V7610-I1

User Manual

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1. Introduction

The router is a device with routing capability, wireless access point. It has Ethernet and ADSL/VDSL access capabilities. The Ethernet or ADSL/VDSL Router provides 10/100Base-T Ethernet interface and supports wireless 802.11/b/g/n/ and the following security protocols: WEP, WPA2 and 802.1x. Through the Ethernet or ADSL/VDSL access, the router can provides user with access to Internet.

This user manual is mainly used to guide the user to install and configure the Router from WEB UI.

1.1 Specifications

- Wireless AP, Router, 4 Port Switch and Firewall
- Support 802.11n, compatible with 802.11b and 802.11g
- ➤ Up to 54 Mbps wireless operation rate
- ➤ 64/128 bits WEP for security
- ➤ WPA2 support
- ➤ 4 10/100MBase-T Ethernet interface (LAN)
- > RFC-1483/2684 LLC/VC-Mux bridge/route mode
- ➤ RFC-2516 PPPoE
- > RFC-2364 PPPoA
- ➤ 802.1d Spanning-Tree Protocol
- ➤ DHCP Client/Server/Relay
- ➤ NAT
- ightharpoonup RIP v1/v2
- > DNS Relay Agent
- > Support DMZ, virtual server, ALG
- ➤ IGMP Proxy/Snooping
- Protection against Denial of Service attack
- ➤ IP Packet filtering
- ➤ MAC filtering
- URL filtering
- ➤ IP QoS
- Dynamic DNS
- ➤ UPnP support
- > System log support, can record the state of the router
- > Remote management
- Firmware upgrade through FTP, TFTP and HTTP
- Configuration backup/restore
- Diagnostic tools
- Voip support

2. Installation

2.1 Hardware installation

To install the device correctly, you should prepare as follows:

- ➤ A RTL867x board
- ➤ 12V DC power
- > RJ-45 Ethernet cable
- ➤ COM Port cable (Optional)

Then you can follow the procedures to setup the device:

- 1. Connect RJ-45 cable from your PC to RTL867x Ethernet Port
- 2. Connect PC's COM port to RTL867x COM port if you have COM port cable. You can monitor the status of system and input control command from PC's HyperTerminal.
- 3. Connect the 12V DC power

3. Connect to the router

3.1 Setup your local network

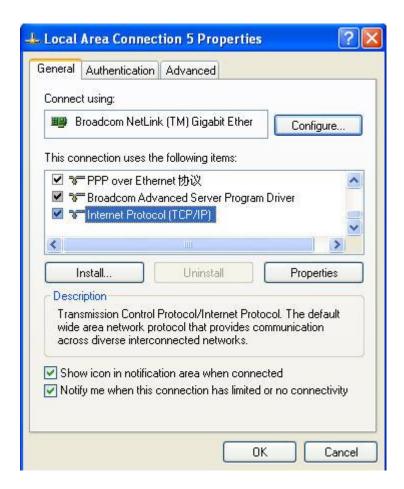
1. Right click the "Network" icon on you desktop, select "properties" in the pop-up menu



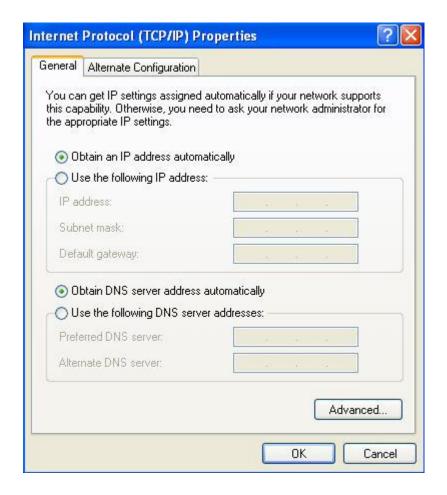
2. In the following window, right click on the "Local connection" and select "properties"



3. In the pop-up dialog box, select the "Internet Protocol (TCP/IP)", and then click the "properties" button



- 4. In the subsequent opening of the window, you can select "obtain IP address automatically (O) " or "Use the following IP address (S) "
 - a) Obtain IP address automatically (O)



b) Use the following IP address (S)

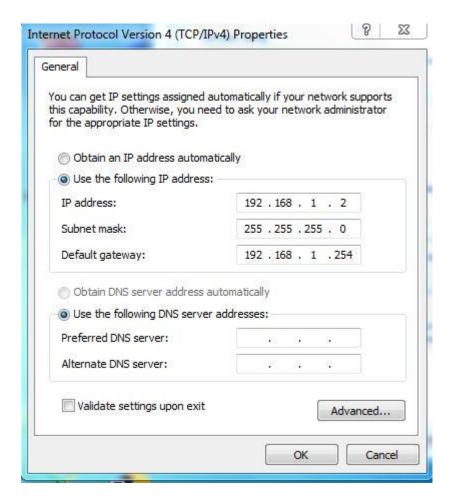
IP address: 192.168.1.xx (xx is between 2 and 254)

Subnet mask: 255.255.255.0 Gateway: 192.168.1.254

DNS Server: You can fill out your local DNS server address (ask your ISP provider) can

also be the router as a DNS proxy server.

Click "OK" to submit the current settings after setup is complete.

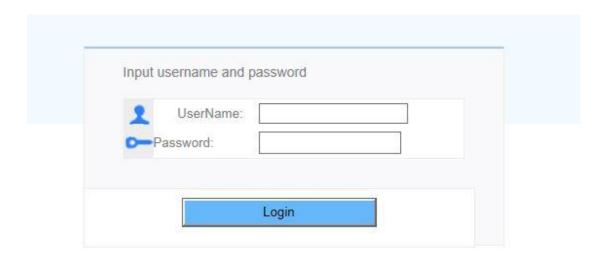


3.2 Connect to the router

1. Open IE browser, and input "http://192.168.1.254" in the address bar and press enter



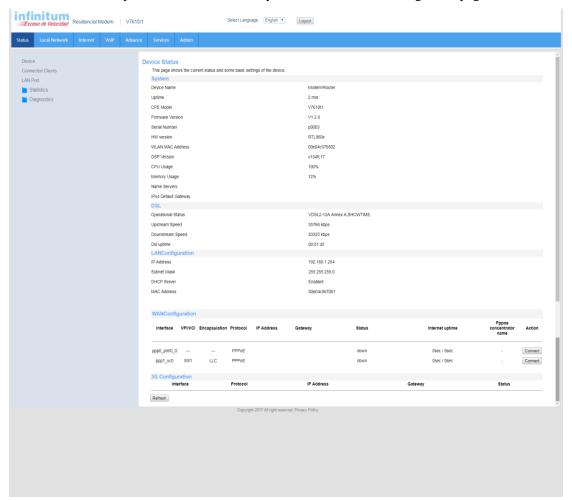
2. Input username and password on the pop-up dialog to login the router



User Name: TELMEX

Password :Generated by sequence number

3. If the username and password is correct, then you will see the web management pages.



4. Local Network

4.1 LAN IP Settings

Go to the Local Network page, you can configure the LAN interface of your Router. You may change the setting for IP address, subnet mask, etc..



➤ IP address

The IP address of the Ethernet router's LAN interface, the default value is 192.168.1.1.

Subnet mask

The subnet mask of the Ethernet router's LAN interface, the default value is 255.255.255.0.

▶ IGMP Snooping

You can enable/disable the IGMP Snooping function by the select radio.

Note:

If you change the IP address of the LAN interface, you should use the new IP address to reconnect to the web server.

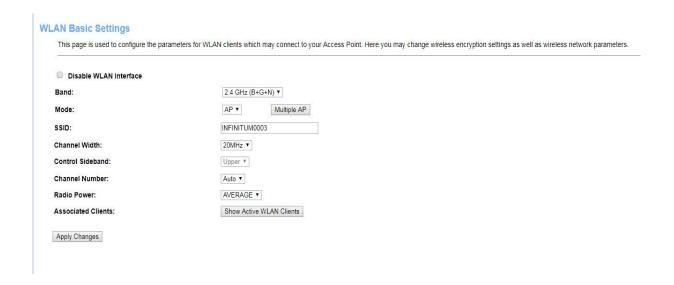
4.2 WLAN Settings

To connect to the Wireless AP, we should have the most basic configuration of the router at first.

In this section, you can set the wireless network parameters required to access the AP of your WLAN interface.

4.2.1 Basic Setting

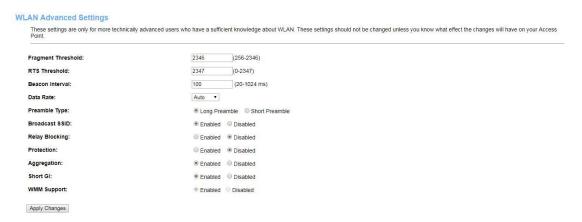
Go to Local Network -> WLAN-> Basic Setting page, you can configure the wireless parameters.



Here you may enable or disable the wireless function. You can also change the wireless parameters, such as Band, SSID, Channel Width, Control Sideband, Channel Number and Radio Power.

4.2.2 Advanced Setting

Go to Local Network ->WLAN->Advanced Setting page, you can configure the advanced parameters for your wireless LAN.

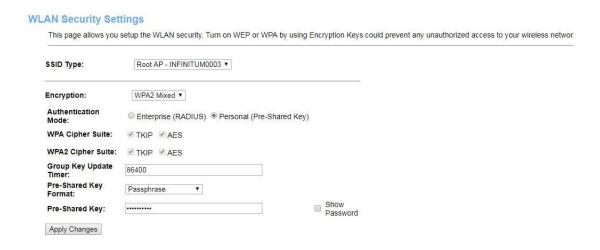


Note:

These settings are only for more technically advanced users who have a sufficient knowledge about wireless LAN. These settings should not be changed unless you know exactly what will happen for the changes you made on your Access Point.

4.2.3 Security

Go to Local Network ->WLAN-> Security page, you can configure the wireless security parameters.



Here you can choose the encryption method to prevent any unauthorized access to your wireless network.

There are three most commonly used encryption method (a total of six encryption support), including the WEP encryption, WPA-Personal, WPA2-Personal, etc.

(1) WEP

If the encryption is WEP, you should click "Set WEP key" button to enter the WEP key setup page.

SSID Type:	Root AP - INFINITUM0003 ▼	
Encryption:	WEP •	
802.1x Authentication:		
Authentication:	○ Open System ○ Shared Key ● Auto	
Key Length:	64-bit ▼	
Key Format:	ASCII (5 characters) ▼	
Encryption Key:	*****	

- ➤ Key Length: the length of the WEP key, it can be 64 bits or 128 bits
- ➤ Key Format: the format of the WEP key, it can be ASCII or hex
- ➤ Encryption key: the WEP key
- ➤ Default Tx Key: you can select one key from the follow 4 Encryption key as the current key

If you want to use 802.1x authentication, you can enable this option on the checkbox. You should set the port, IP address and password for the authentication radius server.

WLAN Security Settings This page allows you setup the WLAN security. Turn on WEP or WPA by using Encryption Keys could prevent any unauthorized access to your wireless network. SSID Type: Root AP - INFINITUM0003 ▼ WEP Encryption: • 802.1x Authentication: Authentication: Open System Shared Key Auto Key Length: ● 64 Bits ● 128 Bits RADIUS Server IP 0.0.0.0 Address: RADIUS Server Port: 1812 RADIUS Server Password: Apply Changes

(2) WPA/WPA2

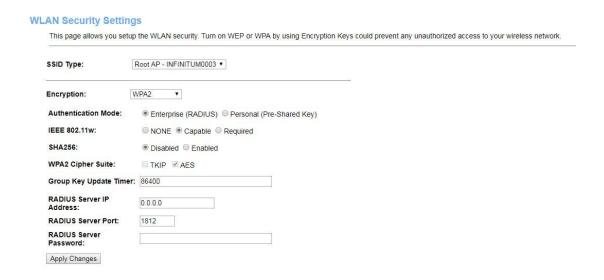
There are two WPA encryption rules: AES and TKIP, you can select anyone as the encryption. There are also two WPA Authentication mode, it can be either Enterprise (RADUIS) or Personal (Pre-Shared Key).

The most commonly used authentication mode is Pre-Shared Key. You should set the Pre-Shared Key Format and Pre-Shared Key value.

➤ Pre-Shared Key Format: it can be either Passphrase or Hex (64 characters)

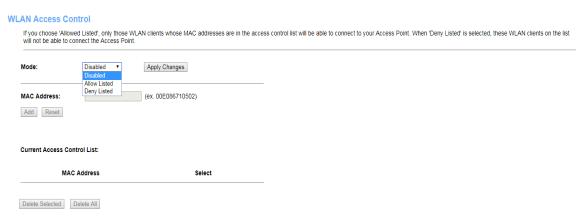
➤ Pre-Shared Key: the value of the Pre-Shared Key

If the authentication mode is RADIUS, you should set the port, IP address and password for the authentication radius server.



4.2.4 Access Control

Wireless access control function is used to allow or prohibit the client access to the wireless network by MAC address.



- Wireless Access Control Mode: it can be "disable", "Allow Listed" or "Deny Listed". If the mode is "disable", it means the wireless access control function is closed; if the mode is "Allow Listed", only the client on the list will be able to connect to you access point; if the mode is "Deny Listed", these wireless clients on the list will not be able to connect to you access point.
- MAC Address: the MAC address of the client you want to allow or prohibit

Current Access Control List: it show the MAC address table you configured, you can delete it as you need.

4.2.5 WPS

Go to Local Network -> WLAN-> WPS page, you can change the setting for WPS (Wi-Fi Protected Setup).



4.2.6 Status

shows the WLAN current status.



5. Internet

To enjoy the surfing, we should have the most basic configuration of the router at first. In this chapter, you can set the basic network parameters required to access the Internet.

The router supports the following three common means to access:

- > Dynamic IP access: ISP (such as China Telecom) assigns IP address to users via DHCP.
- > Static IP access: ISP provides a static IP address to users.
- ▶ PPPoE dial-up access(Ethernet): use PPPoE virtual dial-up connection to the Internet.

5.1 WAN Mode

Go to Internet ->WAN Mode page, you can configure the parameters for the channel modes of your Router.



5.2 Ethernet WAN

Go to Internet -> Ethernet Mode page, you can configure the parameters for the channel modes of your Router.

Ethernet WAN

This page is used to configure the parameters for EthernetWAN

new link ▼
Enable VLAN:
VLAN ID:
802.1p_Mark
Channel Mode: Bridged ▼
Bridge Mode: Bridged Ethernet (Transparent Bridging) ▼
Enable NAPT:
Enable QoS:
Admin Status: Enable Disable
Connection Type: Other ▼
Enable IGMP-Proxy:
Port Mapping:
LAN_1 LAN_2
LAN_3 LAN_4
■ WLAN0
■ WLAN0-AP1 ■ WLAN0-AP2
□ WLAN0-AP3 □ WLAN0-AP4
Apply Changes Delete

There are many parameters on the channel configuration:

- Channel mode
 operation of the Ethernet channel, it can be Bridge, IPOE, PPPoE
- Enable NAPT
 Enable or disable the NATP function of the Ethernet channel
- ➤ Enable IGMP-Proxy

 Enable or disable the IGMP function of the Ethernet channel
- ➤ Connection Type

 The type of other,INTERNET,TR069 and so on.

5.3 PTM WAN

Go to Internet ->PTM WAN page, you can configure the parameters for the channel modes of your Router

TM WAN				
This page is	used to configure the para	meters for PTMWAN		
ptm0_0 ▼				
Enable VLAN	. 🗷			
VLAN ID: 881				
802.1p_Mark				
Channel Mod	e: PPPoE ▼			
Enable Bridge	e: 🗆			
Bridge Mode:	Bridged Ethernet (Transpa	arent Bridging) 🔻		
Enable NAPT	•			
Enable QoS:				
Admin Status	: Enable Disable			
	ype: VOICE_INTERNET_	TR069 ▼		
MTU: 1492				
Enable IGMP-	-Proxy:			
IP Protocol:	IPv4 ▼			
PPP Settings		002194Lp0003@prodig		
	Password:			
	Type:	Continuous ▼		
	Idle Time (sec): Authentication Method:	AUTO -		
	AC-Name:	AUTO V	Service-Name:	
			Service-Name.	
Port Mapping	j:			
LAN_1	□ LAN 2			
LAN_3	□ LAN_4			
□ WLAN0				
□ WLAN0-AF	P1 WLAN0-AP2			
□ WLAN0-AF	93 WLAN0-AP4			
Apply Change	Delete			

There are many parameters on the channel configuration:

Channel mode operation of the Ethernet channel, it can be Bridge, PPPoE,IPOE

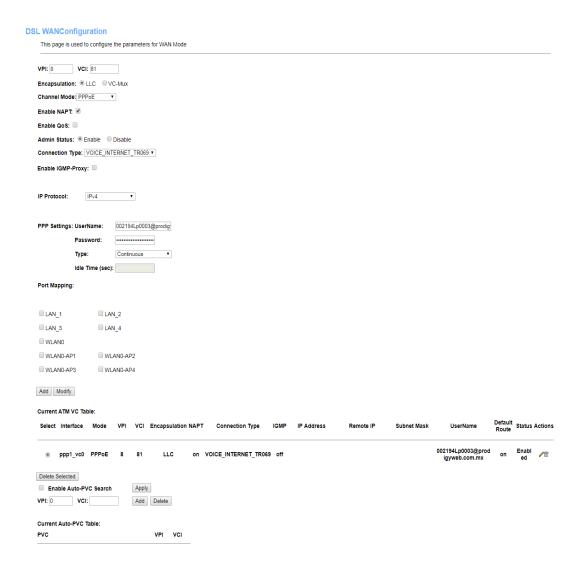
Enable NAPT
 Enable or disable the NATP function of the Ethernet channel

- ➤ Enable IGMP-Proxy
 - Enable or disable the IGMP function of the Ethernet channel
- Connection Type

The type of other, INTERNET, TR069 and so on.

5.4 ATM WAN

Go to Internet ->ATM WAN page, you can configure the parameters for the channel modes of your Router



There are many parameters on the channel configuration:

- > VPI,VCI
 - ISP provides
- > Channel mode
 - operation of the Ethernet channel, it can be Bridge, PPPoE,IPOE
- Enable NAPT

Enable or disable the NATP function of the Ethernet channel

➤ Enable IGMP-proxy

Enable or disable the IGMP function of the Ethernet channel

➤ User name

ISP provides

Password

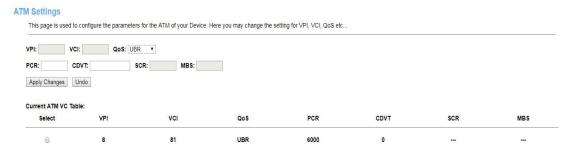
ISP provides

Connection Type

The type of other, INTERNET, TR069 and so on.

5.5 ATM Settings

Go to Internet -->ATM Setting page, you can configure the parameter for the ATM of your Router.



You can change the settings for QoS, PCR, CDVT, SCR and MBS.

5.6 DSL Settings

Go to Internet -> DSL Settings page, you can configure which DSL modulation of your modem will support.

DSL Settings

This page is used to configure the parameters for the bands of your Device.

DSL Modulation:	
	■ G.Lite
	愛 G.Dmt
	☑ T1.413
	■ ADSL2
	✓ VDSL2
AnnexL Option:	(Note: Only ADSL 2 supports AnnexL)
	□ Enabled
AnnexM Option:	(Note: Only ADSL 2/2+ support AnnexM)
	□ Enabled
G.Vector Option:	
VDSL2 Profile:	
	€ 8a
	€ 8b
	€ 8c
	№ 8d
	€ 12a
	€ 12b
	€ 17a
	■ 30a
DSL Capability:	
	•
	✓ Enabled SRA
Apply Changes	

5.7 3G Setting

Go to Internet \rightarrow 3G Settings page, you can configure the parameter for the ATM of your Router.

3G Settings

This page is used to configure the parameters for your 3G network access.

3G WAN:	Disable
PIN Code:	
APN:	internet
Dial Number:	*99#
Authentication:	NONE ▼
UserName:	
Password:	
Connection Type:	Continuous ▼
Idle Time (min):	60
NAPT:	O Disable Enable
Default Route:	O Disable Enable
MTU:	1492
Backup for ADSL:	Disable
Backup Timer (sec):	60

6. VoIP

6.1 Port 1

VoIP is real-time transmit the Voice in IP network, Go to VoIP ->Port 1 page ,This page let user to config Port 1 $\,$

Proxy0 Display Name	Proxy			Brown D. w.					
				Proxy0 ▼					
Number									
Login ID									
Password									
Proxy					□ Enable				
Proxy Addr									
Proxy Port					5060				
SIP Domain									
Reg Expire (sec)					3600				
Outbound Proxy					□ Enable				
Outbound Prox					Enable				
Outbound Prox					5060				
Enable Session					☑ Enable				
Session Expire					1800				
Register Status	5				Disabled				
Proxy1									
Display Name									
Number									
ogin ID									
Password									
Proxy					☐ Enable				
Proxy Addr					- Chable				
Proxy Port					5060				
SIP Domain									
	r)				3600				
Reg Expire (se									
Outbound Prox					☐ Enable				
Outbound Prox					race				
Outbound Proxy Port					5060				
Enable Session timer									
Session Expire					1800				
Register Status	5				Disabled				
SIP Advanc	ed								
SIP Port					6060				
Media Port					9000				
OTMF Relay									
OTMF REGS	33 Pavinari	Type			97				
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					€ Enable 101				
Fax/Modem RF						(meca) (trans	multiple of co-	-)	
Fax/Modem RF SIP INFO Dura		cket Interval			10	(msec) (Must be	multiple of 10mse	-)	
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Call Waiting					Enable				
Call Waiting Ca					Enable				
Reject Direct IF					Enable				
Send Caller ID	hidden				□ Enable				
call transfer									
3 way conferen	nce								
Forward Mo	ode								
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mmediale Num mediale Num mediale Num provided Num Provide	mber to to ward to make the control of the control	* of VolP * of VolP * of VolP * of VolP Above All Abbreviated Nat	1		Disa	Fhon		4	
mmediate Nummermediate Nummerm	mber to to www.ard.to mber the (sec)	* of VolP * of VolP * of VolP * of VolP Above All Abbreviated Nat		Payload Ty	Diea pe 121	Phon		4	
mmediale Nummermediale Nummerm	mber to to make the total to the total tot	* of VolP * of VolP * of VolP * of VolP Above All Abbreviated Nat	1	Payload Tyr	Diea pe 121	Phon Phon 3			Disab
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mmediale Nummericale Nummerica	mber to to the state of the sta	* of VolP * of VolP * of VolP * of VolP Above All Abbreviated Nat	1	Payload Tyl	Diea pe 121	Phone Phone 3 M			Disab
mmediate Nummer mediate Nummer Media	mber to to ward to member ne (sec) Total Rene (se	* of VolP * of VolP * of VolP * of VolP Above All Abbreviated Nat	1 0	Payload Typ	Diea pe 121	Fhon			Disable
mmediate Nummer in the Committee of the	mber to to the state of the sta	* of VolP * of VolP * of VolP * of VolP Above All Abbreviated Nat	1	Payload Tyl	Diea pe 121	Phone Phone 3 M			Disab
mmediate Num mmediate Num promate Library mmediate Num promate Library mmediate Num promate Library mmediate	www.rd to	* of VolP * of VolP * of VolP * of VolP Above All Abbreviated Nat	1	Payload Tyl	Diea pe 121	Phone Phone 3 M			Disab
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mmediate Num provided in Num p	www.rd to	# off Volp # off Volp One	1 0 0 0	Payload Tyl	Diea pe 121	Phone Phone 3 M			Disab
mmediate Noun mediate Noun mediate Noun programme of the Noun Prog	mber to	# off © Voip # off © Voip # off © Voip Abbreviated Nat Cedence)	I Selection of the sele	Payload Tyl	Diea pe 121	Phone Phone 3 M			Disab
mmediate Noun mediate Noun mediate Noun programme of the Noun Prog	mber to to ward to ward to ward to to ward to to ward to	# off Volp # off Volp # off Volp O Abbreviated Nat Abbreviated Nat Abbreviated Nat Abbreviated Nat Abbreviated Nat O O O O O O O O O O O O O	1 Selection of the Control of the Co	Payload Tyl	Diea pe 121	Phone Phone 3 M			Disab
mmediate Nauhy Forward Library States of the	mber to to ward to ward to ward to to ward to to ward to	# off © Voip # off © Voip # off © Voip Abbreviated Nat Cedence)	1 Selection of the Control of the Co	Payload Tyl	Diea pe 121	Phone Phone 3 M			Disab
mmediate Naum mediate Naum promote National Nati	mber to to ward to ward to ward to to ward to to ward to	# off Volp # off Volp # off Volp O Abbreviated Nat Abbreviated Nat Abbreviated Nat Abbreviated Nat Abbreviated Nat O O O O O O O O O O O O O	1 Selection of the Control of the Co	Payload Tyl	Diea pe 121	Phone Phone 3 M			Disab
mmediate Num mmediate Num provided in Num mmediate Num mm	www.rd to	# off Volp # off Volp or over All Abbreviated Nat Abbreviated Nat Above All Analys © Enable	1 Selection of the Control of the Co	Payload Tyl	Diea pe 121	Phone Phone 3 M			Disab
mmediate Num provided in Num p	mber to to the state of the sta	# off Volp # off Volp # off Volp O Abbreviated Nat Abbreviated Nat Abbreviated Nat Abbreviated Nat Abbreviated Nat O O O O O O O O O O O O O	1 Se Se Disable (An mm)	Payload Tyl	Diea pe 121	Phone Phone 3 M			Disab

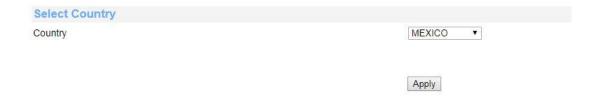
6.2 Advanced

Go to VoIP -> Advanced page ,This page let user to config Advanced VoIP.

V.152	
V.152	□ Enable
V.152 Payload Type	102
V.152 codec type	PCM u-law ▼
T.38 (FAX)	
T.38	
Fax Modem Detection Mode	AUTO 2 T
T.38(Customize parameters)	
Customize parameters	□ Enable
Max buffer	500
TCF	Remote TCF ▼
Max Rate	14400 ▼
ECM	
ECC Signal	5 ▼
ECC Data	2 🔻
Spoofing Enable	
Packet Duplicate Num	0 🔻
DSP	
	Min delay (ms): 40 ▼
Jitter Buffer Control	Max delay (ms): 200 ▼
	Optimization factor: 1 ▼
LEC	✓ Enable
NLP	✓ Enable □ Enable Fax/Modem RFC2833 Relay(For TX)
Fax/Modem RFC2833 Support	☐ Enable Fax/Modem Inband Removal(For TX)
MIC AGC	require level: 1 ▼
MIC AGC	Max gain up: dB 6 ▼
	Max gain down: dB -6 ▼
Caller ID Mode	FSK_ETSI •
FSK Date & Time Sync	□ Enable
Reverse Polarity before Caller ID	□ Enable
Short Ring before Caller ID	
Dual Tone before Caller ID	□ Enable
Caller ID Prior First Ring	
Caller ID DTMF Start Digit	DTMF_A ▼
Caller ID DTMF End Digit	DTMF_C ▼
Flash Time Setting (ms) [Space:10, Min:80, Max:2000]	80 < Flash Time < 1100
Speaker Voice Gain (dB)	0
[-32~31],Mute:-32 Mic Voice Gain (dB)	
[-32~31],Mute:-32	0
	Apply

6.3 Tone

Go to VoIP ->Tone page .



6.4 Others

Go to VoIP ->Others page .

Dial Option	
Auto Dial Time	5 (3~9 Sec, 0 is disable)
Dial-out by Hash Key	Disabled
Off-Hook Alarm	
Off-Hook Alarm Time	15 (10~60 Sec, 0 is disable)
FXS Pulse Dial Detection	
Disable Enable	
Interdigit Pause Duration	450 (msec)
SIP setting	
SIP Prack	Disabled
SIP Server Rendundacy	□ Enabled
SIP CLIR anonymouse from header	□ Enabled
Non-SIP INBOX call	□ Enabled
Hook Flash Relay setting:	NONE ▼
SIP OPTIONS	
Disable Enable	
Options interval time	0 (Sec)
	Apply

6.5 Network

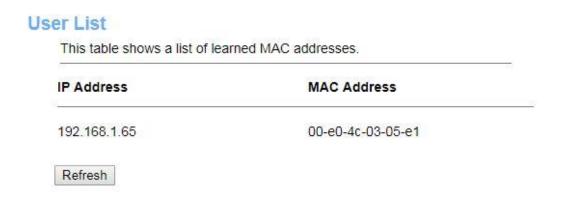
Go to VoIP ->Network page .



7. Advanced

7.1 ARP Table

This table shows a list of learned MAC addresses.



7.2 LAN Device Table

This table shows a list of active devices connected to the LAN Network.

This table shows a list of active devices connected to the LAN Network. IP Address MAC Address Hostname Interface Expiry(s) Type 192.168.1.65 00:e0:4c:03:05:e1 Test-PC eth0.4 in 23:35:06 Automatic Refresh

7.3 Bridging

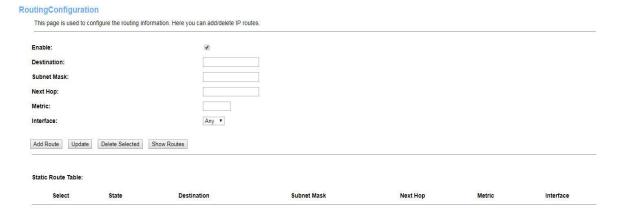
This page is used to configure the bridge parameters. Here you can change the settings or view some information on the bridge and its attached ports.

BridgingConfiguration This page is used to configure the bridge parameters. Here you can change the settings or view some information on the bridge and its attached ports. Ageing Time: 7200 (seconds) 802.1d Spanning Tree: Disabled Enabled Apply Changes Show MACs

7.4 Routing

This page is used to configure the routing information. Here you can add/delete IP routes.

Go to Advanced->Routeing page, you can configure the routing information. Here you can add or delete IP routes.



- Enable enable or disable the route entry you add
- Destination destination IP address. It can be a subnet IP or a host address. All zeros indicate that the route entry should be used for all destinations for which no other route is defined.
- Subnet Mask the network mask of the destination.
- Next Hop the IP address of the next hop through which traffic will forward the destination.

- ➤ Metric
 - defines the number of hops between network nodes that data packets travel.
- ➤ Interface the WAN interface to which a static route is to be applied.

7.5 SNMP

Simple Network Management Protocol (SNMP) is a series of protocol and specification, they provide a kind of from the Internet to collect information about network management method in the system. SNMP also report to the network management workstation for device problems and provides a method.

Go to Advanced ->SNMP page, you can configure the SNMP Protocol.

SNMP:	○ Disable ● Enable	
System Description	System Description	
System Contact	System Contact	
SystemName	Modem/Router	
System Location	System Location	
System Object ID	1.3.6.1.4.1.16972	
Trap IP Address	192.168.1.254	
Community name (read-only)	public	
Community name (write-only)	public	19

7.6 IP QoS

7.6.1 Qos Poilcy



7.6.2 Qos Classification

This page is used to add or delete classicification rule.



7.7 Remote Access

This page is used to enable/disable management services for the LAN and WAN.

Remote AccessConfiguration

This page is used to enable/disable management services for the LAN and WAN.

ServiceName	LAN	WAN	WAN Port
TELNET	•		23
FTP			21
TFTP			
HTTP			8080
HTTPS			8090
SNMP	•		
Ping	4		

7.8 Others

Here you can set some other advanced settings.

Other Advanced Configuration

Here you can set some other advanced settings.

IP PassThrough:	NONE ▼	
Lease Time:	600	seconds
Allow LAN access		

7.9 IPv6

7.9.1 IPv6

This page be used to configure IPv6 enable/disable

This page be used to configure IPv6 enable/disable IPv6: Disable Enable Apply Changes

7.9.2 RADVD

This page is used to setup the RADVD's configuration of your Device.

This page is used to setup the RADVD's configuration of your Device. MaxRtrAdvInterval: MinRtrAdvInterval: AdvManagedFlag: One Off One AdvOtherConfigFlag: One Off One

7.9.3DHCPv6

Go to the Advanced -->DHCPv6 page, you can configure the DHCPv6 mode of your Router as

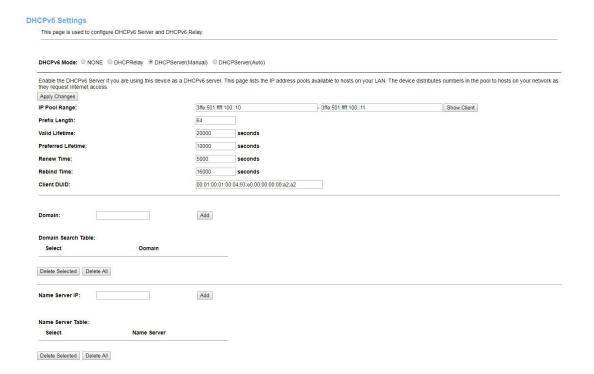
7.9.3.1 None

If the DHCPv6 mode is "None", the router will do nothing when the hosts request an IP address by DHCPv6 protocol.



7.9.3.2 DHCP Server

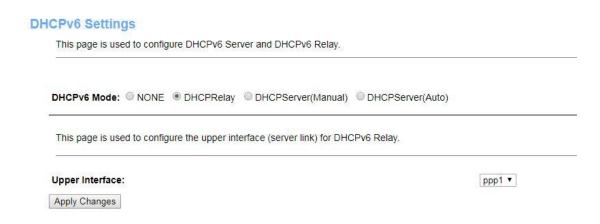
The DHCP Server is used to configure correct TCP/IP protocol related parameters for the computer on you local network. If you enable the DHCP Server function of the Ethernet router, you can make the DHCP Server automatically configure the TCP/IP protocol parameters (such as IP address, subnet mask, gate way and DNS servers) for the computer on you local network.



- ➤ DHCPv6 Mode the DHCP mode can be DHCP Server, DHCP Relay and None.
- ➤ IP Pool Range the DHCP IP pool address

7.9.3.3 DHCP Relay

If you are using the other DHCP Server to assign IP address to your hosts on the LAN, you can set the relay server's IP address.



7.9.4 MLD Proxy

This page be used to configure MLD Proxy.

MLD ProxyConfiguration

MLD Proxy:	Disable Enable	
WAN Interface:	v	

7.9.5 MLD Snooping

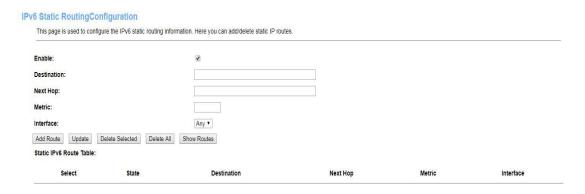
This page be used to configure MLD Snooping.

MLD SnoopingConfiguration



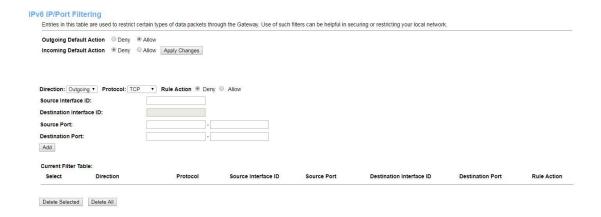
7.7.6 IPv6 Routing

This page is used to configure the IPv6 static routing information. Here you can add/delete static IP routes.



7.9.7 IPv6 IP/Port Filtering

Entries in this table are used to restrict certain types of data packets through the Gateway. Use of such filters can be helpful in securing or restricting your local network.



8. Service

8.1 DHCP

Go to the Service-->DHCP page, you can configure the DHCP mode of your Router as None, DHCP Relay or DHCP Server.

8.1.1 None

If the DHCP mode is "None", the router will do nothing when the hosts request an IP address by DHCP protocol.



8.1.2 DHCP Server

The DHCP Server is used to configure correct TCP/IP protocol related parameters for the computer on you local network. If you enable the DHCP Server function of the Ethernet router,

you can make the DHCP Server automatically configure the TCP/IP protocol parameters (such as IP address, subnet mask, gate way and DNS servers) for the computer on you local network.

DHCP Settings

DHCP Mode: NO	IE ○ DHCP Relay ● DHCP Server
page lists the IP addre	ver if you are using this device as a DHCP server. The ss pools available to hosts on your LAN. The device the pool to hosts on your network as they request
LAN IP Address: 192	.168.1.254 Subnet Mask: 255.255.255.0
IP Pool Range:	192.168.1.64 - 192.168.1.253 Show Client
Subnet Mask:	Show Client
Subnet Mask: Max Lease Time:	Show Client 255.255.255.0 86400 seconds (-1 indicates an infinite
IP Pool Range: Subnet Mask: Max Lease Time: DomainName: Gateway Address:	Show Client 255.255.255.0 86400 seconds (-1 indicates an infinite lease)

DHCP Mode

the DHCP mode can be DHCP Server, DHCP Relay and None.

- ➤ IP Pool Range
 - the DHCP IP pool address
- Gateway Address
 - the default gateway address
- Max Lease Time
 - the time that the DHCP client is allowed to maintain a network connection.
- Domain Name
 - a user-friendly name that refers to the group of hosts (subnet) that will be assigned addresses from this pool
- > DNS option
 - Use DNS Relay and Set Manually

8.1.3 DHCP Relay

If you are using the other DHCP Server to assign IP address to your hosts on the LAN, you can set the relay server's IP address.

This page is used to configur	re DHCP Server and DHCP Relay.
HCP Mode: NONE	DHCP Relay DHCP Server
	e the DHCP Server IP Address for DHCP Relay.
his page is used to configure	the Drice Server in Address for Drice Relay.
This page is used to configure	e tile DHCF Server IF Address for DHCF Relay.
	•
DHCP Server IP Address:	172.19.31.4

Relay server the IP address of the DHCP Relay server.

8.2 **DNS**

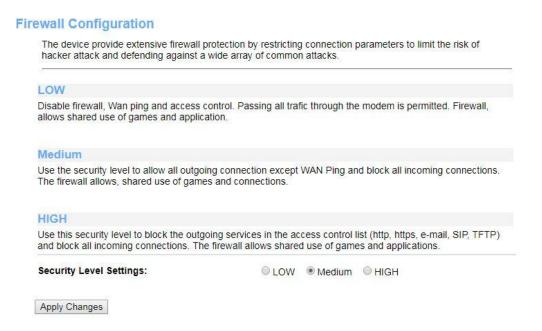
Go to Service->DNS page, you can configure the IP address of DDNS server.

Dynamic DNS Configuration

		mic DNS address from E nove to configure Dynam		
Enable:	•			
DDNS Provider:	DynDNS.org ▼			
Hostname:	_			
Interface	ppp1 ▼			
DynDns/No-IP Setti	ngs:			
UserName:				
Password:				
TZO Settings:				
Email:				
Key:				
Add Modify Re	move			
Dynamic DNS Table	e:			
Select State	Hostname	UserName	Service	Status

8.3 Firewall

8.3.1 Security settings



8.3.2 ALG

The router supports several NAT ALG and pass-Through function.

Go to Service ->Firewall->ALG page, you can configure the ALG settings. Here you can enable or disable the ALG or pass-through function for each application.

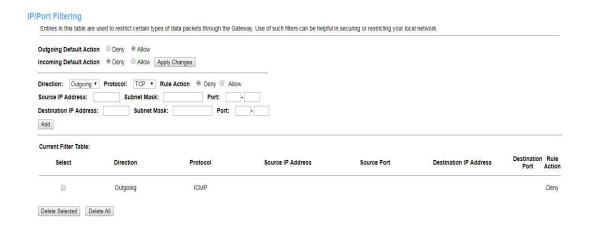
ALG On-OffConfiguration

This page is used to enable/disable ALG services.

ALG Type:	
ftp	Enable Disable
h323	Enable
sip	Enable Disable
pptp	Enable Disable
Apply Changes	

8.3.3 IP/Port filter

Go to Service ->Firewall->IP/Port Filter page, you can set the IP/Port filter rules to secure or restrict your local network.



On the front of the page, you can see the default action of outgoing/incoming connection. If the IP connection doesn't match any filter rules, the router will handle the connection with the default action setting.

Default Action

the filter mode of this entry, it can be "Allow" and "Deny". If the mode is "Allow", the IP connection matches the rule will be permitted, if the mode is "Deny", the IP connection

matches the rule will be denied.

Protocol

the protocol of this entry, it can be "IP", "ICMP", "TCP" and "UDP".

Direction

the direction of this entry, it can be "upstream" and "Downstream".

➤ Source IP Address/ Mask Address

the source IP address and mask address of the entry.

Dest IP Address/ Mask Address

the destination IP address and mask address of the entry.

Sport

If the protocol is "TCP" or "UDP", you should set the source port of the entry, it can be a single port or a port range.

Dport

If the protocol is "TCP" or "UDP", you should set the destination port of the entry, it can be a single port or a port range.

Deny or Allow enable or disable this filter entry.

8.3.4 MAC filter

In order to management your local network better, you can use the MAC address filter function to control the internet access.

Go to F Service -> Firewall-> MAC Filter page, you can set the MAC filtering rules.

Dutgoing Default Action		
Direction:	Outgoing •	
Source MAC Address:		
Destination MAC Address:		
Rule Action	● Deny ○ Allow	Add

Outgoing/Incoming Default Policy

the default action of outgoing/incoming connection. It can be "Deny" or "Allow". If the connection doesn't match any MAC filtering rules, the router will handle the connection with the default action you have set.

Direction the direction of the filter entry, it can be "Outgoing" or "Incoming".

Action

the action of the filter entry, it can be "Deny" or "Allow". If the action is "Deny", the connection matches the filter rule will be denied, if the action is "Allow", the connection matches the filter rule will be allowed.

Source MAC

the source MAC address of the filter entry, if empty means matches any source MAC address.

Destination MAC

the destination MAC address of the filter entry, if empty means matches any source MAC address.

8.3.5 Port Forwarding

Entries in this table allow you to automatically redirect common network services to a specific machine behind the NAT firewall. These settings are only necessary if you wish to host some sort of server like a web server or mail server on the private local network behind your Gateway's NAT firewall.

able Application: Active World									
able Mapplication. Active work	ds			¥					
omment	Local IP	Local Port from	Local Port to	Protocol Remote	Remote Port from	Remote Port to	Interface	•	
				Both ▼			Any v		
				Both ▼			Any ▼		
				Both ▼			Any ▼		
				Both ▼			Any *		
				Both ▼			Any ▼		
	Ì	Ì		Both ▼	ĺ		Any ▼		
				Both ▼		1	Any *		
		i –	İ	Both ▼		i –	Any ▼		
		i i		Both ▼	İ	Ì	Any ▼		
				Both ▼			Any ▼		
				Both ▼			Any ▼		
				Both ▼			Any *		
dd									

8.3.6 URL filter

In order to manage the site control of your local LAN client, you can use URL filtering function to specify which site can't be accessed.

Go to Service ->Firewall->URL Filter page, you can add and delete the filtered keyword.

URLBlocking

This page is used to configure the Blocked FQDN(Such as tw.yahoo.com) and filtered keyword. Here you can add/delete FQDN and filtered keyword. **URL Blocking:** Apply Changes FQDN: Add URL Blocking Table: Select FQDN Delete Selected Delete All Keyword: Add Keyword Filtering Table: Select Filtered Keyword Delete Selected Delete All

URL Blocking Capability

Enable or disable the URL filtering function. If it is enabled, the access to the site which matches the keyword will be blocked by the router, if it is disabled, nothing will be done.

- Keyword the keyword of the site you want to block.
- ➤ URL Blocking Table
 it shows the current URL filtering entry

8.3.7 Domain Blocking

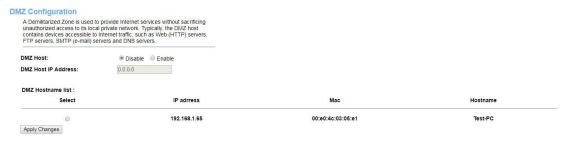
This page is used to configure the Blocked domain. Here you can add/delete the blocked domain. Go to Service ->Firewall -> Domain Blocking page

Domain BlockingConfiguration This page is used to configure the Blocked domain. Here you can add/delete the blocked domain. Domain Blocking: Disable Enable Apply Changes Domain: Add Domain BlockingConfiguration: Select Domain Delete Selected Delete All

8.3.8 DMZ

A Demilitarized Zone (DMZ) allows a single host on your LAN to expose ALL of its ports to the Internet.

Go to Service -> Firewall -> DMZ page, you can configure the DMZ settings.



- Enable DMZ enable or disable the DMZ function.
- DMZ Host IP Address the IP address of the DMZ host.

8.4 UPnP

UPnP (Universal Plug and Play networking protocol), this feature requires the operating system must support the UPnP application. LAN hosts can request a specific port translation on router by UPnP protocol, so the external hosts can access the resources on the internal hosts when needed.

Go to Service ->Firewall ->UPnP page, here you can configure UPnP.

UPnP Configuration

This page is used to configure UPnP. The system acts as a daemon when you enable it and select WAN interface (upstream) that will use UPnP.

2	
UPnP:	Disable
TR-064:	Disable Enable
WAN Interface:	
Apply Changes	

- UPnP enable or disable the UPnP function
- ➤ WAN interface which interface runs UPnP fucntion

8.5 RIP

RIP is an internet protocol you can setup to share routing table information with other routing devices.

Go to Service ->Firewall ->RIP page, you can configure the RIP settings. Here you can enable or disable the RIP function.

RIP Configuration Enable the RIP if you are using this device as a RIP-enabled Device to communicate with others using the Routing Information Protocol. This page is used to select the interfaces on your device is that use RIP, and the version of the protocol used. RIP: Apply Changes Disable Enable Interface: br0 ▼ NONE ▼ Receive Mode: Send Mode: NONE Add RIP Config Table: Select Interface Send Mode Receive Mode Delete Selected Delete All

> RIP

enable or disable the RIP function of the router.

- Interface
 - the interface on which you want to enable RIP
- Recv Version
 - indicate the RIP version in which information must be passed to the device it can be accepted into its routing table
- Send Version
 - indicate the RIP version this interface will use when it sends its route information to the other device

8.6 Samba

Go to Service ->Firewall ->Samba page ,This page let user to config Samba.

SambaConfiguration

Samba:	O Disable	Enable
Server String:	Realtek San	nba Server

9. Admin

9.1 Commit/Reboot

Go to Admin ->Commit/Reboot page, you can commit changes to system memory and reboot your device with different configuration.

Commit and Reboot

This page is used to commit changes to system memory and reboot your system.

Commit and Reboot

9.2 Backup/Restore

Go to Admin ->Backup/Restore page, you can save the current configuration settings to a file, and you can also restore the settings from a configuration file.

ckup and Restore Settings		
This page allows you to backup current settings to a file or restore the	he settings from the file which was saved previously. Besides, you could reset to	the current settings to factory default.
S		
Backup Settings to File:	Backup	
Restore Settings from File:	选择文件 未选择任何文件	Restore
Reset Settings to Default:	Reset	

9.3 System Log

Go to Admin ->System Log page, you can configure the parameters of the system log, and view the system log information.

stem Log			
System Log:		Disable	
Log Level :		Emergency 🔻	
Display Level :		Emergency *	
Apply Changes			
Save Log to File:		Save	
Clear Log:		Reset	
System Log	Refresh		
Date/Time	Facility	Level	Message

9.4 DoS

The router provides a protection of Denial of Service attack.

Go to Admin->DoS page, you can configure the dos parameters. You can enable or disable the DoS prevention, and you can also specify the hack item.

DoSConfiguration

DoS (Denial-of-Service) attack which is launched by hacker aims to prevent legal user from taking normal services. In this page you can configure to prevent some kinds of DOS attack.

Whole System Flood: SYN	100 packets/second
Whole System Flood: FIN	100 packets/second
☐ Whole System Flood: UDP	100 packets/second
Whole System Flood: ICMP	100 packets/second
Per-Source IP Flood: SYN	100 packets/second
Per-Source IP Flood: FIN	100 packets/second
Per-Source IP Flood: UDP	100 packets/second
Per-Source IP Flood: ICMP	100 packets/second
☐ TCP/UDP PortScan	LOW V Sensitivity
CMP Smurf	
☐ IP Land	
☐ IP Land ☐ IP Spoof	
☐ IP Spoof	
■ IP Spoof ■ IP TearDrop	
■ IP Spoof ■ IP TearDrop ■ PingOfDeath	
■ IP Spoof ■ IP TearDrop ■ PingOfDeath ■ TCP Scan	
■ IP Spoof ■ IP TearDrop ■ PingOfDeath ■ TCP Scan ■ TCP SynWithData	
■ IP Spoof ■ IP TearDrop ■ PingOfDeath ■ TCP Scan ■ TCP SynWithData ■ UDP Bomb	

9.5 Password

Go to Admin->Password page, you can configure the user account of the router. Here you can

add user account to access the web server, and modify the password of the specified user.



9.6 Firmware Upgrade

The router supports the firmware upgrade from HTTP.

Go to Admin->Firmware Update page, you can upgrade the firmware to the new version.



You should select the correct firmware image first, and then apply the "Upload" button.

9.7 Time Zone

Simple Network Timing Protocol (SNTP) is a protocol used to synchronize the system time to the public SNTP server.

Go to Admin->Time Zone page, you can configure the system time.

Time ZoneConfiguration You can maintain the system time by synchronizing with a public time server over the Internet. Year 1969 Mon 12 Day 31 Current Time : Hour 19 Min 25 Sec 57 Time Zone Select : America/Mexico City (UTC-06:00) Enable Daylight Saving Time Enable SNTP Client Update WAN Interface: Any ▼ SNTP Server : 203.117.180.36-Chronos.unam ▼ 220.130.158.52 (Manual Setting)

9.8 TR-069

Apply Changes

Refresh

Tr069 is also called CWMP, CPE WAN Management Protocol (CWMP) is a protocol for communication between a CPE and Auto-Configuration Server (ACS). The CPE TR-069 configuration should be well defined to be able to communicate with the remote ACS.

Go to Admin->Tr-069 page, you can configure the TR-069 CPE. Here you may change the setting for the ACS's parameters.

Configuration This page is used to configure the TR-069 CPE. Here you may change the setting for the ACS's parameters. TR069 Daemon: EnableCWMPParamete: Enabled Disabled Root Data Model: © TR-098 ® TR-181 ACS: URL: https://cwmp.telmex.com 002194Lp0003 UserName: Password: ••••• Periodic Inform: Disabled Enabled Periodic Inform Interval: 300 Connection Request: UserName: Password: Path: /tr069 7547 Port: Undo Apply Certificate Management: Apply Undo CPE Certificate Password: 选择文件 未选择任何文件 Upload **CPE Certificate:** 选择文件 未选择任何文件 Upload CA Certificate:

10. Diagnostics

The router provides several useful diagnostic tools.

10.1 Ping

The router provides a ping command to send a message to the host you specify.

Go to Status->Diagnostics->Ping page, you can ping a host you wanted.

Pin	g D	ia	gn	os	tic	25

lost Address:	
Data block size:	
Number of repetition:	

Host an IP address or host name you want to ping.

When you set the host, click the "Go" button to start the ping process, then the ping result will be shown.

```
PING hao123.n.shifen.com (180.149.132.3): 56 data bytes

64 bytes from 180.149.132.3: icmp_seq=0

64 bytes from 180.149.132.3: icmp_seq=1

64 bytes from 180.149.132.3: icmp_seq=2

--- ping statistics ---

3 packets transmitted, 3 packets received.

Back
```

10.2 Traceroute

The router provides a tracert command to measure the route path and transit times of packets across an Internet Protocol (IP) network.

Go to Status->Diagnostics->Traceroure page, you can tracert a host you wanted.

Traceroute Diagnostics

Host Address:	
Data block size:	
Number of repetition:	

➤ Host

Back

an IP address or host name you want to run trace route command

For example, you can set the host to www.apple.com, and then click the "Go" button to start the trace route process. Several times later, you can see the trace route result.

Traceroute: www.apple.com :38 data bytes

```
traceroute to www.apple.com (221.230.147.75), 30 hops max, 38 byte packets

1 116.231.70.254 (116.231.70.254) 20.000 ms 20.000 ms

2 50.50.50.50.20 (50.50.50.20) 20.000 ms 10.000 ms

3 192.168.100.254 (192.168.100.254) 20.000 ms 20.000 ms

4 **

5 124.74.49.9 (124.74.49.9) 20.000 ms 20.000 ms

6 124.74.211.225 (124.74.211.225) 20.000 ms 20.000 ms

7 101.95.88.86 (101.95.88.86) 20.000 ms 101.95.88.66 (101.95.88.66) 20.000 ms

8 202.97.29.110 (202.97.29.110) 30.000 ms 202.97.54.190 (202.97.54.190) 20.000 ms

9 61.160.170.74 (61.160.170.74) 30.000 ms 30.000 ms

10 61.160.169.138 (61.160.169.138) 30.000 ms 61.160.169.94 (61.160.169.94) 30.000 ms

11 **

12 **

13 221.230.147.75 (221.230.147.75) 20.000 ms 30.000 ms
```

10.3 ATM Loopback

OAM Loopback allows you to verify the connectivity between VP/VC endpoints, as well as segment endpoints within the VP/VC. ATM uses two cell flows: F4 used in VPs and F5 used in VCs.

Go to Status->Diagnostics->ATM Loopback page, you can perform the loopback function to check the connectivity of the VCC.



➤ Flow type

the ATM OAM flow type. The selection can be F5 Segment, F5 End-to-End, F4 Segment or F4 End-to-End.

➤ VPI

the VPI number you want to do the loopback diagnostics

> VCI

the VCI number you want to do the loopback diagnostics

10.4 DSL Tone

DSL diagnostics allows you to diagnostics the DSL tone.

Go to Status->Diagnostics->DSL Tone page, you can start the DSL tone diagnostic.



Click the "Start" button to start the diagnostic, and then wait several minutes later you will see the test result.

10.5 ADSL Connection

The Diagnostic Test allows you to test your DSL connection of the physical layer and protocol layer for both LAN and WAN sides.

Go to Status->Diagnostics-> ADSL Connection page, you can select a interface to run diagnostic.



Click the "Run Diagnostic Test" button to start the test, and then wait several times later you can see the diagnostic result.

The Device is capable of testing your connection. The individual tests are listed below. If a test displays a fail status, click 'Go' button again to make sure the fail status is consistent. Select the ADSL Connection: ppp0 ▼ Go **ADSL Connection Check** Test ADSL Synchronization PASS Test ATM OAM F5 Segment Loopback Test ATM OAM F5 End-to-end Loopback Test ATM OAM F4 Segment Loopback Test ATM OAM F4 End-to-end Loopback Internet Connection Check PASS Test Authentication with ISP PASS Test the assigned IP Address> PASS Ping Default Gateway PASS Ping Primary Domain Name Server PASS

FAQ

Q: Power LED does not come on after power is switched on.

A:

- Check the outlet by plugging in another electronic device.
- Call the customer service number or return the DSL Router to the vendor.

Q: Internet LED is off.

ADSL Connection Diagnostics

A:

- Verify that your DSL Router is properly configured for TCP/IP.
- Ensure that the correct network adapter driver is installed for your operating system. If necessary, reinstall the driver.
- Check that the speed of the network adapter or duplex mode has not been configured manually. It is recommended that the adapter be set to auto-negotiation.
- Ensure that the network connection is established before launching the browser.
- In the network connection tab, verify that your username and password are correct.

Q: LAN LED does not come on after connection is established.

A:

- Verify that the power is switched on.
- Ensure that the cable is plugged into the DSL Router and a LAN computer.
- Check the network adapter or the cable connections for defects.
- Q: The device cannot access the Internet

A: Run a health check on your device. Use the ping utility to check whether the device can communicate with the DSL Router LAN IP address (by default 192.168.1.1). If it cannot, check the Ethernet cabling.

If you statically assigned a private IP address to the computer, verify the following:

- Check that the DSL Router IP address on the device is your public IP address. If it is not, correct the address or configure the device to receive IP information automatically.
- Verify with your ISP that the DNS server specified for the computer is valid. Correct the address or configure the device to receive this information automatically.

Q: The LAN devices cannot display web pages on the Internet.

A: Verify that the DNS server IP address specified on the device is correct for your ISP. If you specified that the DNS server be assigned dynamically from a server, then verify with your ISP that the address configured on the gateway is correct, and then you can use the ping utility to test connectivity with your ISP's DNS server.

Q: I forgot my user ID or password.

A: If you have not changed the password from the default, try using admin as both the user ID and password. Otherwise, you can reset the device to the default configuration by pressing the Reset Default button on the back panel of the DSL Router three times. Then, type the default User ID and password shown above.

Note: Resetting the device removes any custom settings and returns all settings to their default values.

Q: I cannot access the web pages from my browser.

A:

- Use the ping utility to check whether the device can communicate with the xDSL Router LAN IP address (by default 192.168.1.1). If it cannot, check the Ethernet cabling.
- Verify that you are using Internet Explorer or Netscape Navigator v4.0 or later.
- Verify that the device's IP address is defined as being on the same subnet as the IP address assigned to the LAN port on the gateway.

Q: I cannot login to the configuration pages.

A:

- Verify that the username and password are correct.
- Ensure the PC indicator is on and the TCP/IP configuration is correct.
- Ensure the data indicator is on when using Ping command.
- Try resetting the device.

Q: I'm having trouble accessing some web servers.

A:

- The MTU of the operating system might be at or near its maximum.
- The operating system might need to be patched.

Q: Changes to the web pages are not being retained.

A: Be sure to Apply/Save after any changes to the web pages.

11. Certification

FCC

FCC - North American EMI Verification

FCC - Verificación EMI de los estados unidos

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.

NOTE: This 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 instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does 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

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

RF Exposure Warning Statements:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment shall be installed and operated with minimum distance 20cm between the radiator & body.