_V1.1.0_Generic
Device Info	IP Settings
Advanced - LAN	PPPoE V
- WAN	
- th Route - th <u>Nat</u>	PPP usually requires that you have a user name and password to establish your connection. In the
- 🖾 <u>Nat</u> - 🛍 <u>Security</u>	boxes below, enter the user name and password that your ISP has provided to you.
- Duality of Service	PPP Username:
- <u>Dynamic DNS</u> Wireless	PPP Password:
^t Voice	Authentication Method: AUTO
Management 1	
Diagnostics	O Automatic Assigned DNS
	⊙ Static DNS
	Primary DNS server: 202.103.24.68
	Secondary DNS server: 202.103.0.68
	Wan Services
	Wall betwees
	Enable Firewall 🔽
	Enable Igmp
	Reboot Save Settings Cancel Changes

Figure 6-9-3 Advanced Setup – WAN (PPPoE Mode)

6.4.3 Route

It's separated into two parts: Static Route and RIP.

6.4.3.1 Static Route



Figure 6-10-1. Advanced Setup – Route – Static Route

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)

💎 ТЕСОМ	TECOM GW6000 Configuration Firmware Version: GW6000_R2_V1.1.0_Generic
 Device Info Advanced LAN WAN Static Route Static Route Static Route Bure Static Route Bure Static Route UNA Wan Constant Research Diagnostics 	Routing Static Route Add 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. Destination Network Address: Subnet Mask: Use Gateway IP Address Use Interface eth_0/eth0 Save Settings Cancel Changes

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)

💎 ТЕСОМ			TECON	I GW6000 Configuration Firmware Version: GW6000_R2_V1.1.0_	_Generic
	To activat individual 'Enabled' start or st	e RIP for the interface, se checkbox fo op RIP base	elect the desir or the interfact	ect the 'Enabled' radio button for Global RIP Mode. To configure an red RIP version and operation, followed by placing a check in the e. Click the 'Save Settings' button to save the configuration, and to bal RIP mode selected.	
- Dynamic DNS	Interface	Version	Operation	Enabled	
Z <u>Voice</u> ZManagement	brO	2 💌	Active 🔽		
Diagnostics	eth0	2 👻	Passive 👻		
	8	ave Settings		el Changes	

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)

7 тесом		Т	ECOM O	W60	10 O 00	1000 C 1000		_R2_V1.1.0_Gene
Device Info Advanced - LAN - WAN - Croute - Static Route - RIP - Croute - RIP	This page port) to th the exterr	irtual Servers allows you to c e Internal serve al port needs to um 32 entries ca	lirect incoming r with private IF 1 be converted	^o address to a differ	on the LAN s	ide. The Intern	al port is requ	iired only if
 Mat <u>Virtual Servers</u> <u>Port Trigger</u> <u>DMZ</u> <u>Port Trigger</u> <u>DMZ</u> <u>Security</u> <u>Pouality of Service</u> <u>Dynamic DNS</u> <u>/oice</u> <u>Management</u> <u>Diagnostics</u> 	Server Name	External Port Start	External Port End	Add	Internal Port Start Remove	Internal Port End	Server IP Address	Remove

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

A TROPP	TECOM GW6000 Configuration
🀬 тесом	Firmware Version: GW6000_R2_V1.1.0_Generic
Device Info Advanced	NAT Virtual Servers
- <u>LAN</u> - <u>WAN</u> - <u>@Route</u> - <u>@Nat</u> - <u>Virtual Servers</u> - <u>Port Trigger</u>	Select the service name, and enter the server IP address and click "Save Settings" to forward IP packets for this service to the specified server. NOTE: The "Internal Port End" cannot be changed. It is the same as "External Port End" normally and will be the same as the "Internal Port Start" or "External Port End" if either one is modified. Server Name:
- <u>DMZ</u> - DMZ Security	Select a Service: Select One
- Quality of Service	O Custom Server:
- Dynamic DNS	
Wireless Voice	Server IP Address: 192.168.1.
Management	
Diagnostics	External Port Start External Port End Protocol Internal Port Start Internal Port End
	ТСР
	TCP 💌
	ТСР
	ТСР
	ТСР
	TCP 💌
	TCP 🕑
	TCP 💌
	TCP 🗸
	TCP
	TCP V

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)

💎 ТЕСОМ		TECC	OM G	W6	00	0 Cc		~		0 GW6000_R2_V1.1.0_Generic
Device Info Advanced LAN WAN Man Static Route Static Route ND Virtual Servers	NAT Port Trigger Some applications re- remote parties. Port T on the LAN initiates a allows the remote par the LAN side using the	quire that s Trigger dyn: TCP/UDP ty from the e 'Open Pc	amically connecti WAN si orts'. A m	opens on to a de to e aximu	up tł a rem stab	ne 'Open note part lish new ' entries	Ports y usini conne can be	;' in th g the ' ection	e firewall 'Triggerin s back to 'igured.	when an application g Ports'. The Router
- <u>Port Trigger</u> - DMZ		Application		igger)pen		Remove	
- Dine		Name	Protocol			Protocol				
- Duality of Service				Start	End		Start	End		
- <u>Dynamic DNS</u>				Add] <u>R</u> e	emove				

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

TECOM				Firr	nware Version:	GW6000	D_R2_V1.1.0_
ice Info	NAT Port Trigger	ing					
anced L oute at rtual Servers	Some applications suc require that specific po configure the port setti (Custom application)a	orts in the Router's ngs from this scre	s firewall b en by sele	e opened for acc acting an existing	ess by the ap	plication	s. You can
o <u>rt Trigger</u> MZ		Remaining num	iber of entrie	es that can be confi <u>c</u>	ured: 32		
ecurity uality of Service		Application Name:					
a <u>mic DNS</u> less		 Select an appli 	cation: S	elect One	~		
e		O Custom applic					
agement							
nostics	Trigger Port Star	t Trigger Port End T	rigger Protor	ol Open Port Start	Open Port End	Open Pri	Incot
		1000	rcp			TCP	~
		-	rcp			TCP	~
			rcp	8		TCP	~
			rcp			TCP	~
			rcp	8		TCP	~
			rcp			TCP	~
			ICP	18 (d. 19		TCP	~
			rcp			TCP	~

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

6.4.4.3 DMZ

The GW6000 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)

🌍 тесом	TECOM GW6000 Configuration Firmware Version: GW6000_R2_V1.1.0_Generic
 Device Info Advanced LAN WAN Toute Static Route Static Route RuP Nat Virtual Servers Port Trigger DMZ Security Security Security Quality of Service Dynamic DNS Voice Management Diagnostics 	NAT DMZ Host The GW6000 router 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. Enter the computer's IP address and click "Save Settings" to activate the DMZ host. Clear the IP address field and click "Cancel Changes" to deactivate the DMZ host. DMZ Host IP Address: Save Settings Cancel Changes

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, GW6000 has opened some necessary ports such as web port, sip ports and rtp ports, to make sure that voice application can communicate well.

Э ТЕСОМ	TECOM GW6000 Configuration Firmware Version: GW6000_R2_V1.1.0_Generic
 Device Info Advanced LAN WAN WAN WAN WAN WAN WESEURITY Incoming Filter Output Filter Output Filter Parental Control Woice Management Diagnostics 	Incoming IP packets filter setup By default, all incoming IP traffic from the WAN is blocked when the firewall is enabled. However, some IP traffic can be ACCEPTED by setting up filters. Choose Add or Remove to configure incoming IP filters. Filter Name Protocol Source Address / Mask Source Port Dest. Address / Mask Dest. Port Remove Add Remove

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

🏹 ТЕСОМ	Firmware Version: GW6000_R2_V1.1.0_G	eneric
Device Info	Add IP Filter Incoming	
Advanced		
- <u>LAN</u>	The screen allows you to create a filter rule to identify incoming IP traffic by specifying a new filter	
- WAN	name and at least one condition below. All of the specified conditions in this filter rule must be	
- <mark>ÈRoute</mark> - <mark>ÈNat</mark>	satisfied for the rule to take effect. Click 'Save Settings' to save and activate the filter.	
- Virtual Servers		
- Port Trigger	Filter Name:	
- DMZ		
- Escurity	Protocol:	
- <u>Incoming Filter</u> - Output Filter	Source IP address:	
- Parental Control	Source Subnet Mask:	
- Cuality of Service	Source Port (port or port:port):	
- <u>Dynamic DNS</u>	Destination IP address:	
<u>Wireless</u>		
Voice	Destination Subnet Mask:	
Management	Destination Port (port or port:port):	
Diagnostics		
	Save Settings Cancel Changes	

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

🌍 тесом	Firmware Version: GW6000_R2_V1.1.0_Gen
Device Info	Add IP Filter Outgoing
Advanced	
- <u>LAN</u> - WAN	The screen allows you to create a filter rule to identify outgoing IP traffic by specifying a new filter
- PRoute	name and at least one condition below. All of the specified conditions in this filter rule must be satisfied for the rule to take effect. Click 'Save Settings' to save and activate the filter.
	Satisfied for the foreign entreet. Oney oute obtainings to save and delayate the inter-
- Virtual Servers	Filter Name:
- Port Trigger	ritter Name,
- <u>DMZ</u> - DMZ	
- Incoming Filter	Protocol:
- <u>Output Filter</u>	
Parental Control	Source IP address:
- Cuality of Service	Source Subnet Mask
Wireless	
Voice	Source Port (port or port:port):
Management	Destination ID address
Diagnostics	Destination IP address:
	Destination Subnet Mask:
	Destination Port (port or port:port):

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)

🖓 ТЕСОМ	TECOM GW6000 Configuration
TECOM	Firmware Version: GW6000_R2_V1.1.0_Generic
 Device Info Advanced LAN WAN Route Nat Security Incoming Filter Output Filter Parental Control Quality of Service Dynamic DNS Voice Management Diagnostics 	Time of Day Restrictions A maximum 16 entries can be configured. Username MAC Mon Tue Wed Thu Fri Sat Sun Start Stop Remove Add Remove Remove <t< th=""></t<>
	Figure 6-17-1. Advanced Setup – Security –Parental Control
🔊 тесом	TECOM GW6000 Configuration Firmware Version: GW6000_R2_V1.1.0_Generic
Device Info Advanced -Advanced -Advanced -Ma -WaN -WaN - Ma - Virtual Servers - Port Iriger - DMZ - MA - Max - Ma	Time of Day Restriction setup This page adds time of day 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. To find out the MAC address of a Windows based PC, go to command window and type "ipconfig /all". User Name
	Save Settings Cancel Changes

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. GW6000 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.

ЭТЕСОМ			TEC	COM	GW60	000 Co	-	Iration e Version: G		2_V1.1.0_Gene
Device Info Advanced	Traffic Class Setup									
- LAN - WAN - ^{Or} Route - ^{Or} Nat	Class Name	Priority	IP Precedence	IP Type of Service	Protocol	Source Address / Mask	Source Port	Dest. Address / Mask	Dest. Port	Remove
- Contraction -					Add	Remove				
- Parental Control - Parental Control - Quality of Service - Traffic Class										
- <u>Bandwidth Control</u> - <u>Dynamic DNS</u> Voice										
Management Diagnostics										

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

💙 ТЕСОМ	Firmware Version: GW6000_R2_V1.1.0_Gene
Device Info	Add Network Traffic Class Rule
Advanced	
- LAN	The screen creates a traffic class rule to classify the upstream traffic, assign queuing priority and
- WAN	optionally overwrite the IP header TOS byte. A rule consists of a class name and at least one
- <mark>[⊉]Route</mark> - ⊉Nat	condition below. All of the specified conditions in this classification rule must be satisfied for the rule to take effect. Click 'Save Settings' to save and activate the rule.
- Virtual Servers	take enect. Click Save Settings to save and activate the fulle.
- Port Trigger	Traffic Class Name
- DMZ	
- <u>Esecurity</u> - Incoming Filter	
- Output Filter	Priority:
- Parental Control	IP Precedence:
- Cuality of Service	IP Type Of Service:
 <u>Traffic Class</u> Bandwidth Control 	
- Dynamic DNS	Protocol:
Wireless	Source IP Address:
Voice	Source Subnet Mask
Management	Source Port (port or port:port):
Diagnostics	
	Destination IP Address:
	Destination Subnet Mask:
	Destination Port (port or port; port)

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.

ТЕСОМ	TECOM GW6000 Configuration
 Device Info Advanced LAN WAN Mate Route Nat Security Incoming Filter Output Filter Parental Control Quality of Service Iraffic Class Bandwidth Control Dynamic DNS Voice Management Diagnostics 	Einware Version: GW6000_R2_V1.1.0_Generic GM6000_R2_V1.1.0_Generic GM6000_R2_V1.1.0_Generic And it can ensure the highest priority IP packets's traffic. 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 traffic class rule. Bandwidth Policy: Enable Bandwidth Control ♥ Upstream Bandwidth: 1M ♥ koit Apply

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)

ATECOM	TECOM GW6000 Configuration
🕤 ТЕСОМ	Firmware Version: GW6000_R2_V1.1.0_Generic
Device Info Advanced . An . An . Man . Control Control Control . Control Control . Co	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 GW6000 router to be more easily accessed from various locations on the Internet. Choose Add or Remove to configure Dynamic DNS. Hostname Service Interface Remove Add Remove

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

ATECOM		FECOM GW6000 Configuration
🏹 ТЕСОМ		Firmware Version: GW6000_R2_V1.1.0_Generic
^{ter} Device Info terrared	Add dynamic DDNS	3 3
- <u>LAN</u> - <u>WAN</u>	This page allows you t	o add a Dynamic DNS address from DynDNS.org or TZO.
- ¹ <u>Route</u> - ¹ <u>Nat</u>	D-DNS provider	DynDNS.org
- Contractive - Incoming Filter	Hostname	
- <u>Output Filter</u> - <u>Parental Control</u>	Interface	eth_0/eth0
- Cuality of Service - Traffic Class	DynDNS Settings	
- Bandwidth Control - Dynamic DNS	Username	
[™] Voice	Password	
Management Diagnostics		
	Save Settings	Cancel Changes

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

6.5 Wireless

This directory display only when wireless card is installed in your GW6000 board. Use the Wireless screen to configure the GW6000 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.

💎 тесом	TECOM GW6000 Configuration Firmware Version: GW6000_R2_V1.1.0_Generic
 Device Info Advanced Wireless Basic Basic Security Mac Filter Wireless Bridge Advanced Station Info Voice Management Diagnostics 	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. Wireless Basic Image allows You to configure basic features of the wireless LAN interface. You can enable or disable the wireless network from active scans, set the wireless network name (also known as SSID) and restrict the channel set based on country requirements. Wireless Basic Image allows You to configure basic features of the wireless the country requirements. Super State Settings Cancel Changes

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 Tempoal 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.

C TECOM	TECOM GW6000 Configuration					
TECOM	Firmware Version: GW6000_R2_V1.1.0_Generic					
Device Info Advanced Wireless Basic Security Miceliter	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					
- Wireless Bridge - Advanced - Station Info Station Info ✓ Voice ✓ Management ■ Diagnostics	Network Authentication: 802.1X					
	RADIUS Server IP Address:0.0.0.0RADIUS Port:1812RADIUS 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)

🖓 ТЕСОМ	TECOM GW6000 Configuration
 Device Info Advanced Wireless Basic Security Mac Filter Wireless Bridge Advanced Station Info Voice Management Diagnostics 	Firmware Version: GW6000_R2_V1.10_Generic Wireless Settings Encryption Keys Enter 13 ASCII characters or 28 hexadecimal digits for 128-bit encryption keys. Network Key 1: Network Key 2: Network Key 3: Network Key 4: Current Network Key: Save/Apply

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.

😙 тесом	TECOM GW6000 Configuration
 Device Info Advanced Basic Basic Security Acvanced Mireless Bridge Advanced Station Info Voice Management Diagnostics 	Firmware Version: GW6000_R2_V1.1.0_Generic Wireless MAC Filter Enter the MAC address and click "Apply" to add the MAC address to the wireless MAC address filters. MAC Address:

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		Firmware Version: GW6000_R2_V1.1.0_Generic
 Device Info Advanced Advanced Security Mac Filter Mac Filter Management Diagnostics 	particular channel on white fragmentation threshold, s	onfigure advanced features of the wireless LAN interface. You can select a chi to operate, force the transmission rate to a particular speed, set the set the RTS threshold, set the wakeup interval for clients in power-save erval for the access point, set XPress mode and set whether short or long

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)

😚 тесом	TECOM GW6000 Configuration Firmware Version: GW6000_R2_V1.1.0_Generic
 Device Info Advanced Wireless Basic Security Mac Filter Wireless Bridge Advanced Station Info Station Info Voice Management Diagnostics 	This page shows authenticated wireless stations and their status. Wireless Authenticated Stations BSSID Associated Authorized Refresh

Figure 6-26. Wireless – Station Info

6.6 Voice

Use the Voice screen to configure the GW6000 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 GW6000's phone extension authentication and IP2007's extension line key default setting.

6.6.1.1 Phone Extension

The GW6000 combines Proxy and Registrar servers in its application. The all phones registered to the internal Registrar are set here. (Figure 6-27)

		TECO	M GW6000 Co	onfiguratio	on	
🐬 ТЕСОМ				Firmware Version:		2_V1.1.0_Generic
^{ter} Advanced terwireless Si	This page allows you to configure the authentication for SIP client.					
th Voice <u> the Phone</u>	No	Phone Number	Password	Day COS	Night COS	
- Phone Extension - Extension Linekey	1		Fassword			
- 🖾 Trunk	2					
- ^{Const} System - ^{Const} Voice Mail	3	-				
Management Diagnostics	4					
	5					
	6					
	7					
	8					
	9					
	10-1					
	10					
	11				0 🗸	
	12	-				
	13				0 🗸	
	14					
	15				0 🗸	
	16				0 🗸	
	17			0 🗸	0 🗸	
	18			0 🗸	0 🖌	
	19			0 🖌	0 💌	
	20			0 🗸	0 🗸	
	21 [0 🛩	0 🛩	
	22 [0 🗸	0 🗸	
	23			0 🗸	0 🗸	
	24			0 🗸	0 🗸	
Re		(S Phone Start Numbe on Configuratio Minii SIP I	n mal Expire 60	0 v Night COS	0 🗸	
		Reboot	Save Settings	Cancel Changes		

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)

ATECOM	TECOM GW6000 Configuration
🏹 ТЕСОМ	Firmware Version: GW6000_R2_V1.1.0_Generic
 Device Info Advanced Wireless Voice Phone Phone Extension Extension Linekey Extension Linekey System System Voice Mail Management Diagnostics 	Extension Line Key This page allows you to configure the default settings for IP2007's line keys. LineKey 1 PSTN Line 1 V LineKey 2 PSTN Line 2 V LineKey 3 PSTN Line 3 V LineKey 4 IP Line 1 V Save Settings Cancel Changes

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)

There are a linear sector		rmware Version: GW6000_R2_V1.
supported.	figure the proxy and registration of IP	Trunk, up to 8 lines of IP Trunk a
Subscriber Information		
	IP Trunk 1	
Phone Number	Register Expires	60
Auth ID	Auth Password	
SIP Proxy	Port	5060
Outbound Proxy	Port	5060
Phone Number	IP Trunk 2 Register Expires	60
Auth ID	Auth Password	
SIP Proxy	Port	5060
Outbound Proxy	Port	5060
	IP Trunk 3	5000
Phone Number	Register Expires	60
Auth ID	Auth Password	
SIP Proxy	Port	5060
Outbound Proxy	Port	5060
	IP Trunk 4	
Phone Number	Register Expires	60
Auth ID	Auth Password	
SIP Proxy	Port	5060
Outbound Proxy	Port	5060
-	IP Trunk 5	
Phone Number	Register Expires	60
Auth ID	Auth Password	
SIP Proxy	Port	5060
Outbound Proxy	Port	5060
Phone Number	IP Trunk 6 Register Expires	60
Auth ID	Auth Password	
SIP Proxy	Port	5060
		5060
Outbound Proxy	Port IP Trunk 7	0000
Phone Number	Register Expires	60
Auth ID	Auth Password	
SIP Proxy	Port	5060
Outbound Proxy	Port	5060
	IP Trunk 8	
Phone Number	Register Expires	60
Auth ID	Auth Password	
SIP Proxy	Port	5060
Outbound Proxy	Port	5060
Auth ID SIP Proxy Outbound Proxy Local Port	Auth Password Port	5060

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.