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Firmware Release Note

**P650R-31**

**Standard version**

Release 3.40(GT.5)C0

**Date:** March 16, 2005  
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# ZyXEL P650-R31 Standard Version release 3.40(GT.5)C0 Release Note

**Date:** March 16, 2005

## **Supported Platforms:**

ZyXEL P650R-31

## **Versions:**

ZyNOS Version : V3.40(GT.5) | 3/16/2005 10:42:52  
Bootbase Version : V1.11 | 3/4/2003 10:26:13

## **Notes:**

## **Known Issues:**

## **Features:**

### **Modifications in V3.40(GT.5)C0 | 3/16/2005**

1. Change to FCS

### **Modifications in V3.40(GT.5)b1 | 3/4/2005**

1. [FEATURE ENHANCED]  
Add PPPoE pass through feature.
2. [FEATURE ENHANCED]  
Add a C/I command "ip nat service sip active" to control SIP ALG on/off, and SIP ALG is disabled as default setting.
3. [BUG FIXED]  
Symptom: eWC will hang when UPNP feature of our device is enabled.  
Condition: Step1: install windows XP service packet 2 in PC  
Step2: enable firewall of windows XP and also enable UPNP framework passthrough or disable firewall of windows XP.  
Step3: login in P660HW via eWC and enable UPNP, eWC will not be able to be accessible.  
Step4: the bug doesn't occur every time, but most time it will occur.
4. [BUG FIXED]  
Symptom: In eWC WAN setup, PPPoE passthrough doesn't function, but will be good after reboot.  
Condition: In eWC WAN setup, select the PPPoE mode and enable PPPoE pass-through, then PPPoE can link successfully but PPPoE Pass-through will fail. But in SMT it is OK.
5. [BUG FIXED]

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Symptom: Logging via eWC GUI with long password (about more than 50 characters), device will reboot.

Condition: Logging via eWC GUI with long password (about more than 50 characters), device will reboot.

6. [BUG FIXED]

Symptom: ZyXEL Prestige router discloses portions of memory contents to remote users.

Condition: Send ICMP packet with less data than normal so remote interface pad with data to complete the frame, ping -l 0 router.

7. [BUG FIXED]

Symptom: device discloses memory to remote users when ping from wan to lan using ping -l 0 (router ip).

Condition: after DSL line is up in menu 24.1, issue the ping -l 0 (wan ip) command in the wan side pc, memory is disclosed.

8. [BUG FIXED]

Symptom: Enter special URL will cause device crash.

Condition: 1. Form LAN site, enter

[http://192.168.1.1/Forms/rpAuth\\_1?ZyXEL%20ZyWALL%](http://192.168.1.1/Forms/rpAuth_1?ZyXEL%20ZyWALL%20Series)

[20Series<script>top.location.pathname=%20"</script>](#) on browser, the device will crash.

9. [BUG FIXED]

Symptom: F/W upgrade web page can be accessed without username/password.

Condition: F/W upgrade web page can be access via "http://ip address/rpFWUpload.html" without username and password.

**Modifications in V 3.40(GT.4)C0 | 12/12/2003**

1. Change to FCS

**Modifications in V 3.40(GT.4)b1 | 10/30/2003**

2. [BUG FIXED]

Symptom: VPN can't pass through router with NAT Traversal turns on

Condition: Setup a VPN connection with NAT Traversal turns on and establish a connection. It will be failed.

3. [BUG FIXED]

Symptom: The bp->extFlags is not cleared, so the wrong flag will affect the packet flow.

4. [BUG FIXED]

Symptom: PPPOE can't be dialed quickly more than 30 seconds after idle timeout.

Condition: Only use CHT real line can reproduce this problem.

**Modifications in V 3.40(GT.3) | 9/09/2003**

1. Change FCS version

**Modifications in V 3.40(GT.3)b2 | 8/29/2003**

1. [FEATURE ENHANCED]

Symptom: Merge VC auto hunting feature

2. [FEATURE ENHANCED]

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- Symptom: Add CI command "ip adjmss [<mss>]" to adjust TCP mss value
3. [FEATURE ENHANCED]  
Symptom: Enhance SPTGEN feature  
Condition:
    - 1) Add RIP direction and version for SMT menu4.
    - 2) Add active and protocol option for SMT menu15 (NAT).
    - 3) Extend filter set from 1 to 2 set.
    - 4) Support ADSL opencmd function.
  4. [BUG FIX]  
Symptom : Can't play XBox Live via NAT router.
  5. [BUG FIXED]  
Symptom: If the traffic for Polycom camera pass our router, the router would be reboot.
  6. [BUG FIXED]  
Symptom: The system will reboot in 10M half-duplex mode under big traffic

**Modifications in V 3.40(GT.3)b1 | 5/28/2003**

1. [FEATURE ENHANCED] Add Time Zone web-page in Advanced Setup panel.
2. [BUG FIXED]  
Symptom: Web Diagnostic Bug  
Condition: In Diagnostic page input IP Address, then press "Enter" system will reset to default romfile.
3. [BUG FIXED]  
Symptom: If setting 1483/Router at ATUR and 1483/Bridge at ATUC and ping the ATUR wan IP from ATUC, the system would reboot.  
Condition: If setting 1483/Router at ATUR and 1483/Bridge at ATUC and ping the ATUR wan IP from ATUC, the system would reboot.
4. [FEATURE ENHANCED] Add/modify 4 CI commands:
  - 1)sys romreset <1:reboot|2:no reboot>
  - 2)sys atsh /\* add Flash and DRAM size \*/
  - 3)sys atwe <mac address> <country code> <debug flag> <feature bits> < 1:reboot|0:no reboot>
  - 4)sys stdio 0 [seconds]

**Modifications in V 3.40(GT.2)C0 | 5/19/2003**

1. Change FCS version

**Modifications in V 3.40(GT.2)b1 | 5/7/2003**

1. Update modem code to 3.9.122
2. [FEATURE CHANGED] Use AT command "atld" without enabled debug flag
3. [FEATURE ENHANCED] Add WAN feature (in Advance Panel) and improve wizard configuration in web-pages.
4. [BUG FIXED]  
Symptom: Protected "rom-0" file, when user no login.  
Condition: Protected "rom-0" file, when user no login.
5. [BUG FIXED]  
Symptom: DHCP client doesn't release the IP address when the IP address is expired

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Condition: System is configured in "enet encap" (DHCP client), and sometimes DHCP server doesn't response in a period of time, when the lease time is expired system should release WAN IP address

**Modifications in V 3.40(GT.1)C0 | 12/2/2002**

1. [BUG FIXED]  
Symptom: Bad DNS packets cause system reboot.  
Condition: Bad DNS packets cause system reboot.
2. [BUG FIXED]  
Symptom: LAN external loopback failed in HTP.  
Condition: LAN external loopback failed in HTP.

**Modifications in V 3.40(GT.1)b4 | 11/22/2002**

1. [BUG FIXED]  
Symptom: Cell lost at the upstream.  
Condition: Cell lost at the upstream.

**Modifications in V 3.40(GT.1)b3 | 11/19/2002**

1. [BUG FIXED]  
Symptom: Ping and TFTP functions sometimes do not work.  
Condition: Ping and TFTP functions sometimes do not work.
2. [BUG FIXED]  
Symptom: We can not save CBR/VBR setting in the web configuration.  
Condition: We can not save CBR/VBR setting in the web configuration.

**Modifications in V 3.40(GT.1)b2 | 11/7/2002**

1. [BUG FIXED]  
Symptom: 8 VCs bridge mode does not work.  
Condition: When we send the 1518 bytes packets from AX4000 in 8 VCs bridge mode, the system can't transmit and receive any packets.
2. [BUG FIXED]  
Symptom: When you set PPPoA/PPPoE nailed-up mode and change the encapsulation mode, you will not dial out again.  
Condition: When you set PPPoA/PPPoE nailed-up mode and change the encapsulation mode like PPPoA/LLC -> PPPoA/VC, you will not dial out again.
3. [BUG FIXED]  
Symptom: DDNS does not work at 1483 mode.  
Condition: When the encapsulation is 1483 and we change the ip setting for this channel, the ddns would not change the ip address for this domain name.

**Modifications in V 3.40(GT.1)b1 | 10/31/2002**

1. [FEATURE ENHANCED] Add UPNP Feature.
2. [FEATURE ENHANCED] Add Traffic Redirection Feature (detected by ADSL Line)
3. [BUG FIXED]  
Symptom: The command "atba5" does not work in debug mode.  
Condition: The command "atba5" does not work in debug mode.

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4. [BUG FIXED]  
Symptom: When we change the console baud rate, the system will display garbage.  
Condition: Change the console baud rate in the debug mode.
4. [BUG FIXED]  
Symptom: We cannot configure DDNS in SMT.  
Condition: We cannot find any field to configure DDNS in SMT.
5. [FEATURE ENHANCED] Add the Core Checksum function.
6. [FEATURE ENHANCED] Add the PPPoA idle timeout function.
7. [BUG FIXED]  
Symptom: The web page displays the incorrect modem code version.  
Condition: The web page displays the incorrect modem code version.
8. [BUG FIXED]  
Symptom: ATM loopback test fail in web configuration.  
Condition: ATM loopback test fail in web configuration.
9. [FEATURE CHANGED] Modify the default rom file for standard version.

**Modifications in V 3.40(GT.0)c0 | 10/09/2002**

1. Rename version from 3.40(GT.0)b9.

**Modifications in V 3.40(GT.0)b9 | 10/04/2002**

1. [BUG FIXED] The Web ATM status error display.
2. [BUG FIXED] No prompt to clear error log in TELNET session and could lead user not to clear log.
3. [BUG FIXED] Can't perform ATM loopback in Web diagnostic page.

**Modifications in V 3.40(GT.0)b8 | 09/25/2002**

1. [FEATURE CHANGED] Add no logo request for China.
2. [FEATURE CHANGED] Add dying gasp recover that if dying gasp exceeds specified counter, system will reset.
3. [BUG FIXED] Create default romfile to correct some wrong settings.
4. [BUG FIXED] Fix f/w upload problem through Web configuration.
5. [BUG FIXED] Fix bug that the first letter of string "My Password=" is covered by exceeded length of the previous field in SMT4.
6. [BUG FIXED] The system may reset from fatal error log when line link up, the cause is due to double free data buffer.
7. [BUG FIXED] Change the PPP encapsulation to PPPoA.
8. [BUG FIXED] Modify "sys romreset" to query user if want to restore default romfile.
9. [BUG FIXED] Add Web help pages.

**Modifications in V 3.40(GT.0)b7 | 09/13/2002**

1. [BUG FIXED] Fix HTP SAR loopback test problem which no DMA can be triggered.

**Modifications in V 3.40(GT.0)b6 | 09/12/2002**

1. [BUG FIXED] In PPPoE connection, if the dynamic WAN IP address is different from

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the previous one, the ping packet to WAN could not get reply for the source IP address is still the previous one.

**Modifications in V 3.40(GT.0)b5 | 09/11/2002**

1. [BUG FIXED] When power on router, the exception occasionally happens due to periodical SAR timeout reset in case of cell rate calculation by zero speed before line link up.

**Modifications in V 3.40(GT.0)b4 | 09/04/2002**

1. [BUG FIXED] ADSL link up/down cause mbuf buffer leakage and no data can be transferred.
2. [BUG FIXED] Web configuration could cause system crash.
3. [BUG FIXED] HTP Ctrlle initialization fail problem.
4. [BUG FIXED] ADSL link up/down cause mbuf buffer leakage and no data can be transferred.
5. [BUG FIXED].Can't open multiple VC connections in routing mode.
6. [FEATURE CHANGED] Add SAR reassembly timeout to prevent affecting throughput while cell lost occurs.
7. [FEATURE CHANGED] HTP UART internal loopback testing.

**Modifications in V 3.40(GT.0)b3 | 08/19/2002**

1. [BUG FIXED] SAR reassembly big packet problem which could cause system crash.
2. [BUG FIXED] MAC reset problem which could cause FTP throughput degradation and discontinuous PING.

**Modifications in V 3.40(GT.0)b2 | 08/15/2002**

1. [FEATURE CHANGED] Change modem code from 3.8.164 to 3.8.163 for line quality verification.
2. [FEATURE CHANGED] Adjust gain values in autoexec.net after system reboot. User should update rom file.
3. [BUG FIXED] SAR Rx DMA problem that results in no packet received.

**Modifications in V 3.40(GT.0)b1 | 08/08/2002**

1. [FEATURE CHANGED] Add dying gasp support.
2. [FEATURE CHANGED] Add PPPoE connection LED indication.
3. [FEATURE CHANGED] Add Reset Botton implementation.
4. [FEATURE CHANGED] CI command to display SAR MIB counter.
5. [BUG FIXED] Check rate adaption when Ctrl-E responses signal lost, it causes line to drop immediately.
6. [BUG FIXED] Can't get the correct modem version.
7. [BUG FIXED] DHCP can't work if we setup DHCP service.
8. [BUG FIXED] Can't telnet from PC to P650R-31 \* PCE OS WIN98, WIN2000, or WINXP , when key the password then the link will be break off.
9. [BUG FIXED] Occasionally user can't ping router successfully in Win2000/XP. The bug could cause ether driver can't send packet.

**Modifications in V 3.40(GT.0)a1 | 07/12/2002**

1. [NEW FEATUER] Add VBR support in SMT menu4 and menu11.6.

**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="#">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
	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	[minute] [second]	change terminal timeout value
	time	[hour [min [sec]]]	display/set system time
	treisp	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		

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		switch	[on/off]	set on/off wdog
		cnt	[value]	display watchdog counts value: 0-34463
	romreset	[1:reboot 2:no reboot]		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>
		config	[0 1=auto normal] [0 1=10 100] [0 1=hd fd] <ch-name>
	version		see ethernet device type

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 CTRLLE response command
		defbitmap	ADSL defect bitmap status
		dyinggasp	Send ADSL dyinggasp
		fwav	Test the ADSL F/W available ping
		fwdl	Download modem code, but must reset first
		linedata	
		linedata	near
		linedata	far
		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]
		reset	Reset ADSL modem, and must reload the modem code again
		selftest	

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		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 detect 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

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		rsploss	[1 0]	Turn on means to response signal loss of CTRLLE immediately, default is off
		watchdog	[1 0]	Watchdog for DSP
	atm	test	[fix rand period oam loopback]	Generate ATM traffic
wan	hwsar	disp		Display hwsar packets incoming/outgoing information
		clear		Clear hwsar packets information
		sendoam		Send OAM packets: <vpi> <vci> <f5> <end-to-end> <type:0(AIS) 1(RDI) 2(LoopBack)>
wan	atm	vchunt	add <remotenodeindex> <vpi> <vci>	add new vchunt entry
			remove <remotenodeindex> <vpi> <vci>	remove vchunt entry
			active <yes no>	active vchunt feature
			display	display the setting
			clear	clear the setting buffer
			save	save the setting
			timer <timetocheckoam>	change the time interval
			send	start vchunt
			debug <1 0: on of>	debug tools turn on

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>
	dhcp		<iface>
		client	
		release	release DHCP client IP
		renew	renew DHCP client IP
		status	[option]
	dns		
		query	
		stats	
		clear	clear dns statistics
		disp	display dns statistics
	icmp		
		status	display icmp statistic counter
		discovery	<iface> [on off]
	ifconfig		[iface] [ipaddr] [broadcast <addr>  mtu <value> dynamic]
	ping		<hostid>
	route		
		status	[if]
		add	<dest_addr default>[/<bits>] <gateway> [<metric>]
		addiface	<dest_addr default>[/<bits>] <gateway> [<metric>]
		addprivate	<dest_addr default>[/<bits>] <gateway> [<metric>]
		drop	<host addr> [/<bits>]

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	status			display ip statistic counters
	udp			
		status		display udp status
	tcp			
		status	[tcb] [<interval>]	display TCP statistic counters
	xparent			
		join	<iface1> [<iface2>]	join iface2 to iface1 group
		break	<iface>	break iface to leave ipxparent group
	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

**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