ZyXEL

Firmware Release Note

Prestige 650H-17 Standard Version

Release 3.40(GL.3)c0

Date: **January 21, 2003**

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Supported Platforms:

ZyXEL Prestige P650H-17 Standard Version

Versions:

ZyNOS Version: V3.40(GL.3) | 1/21/2003 18:17:56
Bootbase Version: V1.06 | 9/3/2002 11:07:17

Notes:

1. The P650H-17 (ADSL Router) is a small-office and home device that will allow a small LAN to access the Internet. By integrating ADSL, and NAT capability, P650H-17 provides not only the ease of installation and Internet access, but also the most completed security solution to protect your intranet and efficient network management for data traffic.
The P650H-17 provides four single auto-sensing, auto-detection 10/100BASE-T Ethernet ports for connection to the user's local network, and a single RJ-11 port for connection to ADSL line.
Main features:
   - ADSL
     - Support Multi-Mode standard (ANSI T1.413,Issue 2 ; G.dmt(G.992.1); G.lite(G992.2)).
     - Auto-negotiating rate adaptation
     - ADSL physical connection ATM AAL5 (ATM Adaptation Layer type 5)
     - Support multi-protocol over AAL5 (RFC1483)
     - Support PPP over ATM AAL5 (RFC2364)
     - PPP over Ethernet support for DSL connection (RFC 2516)
     - Support VC-based and LLC-based multiplexing
     - F4/F5 OAM
   - Hardware
     - Four 10/100M Ethernet UTP ports for LAN connection
     - Restore Factory Defaults/Reboot button
   - Router
     - NAT (includes multi-to-multi NAT) / SUA
     - Packet Filter
     - VPN (IPSec, PPTP, & L2TP) pass through support

- Port forwarding
- Embedded Web Configuration
- SNMP v1 & v2c with MIB II

2. The version of Alcatel modem code is 4.9.2

TxGain: 0xFD.

TragetNoise: 0xFE.

Known Issues:

None

CI Command List:

Features:

Modification in 3.40(GL.2)b3 | 12/17/2002
1.   [FEATURE ENHANCE] Use Phase II code with uPNP and Traffic Redirect Support.
2.   [FEATURE CHANGE] Modify Web GUI displaying German language.
3.   [FEATURE CHANGE] Modify ROM settings.

Modification in 3.40(GL.1)c1 | 9/9/2002
1.   [FEATURE CHANGED] Update ROM file setting. Menu 24.11 set to "LAN Only".

CI Command List

Command Class List Table		
[System Related Command](#)	[Exit Command](#)	[Ethernet Related Command](#)
[Wan Related Command](#)	[IP Related Command](#)	[Bridge Related Command](#)

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 Releated Command

Command				Description
Wan	adsl	Bert		ADSL ber
		Chandata		ADSL channel data, line rate
		close		Close ADSL line
		Coding		ADSL standard current
		Ctrleint		ADSL CTRLE 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 CTRLE 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 CTRLE register (0xc3), the value is from 0xfa to 0x06
		Targetnoise	[value]	Set the CTRLE register (0xc4), the value is from 0xfa to 0x06
		Maxtonelimit	[value]	Set the CTRLE register (0xc5), the value is from 0xfa to 0x06
		Rxgain	[value]	Set the CTRLE register (0xc6), the value is from 0xfa to 0x06
		Txoutputpwr	[value]	Set the CTRLE register (0xc7), the value is from 0xfa to 0x06
		Rxoutputpwr	[value]	Set the CTRLE register (0xc8), the value is from 0xfa to 0x06
		maxoutputpwr	[value]	Set the CTRLE register (0xc9), the value is from 0xfa to 0x06
		Errorsecond		
		Errorsecond	Switch [1|0]	Turn on/off error sending to DSLAM side
		Errorsecond	sendes	Send current error second information immediately
		Dygasprecover		
		Dygasprecover	Level [value]	By default is 100, after receiving 100 dying gasp system will reboot
		Dygasprecover	Active [on|off]	Turn on/off this mechanism
		rsploss	[1|0]	Turn on means to response signal loss of CTRLE immediately, default is off
wan	hwsar	Disp		Display hwsar packets incoming/outgoing information
		Clear		Clear hwsar packets information
wan	hwsar	wdata		Write data into CTRLE registers
wan	hwsar	isscmd		Send a command into CTRLE
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	atm	test	oam	Send OAM packets: <vpi> <vci> <f5>

| | | | | <end-to-end> <type:0(AIS) 1(RDI) 2(LoopBack)> |

IP Related Command

home

<table>
<tr><th colspan="4">Command</th><th>Description</th></tr>
<tr><td>ip</td><td></td><td></td><td></td><td></td></tr>
<tr><td></td><td>address</td><td></td><td>[addr]</td><td>display host ip address</td></tr>
<tr><td></td><td>alias</td><td></td><td><iface></td><td>alias iface</td></tr>
<tr><td></td><td>aliasdis</td><td></td><td><0|1></td><td>disable alias</td></tr>
<tr><td></td><td>arp</td><td></td><td></td><td></td></tr>
<tr><td></td><td></td><td>status</td><td><iface></td><td>display ip arp status</td></tr>
<tr><td></td><td>dhcp</td><td></td><td><iface></td><td></td></tr>
<tr><td></td><td></td><td>client</td><td></td><td></td></tr>
<tr><td></td><td></td><td></td><td>release</td><td>release DHCP client IP</td></tr>
<tr><td></td><td></td><td></td><td>renew</td><td>renew DHCP client IP</td></tr>
<tr><td></td><td></td><td>status</td><td>[option]</td><td>show dhcp status</td></tr>
<tr><td></td><td>dns</td><td></td><td></td><td></td></tr>
<tr><td></td><td></td><td>query</td><td></td><td></td></tr>
<tr><td></td><td></td><td>stats</td><td></td><td></td></tr>
<tr><td></td><td>httpd</td><td></td><td></td><td></td></tr>
<tr><td></td><td>icmp</td><td></td><td></td><td></td></tr>
<tr><td></td><td></td><td>status</td><td></td><td>display icmp statistic counter</td></tr>
<tr><td></td><td></td><td>discovery</td><td><iface> [on|off]</td><td>set icmp router discovery flag</td></tr>
<tr><td></td><td>ifconfig</td><td></td><td>[iface] [ipaddr] [broadcast <addr> |mtu <value>|dynamic]</td><td>configure network interface</td></tr>
<tr><td></td><td>ping</td><td></td><td><hostid></td><td>ping remote host</td></tr>
<tr><td></td><td>route</td><td></td><td></td><td></td></tr>
<tr><td></td><td></td><td>status</td><td>[if]</td><td>display routing table</td></tr>
<tr><td></td><td></td><td>add</td><td><dest_addr|default>[/<bits>] <gateway> [<metric>]</td><td>add route</td></tr>
<tr><td></td><td></td><td>addiface</td><td><dest_addr|default>[/<bits>] <gateway> [<metric>]</td><td>add an entry to the routing table to iface</td></tr>
<tr><td></td><td></td><td>addprivate</td><td><dest_addr|default>[/<bits>] <gateway> [<metric>]</td><td>add private route</td></tr>
<tr><td></td><td></td><td>drop</td><td><host addr> [/<bits>]</td><td>drop a route</td></tr>
<tr><td></td><td>status</td><td></td><td></td><td>display ip statistic counters</td></tr>
<tr><td></td><td>udp</td><td></td><td></td><td></td></tr>
</table>

		status			display udp status
	rip				
	tcp				
		status	[tcb] [<interval>]		display TCP statistic counters
	tftp				
	xparent				
		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> 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
	pr				

Bridge Related Command

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