ZyXEL

Firmware Release Note

P-660R-D1

Standard version

Release 3.40(AGE.1)C0

Date: **Feb 27, 2006**
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ZyXEL P-660R-D1 Standard Version
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Supported Platforms:

ZyXEL P-660R-D1

Versions:

ZyNOS Version   : V3.40(AGE.1) | 02/27/2006 15:00:05
Bootbase Version   : V1.04 | 08/11/2005 03:15:00

Notes:

The P-660R-D1 is 4th generation of Zyxel ADSL product family. It is a high performance ADSL/ADSL2/ADSL2+ router for small/medium office to have Internet access and LAN-to-LAN application over the existing copper line. P-660R-D1 takes advantage of much higher data rate than ADSL, speed up to 12Mbps (ADSL2) or 24Mbps (ADSL2+), greater reach, faster start-up, advanced diagnostics and better power management. This high performance ADSL router is a rich features router to meet the demand of next generation ADSL market.

P-660R-D1 provides one auto-detection 10/100BASE-T Ethernet port for connection to the user's local network, and a single RJ-11/RJ-45 port for connection to ADSL/ADSL2/ADSL2+ line.

The version of TI AR7 modem code is 05.01.03.00

Features:

Modification in 3.40(AGE.1)C0 | 02/27/2006
1. Change to FCS
2. Change default romfile.

Modification in 3.40(AGE.1)b3 | 02/22/2006
1. [BUG FIX]
  SPRID: 060222003
  Symptom: set a filter, when apply it use CI command in WAN, it must fill 4 parameter,but apply it in LAN it need not to fill 4 parameter, it can be save when it have only 1 parameter.
  condition: set a filter, when apply it use CI command in WAN, it must fill 4

parameter,but apply it in LAN it need not to fill 4 parameter, it can be save when it have only 1 parameter.

2. [BUG FIX]
  SPRID: 060222004
  Symptom: when do chamber test DSL will link down an then up in one sencond .
  condition: when do chamber test DSL will link down an then up in one sencond .

3. [BUG FIX]
  SPRID: 060124210
  Symptom: run FTP file download about 1 hours,the device will reboot.
  condition: run FTP file download about 1 hours,the device will reboot. use Acaltel UD adsl2+,sync up rate:up 1179kbps,down 23458kbps.file download rate:2105kB/s

Modification in 3.40(AGE.1)b2 | 01/11/2006

1. [BUG FIX]
  SPRID: 060111445
  Symptom: set a schedule, when apply it use CI command "wan node callsch"
        it must fill 4 parameter, that is to say, you must type like
        this "wan node callsch 1 0 0 0", but not like "wan node callsch 1".
  condition:set a schedule, when apply it use CI command "wan node callsch"
        it must fill 4 parameter, that is to say, you must type like
        this "wan node callsch 1 0 0 0", but not like "wan node callsch 1".

2. [BUG FIX]
  SPRID: 060111447
  Symptom:Set NAT rule, the DUT will crash. set 10 rules in menu 15.1.1, then set rules one by one in menu 15.1.2, when you set the 9th rule, DUT will crash
  Condition: N/A

3. [BUG FIX]
  SPRID: 060111455
  Symptom: Prestige can not be managed from WAN side in RFC1483bridge mode.
  Condition: N/A

4. [BUG FIX]
  SPRID: 060105234
  Symptom: Turn on vc hunt debug flag when DUT is hunting, DUT will show the debug information continually. And after a while, DUT will crash.
  Condition: 1.Turn on vc hunt debug flag when DUT is hunting, DUT will show the debug information continually. And after a while, DUT will crash.
            2.The phenomenon will happen sometimes.

5. [BUG FIX]
  SPRID: 060105237
  Symptom: In GUI, NAT Full Feature can not work normally.
  Condition: In GUI,NAT Full Feature, "one-to-one","many-to-one","many-to-many overload","server",correct rules can't be saved.

6. [BUG FIX]
  SPRID: 060105238
  Symptom: Release note has a mistake.
  Condition: The release note show [Feature Change]:Change modem code to 5.0.5.0.

But the correct modem code is 5.1.3.0.
7.[ENHANCEMENT CHANGE]
  Add Multi-boot V2.3

Modification in 3.40(AGE.1)b1 | 12/26/2005
1. [BUG FIX]
  SPRID: 051227463
  Symptom: Upload wrong romfile by SMT Restore Configuration may cause
  device crash.
  Condition: If the upload romfile is text format or wrong content binary
  image, after restore from
        SMT 24.6, the device may crash.
2. [BUG FIX]
  SPRID: 051227464
  Symptom: Change the LAN IP or subnet mask,IE can't access device.
  Condition: In web wizard - LAN page. Change LAN IP for 192.168.1.1 to 192.
  168.181.1, the PC gets
        IP from the device but can't use IE to access device.
3. [BUG FIX]
  SPRID: 051227465
  Symptom: CI command "sys stdio" does not follow the spec.
  Condition: Enter "sys stdio 4 30", it will set the timeout to 30 seconds.
4. [BUG FIX]
  SPRID: 051227466
  Symptom: In "many to many no overload" mode, IGA and ILA does not match
, but it can save in EWC.
  Condition: Step 1: In the SMT menu 15.1.1, edit one rule, choose the type "
many to many no
        overload", if the number of local IP is not equal to the
number of global IP, there is
        error information "IGA and ILA does not match" and the
setting can't be saved.
        Step 2: In the GUI setting, if the number of local IP is not
equal to the number of
        global IP, there is no error, and in the SMT menu 15 the
setting has been saved.
5. [BUG FIX]
  SPRID: 051227467
  Symptom: The"Connection testing"page will change to"conncetion testing
  fail"Page for only one brower.
  condition: 1.If there are no correct PVC in hunting table.
  2.Page will return to"Auto_Hunt_Fail".
  3.If there are two or more browers,only one page will display"
  Auto_Hunt_Fail",the other pages will also display
  "Connection testing".
6. [BUG FIX]

SPRID: 051227468
  symptom:device will be crash
  condition: 1.set default romfile
          2.in vc hunt table have vpi/vci=0/33
          3.turn on vc hunt debug flag
7. [BUG FIX]
  SPRID: 051227469
  Symptom: SMT24.2.1 always show Multi-mode and GUI always show Multi-mode
  when change
        dsl standard to others(for example:adsl2,adsl2+)
   Condition:
    1. Set operation mode as ADSL2 use "wan adsl opencmd adsl2.
    2. In smt 24.2.1 it will show Multi-mode.
     3. when sync up GUI still show Multi-mode
8. [BUG FIXED]
  SPRID: 051227470
  Symptom: eWC time out but can reset DUT to the factory default.
   Condition: Step1 enter eWC->maintenance->firmware
      Step2 enter SMT menu 24.8 CI command"sys reboot"
      Step3 after DUT startup click the reset button in eWC then can reset
  DUT to the factory
          default
9. [BUG FIX]
    SPRID: 051227471
   Symptom: eWC timeout but telnet port still can save change.
   Condition: step1.eWC in remote management.
      step2.change telnet port 23 to 23023 and wait time out.
      step3.apply it.
       step4 turn on login face and login step5.in remote management the
  telnet port have
    changed frome23 to 23023.
10. [BUG FIX]
  SPRID: 051227473
  Symptom: choose PPPoA encapsulation to sync up,when need to retype username
  and password
        the IE url show "ZCfgPPPoE.html" webpage
  Condition:choose PPPoA encapsulation to sync up,when need to retype
username and password
        the IE url show "ZCfgPPPoE.html" webpage
11.[BUG FIX]
  SPRID: 051227474
   Symptom: Chariot testing fail if simultaneously select multiple Chariot
  script.
   Condition: Topology: EndPoint1--660R--DSLAM--BRAS--Endpoint2
          Selecting all 10 internet standard scripts(\netiq\chariot\script
\internet\) run at

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the same time for a long continuous time, error with the number 0245 in Chariot
will occur and it will stop the test.
12. [BUG FIX]
 SPRID: 051227475
  Symptom: It can't escape SMT24.1
    Condition: When performing vc-hunt process
13. [ENHANCEMENT CHANGE] (Quick Route update)
 update to qroute.c(1.3),according to PM and TE ,remove debug information.
14. [FEATURE CHANGED]
  Symptom: Change modem code to 5.1.3.0.

Modification in 3.40(AGE.0)C0 | 12/02/2005
1.Change to FCS.

Modification in 3.40(AGE.0)b4 | 11/10/2005
1. [BUG FIX]
   SPRID: 051108425
   Symptom: In SMT menu 4 and menu3.5 the ISP's name and ESSID can not accept
            special characters such as #$%^, but in eWC can accept it, they are not
            accordant.
   Condition: In SMT menu 4 and menu3.5 the ISP's name and ESSID can not accept
            special characters such as #$%^, but in eWC can accept it, they are not
            accordant.
2. [BUG FIX]
   SPRID: 051101010
   Symptom: When reset default romfile,set Encapsulation=RFC1483 or EAET
            Encap+LLC+Static IP, In CI command,ping 192.168.8.1,It Can not ping
            192.168.8.1,if ping many times,DUT will crash.
   Condition: step1:In menu 24.8 to reset default romfile.
            step2:set Encapsulation=RFC1483 or EAET Encap+LLC+static IP.
            step3:In CI Command,Edit "ip ping 192.168.8.1".it can not ping.
            step4:if ping many times,DUT will crash.
                But set Encapsulation=PPPOA or PPPoE,it can ping successully,this
                time,change Encapsulation=RFC1483,it can ping successully.
3. [BUG FIX]
   SPRID: 051102108
   Symptom: Multiboot can not support Upload the F/W to DUT with SMT debug mode.
   Condition: step1:PC connect to DUT LAN side, and set the PC as a random static IP.
            step2:Open MultiBootSrv.exe in PC. Click "BootBase File", and
                click "Browse", set the path of F/W bm file. Click "ROM File", and
                click "Browse", set the path of F/W rom file. Click "RAS File" ,
                and click "Browse", set the path of F/W bin file. Click "Enable
                engineer debug".
            step3:Click "Start", then reboot DUT, the upload F/W will in process in

SMT debug mode,The F/W upload can not't success through MultiBootSrv.exe.
4. [Feature Enhancement]
   Add reset button test Function
5. [Feature Enhancement]
   Add quick route

Modification in 3.40(AGE.0)b3 | 10/27/2005
1. [Feature Enhancement]
   TI Throughput Enhance

Modification in 3.40(AGE.0)b2 | 10/11/2005
1. [BUG FIX]
   SPRID: 050921873
   Symptom: The cell rate can't be limited by the setting of ATM QoS
   Condition: Step1: The DUT and AX/4000 run under route mode. in menu4, set PCR=1000, SCR=500, MBS=500
   Step2: ATM QoS Type=UBR/VBR/CBR, refer to the AX/4000 test result, the cell rate of the three type are almost the same and are larger than 1000 cell/s.
   Step3: The DUT and AX/4000 run under bridge mode. in menu4, set PCR=1000, SCR=500, MBS=500
   Step4: when ATM QoS Type=UBR /CBR, refer to the AX/4000 test result, the cell rate of the two type are almost the same and are larger than 1000 cell/s. And when ATM QoS Type=VBR, the cell rate is half of which when ATM QoS Type=CBR, but larger than 500.
2. [BUG FIX]
   SPRID: 050921864
   Symptom: When we enable "ping traffic is blocked from the WAN " function that it will also block LAN->WAN
   Condition: When we enable "ping traffic is blocked from the WAN " function that it will also block LAN->WAN
3. [BUG FIX]
   SPRID: 050915640
   Symptom: The DSL LED Flash at 1 Hz with a 50% duty cycle during all training course ;it can't meet the PS.
   Condition: 1.Power on and connect the DSLAM.
   2.Measure the frequency with oscilloscope when training course.
4. [BUG FIX]
   SPRID: 050921869
   Symptom: While set the DUT LAN "Client IP Pool Starting Address" and "Size of Client IP Pool" which are not match the "IP Subnet Mask", but this can be saved in GUI\Wizard Setup and rom-t. In SMT and GUI\Advanced Setup have no this issue.
   Condition: While set the DUT LAN "Client IP Pool Starting Address" and "Size of Client IP Pool" which are not match the "IP Subnet Mask", but this can be

saved in GUI\Wizard Setup and rom-t. In SMT and GUI\Advanced Setup have no this issue.
5. [Feature Enhancement]
    Ftp malloc
6. [Feature Enhancement]
    TI Enhance
7. [BUG FIX]
    SPRID: 051012013
    Symptom: subnet mask error
    Condition: Procedure to reproduce the problem
        1. Log into the device via WEB GUI
        2. Config Static WAN IP Address
          3. Enter subnet mask "255.255.248.0"
          Then it will pop up a message shows "subnet mask error". However, "255.255.248.0" is a valid subnet

Modification in 3.40(AGE.0)b1 | 09/13/2005
1.   Create this project. For more details, please refer to P-660R-D1 external specification.

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		

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
	isr		[all|used|free]	display interrupt service routine
	interrupt			display interrupt status
	log			
		category		
			access [0:none/1:log]	record the access control logs
			display	display the category setting
			error [0:none/1:log/2:alert/3:both]	record and alert the system error 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:non	mail schedule policy

			e]	
			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>
	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,sdsl00, 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
			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

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 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
		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		
			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 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		
			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
	atm	test	[fix|rand|period|oam|loopback]	Generate ATM traffic
	hwsar	disp		Display hwsar packets incoming/outgoing information
		clear		Clear hwsar packets information
	tr069	load		load TR069 setting before configure
		active	[1|0]	Enable/Disable TR069 feature
		acsUrl	string	The URL of ACS
		periodicEnable	[1|0]	Enable/Disable periodically inform method call
		informInterval	[value]	Set periodic inform method call interval
		informTime	[value]	Set an absolute time for each day to send an inform method call
		reset		Reset TR069
		debug	[on|off]	Enable/Disable TR069 debug mode
		username	string	The username used to authenticate the CPE when making a connection to the ACS using the TR-069
		password	string	The password used to authenticate the CPE when making a connection to the ACS using the TR-069
		requsername	string	The username used to authenticate an ACS making a Connection Request to the CPE
		reqpassword	string	The password used to authenticate an ACS making a Connection Request to the CPE

IP Related Command

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 dicp 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		
			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
		errcnt		
			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
		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		pritn 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
			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

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

Bridge Related Command

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
		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