



**Firmware Release Note**

## **Prestige 650R-13**

**Release 3.40(FU.4)C0**

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# **ZyXEL Prestige 650R-13 Standard Version release 3.40(FU.4)C0 Release Note**

**Date:** Nov 26, 2002

## **Supported Platforms:**

ZyXEL Prestige 650R-13

## **Versions:**

ZyNOS F/W Version: V3.40(FU.4) | 11/26/2002 14:17:04

Bootbase Version: V1.06 | 9/3/2002 11:07:17

## **Notes:**

1. The Prestige 650R-13 is a compact ADSL over ISDN router that can be used for small-office or home-user and allows a small LAN to access the Internet through ADSL connection over the existing copper line.
  - Support ITU standard (G.992.1 AnnexB; G.997.1).
  - One auto-sensing 10/100M Ethernet interface
  - support Multi-protocol over AAL5 (RFC1483)
  - Support PPP over ATM AAL5 (RFC 2364)
  - Support PPP over Ethernet (RFC2516)
  - Support up to 8 PVCs
  - 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
  - F4/F5 OAM
  - Call Scheduling for PPPoE
  - Support Web Configurator
  - Dynamic DNS
  - Support Traffic Redirect
  - Support UPNP
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 4.9.8 now.

## Known Issues:

None

## CI Command List:

### Features:

#### Modification in V3.40(FU.4) | 11/26/2002

1. [FEATURE CHANGED] Change name for formal Release.

#### Modification in V3.40(FU.4)b2 | 10/31/2002

1. [FEATURE ENHANCED] Add UPNP Web Help.
2. [FEATURE ENHANCED] Add Traffic Redirect Web Help.
3. [FEATURE CHANGED] Change the Alcatel modem code from 2.7.38 to 4.9.8
4. [BUG FIXED]  
Sympton: Nailed-up don't work sometimes. Especially P652R11 with P1600.  
Condition: Sometimes PPPoA couldn't connect with DSLAM.
5. [BUG FIXED]  
Sympton: FTP server setting at NAT server set non-default rule would impact RemoteMagnment.  
Condition: RemoteMagnment would be failed for FTP when the NAT server set had FTP port transfer at non-default rule.
6. [BUG FIXED]  
Sympton: "IP Address" would become required field when the "IP Address Assignment" is dynamic at smt4.  
Condition: This is only occurred when the encaps is PPPoA / Dynamic changed to PPPoE / Dynamic.
7. [BUG FIXED]  
Sympton: DDNS would not work at 1483 encapsultion.  
Condition: Change the ip setting for the RFC1483 remoteNode. The ddns would not change the ip address for this domain name.
8. [BUG FIXED]  
Sympton: when change Enet-Encap from static to dynamic by smt4, the add route routine would cause error record at "sys log disp".  
Condition: Add redundant routing entry and this would cause the error record.
9. [BUG FIXED]  
Sympton: SNMP get ADSL Modem Code version Error  
Conditon: The shown message at SNMP for ADSL modem code is error.
10. [BUG FIXED]  
Sympton: SNMP get sysObjectID error.  
Conditon: The declaration about sysObjectID is error.

#### Modification in V3.40(FU.4)b1 | 9/5/2002

1. [FEATURE ENHANCED] Add UPNP Feature.
2. [FEATURE ENHANCED] Add Traffic Redirection Feature ( detection by ADSL Line)

#### Modification in V3.40(FU.3) | 9/5/2002

1. [FEATURE CHANGED] Change name for formal Release.

#### Modification in V3.40(FU.3)b1 | 8/28/2002/8/28

1. [BUG FIXED]  
Sympton: System reboot if change standard session to console from telenet under "sys log disp".  
Condition: Under "sys log disp" mode, there are some characters still in the telnet session and this would cause the change error.

#### Modification in V3.40(FU.2) | 8/19/2002

1. [FEATURE CHANGED] Change name for formal Release.

#### Modification in V3.40(FU.2)b2 | 8/9/2002

1. [FEATURE ENHANCED] Add "Nail-Up" and "Password" configuration by sptgen
2. [FEATURE ENHANCED] Enlarge PPPoE username length to 70 characters.  
Note: So this version need to upgrade new rom-file
3. [FEATURE CHANGED] Change "PPP" to "PPPoA" at smt4/smt11/web

4. [FEATURE CHANGED] Change the rom-file setting for Switzerland version.
5. [FEATURE CHANGED] Change ADSL standard form "Normal Open" to "Multi-mode"
6. [BUG FIXED] Fix the configuration length about PPPoE idle timeout at web wizard

#### **Modification in V3.40(FU.2)b1 | 7/25/2002**

1. [FEATURE ENHANCED] Add "ADJUST\_GAIN" commands to tune ADSL txGain and Target Noise.
2. [FEATURE ENHANCED] Add "wan adsl rsploss" ci-command
3. [FEATURE ENHANCED] Change the showing model name at smt main from "Prestige 650" to "Prestige 650R-13".
4. [BUG FIXED] Fix the ERROR PACKET trad parse for PPPoE packet.
5. [BUG FIXED] Fix the exception caused by the adsl line plug in and plug out.
6. [BUG FIXED] Fix dyingGasp occurred before loading modem code would cause system reboot.
7. [BUG FIXED] Fix the mbuf->flags would be impacted by hwsar vc number.
8. [BUG FIXED] Fix the smt save quickly would casue the system hang-up.
9. [BUG FIXED] Fix the atm discard packet would casue the exception.

#### **Modification in V3.40(FU.0) | 6/17/2002**

1. [FEATURE CHANGED] Change name for formal release.

#### **Modification in V3.40(FU.0)b11 | 6/12/2002**

1. [BUG FIXED] Fix ppp channel setting serval times by changing static and dynamic would cause system could not ping out.
2. [BUG FIXED] Fix oam F4 / F5 loopback test would be failure when debug flag is turned off.

#### **Modification in V3.40(FU.0)b10 | 6/7/2002**

1. [BUG FIXED] Fix the ip checksum error if the options existed in ip header.
2. [BUG FIXED] Fix the system hangup if the icmp echo request pass through our router in which the port translation setting in serverSet Table was from 1 to 2000.
3. [BUG FIXED] Fix the system hangup due to press left button in smt submenu 24.2 / 24.3 / 24.4 / 12 / 12.1 / 12.3.
4. [BUG FIXED] Fix the CPU Bus timeout if OAM packet pass through our router in which there is no such VC.
5. [BUG FIXED] Fix the channel drop fail and ring up fail problem at smt4/ smt11 ( connection magnment )
6. [BUG FIXED] Fix the security webpage filter link list problem.

#### **Modification in V3.40(FU.0)b9 | 5/31/2002**

1. [BUG FIXED] Fix firmware upgrade by console sometimes would cause system un-boot.
2. [BUG FIXED] Fix ppp dial fail if setting by sptgen if encap changed from 1483 or enet-encap.
3. [BUG FIXED] Fix the filter setting in IpAlias at smt3.2.1 is not NULL by default.
4. [FEATURE ENHANCED] Modify the web Help message about wizard and security.
5. [FEATURE CHANGED] Modify the process for NAT error setting.

#### **Modification in V3.40(FU.0)b8 | 5/28/2002**

1. [FEATURE CHANGED] Change Alcatel modem code to 2.7.38
2. [BUG FIXED] Fix the enet-encap could not bind dynamic wanip if DSL line is dropped and linked again.
3. [BUG FIXED] Fix exception if NetBIOS (port=138) enter wanSide and NAT/SUA is turned on.
4. [BUG FIXED] Fix the channel would close & open again if there is no change at NAT webpage.
5. [BUG FIXED] Enlarge the adsl modem code download timing from 100ms to 200ms (For HTP)
6. [BUG FIXED] Fix the username would be "?" if we enter smt11.3 and return smt11.1

#### **Modification in V3.40(FU.0)b7 | 5/16/2002**

1. [FEATURE ENHANCED] Change Bootbase to 1.04 version.
2. [FEATURE ENHANCED] Merge SNMP trap v2.
3. [BUG FIXED] Fix the DSL Active light is sparkling when no traffic pass through.
4. [BUG FIXED] Fix exception when typing "sys iface disp wanif0 4" ( after wanif0 had created )
5. [BUG FIXED] Fix the exception when new mac address pass through after the following setting steps: bridge is not set at smt1 and change bridge to router at smt11
6. [BUG FIXED] Fix the exception if changing the encap from PPP to 1483.
7. [BUG FIXED] Fix the PPP always idle if packet trigger before DSL line is up.

8. [BUG FIXED] Fix default setting is lost when we clear the remoteNode by typing space at smt.

**Modification in V3.40(FU.0)b6 | 4/29/2002**

1. [FEATURE ENHANCED] Add sptgen feature.
2. [FEATURE ENHANCED] Modify the default DHCP pool from 6 to 32.

**Modification in V3.40(FU.0)b5 | 4/12/2002**

1. [FEATURE CHANGED] Change the interrupt priority.
2. [BUG FIXED] Fix the ADSL LED would not let off when we reset adsl line by smt or web.
3. [BUG FIXED] Fix the restore default rom button would cause the security level change to 3.
4. [BUG FIXED] Fix the loss of web help pages.
5. [BUG FIXED] Fix the err\_code=0x0009 problem when we press the NULL help WebPages.
6. [FEATURE ENHANCED] Add the separated selection for Web security page.

**Modification in V3.40(FU.0)b4 | 4/1/2002**

1. [BUG FIXED] Fix the TimeServer would cause the system reset.
2. [BUG FIXED] Fix the TimeServer couldn't upgrade after the system reset.
3. [BUG FIXED] Fix the loss of the Web mainmenu's help.
4. [BUG FIXED] Enlarge the length of the PPPoE username to 45 by Web.
5. [BUG FIXED] Add Snmp protection for incorrect content attack.
6. [BUG FIXED] Fix the OH-phone call couldn't work.
7. [FEATURE ENHANCED] Protect the romfile to avoid the write flash error if spRead() is called after spSave() immediately.

**Modification in V3.40(FU.0)b3 | 3/20/2002**

1. [FEATURE ENHANCED] Add RemoteNode management
2. [FEATURE ENHANCED] Add PPP packet trigger (Warning: This hadn't supported PPP BCP mode)
3. [FEATURE ENHANCED] Add Call filter to support PPP / PPPoE at smt11.5
4. [FEATURE ENHANCED] Add ESP pass through from the server side.
5. [FEATURE ENHANCED] Add extended username to support 45 characters
6. [FEATURE ENHANCED] Enlarge the default queue number
7. [BUG FIXED] Add protection for MBS setting at smt4 / smt11.6 (MBS range: 0~65535)
8. [BUG FIXED] Add protection for idle-timeout at smt4 / smt11.1 (Idle Timeout range: 0~65535)
9. [BUG FIXED] Fix the username and password are "" (space) when the encap became from 1483 to PPPoE.
10. [FEATURE CHANGED] Modify the name of smt submenu3 (same as smt mainmenu) and submenu3.2
11. [FEATURE CHANGED] Change the default DHCP ip pool number to 32
12. [FEATURE ENHANCED] Add the Nat webpage / firmware upgrade/ default rom file at Advance setup and Maintenance.
13. [BUG FIXED] Fix the DHCP web-page link fail
14. [BUG FIXED] Fix the reset button failure at Web configuration/Advanced Setup/ Lan
15. [BUG FIXED] Remove the "NeedSave" characters when we save smt
16. [FEATURE ENHANCED] Add dyingGasp Recovery mechanism.
17. [FEATURE CHANGED] Change ADSL multi-mode to Normal Open mode.
18. [BUG FIXED] Fix the ping failure when the packet size larger than 1473 from the wan side (PPPoE encap)

**Modification in V3.40(FU.0)b2 | 2/5/2002**

1. [FEATURE ENHANCED] Add DDNS Web.
2. [BUG FIXED] Fix the display about the my wanip at smt24.1 when the length of the ip string is became short from long.
3. [BUG FIXED] Fix the Reset button would cause exception after loading default rom-file.

**Modification in V3.40(FU.0)b1 | 1/31/2002**

1. [FEATURE ENHANCED] Add the DDNS setting by smt (submenu 1, and 1-1).
2. [FEATURE ENHANCED] Modify showing APIs about the ADSL driver at smt / web / ci-command.
3. [FEATURE CHANGED] Change modem code to 2.7.35 for AnnexB
4. [FEATURE CHANGED] Modify the hwsar ci-command the same as before.

5. [BUG FIXED] Fix the failure when users press the button about ATM counter and OAM Loopback at web.
6. [BUG FIXED] Fix the subnet mask always display 0.0.0.0 at web status page.
7. [BUG FIXED] Fix the range of NAT server mapping set from 2 to 10 at Web
8. [BUG FIXED] Fix false alarm if user hadn't changed any setting in NAT server set menu at Web.
9. [BUG FIXED] Fix the router would hang-up if pressing any key when the router download modem code.
10. [BUG FIXED] Fix the non-initializing value for static variable.
11. [FEATURE CHANGED] Change the rom-file setting.

## 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,		monitor packets

		disp		
	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

[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 E 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 E 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	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 CTRL 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 registers
wan	hwsar	isemnd		Send a command into CTRL
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](#)

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			
	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> group <b>tm</b> <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