



Firmware Release Note

Prestige 652R-11

Release 3.40(FN.5)C0

Date: October 2, 2002

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ZyXEL Prestige 652R-11 Standard Version release 3.40(FN.5)C0 Release Note

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Supported Platforms:

ZyXEL Prestige 652R-11

Versions:

ZyNOS F/W Version: V3.40(FN.5) | 10/2/2002 14:52:14

Bootbase Version: V1.05 | 7/29/2002 11:53:18

Notes:

1. The Prestige 652, is 3rd generation of ZyXEL ADSL product family. It is a high performance ADSL router for small/medium office to have Internet access and LAN-to-LAN application through ADSL connection over the existing copper line. The high performance ADSL router is integrated advanced firewall and VPN features to meet the demand of high-end market.

Main features for FCS:

- Support Multi-Mode standard (ANSI T1.413, Issue 2; G.dmt(G.992.1); G.lite(G992.2)).
- 1 auto-sensing 10/100M Ethernet interface
- Support Multi-protocol over AAL5 (RFC2684)
- Support PPP over ATM AAL5 (RFC 2364)
- Support PPP over Ethernet (RFC2516)
- Support up to 8 PVCs
- DHCP Client, Sever and Relay
- RIP I/ RIP II supported.
- IP alias/IP Multicasting/Policy Routing
- TFTP/FTP server for firmware upgrade
- F4/F5 OAM
- Multi-NAT/SUA
- Dynamic DNS
- Firewall with Stateful Inspection, DoS (Denial of Services) supports
- Web-based Configurations
- Script configuration from WAN side (SPTGen)
- Transparent bridging VLAN-tagging support

- VPN (2 IPsec sessions)
 - Dial back up
2. For PPPoE, system must turn off the PPP VJ header compression. The command is as following:
“ppp ipcp compress off”, this command is already added into “autoexec.net”
 3. Alcatel modem code version is 3.8.163

Known Issues:

1. When VPN tunnel is up, user can't ftp router's LAN IP from wan side.
2. Windows Messenger in WinXP/WinMe which support UPNP can't use “File Transfer” from Lan side to Wan side while FireWall enable. This issue is due to Microsoft not support file transfer in UPNP now.

CI Command List:

Features:

Modification in 3.40(FN.5)b7 | 10/1/2002

1. [BUG FIXED]
Symptom: NAT server and Firewall cause 4-byte boundary problem.
Condition: While enable NAT server and Firewall, sometimes access NAT server from wan side will cause router reboot.

Modification in 3.40(FN.5)b6 | 9/26/2002

1. [BUG FIXED]
Symptom: Snmp cause system reboot.
Condition: While testing SNMP with MIB Browser will cause system reboot.
2. [FEATURE ENHANCED] WEB: Modify the Firmware upload successful message page.

Modification in 3.40(FN.5)b5 | 9/24/2002

1. [FEATURE ENHANCED] WEB: Modify the restore factory configuration file page.

Modification in 3.40(FN.5)b4 | 9/20/2002

1. [BUG FIXED]
Symptom: Dial-backup doesn't redirect to SUA-Server.
Condition: While traffic redirect to dial backup port, user can't access SUA-Server at P652's Lan side.
2. [FEATURE ENHANCED] Add subnet mask field in WEB GUI wizard of ENET ENCAP

Modification in 3.40(FN.5)b3 | 9/13/2002

1. [BUG FIXED]
Symptom: NAT server set in WEB can't work if we set the Rule 1.
Condition: In WEB, while we set the NAT Server set at rule 1, it can save but can't work fine.
2. [BUG FIXED]
Symptom: VPN log in WEB is unreadable.
Condition: In web VPN log, the display is unreadable. It should be in order by topic index.
3. [BUG FIXED]

Symptom: Web page display will be out of order.

Condition: In Web configuration, the column will out of order while we set firewall rule set then enable Upnp.

4. [BUG FIXED]

Symptom: UPNP and Dial backup without Web help page.

5. [BUG FIXED]

Symptom: Under VPN channel, when sending large ICMP packet size more times, the NAT session table will full.

Condition: While Prestige be a VPN passthrough device. When continuously sending large ICMP packet size, the NAT session table will full, then the Prestige can't forward any packet.

6. [FEATURE ENHANCED] Add ESP protocol display information in CI command "ip nat if wanif0".

Originally, the device display the protocol as unknown protocol.

Modification in 3.40(FN.5)b2 | 9/5/2002

1. [BUG FIXED]

Symptom: Dial-backup port cannot drop while ADSL link again.

Condition: First, restore default rom file. While router connection is up and no packet is transferring from WAN port, then creating Dial-backup port will cause ISP default route disappear. So, while ADSL link up again can not disconnect dial-backup port.

2. [FEATURE CHANGED] Change the default value of resolving IPsec peer's DNS. The value is changed from 30 min to 15 min.

Modification in 3.40(FN.5)b1 | 8/27/2002

1. [BUG FIXED]

Symptom: Router power on will get the information "Decompressed image checksum Error".

Condition: While reboot router will get the information "Decompressed image checksum Error" and enter debug mode.

2. [BUG FIXED]

Symptom: NAT server set in WEB doesn't work.

Condition: While we set NAT server set in WEB, it can save but it can't work.

Modification in 3.40(FN.4)b2 | 8/23/2002

1. [BUG FIXED]

Symptom: The IP subnet mask that show in Web Maintenance page is 255.255.255.0. It should be 255.255.255. 255 for single IP case.

Condition: When the P652R is configured as SUA and the WAN IP is given by ISP dynamically, we observe the IP subnet mask shown in web is incorrect.

2. [BUG FIXED]

Symptom: Upnp discovery can not work after we change router lan IP.

Condition: While we change LAN IP, winXP Upnp can not discovery router even we press "refresh"

3. [BUG FIXED]

Symptom: Upnp NAT transversal can not work in some items.

Condition: While remote user invite local user to join application, voice/video, ask for remote assistance, and whiteboard can't work.

4. [BUG FIXED]

Symptom: Remote management can passthrough firewall.

Condition: While we enable firewall and enable remote management for "ALL", then we can access router by Telnet, FTP, Web.

5. [BUG FIXED]

Symptom: Firewall service rule for port range can not be select.

- Condition: If select some firewall services into firewall rule will get “unknown port!”
6. [BUG FIXED]
Symptom: NAT server sets can not be set in WEB.
Condition: In web, We can not save NAT server sets. But it is ok on SMT menu.
 7. [BUG FIXED]
Symptom: Dial backup enable behavior.
Condition: While we power on router then turn on the dial-backup port, then dial-backup can not work till we power off-on router can work.
 8. [BUG FIXED]
Symptom: NAT server set duplicate port problem.
Condition: In SMT Menu 15.2, while we set duplicate port will crash the router.
 9. [BUG FIXED]
Symptom: mIRC "DCC SEND file" function can't work
Condition: Behind NAT router, when user tries to send a file by using mIRC DCC SEND function. The file transfer will not only succeed, but also will cause disconnection from mIRC server
 10. [BUG FIXED]
Symptom: In PPP mode, can not route any packet to/from Internet.
Condition: PPP FSM may think PPP link has been established successfully even the PAP/CHAP authentication was failed. Hence there is an opened WAN iface, which has no IP address assigned, and can not route any packet to/from Internet.

Modification in 3.40(FN.4)b1 | 8/11/2002

1. [FEATURE ENHANCED] Support IEEE 802.1q VLAN-tagging bridging.
2. [NEW FEATURE] Support Dial backup. Add dial backup item in WEB and menu 2 in SMT. The remote node no.8 is reserved for Dial-backup use. See [Appendix 1](#)
3. [NEW FEATURE] Support UPNP. Add UPNP item in WEB.
4. [BUG FIXED]
Symptom: length of PPPoE/PPPoA idle timeout is different between SMT menu and WEB wizard setup.
Condition: Length of idle timeout in SMT menu is 5, but in WEB wizard is only 3.
5. [BUG FIXED]
Symptom: console kick out telnet session cause router reboot.
Condition: While access router by telnet and view firewall log in menu 21.3, disconnect telnet by console cause router reboot.

Modification in 3.40(FN.3)b5 | 8/1/2002

1. [BUG FIXED]
Symptom: IPSEC Phase 2 PFS can't work.
Condition: When P652 build up VPN tunnel to ZW-10 or ZW-50, no matter what settings in phase 1 or in phase 2 are used, VPN tunnel does not work when PFS in phase 2 is enabled. But when PFS is disabled, the VPN connection works just fine.

Modification in 3.40(FN.3)b4 | 7/30/2002

1. [FEATURE CHANGED] Change “PPP” to “PPPoA” in SMT menu and WEB
2. [FEATURE ENHANCED] Update bootbase to 1.05 to differentiate model name in SMT Main Menu.
3. [FEATURE ENHANCED] Extend PPPoE/PPPoA login User Name to 70 characters.

Modification in 3.40(FN.3)b3 | 7/23/2002

1. [BUG FIXED]
Symptom: Set ISP UserID by SPTGen fail

Condition: While UserID > 32 characters, set ISP UserID by SPTGEN will fail.

2. [BUG FIXED]
Symptom: atm RX ISR doesn't judge the RX_BAD_BIT
Condition: While a error packet into router, atm RX ISR doesn't judge the RX_BAD_BIT, so we receive the error packet. Exactly, we sholud discard the error packet.
3. [BUG FIXED]
Symptom: Write DyingGasp isr message into flash will destroy debug area.
Condition: Write DyingGasp isr message into flash will destroy debug area.
4. [FEATURE EHHANCED] Enhance SPTGEN to support Nailed-up Connection item.
5. [FEATURE EHHANCED] Add a CI command ""wan adsl rpsloss 0/1" to response signal loss immediately or not.

Bug fixes in 3.40(FN.3)b2 | 7/9/2002

1. [BUG FIXED] Fix the bug that can't save 2nd VPN tunnel while have same local ip address with 1st tunnel.
2. [BUG FIXED] Fix the bug that press return key in SMT menu continuously cause router hang-up.
3. [BUG FIXED] Fix the bug that while firewall is enable, change PPPoE to RFC-1483 (or PPP) then PC on LAN can ping out but FTP and WEB can't work.

Modification in 3.40(FN.3)b1 | 7/5/2002

1. [FEATURE EHHANCED] Add attention note in SMT menu27.1 and VPN web page.
2. [FEATURE EHHANCED] Modify SPTGEN to support SMT menu 23.
3. [BUG FIXED] Fix the bug of TCP attack packet.
4. [BUG FIXED] Fix the mbuf leakage problem.
5. [BUG FIXED] Fix the plug and unplug problem.
6. [BUG FIXED] Fix the bug that IE 5.0.3315 can't upload F/W.
7. [BUG FIXED] Fix the bug that IPSec rule conflict check error.

Modification in 3.40(FN.1)b2 | 6/10/2002

1. [BUG FIXED] Fix the SPTGEN problem : after put rom-t to router, name of ISP node in SMT11 will change to BACKUP_ISP.
2. [BUG FIXED] Some incorrect operation in SMT will cause router hang-up.
3. [BUG FIXED] Configure NAT server set in port range 1~2000, first ping packet cause router hang-up.

Modification in 3.40(FN.1)b1 | 6/6/2002

1. [FEATURE EHHANCED] Web timer server support domain type.
2. [BUG FIXED] Fix the bug that upgrade to old version firmware have problem.
3. [BUG FIXED] Fix the SPTGEN problem : pppoe can't work.
4. [BUG FIXED] Fix the bug that configure NAT server set will save to wrong index.
5. [BUG FIXED] Fix the checksum error bug in IGMP packet.
6. [BUG FIXED] Fix the pt field error bug in OAM packet.

Modification in 3.40(FN.0)b20 | 5/23/2002

1. [BUG FIXED] Fix the bug that Web atm loopback test can't work if set boot module debug flag=0x00.

Modification in 3.40(FN.0)b19 | 5/22/2002

1. [BUG FIXED] Fix the bug that config NAT in WEB (not save yet) will disconnect all connection.

Modification in 3.40(FN.0)b18 | 5/21/2002

1. [FEATURE CHANGED] Don't log timer server initialized message into FW and CF log.

2. [BUG FIXED] Fix the bug that enter SMT11 submenu cause dialout username = ?.
3. [BUG FIXED] Fix the bug that while set customized service port > 8 will cause firewall rule dest. "ANY" address invisible.
4. [BUG FIXED] Fix the bug that WEB LAN subnetmask setting can't work.
5. [BUG FIXED] Fix the firewall ACL set services as none bug.
6. [BUG FIXED] Fix the bug that WEB timer server can't work well in NTP server mode.
7. [BUG FIXED] Fix the bug that set WEB time zone option will disable server ip field.

Modification in 3.40(FN.0)b17 | 5/17/2002

1. [FEATURE EHHANCED] Support smartbit TERA VPN testing.
2. [BUG FIXED] Fix the bug that VPN phase2 KB can't work.

Modification in 3.40(FN.0)b16 | 5/15/2002

1. [BUG FIXED] Fix the bug that web can't upgrade firmware.
2. [BUG FIXED] Fix the bug that SMT24.10 ENTER key will delete the timer server value.
3. [BUG FIXED] Fix the bug that E-net default gateway is set, when wan is up cause system hang.
4. [BUG FIXED] Fix the bug that SMT delete ISP node, web wizard config at first time can't save VPI/VCI.
5. [BUG FIXED] Fix the bug that firewall log loss some information.
6. [BUG FIXED] Fix the bug that firewall customer service rule no.4 show the wrong value.

Modification in 3.40(FN.0)b15 | 5/13/2002

1. [BUG FIXED] Fix the bug that can't del firewall wan to lan dest. adds.
2. [BUG FIXED] Fix the bug that when PPP is conneting , change to RFC-1483 or E-net cause exception.
3. [BUG FIXED] Fix the bug that SMT delete default remote node, Web wizard config., then SMT11 shows set = 1,1,1,1

Modification in 3.40(FN.0)b14 | 5/8/2002

1. [NEW FEATURE] Embeded web help is integrated.
2. [BUG FIXED] Fix the bug that VPN-secure gateway with domain name.
3. [BUG FIXED] Fix the bug that VPN-exception at delete rule 5.
4. [BUG FIXED] Fix the bug that while PPP is idle, web statistic will display "N/A".
5. [BUG FIXED] Fix the bug that at E-NET encapsulation bridge mode, while get wan ip cause exception.
6. [BUG FIXED] Fix the bug that at E-NET encapsulation , change smt11 bridge mode to IP mode cause exception.

Modification in 3.40(FN.0)b13 | 4/22/2002

1. [BUG FIXED] Fix the bug that router reboot while access time server fail.
2. [BUG FIXED] Fix the bug that in PPPoE or PPP mode, timer timeout will cause exception occur.
3. [BUG FIXED] Fix the SPTGEN problem of error long ID and wrong default value of ipalias filter sets.
4. [BUG FIXED] Fix the bug of PPPoE chap fail.
5. [BUG FIXED] Fix the bug that while PPP is idle, menu 24.1 will display "N/A".
6. [BUG FIXED] Fix the bug that telnet to prestige will cause exception.

Modification in 3.40(FN.0)b12 | 4/8/2002

1. [NEW FEATURE] Dying GASP handling procedure is integrated.
2. [FEATURE CHANGED] The priority of Dying GASP interrupt is raise from 5 to 6.
3. [BUG FIXED] Call filter set is add for dial-up connection types.
4. [BUG FIXED] Fix the Web GUI bugs that crash IE.
5. [BUG FIXED] Fix the bug that crashes the router in PPPoE mode.

Modification in 3.40(FN.0)b11 | 3/29/2002

1. [FEATURE EHHANCED] Add “Log” column to the Web GUI of firewall rule summary.
2. [FEATURE CHANGED] Change the style of VPN log viewer of Web GUI from table to text area.
3. [FEATURE CHANGED] The default setting of log for incoming IKE traffic is changed to “None”.
4. [FEATURE EHHANCED] Add a field of SUA server port end to SPTGen.
5. [FEATURE CHANGED] User name of PPPoE is restricted to 45.
6. [BUG FIXED] Fix the bug the fails to re-login Web GUI after time-out, login and interrupted by console.
7. [BUG FIXED] Fix the bug of Neiled-up connection of PPPoE.

Modification in 3.40(FN.0)b10 | 3/20/2002

1. [FEATURE EHHANCED] Change to bootbase ver 1.03
2. [FEATURE EHHANCED] Support the f/w protection mechanism.
3. [FEATURE EHHANCED] Setting of Trusted IP addresses supports a range of IP addresses.
4. [FEATURE EHHANCED] Change filter set “TEL_FTP_WEB_WAN” to “TEL_FTP_WEB_SNM”, and block SNMP and TFTP.
5. [BUG FIXED] Fix the VPN bug that generates error message when user toggles an active IPsec SPD setting between IKE & manual key.
6. [BUG FIXED] Fix the bug that the password of Web GUI is always ‘1234’.
7. [BUG FIXED] Fix the IPsec bug that user cannot access LAN port of P652R-11 with SUA is active.
8. [BUG FIXED] Fix the SUA/NAT bug that the default port forwarding of server set doesn’t work.
9. [BUG FIXED] Fix the bugs cause exceptions reported by beta users.

Modification in 3.40(FN.0)b9 | 3/8/2002

1. [BUG FIXED] Fix some 4-bytes boundary bugs that crash the system.
2. [BUG FIXED] Fix the bug that system doesn’t synchronize the system with specific time server after reboot .
3. [BUG FIXED] Fix the bug that VPN disconnect doesn’t work in Web GUI.
4. [BUG FIXED] Fix the bug that system doesn’t get correct value of log setting in Edit Rule page of Web GUI.
5. [BUG FIXED] Fix the bug that only one page of content filter logs is display.
6. [BUG FIXED] Remove the unused items, Next Page, Previous Page, and Go to Rule of SMT 27.1.
7. [BUG FIXED] Fix the firewall bug that system crashes when a custom port, whose name includes character ‘(’, is selected by uses .

Modification in 3.40(FN.0)b8 | 2/26/2002

1. [BUG FIXED] Fix the bug that the Web GUI fails to display the custom port in rule list.

Modification in 3.40(FN.0)b7 | 2/8/2002

1. [BUG FIXED] Set the default ACL set of interface

Modification in 3.40(FN.0)b6 | 2/7/2002

1. [FEATURE CHANGED] The E-mail address setting of Content Filter is forced to be the same as Firewall. The related Web GUI of Content Filter is changed, too.

Modification in 3.40(FN.0)b5 | 2/7/2002

1. [BUG FIXED] The problem that VPN doesn’t work with SUA or NAT is turned on is fixed (IPsec encapsulated packets should bypass SUA/NAT)

Modification in 3.40(FN.0)b4 | 2/6/2002

1. [FEATURE EHHANCED] Default filters are added
2. [BUG FIXED] The problem that fails to re-login the Web GUI when users use some version of Internet Explorer until the browser is restart
3. [BUG FIXED] Display of WAN subnet mask
4. [BUG FIXED] Display of OAM counter
5. [BUG FIXED] The bug that crashes the system when uses select a custom service in some rule is fixed.

Modification in 3.40(FN.0)b3 | 2/4/2002

1. [BUG FIXED] The bug that crashes the system when P652R-11 acts as a responder of IPSec peer is fixed.

Modification in 3.40(FN.0)b2 | 1/25/2002

1. [FEATURE EHHANCED] Support Patched IPSec VPN

Appendix 1 : Dial-Backup

Introduction

The features are used to keep Internet connectivity of the Prestige. The Connectivity Monitor is running at interval to detect the ADSL line status. Once the Prestige has detected the ADSL line is broken, it tries to forward the traffic to dial backup port.

Menu 2 - Dial-Backup Setup

```
Menu 2 - Dial Backup Setup

Dial-Backup:
  Active= No
  Port Speed= 115200

AT Command String:
  Init= at&fs0=0

Edit Advanced Setup= No

Press ENTER to Confirm or ESC to Cancel:
```

```
Menu 2.1 - Advanced Dial Backup Setup

AT Command Strings:
  Dial= atd
  Drop= ~~~~~ath
  Answer= ata

Drop DTR When Hang Up= Yes

AT Response Strings:
  CLID= NMBR =
  Called Id=
  Speed= CONNECT

Call Control:
  Dial Timeout(sec)= 60
  Retry Count= 0
  Retry Interval(sec)= N/A
  Drop Timeout(sec)= 20
  Call Back Delay(sec)= 15

Press ENTER to Confirm or ESC to Cancel:
```

This menu setup the dial device, which is typically an analog modem or ISDN TA. To activate the dial device, please toggle "Active" to "YES".

Menu 11.1 - Backup ISP Setup

```
Menu 11.1 - Remote Node Profile (Backup ISP)

Rem Node Name= ?
Active= Yes

Outgoing:
My Login=
My Password= *****
Authen= CHAP/PAP
Pri Phone #= ?
Sec Phone #=

Edit PPP Options= No
Rem IP Addr= ?
Edit IP= Yes
Edit Script Options= No

Telco Option:
Allocated Budget(min)= 0
Period(hr)= 0
Nailed-Up Connection= No

Session Options:
Edit Filter Sets= No
Idle Timeout(sec)= 100

Press ENTER to Confirm or ESC to Cancel:
```

A valid pair of login username and password is required. And the phone number of ISP is required. Leave "Rem IP Addr" to 0.0.0.0 makes Prestige try to get its IP address from ISP.

```
Menu 11.3 - Remote Node Network Layer Options

IP Options:
IP Address Assignment= Static
Rem IP Addr= 0.0.0.0
Rem Subnet Mask= 0.0.0.0
My WAN Addr= 0.0.0.0

Bridge Options:
Ethernet Addr Timeout(min)= N/A

NAT= SUA Only
Address Mapping Set= N/A
Metric= 2
Private= No
RIP Direction= None
Version= RIP-1
Multicast= None
IP Policies=

Enter here to CONFIRM or ESC to CANCEL:
```

Typically, "NAT" should be "SUA Only".

CI Command List

Command Class List Table		
System Related Command	Exit Command	Ethernet Related Command
AUX Related Command	IP Related Command	IPSec Related Command
Bridge Related Command	Firewall Related Command	

System Related Command

[home](#)

Command				Description
sys				
	adjtime			retrive date and time from Internet
	atsh			display MRD field
	callhist			
		display		display call history
		remove	<index>	remove entry from call history
	countrycode		[countrycode]	set country code
	date		[year month date]	set/display date
	domainname			display domain name
	edit		<filename>	edit a text file
	extraphnum			maintain extra phone numbers for outcalls
		add	<set 1-3> <1st phone num> [2nd phone num]	add extra phone numbers
		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
	hostname		[hostname]	display system hostname
	log			
		clear		clear log error
		disp		display log error
		online	[on off]	turn on/off error log online display
	stdio		[second]	change terminal timeout value
	time		[hour [min [sec]]]	display/set system time
	trcdisp	parse, brief, disp		monitor packets

	syslog			
		server	[destIP]	set syslog server IP address
		facility	<FacilityNo>	set syslog facility
		type	[type]	set/display syslog type flag
		mode	[on off]	set syslog mode
	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
	socket			display system socket information
	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
	xmodemmode	[crc checksum]		select xmodem mode

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
		status	<ch_name>	see LAN status
	version			see ethernet device type

AUX Related Command

[home](#)

Command				Description
aux				
	atring		<device name> (device name = aux0)	Command the AT command to the device.
	cnt			
		disp	<device name>	display aux counter information
		clear	<device name>	clear aux counter information
	drop		<device name>	disconnect
	init		<device name>	initialize aux channel
	mstatus		<device name>	display modem last call status
	mtype		<device name>	display modem type
	netstat		<device name>	prints upper layer packet information
	rate		<device name>	show tx rx rate
	redirect		<device name>	invalid
	signal		<device name>	show aux signal

IP Related Command

[home](#)

Command				Description
ip				
	address		[addr]	display host ip address
	alias		<iface>	alias iface
	aliasdis		<0 1>	disable alias
	arp			
		status	<iface>	display ip arp status
	dhcp		<iface>	
		client		
			release	release DHCP client IP
			renew	renew DHCP client IP
		status	[option]	show dhcp status
	dns			
		query		
		stats		
			clear	clear dns statistics
			disp	display dns statistics
	icmp			

		status		display icmp statistic counter
		discovery	<iface> [on off]	set icmp router discovery flag
	ifconfig		[iface] [ipaddr] [broadcast <addr> mtu <value> dynamic]	configure network interface
	ping		<hostid>	ping remote host
	route			
		status	[if]	display routing table
		add	<dest_addr default>[/<bits>] <gateway> [<metric>]	add route
		addiface	<dest_addr default>[/<bits>] <gateway> [<metric>]	add an entry to the routing table to iface
		addprivate	<dest_addr default>[/<bits>] <gateway> [<metric>]	add private route
		drop	<host addr> [/<bits>]	drop a route
	status			display ip statistic counters
	udp			
		status		display udp status
	tcp			
		status	[tcb] [<interval>]	display TCP statistic counters
	traceroute		<host> [ttl] [wait] [queries]	send probes to trace route of a remote host
	xparent			
		join	<iface1> [<iface2>]	join iface2 to iface1 group
		break	<iface>	break iface to leave ipxparent group
	urlfilter			
		exemptZone		
			display	display exemptzone information
			actionFlags [type(1-3)][enable/disable]	set action flags
			add [ip1] [ip2]	add exempt range
			delete [ip1] [ip2]	delete exempt range
			clearAll	clear exemptzone information
		customize		
			display	display customize action flags
			actionFlags [act(1-6)][enable/disable]	set action flags
			logFlags [type(1-3)][enable/disable]	set log flags
			add [string] [trust/untrust/keyword]	add url string
			delete [string] [trust/untrust/keyword]	delete url string
			clearAll	clear all information

	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
		iface		
			<iface> grouptm <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

IPSec Related Command

[home](#)

Command				Description
ipsec				
	debug	<1 0>		turn on/off trace for IPsec debug information
	ipsec_log_di sp			show IPsec log, same as menu 27.3
	route	lan	<on off>	After a packet is IPsec processed and will be sent to LAN side, this switch is to control if this packet can be applied IPsec again.
		wan	<on off>	After a packet is IPsec processed and will be sent to WAN side, this switch is to control if this packet can be applied IPsec again.
	show_runti me	sa		display runtime phase 1 and phase 2 SA information
		spd		When a dynamic rule accepts a request and a tunnel is established, a runtime SPD is created according to peer local IP address. This command is to show these runtime SPD.

	switch	<on off>		As long as there exists one active IPSec rule, all packets will run into IPSec process to check SPD. This switch is to control if a packet should do this. If it is turned on, even there exists active IPSec rules, packets will not run IPSec process.
	timer	chk_my_ip	<1~3600>	- Adjust timer to check if WAN IP in menu is changed
				- Interval is in seconds
				- Default is 10 seconds
				- 0 is not a valid value
		chk_conn.	<0~255>	- Adjust auto-timer to check if any IPsec connection has no traffic for certain period. If yes, system will disconnect it.
				- Interval is in minutes
				- Default is 2 minutes
				- 0 means never timeout
		update_peer	<0~255>	- Adjust auto-timer to update IPSec rules which use domain name as the secure gateway IP.
				- Interval is in minutes
				- Default is 15 minutes
				- 0 means never update
	updatePeerI p			Force system to update IPSec rules which use domain name as the secure gateway IP right away.
	dial	<rule #>		Initiate IPSec rule <#>
	display	<rule #>		Display IPSec rule #

Bridge Related Command

[home](#)

Command				Description
bridge				
	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

Firewall Related Command

[home](#)

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