



Firmware Release Note

Prestige 2602R-61

Standard version

Release 3.40(RE.2)C0

Date:	Aug. 17, 2005
Author:	Mada Chen

ZyXEL Prestige 2602R-61 Standard Version Release 3.40(RE.2)C0 Release Note

Date: Aug 17, 2005

Supported Platforms:

ZyXEL Prestige 2602R-61

Versions:

ZyNOS Version: V3.40(RE.2) | 08/17/2005 11:00:00

Bootbase Version: V1.10 | 12/02/2004 14:00:00

Notes:

The Prestige 2602R is a low cost, high performance ADSL VoIP integrated access device, which provides high-speed ADSL/ADSL2/ADSL2+ Internet access, 1 port Ethernet and Voice over IP communication capability for Internet service providers who want to deliver the data and voice service over the current packet network.

With the supporting of open SIP standard (RFC3261), P2602R enables service providers to increase service revenue by supporting the toll-quality voice services. End user can easy set up the voice account with ITSP network and dramatic reduce their bills in the long distance calls. Low cost phone capability, full integration features. P2602R is an ideal solution for home and residential users.

The version of TI AR7 modem code is 04.00.01.00

Features:

Modifications in V 3.40(RE.2)C0 | 08/17/2005

1. Change to FCS version.

Modifications in V 3.40(RE.2)b3 | 08/04/2005

1. [ENHANCEMENT]
Change the model code version from 03.02.06.00 to 04.00.01.00

Modifications in V 3.40(RE.2)b2 | 06/09/2005

None

Modifications in V 3.40(RE.2)b1 | 04/29/2005

1. [ENHANCEMENT]
 - 1.1 Support DTMF Relay: RFC2833 / SIP INFO / SIP-INFO-Link_RFC2833
 - 1.2 Support FAX Relay / T.38
 - 1.3 Support VLAN Tag / DiffServ
 - 1.4 Support Point to Point Call
 - 1.5 Support On-hold & Un-hold
 - 1.6 Support Second-Call
 - 1.7 Support Call-Waiting
 - 1.8 Support Call-Transfer (Blind Transfer / Consultative Transfer)
 - 1.9 Support MWI
 - 1.10 Support congestion tone
 - 1.11 Support Call Conference
 - 1.12 Support Auto Provision (TFTP / HTTP)
 - 1.13 Support IVR / Embedded IVR
 - 1.14 Support Early Media
 - 1.15 Support Music On Hold
 - 1.16 Support Auto Firmware Update (It works only when sip is registered and have new firmware version need to update)
 - 1.17 Support Dial Plan
 - 1.18 Support Lifeline Auto Detection
 - 1.19 Support Media Bandwidth Mgmt
 - 1.20 Support Firewall
 - 1.21 Call Feature Key List

Call-Hold / Call-Retrieve	<RR>: Put call on hold and apply dial-tone. <RR>: Switch back to first call. This is active only when there is no second call. <RR> +2: Switch between the first call and Second call. <RR> +0: Clear held & Stay on the active call. <RR> +1: Clear active & Switch to held call.
Call-Waiting	<RR> +0: Reject Waiting Call <RR> +1: Accept Waiting, clear active call. <RR> +2: Accept Waiting, hold active call.
3-way Calling	<RR> +3: Establish 3-way calling [Active after the second call] <RR> +2: Split the 3-way calling. <RR> +2: Switch between the first call and second call. On-Hook: Call Transfer to link the first call and second call.
Blind Transfer	<RR> + *98#
Consult-On-Hold Transfer	<RR> + *98#
Internal Call	####
Speed dial	#01 ~ #10
IVR Main Menu	****
Auto Firmware Update	*99#: Do the firmware update. #99#: Cancel the firmware update.

ZyXEL Confidential

2. [ENHANCEMENT]
Support ADSL2+ by TI modem code 3.2.6.0

Modifications in V 3.40(RE.1)c0 | 04/12/2005

Change to FCS version.

Modifications in V 3.40(RE.1)b3 | 03/22/2005

None

Modifications in V 3.40(RE.1)b2 | 03/15/2005

None

Modifications in V 3.40(RE.1)b1 | 03/07/2005

None

Modifications in V 3.40(RE.0)C0 | 01/28/2004

1. Change to FCS version.

Modifications in V 3.40(RE.0)b5 | 01/27/2005

None

Modifications in V 3.40(RE.0)b4 | 01/25/2005

1. [BUG FIXED]
Symptom: Change session expires duration will block voice transfer .
Condition: Change session expires duration will block voice in next procedure
 1. Change SIP session expires to 30 or 400
 2. Make a call
 3. Wait until session expires is reached
 4. Result: No voice can be heard in caller and callee
2. [BUG FIXED]
Symptom: Peer to peer call can not establish.
Condition: Peer to peer call can not establish in next procedure
 1. Both caller and callee does not register to server
 2. Caller create a non-proxy rule to speed dial phone book
 3. Make a call but callee can not ring
3. [BUG FIXED]
Symptom: Auto provision can not change WAN IP.

ZyXEL Confidential

4. [BUG FIXED]
Symptom: IAD Called party send out DNS query every time between 100ring and 180ring when receiving an VoIP call.
5. [BUG FIXED]
Symptom: Log schedule does not work except "When log is full".
Condition: Log schedule Hourly and Daily log can't work , Daily hour input field will blank out after press "APPLY" button.
6. [BUG FIXED]
Symptom: UPnP log does not work.
7. [BUG FIXED]
Symptom: Callee fail to send 486 busy here when conversation.
Condition: Callee fail to send 486 busy here when conversation in next procedure
 1. A call B and start conversation
 2. C call B
 3. After C call A or B. A can't heard voice from B. Need to reboot device in order to recover.
8. [BUG FIXED]
Symptom: Auto provision can not change VPI/VCI.
9. [BUG FIXED]
Symptom: Auto provision fail to rewrite WAN setting.
Condition: Auto provision fail to rewrite WAN setting in next procedure
 1. DUT get configuration file from TFTP server and change WAN setting
 2. Modify configuration file (change WAN IP and VPI/VCI) in TFTP server
 3. Wait autoprovision expiration time fire.
 4. Result : DUT get configuration file again but fail to change WAN setting
10. [BUG FIXED]
Symptom: "." and "@" should not be accpet in SMT
Condition: "." and "@" should not be accpet in SMT under next menu:
 1. Menu 15.1.1 address mapping rule
 2. Menu 12.1.1 IP static Route
 3. Menu 12.3.1 bridge static Route.
 4. Menu 11.1 RemNode Name
 5. Menu 26 Schedule name
 6. Menu 21 Filter Set
 7. Menu 4 ISP's Name

11. [BUG FIXED]

Symptom: Web redirect function does not work well when zero configuration enable

Condition: Web redirect function does not work well when zero configuration in next procedure

1. Enable zero configuration from eWC
2. Restart DUT
3. Access <http://tw.yahoo.com>.
4. Result: WEB will redirect to zero configuration page and show "Connection test in progress" but fail to stop even vc hunt is finished

Modifications in V 3.40(RE.0)b3 | 01/19/2005

1. [BUG FIXED]

Symptom: When ping some ip address and type "ctrl+c" at the same time. System will crash and reboot

Condition: 1. In Menu 24.8 typing "ip ping 192.168.8.1" (the ip address from which you can get response". the default times of ping is three.

2. When the device get response in the first time or the second time. type "ctrl+c". then type the Up key and Enter quickly. the system will crash and reboot.

2. [BUG FIXED]

Symptom: When we get rom-t from lan side by FTP, and modified it, then put rom-t, the device won't accept the new rom-t

Condition: When we get rom-t from LAN side by FTP, and modified it, then put rom-t, the device won't accept the new rom-t. (Just only use ultraedit modify rom-t, the DUT can accept it, but while use other utilities--DOS Edit/Word/Notepad/WordPad modify the rom-t, the DUT can not accept it.)

3. [BUG FIXED]

Symptom: VC hunt can not alloc mbuf again when VC hunt table is more than 9.

4. [BUG FIXED]

Symptom: Callee side fail to hangup Peer to Peer VoIP call. Callee will send bye to proxy server not caller.

Condition: 1: Caller to make peer to peer call to callee.

2: Callee hang-up. But the bye message would send to proxy server, not caller.

5. [BUG FIXED]
Symptom: Set PPPoA encapsulation and enable nail-up. After changing user-name several times, the connection can't be dialed-up.
Condition: 1. During the saving process of remote node, the remote node will be dropped and inactive. Then, it will be open and active again.
2. There is a periodical timer to process the nail-up task, the inactive period will affect the task process. For example, the remote node is sometimes active in the beginning of the task process. But, the remote node is inactive after a few moment. This will mess up the state of the task.
6. [BUG FIXED]
Symptom: Ippr will not be active.
Condition: we have set IPPR rule in menu 25 and apply it in menu 3-2 then reboot device.
7. [BUG FIXED]
Symptom: DUT should send DNS query periodically if the domain name of syslog or mail server can not find by DNS server.
Condition: 1. Set syslog or mail server as abc.def.com.
2. DUT will send DNS query only once.
8. [BUG FIXED]
Symptom: Autopro change WAN IP would can not work.
Condition: Autopro can not change WAN IP in next procedure:
Case I
 1. DUT set Enet encap and static IP 192.168.10.57
 2. Get rom-t from DUT and change IP to 192.168.10.58
 3. Download configuration file from TFTP serverCase II
 1. DUT set Enet encap and static IP 192.168.10.57
 2. Configuration file set as dynamic IP
 3. Download file from TFTP server
9. [BUG FIXED]
Symptom: In smt 3 2 ,when we change nothing but it still save to romfile.
Condition: we change nothing in smt menu 3-2 and it still save to rom.
10. [BUG FIXED]
Symptom: menu1 sys name can accept "." and "@" which is out of define
11. [BUG FIXED]
Symptom: in menu25 the ip routing policy name can accept the character out of define. such as "@" and ".".

12. [BUG FIXED]
Symptom: Sometimes DUT hangs up after system warm start.
13. [BUG FIXED]
Symptom: Traffic redirect function does not work when set check mechanism as ICMP.
Condition: Traffic redirect can not work:
 1. Menu 2 Enable traffic redirect , Check mechanism set ICMP
 2. Set an unreachable WAN IP
14. [BUG FIXED]
Symptom: Change session expires duration will block voice transfer .
Condition: Change session expires duration will block voice in next procedure
 5. Change SIP session expires to 30 or 400
 6. Make a call
 7. Wait until session expires is reached
 8. Result: No voice can be heard in caller and callee
15. [BUG FIXED]
Symptom: DTMF type as SIP info will cause callee exception after press number button
Condition: system exception in next procedure
 1. Caller set G.729, DTMF type set SIP info.
 2. Make a call
 3. Press number button
16. [BUG FIXED]
Symptom: the DHCP can distribute 10.0.0.0 and the client can get the ip and connect to internet .
Condition: Menu 3.2 set DHCP Client start IP pool 10.0.0.0, Lan Pc can get this ip and access Internet.
17. [BUG FIXED]
Symptom: Static dhcp have problem
Condition:
 1. In SMT menu24.8 use ci comment “ip dhcp”add a static ip 192.168.1.33 to pc1 ,while the ip is used by LAN pc2
 2. pc2 releases the ip while pc1 can’t get the ip 192.168.1.33
18. [BUG FIXED]
Symptom: eWC timeout but it can save change .
Condition: eWC can save in next procedure
 1. eWC in remote management page.
 2. change telnet port 23 to 23023 and wait 3 minutes

ZyXEL Confidential

3. apply it
 4. turn on login face and login
 5. in remote management the telnet port have changed from 23 to 23023
-
19. [BUG FIXED]
Symptom: When doing peer to peer call, device will send request to proxy instead of peer directly.
 20. [BUG FIXED]
Symptom: Load default value easily cause DUT fail to boot up.
 21. [BUG FIXED]
Symptom: Can not hear voice after overnight test.
Condition: Can not hear voice after overnight test in next procedure
 1. DUT1 set SIP1 as G.711, SIP2 set as G.729.
 2. Phone1 apply to SIP1, phone2 apply to SIP2
 3. Both phones make conversation with DUT2
 4. Result: Both DUT show "uaSDPNew Should not be here: 0x00000000" on SMT
 22. [BUG FIXED]
Symptom: Auto provision can not change WAN IP.
 23. [ENHANCEMENT]
 1. Change SIP server port and register server port start range from 1024 to 1
 2. Change local SIP port and RTP port start range from 1024 to 1025
 24. [BUG FIXED]
Symptom: Incorrect Volume to dB mapping..
 25. [BUG FIXED]
Symptom: Overnight VoIP + FTP stress testing cause IAD exception.
Condition: system exception in next procedure
 1. Using RADCOM to test continuous VoIP call.
 2. Make LAN Host on IAD to FTP continuously.
 3. IAD will occur exception under this scenario.
 26. [BUG FIXED]
Symptom: UPnP Internet Connection Status on Windows XP show incorrect speed.
 27. [BUG FIXED]
Symptom: Log schedule does not work except "When log is full"
 28. [BUG FIXED]
Symptom: The log information of Any IP is not correct.
Condition: The MAC address will skip 0, for example 00-A0-C5-01-02-03 will show

ZyXEL Confidential

as 0-A0-C5-1-2-3

29. [BUG FIXED]

Symptom: Sometimes DUT fail to generate Busy Tone.

Condition:

1. Callee side offhook
2. Caller call callee

Result: Sometimes can not hear busy tone

30. [BUG FIXED]

Symptom: Daytime protocol does not work.

Condition: Set timer server as daytime (RFC-867) Can get time information from server but fail to updated.

31. [BUG FIXED]

Symptom: Callee fail to send 486 busy here when conversation

Condition:

1. A call B and start conversation
2. C call B.

Result: B fail to send 486 busy here

32. [BUG FIXED]

Symptom: VAD cause a click sound when entering silence mode, cut off the first word

back from silence mode, and the generated idle noise is too quiet.

Modifications in V 3.40(RE.0)b2 | 12/14/2004

1. [BUG FIXED]

Symptom: NAT SIP ALG issue.

Condition: The IAD rewrite of a SIP message would cause error when the public IP address is shorter than the LAN IP address of the SIP device. (Ex: P2000W). It will leave the last (difference in length of the IP addresses) digits of the LAN IP-address in the message.

2. [BUG FIXED]

Symptom: When IAD use bridge mode. If we ping from Lan PC to internet and IAD reboot , after IAD reboot , Lan PC will cause ping fail.

3. [BUG FIXED]

Symptom: Use CI command "sys atwe" will cause system exception.

Condition: use "sys atwe" to change MAC address will casue system exception.

ZyXEL Confidential

Modifications in V 3.40(RE.0)b1 | 12/03/2004

1. Create this project for OBM version.

Annex A CI Command List

Command Class List Table		
System Related Command	Exit Command	Ethernet Related Command
WAN Related Command	IP Related Command	PPP Related Command
Bridge Related Command	SMT Related Command	

System Related Command

[Home](#)

Command				Description
sys				
	adjtime			retrive date and time from Internet
	cbuf			
		display	[a f u]	display cbuf a: all f: free u: used
		cnt		cbuf static
			display	display cbuf static
			clear	clear cbuf static
	baud		<1..5>	change console speed
	callhist			
		display		display call history
		remove	<index>	remove entry from call history
	clear			clear the counters in GUI status menu
	countrycode		[countrycode]	set country code
	date		[year month date]	set/display date
	domainname			display domain name
	edit		<filename>	edit a text file
	enhanced			return OK if commands are supported for PWC purposes
	errctl		[level]	set the error control level 0:crash no save,not in debug mode (default) 1:crash no save,in debug mode 2:crash save,not in debug mode 3:crash save,in debug mode
	event			
		display		display tag flags information
		trace		display system event information
			display	display trace event
			clear <num>	clear trace event
	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
	fid			
		display		display function id list
	firmware			display ISDN firmware type
	hostname		[hostname]	display system hostname
	iface			
		disp	[#]	display iface list

ZyXEL Confidential

	isr		[all used free]	display interrupt service routine
	interrupt			display interrupt status
	log			
		category		
			access [0:none/1:log]	record the access control logs
			attack [0:none/1:log/2:alert/3:both]	record and alert the firewall attack logs
			display	display the category setting
			error [0:none/1:log/2:alert/3:both]	record and alert the system error logs
			ipsec [0:none/1:log]	record the access control logs
			mten [0:none/1:log]	record the system maintenance logs
			upnp [0:none/1:log]	record upnp logs
			urlblocked [0:none/1:log/2:alert/3:both]	record and alert the web blocked logs
			urlforward [0:none/1:log]	record web forward logs
		clear		clear log
		display		display all logs
		errlog		
			clear	display log error
			disp	clear log error
			online	turn on/off error log online display
		load		load the log setting buffer
		mail		
			alertAddr [mail address]	send alerts to this mail address
			display	display mail setting
			logAddr [mail address]	send logs to this mail address
			schedule display	display mail schedule
			schedule hour [0-23]	hour time to send the logs
			schedule minute [0-59]	minute time to send the logs
			schedule policy [0:full/1:hourly/2:daily/3:weekly/4:none]	mail schedule policy
			schedule week [0:sun/1:mon/2:tue/3:wed/4:thu/5:fri/6:sat]	weekly time to send the logs
			server [domainName/IP]	mail server to send the logs
			subject [mail subject]	mail subject
		save		save the log setting buffer
		syslog		
			active [0:no/1:yes]	active to enable unix syslog
			display	display syslog setting
			facility [Local ID(1-7)]	log the messages to different files
			server [domainName/IP]	syslog server to send the logs
	mbuf			
		cnt		
			disp	display system mbuf count
			clear	clear system mbuf count
		link	link	list system mbuf link
		pool	<id> [type]	list system mbuf pool
		status		display system mbuf status
		disp	<address>	display mbuf status
		debug	[on off]	
	memory		<address> <length>	display memory content
	memwrite		<address> <len> [data list ...]	write some data to memory at <address>

ZyXEL Confidential

	memwl		<address>	write long word to memory at <address>
	memrl		<address>	read long word at <address>
	memutil			
		usage		display memory allocate and heap status
		mqueue	<address> <len>	display memory queues
		mcell	mid [f u]	display memory cells by given ID
		msecs	[a f u]	display memory sections
		mtstart	<n-mcell>	start memory test
		mtstop		stop memory test
		mtalloc	<size> [n-mcell]	allocate memory for testing
		mtfree	<start-idx> [end-idx]	free the test memory
	model			display server model name
	proc			
		display		display all process information
		stack	[tag]	display process's stack by a give TAG
		pstatus		display process's status by a give TAG
	queue			
		display	[a f u] [start#] [end#]	display queue by given status and range numbers
		ndisp	[qid]	display a queue by a given number
	quit			quit CI command mode
	reboot		[code]	reboot system code = 0 cold boot, = 1 immediately boot = 2 bootModule debug mode
	reslog			
		disp		display resources trace
		clear		clear resources trace
	stdio		[second]	change terminal timeout value
	time		[hour [min [sec]]]	display/set system time
	timer			
		disp		display timer cell
		trace	[on off]	set/display timer information online
		start	[tmValue]	start a timer
		stop	<ID>	stop a timer
	trcdisp			monitor packets
	trclog			
		switch	[on off]	set system trace log
		online	[on off]	set on/off trace log online
		level	[level]	set trace level of trace log #:1-10
		type	<bitmap>	set trace type of trace log
		disp		display trace log
		clear		clear trace
		call		display call event
		encapmask	[mask]	set/display tracelog encapsulation mask
	trcpacket			
		create	<entry> <size>	create packet trace buffer
		destroy		packet trace related commands
		channel	<name> [none incoming outgoing bothway]	<channel name>=enet0,sds100, fr0 set packet trace direction for a given channel
		string		enable smt trace log
		switch	[on off]	turn on/off the packet trace
		disp		display packet trace
		udp		send packet trace to other system

ZyXEL Confidential

			switch [on off]	set tracepacket upd switch
			addr <addr>	send trace packet to remote udp address
			port <port>	set tracepacket udp port
		parse	[[start_idx], end_idx]	parse packet content
		brief		display packet content briefly
	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
	server			
		access	<telnet ftp web icmp snmp dns> <value>	set server access type
		load		load server information
		disp		display server information
		port	<telnet ftp web snmp> <port>	set server port
		save		save server information
		secureip	<telnet ftp web icmp snmp dns> <ip>	set server secure ip addr
	spt			
		dump		dump spt raw data
			root	dump spt root data
			rn	dump spt remote node data
			user	dump spt user data
			slot	dump spt slot data
		save		save spt data
		size		display spt record size
		clear		clear spt data
	cmgr			
		trace		
			disp <ch-name>	show the connection trace of this channel
			clear <ch-name>	clear the connection trace of this channel
		cnt	<ch-name>	show channel connection related counter
	socket			display system socket information
	filter			
		clear		clear filter statistic counter
		disp		display filter statistic counters
		sw	[on off]	set filter status switch
		set	<set>	display filter rule
		netbios		
			disp	display netbios filter status
			config <0:LAN to WAN, 1:WAN to LAN, 2:LAN to DMZ, 3:IPSec passthrough, 4:Trigger Dial> <on off>	config netbios 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

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
			clear <name>	clear ether driver counters
		iface	<ch_name> <num>	send driver iface
		ioctl	<ch_name>	Useless in this stage.
		mac	<ch_name> <mac_addr>	Set LAN Mac address
		reg	<ch_name>	display LAN hardware related registers
		rxmod	<ch_name> <mode>	set LAN receive mode. mode: 1: turn off receiving 2: receive only packets of this interface 3: mode 2+ broadcast 5: mode 2 + multicast 6: all packets
		status	<ch_name>	see LAN status
		init	<ch_name>	initialize LAN
	version			see ethernet device type
	pkttest			
		disp		
			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
		mem	<addr> <data> [type]	write memory data in address
	test		<ch_id> <test_id> [arg3] [arg4]	do LAN test
	pncconfig		<ch_name>	do pnc config
	mac		<src_ch> <dest_ch> <ipaddr>	fake mac address

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 available ping
		fwdl		Download modem code, but must reset first
		linedata		
			near	Show ADSL near end noise margin
			far	Show ADSL far end noise margin
		open		Open ADSL line

ZyXEL Confidential

		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		
			long	ADSL long loop test
			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		
			shutdown	Show the counter of rate adaptive mechanism happening
			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

ZyXEL Confidential

		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 E immediately, default is off
	atm	test	[fix rand period oam loopback]	Generate ATM traffic
	hwsar	disp		Display hwsar packets incoming/outgoing information
		clear		Clear hwsar packets information

IP Related Command

[Home](#)

Command				Description
ip				
	address		[addr]	display host ip address
	loopbackaddr		<IP1> [IP2]	Set loopback address.
	alias		<iface>	alias iface
	aliasdis		<0 1>	disable alias
	arp			
		status	<iface>	display ip arp status
		add	<hostid> ether <ether addr>	add arp information
		resolve	<hostid>	resolve ip-addr
		drop	<hostid> [hardware]	drop arp
		flush		flush arp table
		publish		add proxy arp
	dhcp		<iface>	
		client		
			release	release DHCP client IP
			renew	renew DHCP client IP
		mode	<server relay none client>	set dhcp mode
		relay	server <serverIP>	set dhcp relay server ip-addr
		reset		reset dhcp table
		server		
			probecount <num>	set dhcp probe count
			dnsserver <IP1> [IP2] [IP3]	set dns server ip-addr
			winsserver <winsIP1> [<winsIP2>]	set wins server ip-addr
			gateway <gatewayIP>	set gateway
			hostname <hostname>	set hostname
			initialize	fills in DHCP parameters and initializes (for PWC purposes)
			leasetime <period>	set dhcp leasetime
			netmask <netmask>	set dhcp netmask
			pool <startIP> <numIP>	set dhcp ip pool
			renewaltime <period>	set dhcp renew time
			rebindtime <period>	set dhcp rebind time
			reset	reset dhcp table
			server <serverIP>	set dhcp server ip for relay
			dnsorder [router isp]	set dhcp dns order
		status	[option]	show dhcp status
		static		

ZyXEL Confidential

			delete <num> all	delete static dhcp mac table
			display	display static dhcp mac table
			update <num> <mac> <ip>	update static dhcp mac table
	dns			
		query		
			address <ipaddr> [timeout]	resolve ip-addr to name
			debug <num>	enable dns debug value
			name <hostname> [timeout]	resolve name to ip-addr
			status	display dns query status
			table	display dns query table
		server	<primary> [secondary] [third]	set dns server
		stats		
			clear	clear dns statistics
			disp	display dns statistics
		table		display dns table
	httpd			
		debug	[on off]	set http debug flag
	icmp			
		echo	[on off]	set icmp echo response flag
		data	<option>	select general data type
		status		display icmp statistic counter
		trace	[on off]	turn on/off trace for debugging
		discovery	<iface> [on off]	set icmp router discovery flag
	ifconfig		[iface] [ipaddr] [broadcast <addr> mtu <value> dynamic]	configure network interface
	ifdrop		<iface>	chaek if iface is available.
	ping		<hostid>	ping remote host
	pong		<hostid> [<size> <time-interval>]	pong 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
		flush		flush route table
		lookup	<addr>	find a route to the destination
		errent		
			disp	display routing statistic counters
			clear	clear routing statistic counters
	status			display ip statistic counters
	adjTcp		<iface> [<mss>]	adjust the TCP mss of iface
	udp			
		status		display udp status
	rip			
		accept	<gateway>	drop an entry from the RIP refuse list
		activate		enable rip
		merge	[on off]	set RIP merge flag
		refuse	<gateway>	add an entry to the rip refuse list
		request	<addr> [port]	send rip request to some address and port
		reverse	[on off]	RIP Poisoned Reverse
		status		display rip statistic counters

ZyXEL Confidential

		trace		enable debug rip trace
		mode		
			<iface> in [mode]	set rip in mode
			<iface> out [mode]	set rip out mode
		dialin user	[show in out both none]	show dialin user rip direction
	tcp			
		ceiling	[value]	TCP maximum round trip time
		floor	[value]	TCP minimum rtt
		irtt	[value]	TCP default init rtt
		kick	<tcb>	kick tcb
		limit	[value]	set tcp output window limit
		max-incomplete	[number]	Set the maximum number of TCP incomplete connection.
		mss	[value]	TCP input MSS
		reset	<tcb>	reset tcb
		rtt	<tcb> <value>	set round trip time for tcb
		status	[tcb] [<interval>]	display TCP statistic counters
		syndata	[on off]	TCP syndata piggyback
		trace	[on off]	turn on/off trace for debugging
		window	[tcb]	TCP input window size
	samenet		<iface1> [<iface2>]	display the ifaces that in the same net
	uninet		<iface>	set the iface to uninet
	tftp			
		support		prtn if tfpt is support
		stats		display tftp status
	xparent			
		join	<iface1> [<iface2>]	join iface2 to iface1 group
		break	<iface>	break iface to leave ipxparent group
	antiprobe		<0 1> 1:yes 0:no	set ip anti-probe flag
	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			
		clear		clear ip pr table counter information
		disp		dump ip pr table counter information
		switch		turn on/off ip pr table counter flag
	nat			
		timeout		
			gre [timeout]	set nat gre timeout value
			iamt [timeout]	set nat iamt timeout value

ZyXEL Confidential

			generic [timeout]	set nat generic timeout value
			reset [timeout]	set nat reset timeout value
			tcp [timeout]	set nat tcp timeout value
			tcpother [timeout]	set nat tcp other timeout value
		update		create nat system information from spSysParam
		iamt		display nat iamt information
		iface	<iface>	show nat status of an interface
		lookup	<rule set>	display nat lookup rule
		new-lookup	<rule set>	display new nat lookup rule
		loopback	[on/off]	turn on/off nat loopback flag
		reset	<iface>	reset nat table of an iface
		server		
			disp	display nat server table
			load <set id>	load nat server information from ROM
			save	save nat server information to ROM
			clear <set id>	clear nat server information
			edit active <yes/no>	set nat server edit active flag
			edit svrport <start port> [end port]	set nat server server port
			edit intport <start port> [end port]	set nat server forward port
			edit remotehost <start ip> [end ip]	set nat server remote host ip
			edit leasetime [time]	set nat server lease time
			edit rulename [name]	set nat server rule name
			edit forwardip [ip]	set nat server server ip
			edit protocol [protocol id]	set nat server protocol
		service		
			irc [on/off]	turn on/off irc flag
		resetport		reset all nat server table entries
		incikeport	[on/off]	turn on/off increase ike port flag

PPP Related Command

[Home](#)

Command				Description
ppp				
	autotriggger			
		on	<remoteNodeIndex>	turn on packet trigger, default is enable
		off	<remoteNodeIndex>	turn off packet trigger
		status		show autotriggger status
	retry		<interval>	adjust PPP retrial interval

Bridge Related Command

[Home](#)

Command				Description
bridge				
	mode		<1/0> (enable/disable)	turn on/off (1/0) LAN promiscious mode
	blt			related to bridge local table
		disp	<channel>	display blt data
		reset	<channel>	reset blt data
		traffic		display local LAN traffic table
		monitor	[on/off]	turn on/off traffice monotor. Default is off.
		time	<sec>	set blt re-init interval
	brt			related to bridge route table
		disp	[id]	display brt data
		reset	[id]	reset brt data
	cnt			related to bridge routing statistic table

ZyXEL Confidential

		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
	disp			display bridge source table

SMT Related command			Home
No	Command	Description	Comment
	sys bridge [on/off]	Set system bridge on/off	Menu 1
	sys routeip [on/off]	Set system IP routing on/off	Menu 1
	sys hostname [hostname]	Set system name	Menu 1
	sys display	Display hostname, routing/bridge mode information in menu 1	Display Menu 1
	sys default	Load All Default Settings Except LAN and DHCP.	
	sys save	Save all the parameters which will include menu1, menu 3.2 LAN, menu 4 or menu 11 WAN, menu 12 static route, menu 15 NAT server set, menu 21 filter sets, menu 22 SNMP, menu 24.11 remote management and 3.5 Wireless LAN	
	wan backup mechanism [dsl icmp]	Set wan backup mechanism to DSL link or ICMP	Menu 2
	wan backup addr [index] [IP addr]	Set wan ip address <index>	Menu 2
	wan backup tolerance [number]	Set keepalive fail tolerance	Menu 2
	wan backup recovery [interval(sec)]	Set recovery interval	Menu 2
	wan backup timeout [number]	Set ICMP timeout	Menu 2
	wan backup save	Save wan backup related parameters	Menu 2
	wan backup display	Display wan backup configurations	Menu 2
	wan tredir active [on/off]	Set traffic redirect on/off	Menu 2.1
	wan tredir ip [IP addr]	Set traffic redirect gateway IP address	Menu 2.1
	wan tredir metric [number]	Set traffic redirect metric	Menu 2.1
	wan tredir save	Save traffic redirect related parameters ** Have to apply “wan backup save” command thereafter	Menu 2.1
	wan tredir display	Display traffic redirect configurations	Menu 2.1
	lan index [1 2 3] 1: Select main LAN Interface 2: Select IP Alias 1 3: Select IP Alias 2	Select a LAN interface to edit	Menu 3.2
	lan active [on/off]	Turn on or off on IP Alias Interface	Menu 3.2.1
	lan ipaddr [address] [subnet mask]	Set LAN IP address and subnet mask Example: > lan ipaddr 192.168.1.1 255.255.255.0	Menu 3.2
	lan rip [none in out both] [rip1 rip2b rip2m]	Set LAN IP RIP mode and RIP version, if you choose none in the first parameter, the second parameter is also necessary	Menu 3.2
	lan multicast [none igmpv1 igmpv2]	Set LAN IP multicast mode	Menu 3.2
	lan filter [incoming outgoing] [tcpip generic] [set#1] [set#2] [set#3] [set#4]	Set LAN filter to be incoming/outgoing or protocol /device and the filter set could be 1-12, 0 means empty Example: Lan filter incoming tcpip 1 0 0 0	Menu 3.1
	lan dhcp mode [server relay none]	Set DHCP mode to be “server”, “relay”, “none”	Menu 3.2
	lan dhcp server dnsserver [pri dns] [sec dns]	Set primary and secondary LAN DNS server	Menu 3.2
	lan dhcp server pool [start-address] [num]	Set DHCP start address and pool size	Menu 3.2
	lan dhcp server gateway [IP address]	Set DHCP gateway	Menu 3.2

ZyXEL Confidential

	lan dhcp server netmask [subnet mask]	Set DHCP subnet mask	Menu 3.2
	lan dhcp server leasetime [second]	Set DHCP lease time	Menu 3.2
	lan dhcp server renewalttime [second]	Set DHCP renew time	Menu 3.2
	lan dhcp server rebindtime [second]	Set DHCP rebind time	Menu 3.2
	lan dhcp relay server [IP address]	Set IP address of DHCP relay server	Menu 3.2
	lan display	Display LAN or IP alias parameters	Display Menu 3
	lan clear	Clear the Working Buffer	
	lan save	Save LAN related parameters	
	wan node index [1-8]	Set the node pointer to specific wan profile. If you want to set WAN profile, please use this command first, system will use the index number for pointing to specific PVC (remote node), and for consequent commands reference, if index = 1 means it's ISP node	Menu 11.1
	wan node clear	Clear the parameters of the temporary WAN profile	Menu 11.1
	wan node ispname [ISP name]	Enable the name of wan node	Menu 11.1
	wan node enable	Enable the wan profile	Menu 11.1
	wan node disable	Disable the wan profile	Menu 11.1
	wan node encap [1483 pppoa pppoe enet]	Set the wan protocol	Menu 11.1
	wan node mux [vc llc]	Set the wan multiplex	Menu 11.1
	wan node ppp authen [chap pap both]	Set PPP authentication type	Menu 11.1
	wan node ppp username [name]	Set PPP username	Menu 11.1
	wan node ppp password [password]	Set PPP password	Menu 11.1
	wan node service [name]	Set PPPoE service name	Menu 11.1
	wan node bridge [on off]	Set the wan bridge mode	Menu 11.1
	wan node routeip [on off]	Set the wan IP routing mode	Menu 11.1
	wan node callsch [set1#][set2#][set3#][set4#]	Set call schedule set, set number 0 means empty	Menu 11.1
	wan node nailedup [on off]	Set nailed up connection on/off	Menu 11.1
	wan node vpi [num]	Set the wan vpi. Range : 0~255	Menu 11.6
	wan node vci [num]	Set the wan vci. Range : 32~65535	Menu 11.6
	wan node qos[ubr cbr]	Set the wan QOS type to be UBR or CBR	Menu 11.6
	wan node pcr [num]	Set the wan PCR value	Menu 11.6
	wan node scr [num]	Set the wan SCR value	Menu 11.6
	wan node mbs [num]	Set the wan MBS value	Menu 11.6
	wan node wanip [static dynamic] [address]	Set the wan IP address	Menu 11.3
	wan node remoteip [address] [subnet mask]	Set the remote gateway IP address and subnet mask	Menu 11.3
	wan node nat [off sua full] [address mapping #]	Set type wan NAT mode to be off or SUA or Full feature	Menu 11.3
	wan node rip [none in out both] [rip1 rip2b rip2m]	Set the wan RIP mode and RIP version	Menu 11.3
	wan node multicast [none igmpv1 igmpv2]	Set the wan IP multicast mode	Menu 11.3
	wan node filter [incoming outgoing] [tcpip generic] [set #1] [set #2] [set #3] [set #4]	Set WAN filter, incoming or outgoing can be specified, and filter set can be 1-12, value 0 means empty	Menu 11.5
	wan node save	Save the related parameters of WAN node	
	wan node display	Display WAN profile configuration in buffer	Display Menu 11
	ip route addrom index [Rule #]	Select a Static Route index 1-16 to edit	Menu 12.1
	ip route addrom name [Name]	Set Rule Name	Menu 12.1
	ip route addrom active [on off]	Set Active or Inactive Flag	Menu 12.1
	ip route addrom set [dest address/ mask bits] [gateway] [metric]	Set IP static route Example:	Menu 12.1

ZyXEL Confidential

		> ip route addrom set 192.168.1.33/24 192.168.1.1 2	
	ip route addrom private [yes no]	Set Private Flag	Menu 12.1
	ip route addrom disp	Display both working buffer and Editing Entry	Menu 12.1
	ip route addrom freememory	Discard all changes	Menu 12.1
	ip route addrom save	Save edited settings	Menu 12.1
	ip route addrom clear [Index #]	Clear Static Route Index	Menu 12.1
	ip nat addrmap map [map#] [set name]	Select NAT address mapping set and set mapping set name, but set name is optional Example: > ip nat addrmap map 1 myset	Menu 15.1
	ip nat addrmap rule [rule#] [insert edit] [type] [local start IP] [local end IP] [global start IP] [global end IP] [server set #]	Set NAT address mapping rule. If the “type” is not “inside-server” then the “type” field will still need a dummy value like “0”. Type is 0 - 4 = one-to-one, many-to-one, many-to-many-overload, many-to-many-non overload, inside-server Example: > ip nat addrmap rule 1 edit 3 192.168.1.10 192.168.1.20 192.168.10.56 192.168.1.56 0	Menu 15.1
	ip nat addrmap clear [map#] [rule#]	Clear the selected rule of the set	Menu 15.1
	ip nat addrmap freememory	Discard Changes	Menu 15.1
	ip nat addrmap disp	Display nat set information	Menu 15.1
	ip nat addrmap save	Save settings	Menu 15.1
	ip nat server load [set#]	Load the server sets of NAT into buffer	Menu 15.2
	ip nat server disp [1]	“disp 1” means to display the NAT server set in buffer, if parameter “1” is omitted, then it will display all the server sets	Menu 15.2
	ip nat server save	Save the NAT server set buffer into flash	Menu 15.2
	ip nat server clear [set#]	Clear the server set [set#], must use “save” command to let it save into flash	Menu 15.2
	ip nat server edit [rule#] active	Activate the rule [rule#], rule number is 1 to 24, the number 25-36 is for UPNP application	Menu 15.2
	ip nat server edit [rule#] svrport <start port> <end port>	Configure the port range from <start port> to <end port>	Menu 15.2
	ip nat server edit [rule#] remotehost <start IP> <end IP>	Configure the IP address range of remote host (Leave it to be default value if you don’t need this command)	Menu 15.2
	ip nat server edit [rule#] leasetime <seconds>	Configure the lease time (Leave it to be default value if you don’t want this command)	Menu 15.2
	ip nat server edit [rule#] rulename <string>	Configure the name of the rule (Leave it to be default value if you don’t want this command)	Menu 15.2
	ip nat server edit [rule#] forwardip <IP address>	Configure the LAN IP address to be forwarded	Menu 15.2
	ip nat server edit [rule#] protocol <TCP UDP ALL>	Configure the protocol to be used TCP , UDP or ALL (it must be capital)	Menu 15.2
	sys filter set index [set#] [rule#]	Set the index of filter set rule, you may apply this command first before you begin to configure the filter rules	Menu 21 filter sets
	sys filter set name [set name]	Set the name of filter set	Menu 21 filter sets
	sys filter set type [tcpip generic]	Set the type of filter rule	Menu 21 filter sets
	sys filter set enable	Enable the rule	Menu 21 filter sets
	sys filter set disable	Disable the rule	Menu 21 filter sets
	sys filter set protocol [protocol #]	Set the protocol ID of the rule	Menu 21 filter sets
	sys filter set sourceroute [yes no]	Set the sourceroute yes/no	Menu 21 filter sets
	sys filter set destip [address] [subnet mask]	Set the destination IP address and subnet mask of the rule	Menu 21 filter sets

ZyXEL Confidential

	sys filter set destport [port#] [compare type = none equal notequal less greater]	Set the destination port and compare type (compare type could be 0(none) 1(equal) 2(not equal) 3(less) 4(greater))	Menu 21 filter sets
	sys filter set srcip [address] [subnet mask]	Set the source IP address and subnet mask	Menu 21 filter sets
	sys filter set srcport [port#] [compare type = none equal not equal less greater]	Set the source port and compare type (compare type could be 0(none) 1(equal) 2(not equal) 3(less) 4(greater))	Menu 21 filter sets
	sys filter set tcpEstab [yes/no]	Set TCP establish option	
	sys filter set more [yes/no]	Set the more option to yes/no	Menu 21 filter sets
	sys filter set log [type 0-3= none match notmatch both]	Set the log type (it could be 0-3 =none, match, not match, both)	Menu 21 filter sets
	sys filter set actmatch[type 0-2 = checknext forward drop]	Set the action for match	Menu 21 filter sets
	sys filter set actnomatch [type 0-2 = checknext forward drop]	Set the action for not match	Menu 21 filter sets
	sys filter set offset [#]	Set offset for the generic rule	Menu 21, it's for generic filter
	sys filter set length [#]	Set the length for generic rule	Menu 21, it's for generic filter
	sys filter set mask [#]	Set the mask for generic rule	Menu 21, it's for generic filter
	sys filter set value [(depend on length in hex)]	Set the value for generic rule	Menu 21, it's for generic filter
	sys filter set clear	Clear the current filter set	Menu 21
	sys filter set save	Save the filter set parameters	
	sys filter set display [set#][rule#]	Display Filter set information. W/o parameter, it will display buffer information.	
	sys filter set freememory	Discard Changes	
	sys snmp disp	Display SNMP parameters	Menu 22
	sys snmp get [community]	Set the community string of get	Menu 22 SNMP
	sys snmp set [community]	Set the community string of set	Menu 22 SNMP
	sys snmp trusthost [IP address]	Set the IP address of trusted host	Menu 22 SNMP
	sys snmp trap community [community]	Set the community string of trap	Menu 22 SNMP
	sys snmp trap destination [IP address]	Set the destination address of trap	Menu 22 SNMP
	sys snmp discard	Discard changes	
	sys snmp clear	Clear Working Buffer	
	sys snmp save	Set the SNMP parameters	Menu 22 SNMP
	sys password [new password]	Set system password [save immediately]	Menu 23 system password
	sys baud [1-5]	Index 12,3 will be 38400,19200, 9600, 57600, 115200 bps [save immediately]	Menu 24.2.2 console speed
	sys server load	Load setting before editing	
	sys server access [ftp telnet web] [access type]	Set the server access type to be 0: ALL, 1: None, 2:LAN only, 3:WAN only	Menu 24.11 remote management
	sys server port [ftp telnet web] [port]	Set the server port number	Menu 24.11 remote management
	sys server secureip[ftp telnet web] [address]	Set the server security IP address	Menu 24.11 remote management
	sys server disp [1]	Display server settings, [1] means display buffer	
	sys server save	Save the embedded server (remote management) parameters	