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Firmware Release Note

**Prestige 660HW-63/67**

**Standard version**

Release 3.40(QQ.3)C0

**Date:** Oct 26, 2004  
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# ZyXEL Prestige 660HW-63/67 Standard Version Release 3.40(QQ.3)C0 Release Note

**Date:** Oct 26, 2004

## **Supported Platforms:**

ZyXEL Prestige 660HW-63/67

## **Versions:**

ZyNOS Version: V3.40(QQ.3) | 10/26/2004 17:04:45

Bootbase Version: V1.08 | 05/18/2004 20:30:00

## **Notes:**

The Prestige 660HW-63/67, is 4th generation of ZyXEL ADSL product family. It is a high performance ADSL/ADSL2/ADSL2+ router for small/medium office to have Internet access and LAN-to-LAN application over the existing copper line. P660HW-63/67 takes advantage of much higher data rate than ADSL, speed up to 12Mbps (ADSL2) or 26Mbps (ADSL2+), greater reach, faster start-up, advanced diagnostics and better power management. This high performance ADSL router is a high integrated advanced Firewall, Bandwidth Management and IEEE 802.11g wireless features to meet the demand of high-end market.

P660HW-63/67 provides an embedded mini-PCI module for 802.11g Wireless LAN connectivity, four single auto-sensing, auto-detection 10/100BASE-T Ethernet ports for connection to the user's local network, and a single RJ-11/RJ-45 port for connection to ADSL/ADSL2/ADSL2+ line.

ADSL data pump version: TI AR7 01.01.07.00

## **Features:**

### **Modifications in V 3.40(QQ.3)C0 | 10/26/2004**

1. Change to FCS.

### **Modifications in V 3.40(QQ.3)b5 | 10/19/2004**

1. [BUG FIXED]  
Symptom: Using DoS tool "Bonk.exe", do DoS attack from LAN to WAN, device get exception or hang.  
Condition: Set Encapsulation=PPoE mode, Ran a port scan AP (BONK) on PC to attack ZyWALL 70. P660HW-63 will crash with exception log after few mins (4000+ counts of port scan).

**Modifications in V 3.40(QQ.3)b4 | 10/12/2004**

1. [BUG FIXED]  
Symptom: Configure DNS server in SMT 3.2, it can take effect only after reboot the device.  
Condition: Reset default romfile, Configure DNS server in menu 3.2 and save, then do "ip ping www.hinet.net", it can not work. But it will be OK after we reboot the device.
2. [BUG FIXED]  
Symptom: PPPoE cannot up when exchange "forced down" to "forced on" or "Enable dial-on demand".  
Condition: In menu 11 nailed-up set "yes", when action exchange from "forced down" to "forced on" or to "enable dial-on demand" in menu 26, PPPoE can not link up unless you reboot the device.
3. [BUG FIXED]  
Symptom& Condition : When we enable "ping traffic is blocked from the WAN " function that it will also block the ping traffic from LAN->WAN
4. [BUG FIXED]  
Symptom: ZyXEL Prestige Router Discloses Portions of Memory Contents to Remote Users .  
Condition: When send icmp packet with less data than normal, remote interface pad with data to complete the frame memory contents.
5. [BUG FIXED]  
Symptom: If we do ping function from DOS mode then change Encapsulation to PPPoA or PPPoE that you can see the connection can't connect.  
Condition: N/A
6. [BUG FIXED]  
Symptom and Condition: the bonk attack will cause the device exception.
7. [BUG FIXED]  
Symptom: WE delete menu 4 the system do reboot while VC hunt function enable, system reboot.  
Condition: Delete SMT>> menu 4, then configure menu 11, when connecting to DSLAM with VC hunt function enable, system will reboot.

**Modifications in V 3.40(QQ.3)b3 | 09/27/2004**

1. [BUG FIXED]  
Symptom: eWC will hang when UPNP feature of our device is enabled.  
Condition:(1) install windows xp service packet 2 in PC  
(2)enable firewall of windows xp and also enable UPNP framework pass through or disable firewall of windows XP.

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- (3) login in P660HW via eWC and enable UPNP, eWC will not be able to access.
- (4)the bug doesn't occur every time, but most time it will occur.

2. [BUG FIXED]  
Symptom :Bug fix incompletely: in eWC, Advanced Setup >> NAT Edit Address Mapping Rule, click "Edit Details". Information will be save.  
Condition: N/A
3. [BUG FIXED]  
Symptom& Condition : Menu 15.1 the info "Enter Menu selection number" is showed duplicate .
4. [BUG FIXED]  
Symptom: Use CI command "wlan association" to show association list, it will cause system reboot.  
Condition: When 3 stations connect to AP and users use CI command "wlan association" to show association list, it will cause system reboot.
5. [BUG FIXED]  
Symptom: When multiple stations connected to AP, once the previous one leave, the other stations also disappeared.  
Condition:
  - (1).Use Web to show association list.
  - (2).When station disconnect the association, the system will not update the list.
  - (3).When one station disconnect and another join, the association list will show error.
6. [BUG FIXED]  
Symptom: Wlan will receive the same multicast packet twice from PVC.  
Condition: N/A
7. [BUG FIXED]  
Symptom: Two PVC issue.  
Condition:
  - (1). Create two PVC in CPE device.
  - (2). After two PVC connection are established and both can get IP, change the VPI/VCI setting of first PVC on the DSLAM.
  - (3). The first PVC won't drop the connection and the traffic still can go out via CPE device(via PVC2).
8. [BUG FIXED]  
Symptom: Can't establish PPPoE connection after PPPoE server reboot.  
Condition: When router receive OAM AIS packets, PPPoE will not be triggered again.
9. [FEATURE ENHANCED] Add Static DHCP.

10. [BUG FIXED]

Symptom: SIP pass through can't work.

Condition: The SIP ALG do not process the "SIP INFO" message. And some of the fields in SIP message do not be transferred by ALG.

**Modifications in V 3.40(QQ.3)b2 | 09/14/2004**

1. [BUG FIXED]

Symptom: Input ineligible data in Many-to-Many Overload/No Overload Mode(NAT) in eWC/SMT, there is no message for error, and it can be save.

Condition: Many-to-Many No Overload:

In eWC/Advanced Setup/NAT/Full Feature, choose Many-to-Many No Overload Mode.,Input Local IP and Global IP, make the Local IP and Global IP range not match. There is no error message, and it can be save. But in SMT, it will display a message: IGA and ILA range does not match, it can not be save.

Many-to-Many Overload:

In eWC or SMT, choose Many-to-Many Overload Mode. Input Local IP and Global IP, make the Local IP range less than Global IP range. There is no error message, and it can be save.

2. [BUG FIXED]

Symptom: In SMT menu 15, the device hangs when save M-M NAT mapping rule.

Condition: Configure M-1 or M-M NAT mapping rule in menu 15.1.1.1, then save it( in menu 15.1.1), system displays "Cannot find server table", then the device will hang.

3. [BUG FIXED]

Symptom: Device replys ARP from wrong node.

Condition: The device receives ARP request from 1st remote node(router mode),replys it from the 2nd remote node(brige mode).

**Modifications in V 3.40(QQ.3)b1 | 09/02/2004**

1. [BUG FIXED]

Symptom: Ping wrong IP address as "192.168.1.33aa" and "192.168.1aa.33", the device will get success information.

Condition: The wrong IP address could be resolved to "192.168.1.33", then the device will get success.

2. [BUG FIXED]

Symptom: Ping "192.168.1.1 a" in eWC/Maintenance/Diagnostic, eWC will lock up.

Condition: The wrong parameter result continuous reply from the IP address.

3. [BUG FIXED]

Symptom: Ping address as "www.104.com.tw", will be led to ping fail.

Condition: The address is resolved to "0.104.0.0", so ping fail.

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4. [BUG FIXED]  
Symptom: Exception occurs when setting End IP smaller than Start IP in SMT menu 15.1.1.1 Address Mapping rules.  
Condition: At NAT full feature with many-to-one or many-to-many mapping rule, set End IP smaller than Start IP, then save it, DUT exception will occur.
5. [BUG FIXED]  
Symptom: In SMT menu 1, Domain Name display is wrong.  
Condition: It should be "A-Z" and "." instead of "A-z" and ",".
6. [BUG FIXED]  
Symptom: CLI command "device dial 1", the console displays two primary DNS.
7. [BUG FIXED]  
Symptom: Configure ADSL standard as G.DMT, delete Menu 4, then the mode will change to multimode, while default set to G.DMT.  
Condition: Delete SMT4 remote node, the ADSL standard will become Multimode, but Multimode doesn't work on AR7 annex B model.
8. [BUG FIXED]  
Symptom: QoS criteria violation.  
Condition: QoS criteria don't comply with the rule: Priority(CBR)> Priority(VBR)> Priority(UBR).
9. [BUG FIXED]  
Symptom: Device will reply wrong packet under ENET ENCAP + IES1000 combination.  
Condition: Connect PC(192.168.1.33), prestige router-1(192.168.1.10) and router-2(192.168.1.11) through IES 1000, PC ping router-2, OK; power off router-2, PC ping router-2 again, router-1 replies ICMP TTL= 0 & ICMP port Unreachable. In tracert route, 192.168.1.33's next-hop should be 192.168.1.11, but 192.168.1.10 answers.
10. [BUG FIXED]  
Symptom: Device will hang when change NAT configuration in SMT menu 4, if press "Enter" fast.  
Condition: Change NAT from SUA to NAT full feature, and presss "enter" key many times, only one time will not cause hanging.
11. [BUG FIXED]  
Symptom: PPPoE pass-through failed in eWC setup.  
Condition: In eWC wan setup, select the PPPoE mode and enable PPPoE pass-through, the PPPoE could link successfully but PPPoE pass-through failed.
12. [BUG FIXED]  
Symptom: The router discloses portions of memory contents to remote users.

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Condition: When send icmp packet with less data than normal, remote interface pad with data to complete the frame memory contents.

13. [BUG FIXED]

Symptom: in eWC, Advanced Setup – NAT , click "Edit Details", then information will be saved

14. [BUG FIXED]

Symptom: Delete menu 4 while VC hunt function enable, system reboot.

**Modifications in V 3.40(QQ.2)C0 | 06/04/2004**

1. Change to FCS version.

**Modifications in V 3.40(QQ.2)b1 | 05/29/2004**

1. [ENHANCEMENT]

Upgrade bootbase version to V1.08.

2. [ENHANCEMENT]

Upgrade modem code version to TI AR7 01.01.07.00.

3. [ENHANCEMENT]

Enhance zero configuration web pages.

4. [ENHANCEMENT]

Add feature: bandwidth management, zero configuration (include: any ip, auto-hunting, web-redirect), firmware re-download mechanism in boot extension, SIP Firewall ALG, WLAN watchdog recovery mechanism.

5. [ENHANCEMENT]

Add new firmware upgrade mechanism via FTP/TFTP/WEB in RAS.

6. [BUG FIXED]

Symptom: System can't hunt Enet Encap service.

Condition: Some DHCP server doesn't accept the DHCP probing patterns defined in previous version firmware. Modify the probing pattern so that all DHCP can reply this probing pattern.

7. [BUG FIXED]

Symptom: If you set right accounting server, password and enable it, when turn on/off authentication server or accounting server then system possible occurs reset.

Condition: This is because when smt23-2 changing setting, system would send out accounting off packet to server and then create a timer to wait ack in 5 seconds period. Once receiving ack off system would delete parameter entry\_p. In this time the "timer needs be stop" or after next 5 seconds the parameter entry\_p would cause double free problem, then system reset.

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8. [BUG FIXED]  
Symptom: 802.1x with dynamic WEP key cannot work when shared secret of accounting server is invalid  
Condition: 1. Enable smt23.2 authentication server and accounting server.  
2. 802.1x supplicant associate to AP with mode 802.1x dynamic wep.  
3. Modify smt23.2 accounting server shared secret with a wrong value.  
4. 802.1x supplicant was prohibited by 802.1x module.
9. [BUG FIXED]  
Symptom: SPT would show redundant error message "set TKIP key error" in Authentication required WPA mode if WPA broadcast key update Timer expired when wlan is not active  
Condition: Because wlan is not active so wlan chip is not initialized. In this time if setkeymapping() still set key into chip, it is naturally generate set key error.
10. [BUG FIXED]  
Symptom: Manually change current hour and press "Save" button, the saved value is wrong.  
Condition: Using Web to setting current hour then to save it.
11. [BUG FIXED]  
Symptom: Use ROM-d to put default ROM file will get malloc fail even available memory size is still large than RAS size.  
Condition: Use FTP\_BUFFER\_SIZE to alloc memory, instead of allocate the size of flash.
12. [BUG FIXED]  
Symptom: Apple Power book can't get IP when enable AnyIP..  
Condition: Ask IP behavior in Apple is different with PC. Router would misunderstand Apple wants to ask IP or do any IP. We add a condition for Apple which don't run any IP.
13. [BUG FIXED]  
Symptom: ATM UBR, VBR can't work.  
Condition: Fixed. Add VBR configuration at SAR channel setup.
14. [BUG FIXED]  
Symptom: Using 802.1X + dynamic WEP key under WPA mixed mode, it will ping timeout after re-authentication.  
Condition: In SMT 23.4, Setting 802.1x and Dynamic WEP key and setting the Re-authentication Timer as 60 secs---after the Client re-authentication, then the ping data from LAN to WAN will "timed out".
15. [BUG FIXED]  
Symptom: Using WPA-PSK must enable RADIUS server.  
Condition: Already fixed. Setting conflict problem.

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16. [BUG FIXED]

Symptom: Upload firmware from TFTP, FTP or eWC failed when DSL is link up.

Condition: Fixed.

**Modifications in V 3.40(QQ.1)C0 | 05/10/2004**

1. Change to FCS version.

**Modifications in V 3.40(QQ.1)b2 | 03/29/2004**

1. [FEATURE ENHANCED]

Modify the way of LED display for HTP test fail.

**Modifications in V 3.40(QQ.1)b1 | 03/26/2004**

1. [ENHANCEMENT]

Symptom: Add restore default romfile feature in boottext

Condition: 1. When system boot-up and into boottext state

2. Press the restore button for 3 second

3. The default rom-file will be restored without reboot

**Modifications in V 3.40(QQ.0)b3 | 03/15/2004**

1. [FEATURE ENHANCED]

Add hidden ESSID support in SMT3.5

2. [BUG FIXED]

Remove the help of Channel Usage under eWC.

**Modifications in V 3.40(QQ.0)b2 | 03/04/2004**

1. [FEATURE ENHANCED]

Upgrade ADSL data pump to version 01.01.03.00

2. [FEATURE ENHANCED]

Upgrade bootbase to version 1.05 for Intel FLASH support

## Annex A CI Command List

Command Class List Table		
<a href="#">System Related Command</a>	<a href="#">Exit Command</a>	<a href="#">Ethernet Related Command</a>
<a href="#">WAN Related Command</a>	<a href="#">WLAN Related Command</a>	<a href="#">IP Related Command</a>
<a href="#">PPP Related Command</a>	<a href="#">Bridge Related Command</a>	<a href="#">Radius Related Command</a>
<a href="#">8021x Related Command</a>	<a href="#">Firewall Related Command</a>	<a href="#">Configuration Related Command</a>
<a href="#">SMT Related Command</a>		

### System Related Command

[Home](#)

Command				Description
sys				
	adjtime			retrive date and time from Internet
	cbuf			
		display	[a f u]	display cbuf a: all f: free u: used
		cnt		cbuf static
			display	display cbuf static
			clear	clear cbuf static
	baud		<1..5>	change console speed
	callhist			
		display		display call history
		remove	<index>	remove entry from call history
	clear			clear the counters in GUI status menu
	countrycode		[countrycode]	set country code
	date		[year month date]	set/display date
	domainname			display domain name
	edit		<filename>	edit a text file
	enhanced			return OK if commands are supported for PWC purposes
	errctl		[level]	set the error control level 0:crash no save,not in debug mode (default) 1:crash no save,in debug mode 2:crash save,not in debug mode 3:crash save,in debug mode
	event			
		display		display tag flags information
		trace		display system event information
			display	display trace event
			clear <num>	clear trace event
	extraphnum			maintain extra phone numbers for outcalls
		add	<set 1-3> <1st phone num> [2nd phone num]	add extra phone numbers

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		display		display extra phone numbers
		node	<num>	set all extend phone number to remote node <num>
		remove	<set 1-3>	remove extra phone numbers
		reset		reset flag and mask
	feature			display feature bit
	fid			
		display		display function id list
	firmware			display ISDN firmware type
	hostname		[hostname]	display system hostname
	iface			
		disp	[#]	display iface list
	isr		[all used free]	display interrupt service routine
	interrupt			display interrupt status
	logs			
		category		
			access [0:none/1:log]	record the access control logs
			attack [0:none/1:log/2:alert/3:both]	record and alert the firewall attack logs
			display	display the category setting
			error [0:none/1:log/2:alert/3:both]	record and alert the system error logs
			ipsec [0:none/1:log]	record the access control logs
			mten [0:none/1:log]	record the system maintenance logs
			upnp [0:none/1:log]	record upnp logs
			urlblocked [0:none/1:log/2:alert/3:both]	record and alert the web blocked logs
			urlforward [0:none/1:log]	record web forward logs
		clear		clear log
		display		display all logs
		errlog		
			clear	display log error
			disp	clear log error
			online	turn on/off error log online display
		load		load the log setting buffer
		mail		
			alertAddr [mail address]	send alerts to this mail address
			display	display mail setting
			logAddr [mail address]	send logs to this mail address
			schedule display	display mail schedule
			schedule hour [0-23]	hour time to send the logs
			schedule minute [0-59]	minute time to send the logs
			schedule policy [0:full/1:hourly/2:daily/3:weekly/4:none]	mail schedule policy
			schedule week [0:sun/1:mon/2:tue/3:wed/4:thu/5:fri/6:sat]	weekly time to send the logs
			server [domainName/IP]	mail server to send the logs
			subject [mail subject]	mail subject
		save		save the log setting buffer
		syslog		
			active [0:no/1:yes]	active to enable unix syslog
			display	display syslog setting
			facility [Local ID(1-7)]	log the messages to different files

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		server [domainName/IP]	syslog server to send the logs
mbuf			
	cnt		
		disp	display system mbuf count
		clear	clear system mbuf count
	link	link	list system mbuf link
	pool	<id> [type]	list system mbuf pool
	status		display system mbuf status
	disp	<address>	display mbuf status
	debug	[on off]	
memory		<address> <length>	display memory content
memwrite		<address> <len> [data list ...]	write some data to memory at <address>
memwl		<address>	write long word to memory at <address>
memrl		<address>	read long word at <address>
memutil			
	usage		display memory allocate and heap status
	mqueue	<address> <len>	display memory queues
	mcell	mid [f u]	display memory cells by given ID
	msecs	[a f u]	display memory sections
	mtstart	<n-mcell>	start memory test
	mtstop		stop memory test
	mtalloc	<size> [n-mcell]	allocate memory for testing
	mtfree	<start-idx> [end-idx]	free the test memory
model			display server model name
proc			
	display		display all process information
	stack	[tag]	display process's stack by a give TAG
	pstatus		display process's status by a give TAG
queue			
	display	[a f u] [start#] [end#]	display queue by given status and range numbers
	ndisp	[qid]	display a queue by a given number
quit			quit CI command mode
reboot		[code]	reboot system code = 0 cold boot, = 1 immediately boot = 2 bootModule debug mode
reslog			
	disp		display resources trace
	clear		clear resources trace
stdio		[second]	change terminal timeout value
time		[hour [min [sec]]]	display/set system time
timer			
	disp		display timer cell
	trace	[on off]	set/display timer information online
	start	[tmValue]	start a timer
	stop	<ID>	stop a timer
trcdisp			monitor packets
trclog			
	switch	[on off]	set system trace log
	online	[on off]	set on/off trace log online
	level	[level]	set trace level of trace log #: 1-10
	type	<bitmap>	set trace type of trace log
	disp		display trace log

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	clear		clear trace
	call		display call event
	encapmask	[mask]	set/display tracelog encapsulation mask
trpacket			
	create	<entry> <size>	create packet trace buffer
	destroy		packet trace related commands
	channel	<name> [none incoming outgoing bothway]	<channel name>=enet0,sdsl00, fr0 set packet trace direction for a given channel
	string		enable smt trace log
	switch	[on off]	turn on/off the packet trace
	disp		display packet trace
	udp		send packet trace to other system
		switch [on off]	set tracepacket upd switch
		addr <addr>	send trace packet to remote udp address
		port <port>	set tracepacket udp port
	parse	[[start idx], end idx]	parse packet content
	brief		display packet content briefly
version			display RAS code and driver version
view		<filename>	view a text file
wdog			
	switch	[on off]	set on/off wdog
	cnt	[value]	display watchdog counts value: 0-34463
romreset			restore default romfile
server			
	access	<telnet ftp web icmp snmp dns> <value>	set server access type
	load		load server information
	disp		display server information
	port	<telnet ftp web snmp> <port>	set server port
	save		save server information
	secureip	<telnet ftp web icmp snmp dns> <ip>	set server secure ip addr
spt			
	dump		dump spt raw data
		root	dump spt root data
		rn	dump spt remote node data
		user	dump spt user data
		slot	dump spt slot data
	save		save spt data
	size		display spt record size
	clear		clear spt data
cmgr			
	trace		
		disp <ch-name>	show the connection trace of this channel
		clear <ch-name>	clear the connection trace of this channel
	cnt	<ch-name>	show channel connection related counter
socket			display system socket information
filter			
	clear		clear filter statistic counter
	disp		display filter statistic counters
	sw	[on off]	set filter status switch
	set	<set>	display filter rule
	netbios		

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			disp	display netbios filter status
			config <0:LAN to WAN, 1:WAN to LAN, 2:LAN to DMZ, 3:IPSec passthrough, 4:Trigger Dial> <on off>	config netbios filter
	ddns			
		debug	<level>	enable/disable ddns service
		display	<iface name>	display ddns information
		restart	<iface name>	restart ddns
		logout	<iface name>	logout ddns
	cpu			
		display		display CPU utilization

Exit Command

[Home](#)

Command			Description
exit			exit smt menu

Ethernet Related Command

[Home](#)

Command			Description	
ether				
	config		display LAN configuration information	
	driver			
		cnt		
		disp <name>	display ether driver counters	
		clear <name>	clear ether driver counters	
		iface	<ch_name> <num>	send driver iface
		ioctl	<ch_name>	Useless in this stage.
		mac	<ch_name> <mac_addr>	Set LAN Mac address
		reg	<ch_name>	display LAN hardware related registers
		rxmod	<ch_name> <mode>	set LAN receive mode. mode: 1: turn off receiving 2: receive only packets of this interface 3: mode 2+ broadcast 5: mode 2 + multicast 6: all packets
		status	<ch_name>	see LAN status
		init	<ch_name>	initialize LAN
	version			see ethernet device type
	pkttest			
		disp		
			packet <level>	set ether test packet display level
			event <ch> [on off]	turn on/off ether test event display
		sap	[ch_name]	send sap packet
		arp	<ch_name> <ip-addr>	send arp packet to ip-addr
		mem	<addr> <data> [type]	write memory data in address
	test		<ch_id> <test_id> [arg3] [arg4]	do LAN test
	pncconfig		<ch_name>	do pnc config
	mac		<src ch> <dest ch> <ipaddr>	fake mac address

WAN Related Command

[Home](#)

Command			Description
wan	adsl	chandata	ADSL channel data, line rate

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		opmode		Show the operational mode
		linedata		
			near	Show ADSL near end noise margin
			far	Show ADSL far end noise margin
		perpdata		Show performance information,CRC,FEC, error seconds..
		rateadap	[on/off]	Turn on/off rate adaptive mechanism
		reset		Reset ADSL modem, and must reload the modem code again
		status		ADSL status (ex: up, down or wait for init)
		open		Open ADSL line
		opencmd		Open ADSL line with specific standard
			gdm	
			multimode	
		close		Close ADSL line
		targetnoise	[value]	Set the CTRL register (0xc4), the value is from 0xfa to 0x06
		errorsecond		
			switch	
			shutdown	
			sendes	Send current error second information immediately
			debug	
		driver		
			info	
			poll	
			retrain	
			idle	
			quiet	
atm	test		[fix rand period oam loopback]	Generate ATM traffic
hwsar	disp			Display hwsar packets incoming/outgoing information
	clear			Clear hwsar packets information

WLAN Related Command

[Home](#)

Wlan		Command		Description
	active	[on/off]	[0 1]	Turn on/off wireless lan
	association			Show association list
	load			Load WLAN configuration into buffer.
	Display			Display WLAN configuration data.
	chid			Configure channel ID
	ssid			Configure ESSID
	hiddenssid		[on/off]	Enable/Disable hidden SSID
	threshold			
		rts	<RTS threshold value>	Set threshold rts value
		Fragment	<Fragment threshold value>	Set threshold fragmentation value
	wep			
		type	<none 64 128 256>	Set WEP key to 64, 128 or 256 bits.
		Key	Set <set> <value>	Set WEP key value per set
		Key	Default <set>	Set WEP default key set
	macfilter			
		Enable		Enable macfilter

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	Disable		Disable macfilter
	Action	<allow deny>	When action match, allow or deny this mac
	Set	<Set#> <MAC Address>	Set mac address by set
Clear			Clear all WLAN configuration data.
Save			Save WLAN configuration working buffer to Rom file.
Power		[1:19dbm, 2:18dbm, 3:16dbm, 4:15dbm, 5:14dbm]	Change TX power level.
reset			Reset WLAN
filter			
	[incoming   outgoing]	<generic>[set#1][set#2][set#3][set#4]	To set generic filter for wireless channel
fildisp			Display wireless filter setting
1130cmd			Internal usage.
	restart stat		Show WLAN restart statistics
	chg_dot11mode		Set WLAN state to mix mode, B only or G only
	show_rxDesc		Show number of Rx host descriptors
	acxstat		Show acx run time statistics

IP Related Command

[Home](#)

Command			Description
ip			
	address	[addr]	display host ip address
	<a href="#">loopbackaddr</a>	<IP1> [IP2]	<a href="#">Set loopback address.</a>
	alias	<iface>	alias iface
	aliasdis	<0 1>	disable alias
	arp		
	status	<iface>	display ip arp status
	add	<hostid> ether <ether addr>	add arp information
	resolve	<hostid>	resolve ip-addr
	drop	<hostid> [hardware]	drop arp
	flush		flush arp table
	publish		add proxy arp
	dhcp	<iface>	
	client		
		release	release DHCP client IP
		renew	renew DHCP client IP
	mode	<server relay none client>	set dhcp mode
	relay	server <serverIP>	set dhcp relay server ip-addr
	reset		reset dhcp table
	server		
		probecount <num>	set dhcp probe count
		dnsserver <IP1> [IP2] [IP3]	set dns server ip-addr
		<a href="#">winsserver &lt;winsIP1&gt; [&lt;winsIP2&gt;]</a>	<a href="#">set wins server ip-addr</a>
		gateway <gatewayIP>	set gateway
		hostname <hostname>	set hostname
		initialize	fills in DHCP parameters and initializes (for PWC purposes)
		leasetime <period>	set dhcp leasetime
		netmask <netmask>	set dhcp netmask
		pool <startIP> <numIP>	set dhcp ip pool
		renewaltime <period>	set dhcp renew time

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		rebindtime <period>	set dhcp rebind time
		reset	reset dhcp table
		server <serverIP>	set dhcp server ip for relay
		dnsorder [router isp]	set dhcp dns order
	status	[option]	show dhcp status
	static		
		delete <num> all	delete static dhcp mac table
		display	display static dhcp mac table
		update <num> <mac> <ip>	update static dhcp mac table
dns			
	query		
		address <ipaddr> [timeout]	resolve ip-addr to name
		debug <num>	enable dns debug value
		name <hostname> [timeout]	resolve name to ip-addr
		status	display dns query status
		table	display dns query table
	server	<primary> [secondary] [third]	set dns server
	stats		
		clear	clear dns statistics
		disp	display dns statistics
	table		display dns table
httpd			
	debug	[on off]	set http debug flag
icmp			
	echo	[on off]	set icmp echo response flag
	data	<option>	select general data type
	status		display icmp statistic counter
	trace	[on off]	turn on/off trace for debugging
	discovery	<iface> [on off]	set icmp router discovery flag
ifconfig		[iface] [ipaddr] [broadcast <addr>  mtu <value> dynamic]	configure network interface
ifdrop		<iface>	chaek if iface is available.
ping		<hostid>	ping remote host
pong		<hostid> [<size> <time-interval>]	pong remote host
extping		<target address>	
		[-t]	Continue to send ECHO_REQ until Ctrl-C input
		[-c]	Validate the reply data
		[-d] [Data]	Data pattern. The maximum length of data is 255 characters.
		[-f]	Set DF flag.
		[-l] [Data size]	Datagram size in bytes (with 28 bytes Header).
		[-v] [TOS value]	Specify the value of TOS flag.
		[-n] [Repeat value]	The number of times to send ECHO_REQ packet.
		[-w] [Timeout value]	Specify the value of Timeout in seconds.
		[-o] [IP address/IFace]	To specify one IP address or interface to be the Source IP address.
		[-p] [Min MTU] [Max MTU] [Interval size]	Sweep range of sizes.
route			
	status	[if]	display routing table
	add	<dest_addr default>[/<bits>] <gateway> [<metric>]	add route
	addiface	<dest_addr default>[/<bits>]	add an entry to the routing table to iface

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		<gateway> [<metric>]	
	addprivate	<dest_addr default>[/<bits>] <gateway> [<metric>]	add private route
	drop	<host addr> [/<bits>]	drop a route
	flush		flush route table
	lookup	<addr>	find a route to the destination
	errent		
		disp	display routing statistic counters
		clear	clear routing statistic counters
status			display ip statistic counters
adjTcp		<iface> [<mss>]	adjust the TCP mss of iface
udp			
	status		display udp status
rip			
	accept	<gateway>	drop an entry from the RIP refuse list
	activate		enable rip
	merge	[on/off]	set RIP merge flag
	refuse	<gateway>	add an entry to the rip refuse list
	request	<addr> [port]	send rip request to some address and port
	reverse	[on/off]	RIP Poisoned Reverse
	status		display rip statistic counters
	trace		enable debug rip trace
	mode		
		<iface> in [mode]	set rip in mode
		<iface> out [mode]	set rip out mode
	dialin_user	[show in out both none]	show dialin user rip direction
tcp			
	ceiling	[value]	TCP maximum round trip time
	floor	[value]	TCP minimum rtt
	irtt	[value]	TCP default init rtt
	kick	<tcb>	kick tcb
	limit	[value]	set tcp output window limit
	max-incomplete	[number]	Set the maximum number of TCP incomplete connection.
	mss	[value]	TCP input MSS
	reset	<tcb>	reset tcb
	rtt	<tcb> <value>	set round trip time for tcb
	status	[tcb] [<interval>]	display TCP statistic counters
	syndata	[on/off]	TCP syndata piggyback
	trace	[on/off]	turn on/off trace for debugging
	window	[tcb]	TCP input window size
samenet		<iface1> [<iface2>]	display the ifaces that in the same net
uninet		<iface>	set the iface to uninet
tftp			
	support		pritrn if tftpt is support
	stats		display tftp status
xparent			
	join	<iface1> [<iface2>]	join iface2 to iface1 group
	break	<iface>	break iface to leave ipxparent group
antiprobe		<0 1> 1:yes 0:no	set ip anti-probe flag
igmp			
	debug	[level]	set igmp debug level
	forwardall	[on/off]	turn on/off igmp forward to all interfaces flag
	querier	[on/off]	turn on/off igmp stop query flag

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		iface		
			<iface> groupm <timeout>	set igmp group timeout
			<iface> interval <interval>	set igmp query interval
			<iface> join <group>	join a group on iface
			<iface> leave <group>	leave a group on iface
			<iface> query	send query on iface
			<iface> rsptime [time]	set igmp response time
			<iface> start	turn on of igmp on iface
			<iface> stop	turn off of igmp on iface
			<iface> ttl <threshold>	set ttl threshold
			<iface> v1compat [on/off]	turn on/off v1compat on iface
		robustness	<num>	set igmp robustness variable
		status		dump igmp status
	pr			
		clear		clear ip pr table counter information
		disp		dump ip pr table counter information
		switch		turn on/off ip pr table counter flag
	nat			
		timeout		
			gre [timeout]	set nat gre timeout value
			iamt [timeout]	set nat iamt timeout value
			generic [timeout]	set nat generic timeout value
			reset [timeout]	set nat reset timeout value
			tcp [timeout]	set nat tcp timeout value
			tcpother [timeout]	set nat tcp other timeout value
		update		create nat system information from spSysParam
		iamt		display nat iamt information
		iface	<iface>	show nat status of an interface
		lookup	<rule set>	display nat lookup rule
		new-lookup	<rule set>	display new nat lookup rule
		loopback	[on/off]	turn on/off nat loopback flag
		reset	<iface>	reset nat table of an iface
		server		
			disp	display nat server table
			load <set id>	load nat server information from ROM
			save	save nat server information to ROM
			clear <set id>	clear nat server information
			edit active <yes no>	set nat server edit active flag
			edit svrport <start port> [end port]	set nat server server port
			edit intport <start port> [end port]	set nat server forward port
			edit remotehost <start ip> [end ip]	set nat server remote host ip
			edit leasetime [time]	set nat server lease time
			edit rulename [name]	set nat server rule name
			edit forwardip [ip]	set nat server server ip
			edit protocol [protocol id]	set nat server protocol
		service		
			irc [on/off]	turn on/off irc flag
		resetport		reset all nat server table entries
		incikeport	[on/off]	turn on/off increase ike port flag

PPP Related Command

[Home](#)

Command			Description
ppp			
	autotrigger		

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		on	<remoteNodeIndex>	turn on packet trigger, default is enable
		off	<remoteNodeIndex>	turn off packet trigger
		status		show autotrigger status
	retry		<interval>	adjust PPP retrial interval

**Bridge Related Command**

[Home](#)

Command				Description
bridge				
	mode		<1/0> (enable/disable)	turn on/off (1/0) LAN promiscuous mode
	blt			related to bridge local table
		disp	<channel>	display blt data
		reset	<channel>	reset blt data
		traffic		display local LAN traffic table
		monitor	[on off]	turn on/off traffice monotor. Default is off.
		time	<sec>	set blt re-init interval
	brt			related to bridge route table
		disp	[id]	display brt data
		reset	[id]	reset brt data
	cnt			related to bridge routing statistic table
		disp		display bridge route counter
		clear		clear bridge route counter
	stat			related to bridge packet statistic table
		disp		display bridge route packet counter
		clear		clear bridge route packet counter
	disp			display bridge source table

**Radius Related Command**

[Home](#)

Command				Description
radius				
	auth			show current radius authentication server configuration
	acco			show current radius accounting server configuration

**8021x Related Command**

[Home](#)

Command				Description
8021x				
	debug	level	[debug level]	set ieee802.1x debug message level
		trace		show all supplications in the supplication table
		user	[username]	show the specified user status in the supplicant table

**Configuration Related Command**

[Home](#)

Command				Description
config				The parameters of config are listed below.
edit	firewall	active <yes no>		Activate or deactivate the saved firewall settings
retrieve	firewall			Retrieve current saved firewall settings
save	firewall			Save the current firewall settings
display	firewall			Displays all the firewall settings

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		set <set#>			Display current entries of a set configuration; including timeout values, name, default-permit, and number of rules in the set.
		set <set#>	rule <rule#>		Display current entries of a rule in a set.
		attack			Display all the attack alert settings in PNC
		e-mail			Display all the e-mail settings in PNC
		?			Display all the available sub commands
		e-mail	mail-server <mail server IP>		Edit the mail server IP to send the alert
			return-addr <e-mail address>		Edit the mail address for returning an email alert
			e-mail-to <e-mail address>		Edit the mail address to send the alert
			policy <full   hourly  daily   weekly>		Edit email schedule when log is full or per hour, day, week.
			day <sunday   monday   tuesday   wednesday   thursday   friday   saturday>		Edit the day to send the log when the email policy is set to Weekly
			hour <0~23>		Edit the hour to send the log when the email policy is set to daily or weekly
			minute <0~59>		Edit the minute to send to log when the email policy is set to daily or weekly
			Subject <mail subject>		Edit the email subject
		attack	send-alert <yes no>		Activate or deactivate the firewall DoS attacks notification emails
			block <yes no>		Yes: Block the traffic when exceeds the tcp-max-incomplete threshold
					No: Delete the oldest half-open session when exceeds the tcp-max-incomplete threshold
			block-minute <0~255>		Only valid when sets 'Block' to yes. The unit is minute
			minute-high <0~255>		The threshold to start to delete the old half-opened sessions to minute-low
			minute-low <0~255>		The threshold to stop deleting the old half-opened session
			max-incomplete- high <0~255>		The threshold to start to delete the old half-opened sessions to max-incomplete-low
			max-incomplete- low <0~255>		The threshold to stop deleting the half-opened session
			tcp-max-incompl ete <0~255>		The threshold to start executing the block field
		set <set#>	name <desired name>		Edit the name for a set
			default-permit <forward block>		Edit whether a packet is dropped or allowed when it does not match the default set
			icmp-timeout <seconds>		Edit the timeout for an idle ICMP session before it is terminated
			udp-idle-timeout <seconds>		Edit the timeout for an idle UDP session before it is terminated
			connection-timeo ut <seconds>		Edit the wait time for the SYN TCP sessions before it is terminated

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			fin-wait-timeout <seconds>		Edit the wait time for FIN in concluding a TCP session before it is terminated
			tcp-idle-timeout <seconds>		Edit the timeout for an idle TCP session before it is terminated
			pnc <yes no>		PNC is allowed when 'yes' is set even there is a rule to block PNC
			log <yes no>		Switch on/off sending the log for matching the default permit
			rule <rule#>	permit <forward block>	Edit whether a packet is dropped or allowed when it matches this rule
				active <yes no>	Edit whether a rule is enabled or not
				protocol <0~255>	Edit the protocol number for a rule. 1=ICMP, 6=TCP, 17=UDP...
				log <none match not-match both>	Sending a log for a rule when the packet none matches not match both the rule
				alert <yes no>	Activate or deactivate the notification when a DoS attack occurs or there is a violation of any alert settings. In case of such instances, the function will send an email to the SMTP destination address and log an alert.
				srcaddr-single <ip address>	Select and edit a source address of a packet which complies to this rule
				srcaddr-subnet <ip address> <subnet mask>	Select and edit a source address and subnet mask if a packet which complies to this rule.
				srcaddr-range <start ip address> <end ip address>	Select and edit a source address range of a packet which complies to this rule.
				destaddr-single <ip address>	Select and edit a destination address of a packet which complies to this rule
				destaddr-subnet <ip address> <subnet mask>	Select and edit a destination address and subnet mask if a packet which complies to this rule.
				destaddr-range <start ip address> <end ip address>	Select and edit a destination address range of a packet which complies to this rule.
				tcp destport-single <port#>	Select and edit the destination port of a packet which comply to this rule. For non-consecutive port numbers, the user may repeat this command line to enter the multiple port numbers.
				tcp destport-range <start port#> <end port#>	Select and edit a destination port range of a packet which comply to this rule.
				udp destport-single <port#>	Select and edit the destination port of a packet which comply to this rule. For non-consecutive port numbers, users may repeat this command line to enter the multiple port numbers.
				udp destport-range <start port#> <end port#>	Select and edit a destination port range of a packet which comply to this rule.
				desport-custom <desired custom port name>	Type in the desired custom port name
delete	firewall	e-mail			Remove all email alert settings

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		attack			Reset all alert settings to defaults
		set <set#>			Remove a specified set from the firewall configuration
		set <set#>	rule <rule#>		Remove a specified rule in a set from the firewall configuration
insert	firewall	e-mail			Insert email alert settings
		attack			Insert attack alert settings
		set <set#>			Insert a specified rule set to the firewall configuration
		set <set#>	rule <rule#>		Insert a specified rule in a set to the firewall configuration
cli					Display the choices of command list.

Firewall Related Command

[Home](#)

Command				Description
sys				
	firewall			
		acl		
			disp	Display specific ACL set # rule #, or all ACLs.
		active	<yes/no>	Active firewall or deactivate firewall
		cnt		
			disp	Display firewall log type and count.
			clear	Clear firewall log count.
		pktdump		Dump the 64 bytes of dropped packet by firewall
		update		Update firewall
		dynamicrule		
		tcprst		
			rst	Set TCP reset sending on/off.
			rst113	Set TCP reset sending for port 113 on/off.
			display	Display TCP reset sending setting.
		icmp		
		dos		
			smtp	Set SMTP DoS defender on/off
			display	Display SMTP DoS defender setting.
			ignore	Set if firewall ignore DoS in lan/wan/dmz/wlan
		ignore		
			triangle	Set if firewall ignore triangle route in lan/wan/dmz/wlan

SMT Related command

[Home](#)

No	Command	Description	Comment
	sys bridge [on/off]	Set system bridge on/off	Menu 1
	sys routeip [on/off]	Set system IP routing on/off	Menu 1
	sys hostname [hostname]	Set system name	Menu 1
	sys display	Display hostname, routing/bridge mode information in menu 1	Display Menu 1
	sys default	Load All Default Settings Except LAN and DHCP.	
	sys save	Save all the parameters which will include menu1, menu 3.2 LAN, menu 4 or menu 11 WAN, menu 12 static route, menu 15 NAT server set, menu 21 filter sets, menu 22 SNMP, menu 24.11 remote management and 3.5 Wireless LAN	

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	wan backup <a href="#">mechanism</a> [dsl   icmp]	Set wan backup mechanism to DSL link or ICMP	Menu 2
	wan backup addr [index] [IP addr]	Set wan ip address <index>	Menu 2
	wan backup tolerance [number]	Set keepalive fail tolerance	Menu 2
	wan backup recovery [interval(sec)]	Set recovery interval	Menu 2
	wan backup timeout [number]	Set ICMP timeout	Menu 2
	wan backup save	Save wan backup related parameters	Menu 2
	wan backup display	Display wan backup configurations	Menu 2
	wan tredir active [on/off]	Set traffic redirect on/off	Menu 2.1
	wan tredir ip [IP addr]	Set traffic redirect gateway IP address	Menu 2.1
	wan tredir metric [number]	Set traffic redirect metric	Menu 2.1
	<a href="#">wan tredir save</a>	<a href="#">Save traffic redirect related parameters</a> <b>** Have to apply “wan backup save” command thereafter</b>	<a href="#">Menu 2.1</a>
	wan tredir display	Display traffic redirect configurations	Menu 2.1
	lan index [1 2 3] 1: Select main LAN Interface 2: Select IP Alias 1 3: Select IP Alias 2	Select a LAN interface to edit	Menu 3.2
	lan active [on/off]	Turn on or off on IP Alias Interface	Menu 3.2.1
	lan ipaddr [address] [subnet mask]	Set LAN IP address and subnet mask Example: > lan ipaddr 192.168.1.1 255.255.255.0	Menu 3.2
	lan rip [none in out both] [rip1 rip2b rip2m]	Set LAN IP RIP mode and RIP version, if you choose none in the first parameter, the second parameter is also necessary	Menu 3.2
	lan multicast [none igmpv1 igmpv2]	Set LAN IP multicast mode	Menu 3.2
	lan filter [incoming outgoing] [tcpip generic] [set#1] [set#2] [set#3] [set#4]	Set LAN filter to be incoming/outgoing or protocol /device and the filter set could be 1-12, 0 means empty Example: Lan filter incoming tcpip 1 0 0 0	Menu 3.1
	lan dhcp mode [server relay none]	Set DHCP mode to be “server”, “relay”, “none”	Menu 3.2
	lan dhcp server dnsserver [pri dns] [sec dns]	Set primary and secondary LAN DNS server	Menu 3.2
	lan dhcp server pool [start-address] [num]	Set DHCP start address and pool size	Menu 3.2
	lan dhcp server gateway [IP address]	Set DHCP gateway	Menu 3.2
	lan dhcp server netmask [subnet mask]	Set DHCP subnet mask	Menu 3.2
	lan dhcp server leasetime [second]	Set DHCP lease time	Menu 3.2
	lan dhcp server renewalttime [second]	Set DHCP renew time	Menu 3.2
	lan dhcp server rebindtime [second]	Set DHCP rebind time	Menu 3.2
	lan dhcp relay server [IP address]	Set IP address of DHCP relay server	Menu 3.2
	lan display	Display LAN or IP alias parameters	Display Menu 3
	lan clear	Clear the Working Buffer	
	lan save	Save LAN related parameters	
	wan node index [1-8]	Set the node pointer to specific wan profile. If you want to set WAN profile, please use this command first, system will use the index number for pointing to specific PVC (remote node), and for consequent commands reference, if index = 1 means it's ISP node	Menu 11.1
	wan node clear	Clear the parameters of the temporary WAN profile	Menu 11.1
	wan node ispname [ISP name]	Enable the name of wan node	Menu 11.1
	wan node enable	Enable the wan profile	Menu 11.1
	wan node disable	Disable the wan profile	Menu 11.1
	wan node encap [1483 pppoe pppoe enet]	Set the wan protocol	Menu 11.1
	wan node mux [vc llc]	Set the wan multiplex	Menu 11.1

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wan node ppp authen [chap pap both]	Set PPP authentication type	Menu 11.1
wan node ppp username [name]	Set PPP username	Menu 11.1
wan node ppp password [password]	Set PPP password	Menu 11.1
wan node service [name]	Set PPPoE service name	Menu 11.1
wan node bridge [on off]	Set the wan bridge mode	Menu 11.1
wan node routeip [on off]	Set the wan IP routing mode	Menu 11.1
wan node callsch [set1#][set2#][set3#][set4#]	Set call schedule set, set number 0 means empty	Menu 11.1
wan node nailedup [on off]	Set nailed up connection on/off	Menu 11.1
wan node vpi [num]	Set the wan vpi. Range : 0~255	Menu 11.6
wan node vci [num]	Set the wan vci. Range : 32~65535	Menu 11.6
wan node qos[ubr cbr]	Set the wan QOS type to be UBR or CBR	Menu 11.6
wan node pcr [num]	Set the wan PCR value	Menu 11.6
wan node scr [num]	Set the wan SCR value	Menu 11.6
wan node mbs [num]	Set the wan MBS value	Menu 11.6
wan node wanip [static dynamic] [address]	Set the wan IP address	Menu 11.3
wan node remoteip [address] [subnet mask]	Set the remote gateway IP address and subnet mask	Menu 11.3
wan node nat [off sua full] [address mapping #]	Set type wan NAT mode to be off or SUA or Full feature	Menu 11.3
wan node rip [none in out both] [rip1 rip2b rip2m]	Set the wan RIP mode and RIP version	Menu 11.3
wan node multicast [none igmpv1 igmpv2]	Set the wan IP multicast mode	Menu 11.3
wan node filter [incoming outgoing] [tcpip generic] [set #1] [set #2] [set #3] [set #4]	Set WAN filter, incoming or outgoing can be specified, and filter set can be 1-12, value 0 means empty	Menu 11.5
wan node save	Save the related parameters of WAN node	
wan node display	Display WAN profile configuration in buffer	Display Menu 11
ip route addrom index [Rule #]	Select a Static Route index 1-16 to edit	Menu 12.1
ip route addrom name [Name]	Set Rule Name	Menu 12.1
ip route addrom active [on off]	Set Active or Inactive Flag	Menu 12.1
ip route addrom set [dest address/ mask bits] [gateway] [metric]	Set IP static route Example: > ip ro addrom set 192.168.1.33/24 192.168.1.1 2	Menu 12.1
ip route addrom private [yes no]	Set Private Flag	Menu 12.1
ip route addrom disp	Display both working buffer and Editing Entry	Menu 12.1
ip route addrom freememory	Discard all changes	Menu 12.1
ip route addrom save	Save edited settings	Menu 12.1
ip route addrom clear [Index #]	Clear Static Route Index	Menu 12.1
ip nat addrmap map [map#] [set name]	Select NAT address mapping set and set mapping set name, but set name is optional Example: > ip nat addrmap map 1 myset	Menu 15.1
ip nat addrmap rule [rule#] [insert   edit] [type] [local start IP] [local end IP] [global start IP] [global end IP] [server set #]	Set NAT address mapping rule. If the “type” is not “inside-server” then the “type” field will still need a dummy value like “0”. Type is 0 - 4 = one-to-one, many-to-one, many-to-many-overload, many-to-many-non overload, inside-server Example: > ip nat addrmap rule 1 edit 3 192.168.1.10 192.168.1.20 192.168.10.56 192.168.1.56 0	Menu 15.1

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ip nat addrmap clear [map#] [rule#]	Clear the selected rule of the set	Menu 15.1
ip nat addrmap freememory	Discard Changes	Menu 15.1
ip nat addrmap disp	Display nat set information	Menu 15.1
ip nat addrmap save	Save settings	Menu 15.1
ip nat server load [set#]	Load the server sets of NAT into buffer	Menu 15.2
ip nat server disp [1]	“disp 1” means to display the NAT server set in buffer, if parameter “1” is omitted, then it will display all the server sets	Menu 15.2
ip nat server save	Save the NAT server set buffer into flash	Menu 15.2
ip nat server clear [set#]	Clear the server set [set#], must use “save” command to let it save into flash	Menu 15.2
ip nat server edit [rule#] active	Activate the rule [rule#], rule number is 1 to 24, the number 25-36 is for UPNP application	Menu 15.2
ip nat server edit [rule#] svrport <start port> <end port>	Configure the port range from <start port > to <end port>	Menu 15.2
ip nat server edit [rule#] remotehost <start IP> <end IP>	Configure the IP address range of remote host (Leave it to be default value if you don’t need this command)	Menu 15.2
ip nat server edit [rule#] leasetime <seconds>	Configure the lease time (Leave it to be default value if you don’t want this command)	Menu 15.2
ip nat server edit [rule#] rulename <string>	Configure the name of the rule (Leave it to be default value if you don’t want this command)	Menu 15.2
ip nat server edit [rule#] forwardip <IP address>	Configure the LAN IP address to be forwarded	Menu 15.2
ip nat server edit [rule#] protocol <TCP UDP ALL>	Configure the protocol to be used TCP , UDP or ALL (it must be capital)	Menu 15.2
sys filter set index [set#] [rule#]	Set the index of filter set rule, you may apply this command first before you begin to configure the filter rules	Menu 21 filter sets
sys filter set name [set name]	Set the name of filter set	Menu 21 filter sets
sys filter set type [tepip   generic]	Set the type of filter rule	Menu 21 filter sets
sys filter set enable	Enable the rule	Menu 21 filter sets
sys filter set disable	Disable the rule	Menu 21 filter sets
sys filter set protocol [protocol #]	Set the protocol ID of the rule	Menu 21 filter sets
sys filter set sourceroute [yes no]	Set the sourceroute yes/no	Menu 21 filter sets
sys filter set destip [address] [subnet mask]	Set the destination IP address and subnet mask of the rule	Menu 21 filter sets
sys filter set destport [port#] [compare type = none equal notequal less greater]	Set the destination port and compare type (compare type could be 0(none) 1(equal) 2(not equal) 3(less) 4(greater) )	Menu 21 filter sets
sys filter set srcip [address] [subnet mask]	Set the source IP address and subnet mask	Menu 21 filter sets
sys filter set srcport [port#] [compare type = none equal not equal less greater]	Set the source port and compare type (compare type could be 0(none) 1(equal) 2(not equal) 3(less) 4(greater) )	Menu 21 filter sets
sys filter set tcpEstab [yes no]	Set TCP establish option	
sys filter set more [yes no]	Set the more option to yes/no	Menu 21 filter sets
sys filter set log [type 0-3= none   match  notmatch   both ]	Set the log type (it could be 0-3 =none, match, not match, both)	Menu 21 filter sets
sys filter set actmatch[type 0-2 = checknext   forward   drop]	Set the action for match	Menu 21 filter sets
sys filter set actnomatch [type 0-2 = checknext   forward   drop]	Set the action for not match	Menu 21 filter sets
sys filter set offset [#]	Set offset for the generic rule	Menu 21, it’s for generic filter
sys filter set length [#]	Set the length for generic rule	Menu 21, it’s for generic filter
sys filter set mask [#]	Set the mask for generic rule	Menu 21, it’s for generic filter
sys filter set value [(depend on length in hex)]	Set the value for generic rule	Menu 21, it’s for

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			generic filter
	sys filter set clear	Clear the current filter set	Menu 21
	sys filter set save	Save the filter set parameters	
	sys filter set display [set#][rule#]	Display Filter set information. W/o parameter, it will display buffer information.	
	sys filter set freememory	Discard Changes	
	sys snmp disp	Display SNMP parameters	Menu 22
	sys snmp get [community]	Set the community string of get	Menu 22 SNMP
	sys snmp set [community]	Set the community string of set	Menu 22 SNMP
	sys snmp trusthost [IP address]	Set the IP address of trusted host	Menu 22 SNMP
	sys snmp trap community [community]	Set the community string of trap	Menu 22 SNMP
	sys snmp trap destination [IP address]	Set the destination address of trap	Menu 22 SNMP
	sys snmp discard	Discard changes	
	sys snmp clear	Clear Working Buffer	
	sys snmp save	Set the SNMP parameters	Menu 22 SNMP
	sys password [new password]	Set system password [save immediately]	Menu 23 system password
	sys baud [1-5]	Index 1,2,3 will be 38400,19200, 9600, 57600, 115200 bps [save immediately]	Menu 24.2.2 console speed
	sys server load	Load setting before editing	
	sys server access [ftp telnet web] [access type]	Set the server access type to be 0: ALL, 1: None, 2:LAN only, 3:WAN only	Menu 24.11 remote management
	sys server port [ftp telnet web] [port]	Set the server port number	Menu 24.11 remote management
	sys server secureip[ftp telnet web] [address]	Set the server security IP address	Menu 24.11 remote management
	sys server disp [1]	Display server settings, [1] means display buffer	
	sys server save	Save the embedded server (remote management) parameters	
	wlan load	Load system parameters into working buffer	Menu 3.5 for Wireless LAN
	wlan disp	Display the working buffer	Menu 3.5 for Wireless LAN
	wlan essid [name]	Set the wireless ESSID	Menu 3.5 for wireless LAN
	wlan hideessid [on off]	Set to hide ESSID or not	Menu 3.5 for wireless LAN
	wlan chid [#=1~11]	Set channel ID 1-11	Menu 3.5 for wireless LAN
	wlan threshold rts [value]	Set the RTS threshold value	Menu 3.5 for wireless LAN
	wlan threshold fragment [value]	Set fragment threshold	Menu 3.5 for wireless LAN
	wlan wep type [none 64 128]	Set the wep type to be none, 64bit or 128bits	Menu 3.5 for wireless LAN
	wlan wep key set [key set#1-4] [key value]	Set wep key value	Menu 3.5 for wireless LAN
	wlan wep key default [key set # 1-4]	Set default key set value	Menu 3.5 for wireless LAN

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	wlan macfilter enable	Enable mac filter	Menu 3.5.1 for wireless LAN
	wlan macfilter disable	Disable mac filter	Menu 3.5.1 for wireless LAN
	wlan macfilter action [allow deny]	Set the action type of filter	Menu 3.5.1 for wireless LAN
	wlan macfilter set [set# 1-12] [mac address]	Set the mac address of filter	Menu 3.5.1 for wireless LAN
	wlan clear	Clear Working Buffer	
	wlan save	Save wireless MAC filter parameters	