



**Firmware Release Note**

## **Prestige 650H-E1 Standard Version**

**Release 3.40(OL.2)C0**

<b>Date:</b>	<b>Dec 24, 2004</b>
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# **ZyXEL Prestige 650H-E1 Standard Version release 3.40(OL.2)C0 Release Note**

**Date:** December 24, 2004

## **Supported Platforms:**

ZyXEL Prestige 650H-E1

## **Versions:**

ZyNOS Version: V3.40(OL.2) | 12/24/2004 09:07:33

Bootbase Version: V1.05a | 07/29/2003 20:17:14

## **Notes:**

1. The P650H-E1 is a low-cost ADSL router with four-port switch. It is ideal as an home device that will allow a small LAN to access the Internet. The P650H-E1 provides four auto-sensing, auto-detection 10/100BASE-T Ethernet ports for connection to the user's local network, and a single RJ45 port for connection to ADSL line.

### **- ADSL**

- Support Multi-Mode standard (ANSI T1.413, Issue 2; G.dmt(G.992.1); G.lite(G.992.2)).
- Auto-negotiation rate adaptation.
- support Multi-protocol over AAL5 (RFC1483)
- Support PPP over ATM AAL5 (RFC 2364)
- Support PPP over Ethernet (RFC2516)
- Support up to 8 PVCs
- F4/F5 OAM

### **- Ethernet and hardware.**

- Four 10/100M Ethernet switch
- Auto MDI/ MDIX.
- Restore Factory Defaults/Reboot button.

### **- Router**

- IP routing and bridging modes
- Multi-NAT for Multi Global IP address Internet Access
- DHCP Client, Sever and Relay
- RIP I/ RIP II supported.
- IGMP
- IP alias
- IP Policy Routing
- ICMP Router Discovery
- TFTP/FTP server for firmware upgrade
- Call Scheduling for PPPoE
- Support Web Configurator
- Support UPNP
- Support packet Filter

### **- Others**

- CI – commands.
- SPTGET
- Debug tool

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. SAR in ETNA platform restricts the VPI/VCI to be a smaller range than other platform, please be careful to fill the correct VPI/VCI value when you are testing. VPI value should be in the range 0~63, VCI value should be in the range 33~511

4. Alcatel modem code version is 15.9.214

## Known Issues:

1. SPTGEN doesn't work
2. Doesn't support ATLD.
3. Doesn't support IGMP.
4. Device's line rate is only up to 672/7612 with Alcatel DSLAM.
5. QoS don't comply with CBR>VBR>UBR rule.
6. GUI -> Maintenance -> Configuration page hasn't France and Germany Version.

## Features:

### Modifications in V 3.40(OL.2)C0 | 12/24/2004

1. Change to FCS

### Modifications in V 3.40(OL.2)b4 | 12/22/2004

1. [BUG FIX]  
Symptom: The system will crash when ping IP address like "192.168.1.1 fjdlsfjlkas" in GUI.  
Condition: N/A.

### Modifications in V 3.40(OL.2)b3 | 12/16/2004

1. [BUG FIX]  
Symptom: The URL <http://Rem IP/rpFWUpload.html> can access the Page of eWC menu Firmware without Password.  
Condition: N/A.
2. [BUG FIX]  
Symptom: Use ENET ENCAP mode, Traffic Redirect function does not work.  
Condition: N/A.
3. [BUG FIX]  
Symptom: GUI Advanced -> NAT, set some rules, save. Select start port or end port, use Backspace delete it, then save.  
eWC pop error web, but the previous rules have been disordered.  
Condition: N/A.
4. [BUG FIX]  
Symptom: In Menu 24.8 typing "ip ping 192.168.8.1". The default time of ping is three. When the device get response in the first time or the second time, type "ctrl+c" and type the Up key and Enter quickly. System will crash.  
Condition: N/A.
5. [BUG FIX]  
Symptom: in NAT menu 15.1, enter 1, enter set name, edit rule 1, set "server" mode, set Server Mapping Set=2, but can not save, display "pepepepepe".  
Condition: N/A.
6. [BUG FIX]  
Symptom: SIP ALG doesn't work.  
Condition: N/A.
7. [BUG FIX]  
Symptom: Menu 15.1 the info "Enter Menu selection number" is showed duplicate.  
Condition: N/A.
8. [BUG FIX]  
Symptom: static dhcp have problem. Step1: In SMT menu 24.8 use ci comment "ip dhcp" add a static ip 192.168.1.33 to pc1, while the ip is used by lan pc2 step2: pc2 releases the ip while pc1 can't get the ip 192.168.1.33  
Condition: N/A.
9. [BUG FIX]

Symptom: DUT connect to Internet using ENET\_ENCAP encapsulation mode. If a PC in LAN continually ping a IP address same subnet with WAN IP, then change encapsulation from ENET\_ENCAP to PPPoE through SMT, then change back from PPPoE to ENET\_ENCAP, the PC in LAN can't ping the IP address.

Condition: N/A.

10. [BUG FIX]

Symptom: In smt3.2, when we change nothing but still save romfile.

Condition: N/A.

11. [ENHANCEMENT]

Remove CI command "wan is", "wan oos".

12. [BUG FIX]

Symptom: When a PC connected to DUT continually ping an IP address same subnet with WAN IP, after pull out the adsl line, then plug into adsl line again, the PC connected to DUT never ping any IP address unless reboot.

Condition: DUT use ENET\_ENCAP encapsulation.

**Modification in V3.40(OL.2)b2 | 10/21/2004**

1. [BUG FIX]

Symptom: We save DNS server in menu 3.2 after reset default romfile and if we don't reset system and issue "ip ping www.hinet.net" that it can not be work and it must reboot.

Condition: We save DNS server in menu 3.2 after reset default romfile and if we don't reset system and issue "ip ping www.hinet.net" that it can not be work and it must reboot.

2. [BUG FIX]

Symptom: Router does not close portions of memory contents to remote users.

Condition: Ping -l 0 router, router will reply icmp packet with memory contents.

3. [BUG FIX]

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: If we do ping function from DOS mode then change Encapsulation to PPPoA or PPPoE (eWC configure) that you can see the connection can't connect.

4. [BUG FIX]

Symptom: Time and Date display error

Condition: Time, Synchronize system clock with Time Server, then configure new time "12:22:22", click apply button, then the time show "11:22:22". It reduced one hour.

5. [BUG FIX]

Symptom: Ping function bug in SMT Menu 24.8 .

Condition: In SMT Menu 24.8 ping a host like "192.168.10.11AAAAAA". It will success as ping 192.168.10.11.

6. [BUG FIX]

Symptom: The eWC lock up while we do ping like "192.168.1.1a" in eWC/Maintenance/Diagnostic".

Condition: The eWC lock up while we do ping like "192.168.1.1a" in eWC/Maintenance/Diagnostic".

7. [BUG FIX]

Symptom: DNS resolve the www.123.com as 0.123.0.0, In Menu 24.8 issue www.123.com will as 0.123.0.0.

Condition: DNS resolve the www.123.com as 0.123.0.0, In Menu 24.8 issue www.123.com will as 0.123.0.0.

8. [BUG FIX]  
Symptom: Click “Edit Details” button will save information..  
Condition: Advanced Setup >> NAT Edit Address Mapping Rule, click “Edit Details”, information will be save.
9. [BUG FIX]  
Symptom: Receive ARP request from 1st remote node (router mode), replied it from the 2nd remote node (bridge mode).  
Condition: Receive ARP request from 1st remote node (router mode), replied it from the 2nd remote node (bridge mode). The problem makes the remote VLAN enabled router confused and the communication will fail.
10. [BUG FIX]  
Symptom: DUT will reply wrong packet.  
Condition: PC, Router1 and Router2 all connect IES1000, and router’s NAT is off. PC ping Router2 and get replay. Then power off Router2, but PC can ping Router2 and get replay still.
11. [BUG FIX]  
Symptom: Menu 24.8 “device dail 1”, the “Second DNS server” is showed “Primary DNS server” wrongly.  
Condition: Step1: In menu4, set the “Encapsulation” to be “PPPoE” or “PPPoA”; Step2: In Menu24.8 type ”d d 1”, the “Second DNS server” will be showed “Primary DNS server” wrongly. So the “Primary DNS” appears 2 times.
12. [BUG FIX]  
Symptom: login via eWC GUI with long password (about more than 50 characters), device will reboot.  
Condition: login via eWC GUI with long password (about more than 50 characters), device will reboot.
13. [BUG FIX]  
Symptom: Index of menu1 Domain Name display error.  
Condition: Index of menu1 Domain Name display error : 1. it should be A-Z instead of A-z.2. and the symbol of ’ , ’ cannot work.
14. [BUG FIX]  
Symptom: Exception occurs while End ip is smaller than Start ip.  
Condition: When NAT full feature using many to one or many to many, set End ip smaller than Start ip. Then DUT exception occurs.
15. [BUG FIX]  
Symptom: We delete Menu4 the mode change to Multi mode while default set to G.DMT or other.  
Condition: We delete Menu4 the mode change to Multi mode while default set to G.DMT or other.
16. [BUG FIX]  
Symptom: Two PVC will work improper manner.  
Condition: Create two PVC in CPE device. After two PVC connections are established and both can get IP, change the VPI/VCI setting of first PVC on the DSLAM. The first PVC won’t drop the connection, and the traffic still can go out via CPE device (via PVC2).
17. [BUG FIX]  
Symptom: PPPoE Pass-through is failed.  
Condition: In eWC wan set up, select the PPPoE mode nad PPPoE pass-through, then PPPoE could link successfully but PPPoE Pass-through is failed. But in SMT it is ok.

18. [BUG FIX]  
Symptom: DUT can not link-up with VPI/VCI over 63/511.  
Condition: DUT can not link-up with VPI/VCI over 63/511.
19. [BUG FIX]  
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.  
(3) Log in via eWC and enable UPNP, eWC will not be able to access.  
(4) The bug does not occur every time, but most time it will occur.
20. [BUG FIX]  
Symptom: PPPoE cannot up when exchange “forced down” to “forced on” or “Enable dial-on demand”.  
Condition: Step 1 menu11 nailed-up set “yes”.  
Step 2 menu26 when action exchange from “forced on” to “forced down”, PPPOE can normally idle. But when action exchange from “forced down” to “forced on” or to “enable dial-on demand”, PPPoE cannot up unless you reboot the device.
21. [BUG FIX]  
Symptom: SNMP can't work correctly.  
Condition: When managing the device with SNMPc software, can't get correct IP address value.
22. [BUG FIX]  
Symptom: DHCP relay can not work.  
Condition: DHCP relay can not work.
23. [BUG FIX]  
Symptom: CI command “wan adsl opmode” cannot work correctly.  
Condition: CI command “wan adsl opmode” cannot work correctly.
24. [BUG FIX]  
Symptom: Ping -l 0 from Wan, DUT will leak out some memory info.  
Condition: Ping -l 0 from Wan, DUT will leak out some memory info.
25. [BUG FIX]  
Symptom: Delete menu 4; in eWC->advanced setup->NAT->choose full features->click edit details->in menu 11, a new (NAT) item exists->enter menu 24.1->system crash and restart.  
Condition: Delete menu 4; in eWC->advanced setup->NAT->choose full features->click edit details->in menu 11, a new (NAT) item exists->enter menu 24.1->system crash and restart.
26. [FEATURE ENHANCED]  
Add Static DHCP Feature.
27. [FEATURE ENHANCED]  
Add SIP support.
28. [FEATURE ENHANCED]  
Add PPPoE pass-through Feature.
29. [BUG FIX]

Symptom: The router crashed (exception) when a client PC ran a port scan tool.

Condition: PC ---- DUT ---- Internet ---- ZyWALL 70

Ran a port scan AP (BONK) on PC to attack ZyWALL 70.

Parameter (bonk -p 7 -d 10)

DUT will crashed with exception log after few minutes (4000+ counts of port scan)

30. [BUG FIX]

Symptom: CPU loading will reach to 100% easily with multiple PVCs in bridge mode.

Condition: Under heavy downstream traffic with multiple PVCs in bridge mode.

**Modification in V3.40(OL.2)b1 | 06/14/2004**

1. [BUG FIX]

Fix the OAM F5 mbuf issue.

**Modification in V3.40(OL.1)C0 | 11/10/2003**

1. Change to FCS version

**Modification in V3.40(OL.1)b4 | 11/10/2003**

1. [FEATURE ENHANCE]

Change modem code to 15.9.214

2. [BUG FIX]

Symptom: Can't save "firewall ignore triangle all <on/off>" into flash.

Condition: When use CI command "firewall ignore triangle on/off", it can't save the configuration to flash.

3. [BUG FIX]

Symptom: No IKE option can be chose at setting ACL rule.

Condition: When configure ACL rules ,there are no "IKE(UDP:500)" option can be chose.

4. [BUG FIX]

Symptom: In eWC , the web page of "Reset to default Configuration" display error.

Condition: In the web page of "Reset to default Configuration", it should not show the username and password.

5. [BUG FIX]

Symptom: In ftp test, the cell will be lost.

Condition: In ftp test, the cell's number of transfer and received will be not the same.

**Modification in V3.40(OL.1)b3 | 11/03/2003**

1. [BUG FIX]

Symptom: Throughput is very poor

Condition: System will hang up when doing smart-bit test.

**Modification in V3.40(OL.1)b2 | 10/23/2003**

1. [BUG FIX]

Symptom: The port 1024 could not be set in the NAT Server table.

Condition: When setting the port number as 1024 at NAT Server Sets, the setting can't be saved to ROM.

2. [BUG FIX]

Symptom: Adjust the TCP-mss by mtu.



Condition: TCP-mss is decided by the mtu.

3. [BUG FIX]

Symptom: System will reboot if plug-in and plugging-out the ADSL line several times.

Condition: This is caused from the ST modem libraries and it will free memory twice

4. [BUG FIX]

Symptom: After creating the firewall tos from the lanSide, send the TCP connect request from ATUC. Our router will send out the TCP RST packet when the firewall is turned on.

Condition: When the outside PC continuity connect the ftp server in LAN and setting the idle timeout, the ADSL line will not be dropped even if the ftp server is offline.

5. [BUG FIX]

Symptom: In web, the "Email Log Now" can't work fine.

Condition: N/A

6. [BUG FIX]

Symptom: Add the CI-command "sys log mail sendmail"

Condition: The CI-command will mail the logs to user.

**Modification in V3.40(OL.1)b1 | 10/13/2003**

1. [FEATURE ENHANCE]

Change modem code to 15.9.190

2. [BUG FIX]

Symptom: Upnp can't work, when firewall is turn on

Condition: Turn on UPNP on Web/GUI and test MSN messenger.

3. [BUG FIX]

Symptom: In web, WAN setup, there is no VBR to choose

Condition: N/A

**Modification in V3.40(OL.0)C0 | 9/25/2003**

1. Change to FCS

**Modification in V3.40(OL.0)b5 | 9/17/2003**

1. [BUG FIX]

Symptom: NAT pass-through didn't work well.

Condition: NAT pass-through didn't work well while applied on "Callcomm" and "Vood Residential Gateway"

2. [BUG FIX]

Symptom: Edit ACL rule many times will cause out of memory.

Condition: N/A

3. [BUG FIX]

Symptom: Fix the bug of little endian wzStatus.html and LAN setup page.

Condition: N/A

4. [FEATURE ENHANCE]

Symptom: Enhance FWupload and Configuration.

Condition: When finish upload firmware & backup & restore rom-file , the web page will reload automatically.

**Modification in V3.40(OL.0)b4 | 9/3/2003**

1. [FEATURE CHANGE]  
Symptom: Modem code is changed to 15.9.214  
Condition: N/A
2. [FEATURE CHANGE]  
Symptom: Multi- language in Web/GUI  
Condition: N/A
3. [FEATURE CHANGE]  
Symptom: Add CI-command wan hwsar reinittxchannel  
Condition: Reopen the Tx Channel which is dead.
4. [BUG FIX]  
Symptom: Corrupted Rx descriptor list in overflow situation.  
Condition: Re-build Rx descriptor in overflow situation.
5. [BUG FIX]  
Symptom: fixing wrongly promiscuous mode setting in routing mode  
Condition: N/A
6. [BUG FIX]  
Symptom: fixing EtherGetColCnt for ETNA  
Condition: N/A

**Modification in V3.40(NU.0)b3 | 8/19/2003**

1. [BUG FIX]  
Symptom: Poor throughput when the downstream is 1024Kbps  
Condition: Tested by Smartbit 2000, and system is under bridge mode
2. [BUG FIX]  
Symptom: CI command “ip nat server disp” causes exception  
Condition: Without using “ip nat server load” first, system may exception
3. [BUG FIX]  
Symptom: UPNP doesn’t work  
Condition: Turn on UPNP on Web/GUI and test MSN messenger
4. [BUG FIX]  
Symptom: In Web/GUI diagnostics, reset system command doesn’t work  
Condition: N/A
5. [BUG FIX]  
Symptom: In Web/GUI statistics, the display is error  
Condition: N/A
6. [BUG FIX]  
Symptom: In Web/GUI ATM status, the display of status is confusing  
Condition: N/A
7. [FEATURE ENHANCE]  
Symptom: Add firewall in SMT and Web/GUI  
Condition: N/A
8. [FEATURE CHANGE]  
Symptom: Modem code is changed to 15.9.209 (sub-function is for annex A)

Condition: N/A

### Modification in V3.40(NU.0)b2 | 7/16/2003

1. [FEATURE CHANGE] Create a model P650H-E1 and modem code is 15.9.190 annex A

### Modification in V3.40(OL.0)b1 | 7/10/2003

1. [FEATURE CHANGE] Create a F/W for C3 sample run

## 3. CI Command List:

### 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="#">IP Related Command</a>	<a href="#">Bridge Related Command</a>

#### System Related Command

[home](#)

Command				Description
sys				
	adjtime			retrive date and time from Internet
	atsh			display MRD field
		display		display cbuf static
	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
		link	link	list system mbuf link
		pool	<id> [type]	list system mbuf pool
		status		display system mbuf status
		disp	<address>	display mbuf status
	stdio		[second]	change terminal timeout value
	time		[hour [min [sec]]]	display/set system time
	trcdisp	parse, brief, disp		monitor packets
	trclog			
	trcpacket			
	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
	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
	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			
		config	[0 1=auto normal] [0 1=10 100] [0 1=HD FD] <ch-name>	Configure LAN Settings Auto/Normal, 100/10 Mbps, Half/Full Duplex
		cnt		
			disp <name>	display ether driver counters
		status	<ch_name>	see LAN status
	version			see ethernet device type
			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
		disp	<ch_name>	display ethernet debug information
		level	<ch_name> <level>	set the ethernet debug level level 0: disable debug log level 1:enable debug log (default)

#### Wan Related Command

[home](#)

Command				Description
Wan	adsl	Bert		ADSL ber
		Chandata		ADSL channel data, line rate
		close		Close ADSL line
		Coding		ADSL standard current
		Ctrleint		ADSL CTRL response command
		Defbitmap		ADSL defect bitmap status
		Dyinggasp		Send ADSL dyinggasp
		Fwav		Test the ADSL F/W IO device is available or not

		Fwdl		Download modem code, but must reset first
		Linedata		
		Linedata	near	Show ADSL near end noise margin
		Linedata	far	Show ADSL far end noise margin
		Open		Open ADSL line
		opencmd		Open ADSL line with specific standard
		Opmode		Show the operational mode
		Perfdata		Show performance information,CRC,FEC, error seconds..
		Rdata	[start] [length]	Read DSP CTRL registers 512 bytes
		Reset		Reset ADSL modem, and must reload the modem code again
		Selftest		
		Selftest	Long	ADSL long loop test
		Selftest	short	ADSL short loop test
		Status		ADSL status (ex: up, down or wait for init)
		Version		ADSL version information
		Vendorid		ADSL vendor information
		Utopia		Show ADSL utopia information
		Cellcnt		Show ADSL cell counter
		display		
		display	shutdown	Show the counter of rate adaptive mechanism happening
		display	rateup	Show real status that rate adaptive mechanism happened
		Rateadap	[on off]	Turn on/off rate adaptive mechanism
		Dumpcondition	[on off]	Turn on/off online debug information of rate adaptive mechanism
		Sampletime	[mins]	Tune the sample time of rate adaptive mechanism
		Noisegt	[dB]	if noise margin is 3db greater than before, and rate is worse than before, then system will do “L1 shutdown RA3”, default is 3db
		Noisemargin	[dB]	if noise margin is greater than this value, and rate is worse than before, then system will do “L1 shutdown RA3”, default is 8db
		persisttime	[time]	when the adaptive condition is matched system will continue to monitor the time period “persisttime” before doing “L1 shutdown RA3”, default is 30 seconds
		Timeinterval	[mins]	when “L1 shutdown RA3” is done twice, and still can’t reach the max rate which system recorded, it will delay a time period that the period base time is “timeinterval” before starting again. The time-based default is 2 hrs
		Defectcheck	[on off]	Turn on/off defect table checking, default is on
		Txgain	[value]	Set the CTRL register (0xc3), the value is from 0xfa to 0x06
		Targetnoise	[value]	Set the CTRL register (0xc4), the value is from 0xfa to 0x06
		Maxtonelimit	[value]	Set the CTRL register (0xc5), the value is from 0xfa to 0x06
		Rxgain	[value]	Set the CTRL register (0xc6), the value is from 0xfa to 0x06
		Txoutputpwr	[value]	Set the CTRL register (0xc7), the value is from 0xfa to 0x06
		Rxoutputpwr	[value]	Set the CTRL register (0xc8), the value is from 0xfa to 0x06
		maxoutputpwr	[value]	Set the CTRL register (0xc9), the value is from 0xfa to 0x06
		Errorsecond		

		Errorsecond	Switch [1 0]	Turn on/off error sending to DSLAM side
		Errorsecond	sends	Send current error second information immediately
		Dygasprecove r		
		Dygasprecove r	Level [value]	By default is 100, after receiving 100 dying gasp system will reboot
		Dygasprecove r	Active [on off]	Turn on/off this mechanism
		rsploss	[1 0]	Turn on means to response signal loss of CTRL E immediately, default is off
wan	hwsar	Disp		Display hwsar packets incoming/outgoing information
		Clear		Clear hwsar packets information
wan	hwsar	wdata		Write data into CTRL E registers
wan	hwsar	isscmd		Send a command into CTRL E
wan	hwsar	Disp		Display hwsar packets incoming/outgoing information
wan	Hwsar	clear		Clear Hwsar packets counter
wan	Hwsar	Sendoam		Send OAM packets: <vpi> <vci> <f5> <end-to-end> <type:0(AIS) 1(RDI) 2(LoopBack)>
wan	Hwsar	reinittxchannel		Reopen the Tx channel.
wan	atm	test	oam	Send OAM packets: <vpi> <vci> <f5> <end-to-end> <type:0(AIS) 1(RDI) 2(LoopBack)>

#### 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		
	httpd			
	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
	rip			
	tcp			
		status	[tcb] [<interval>]	display TCP statistic counters
	tftp			
	ixparent			
		join	<iface1> [<iface2>]	join iface2 to iface1 ipxparent group
		break	<iface>	break iface to leave ipxparent group
	tredir			
	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> group tm <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			

#### 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