ZyXEL

Firmware Release Note

ZyAIR B-2000 v.2

Release 3.50(HF.4)C0

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ZyXEL ZyAIR B-2000 v.2 Standard Version
release 3.50(HF.4)C0
Release Note

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Supported Platforms:

ZyXEL ZyAIR B-2000 v.2

Versions:

ZyNOS F/W Version : V3.50(HF.4) | 11/08/2004 10:19:52
BootBase : V1.04 | 06/19/2003 10:22:37

Notes:

1. If Wireless Port Control (SMT Menu 23.4) is "Authentication Required", ZyAIR will enable 802.1x user authentication mechanism, a wireless user must login the ZyAIR successfully before accessing network service. If Wireless Port Control is "No Authentication Required", ZyAIR will allow all wireless users to access network service. If Wireless Port Control is "No Access Allowed", ZyAIR will not allow wireless user to access network service.
2. If SMT 23.4 Dynamic WEP Key Exchange is 64-bit WEP/128-bit WEP, Authentication Databases must be RADIUS Only.

Known Issues:

1. CNM Wireless LAN configuration is not ready for 3.50(HF.4)C0.
2. SMT 4:' Cannot set Ethernet IP paramenters ' appear when changing pppoe to another encapsulation.
3. SMT23.4:When enable 'Dynamic WEP Key Exchange', 'Authentication Database' should be 'RADIUS Only' and user cannnot change it anymore.
4. SMT23.4:Authentication Databases should be 'RADIUS Only' When 'Key management protocol' is set to WPA-PSK and 'WPA Mixed Mode' is enable.
5. If setting wrong shared secret for accounting server, 802.1x with dynamic WEP key cannot wrok.
6. If high volume traffic occupied the most availiable upstream/downstream bandwidth, the PPTP connection will be dropped.
7. eWC:Illegal ip address can be accepted in some fields.

CI Command List

Features:

Modification in 3.50(HF.4)C0 | 11/08/2004

1. [FEATURE CHANGED]
    Convert to FCS firmware.

Modification in 3.50(HF.4)b3 | 10/26/2004

1. [BUG FIXED]
    Symptom: The packets on WAN triggers the PPPoE connection.
    Condition: B2000 V.2 connected to Ethernet, and B2000 V.2 configured with pppoe encapsulation.
    There are packets received from WAN will trigger B2000 V.2 to dial PPPoE.

Modification in 3.50(HF.4)b2 | 10/07/2004

1. [BUG FIXED]
    MAC address assignment problem
    Symptom: While Lan MAC address last byte is 0xFF, the WAN MAC address isn't correct. Condition: If the LAN MAC address is 00:A0:C5:01:FF:FF, the WAN MAC address should be 00:A0:C5:02:00:00. But the WAN MAC address is 00:A0:C5:01:FF:00.
    Reason: The WAN MAC address only increase the last byte. If the WAN MAC address is overflow, the last second byte won't be increased.
    Solution: Translate MAC address to digital number and add the channel ID. If the MAC address is overflow, this MAC address will be still correct.
2. [BUG FIXED]
    Symptom: The packets on LAN (not to WAN) triggers the PPPoE connection.
    Condition: B2000 V.2 connected to ADSL Modem, and B2000 V.2 configured with pppoe encapsulation. Ping LAN IP address (192.168.1.1) of B2000 V.2 from a LAN-PC (192.168.1.33). This packets will trigger B2000 V.2 to dial PPPoE.
3. [BUG FIXED]
    Symptom: Turn on firewall cause stealth mode failed.
    Condition: If turn on the firewall. The steslth-mode test from http://grc.com shows port 0 and port 1 are closed but not stealth. If Turn off the firwall, all ports are stealth.
4. [BUG FIXED]
    Symptom: FTP cannot work from WLAN to LAN when enable firewall function via eWC.
    Reason: FTP cannot work from WLAN to LAN when enable firewall function via eWC.
5. [FEATURE ENHANCED]
    Support ADMTek 6996L WAN port speed configure.

Modification in 3.50(HF.4)b1 | 04/28/2004

1. [BUG FIXED]
    Symptom: B-2000v2 freeze.
    Condition: B-2000 v2 freeze under heavy traffic.
2. [BUG FIXED]
    Symptom: PPPoE connection sometimes fails in France.

Condition: Since France Telcom changes their core network setup to BRAS, ZyWALL PPPoE connection on authentication phase most of the time fails.

3. [FEATURE ENHANCED]
Auto configure MSS size according to MTU size. If users set the MSS value to 0, system would auto configure the MSS size according MTU size. Otherwise, the mss vaule would be the user specified value. The default MSS size is 1400.

4. [FEATURE CHANGED]
Add rom convert for 8021X to make the default authentic cation type be WPA-PSK.

5. [FEATURE ENHANCED]
Symptom : User can save duplicate mac address to device.

6. [FEATURE ENHANCED]
Change default nat session to 256.

7. [BUG FIXED]
Symptom : Can't delete keyword from Keyword List.
Condition: If the keyword contain Spaces before and/or after it, user can't delete it.

8. [BUG FIXED]
Symptom : DDNS information is gone.
Condition: Configure the DDNS parameters via Web GUI and saved. And power cycle the device, all DDNS information is gone.

Modification in 3.50(HF.3)b5 | 03/15/2004

1. [BUG FIXED]
Symptom: In eWC\Wireless page, missing some fields (Enable Intra-BSS Traffic, Enable Breathing LED, Number of Wireless Stations Allowed, Output Power)

Modification in 3.50(HF.3)b4 | 03/12/2004

1. [BUG FIXED]
Symptom: eWC\WAN\MAC:'factory default' cannot work after selecting 'Spoof this computer's MAC Address-IP Address.'
Condition: Steps: (1). In eWC\WAN\MAC page, select 'Spoof this computer's MAC Address - IP Address' and apply. (2). Select 'Factory default' and apply.

2. [BUG FIXED]
Symptom: eWC\ADVANCE\LOGS\View Log\Wireless:The source and destination field lists cannot dispaly data correctly.
Condition: In eWC\ADVANCED\LOGS\View Log\WIRELESS page, Source and Destination field lists cannot display data correctly.

3. [BUG FIXED]
Symptom: System exception and reboot when use remotemanagement by Cute FTP and Leap FTP.
Condition: System exception and reboot when use remote management by Cute FTP(4.2) and Leap FTP(2.6.2.470).

4. [BUG FIXED]
Symptom: eWC\Wireless\802.1x/WPA\WPA Group Key Update Timer:status string error when type invalid value
Condition: eWC\Wireless\802.1x/WPA\WPA Group Key Update Timer:status string error when type invalid value.

5. [BUG FIXED]

Symptom: et dr st enet1 fail.
Condition: et dr st enet1 fail Condition : Use CI command type " et dr st enet1" did not show any message.
6.   [BUG FIXED]
Symptom: Delete RoadRunner firewall rule fail.
Condition:Using CI command "config delete firewall set 2 rule 49". The firewall set 2 is limited 30 .entry, if preconfigure rule number more than 30, the rule can't be deleted by CI command.
7.   [FEATURE CHANGED]
Remove eWC: Group Data Privacy filed of Wireless\ 802.1x/WPA page in WAP mode.
8.   [FEATURE ENHANCED]
Support ADM 6996L
9.   [FEATURE CHANGED]
The wording "Time Zone" in eWC: system/Time Zone page change to "Time Setting".

Modification in 3.50(HF.2)b3 | 02/26/2004

1.   [BUG FIXED]
Symptom: LAN and Wireless LAN can't share each other.
Condition:Connect 1 computer via LAN and another via Wireless and try to ping each other.
2.   [BUG FIXED]
Symptom:In PPTP Encapsulation mode uses IP dynamic, the router will not work if the WAN IP address is changed．
Condition: Using PPTP Encapsulation mode and setting PPTP My IP dynamic. Try to change WAN IP address to make it has different subnetwork to Server IP address.

Modification in 3.50(HF.2)b2 | 02/20/2004

1.   [FEATURE ENHANCED]
Modify DDNS mechanism to meet the requirement of dyndns.org
2.   [FEATURE CHANGED]
Apply AP firmware ver. 3d24.
3.   [BUG FIXED]
Symptom : Stations cannot pass the authentication when key management protocol of DUT is WPA
Condition : (1) Set the DUT to make the 'WPA' as Key Management Protocol. (2) Configure client to require WPA authentication. (3) Establish the connection of client to DUT.
4.   [BUG FIXED]
Symptom : An incorrect warning message appear when type invalid data in 'Number of Associated Stations' field on SMT 3.5
Condition : Steps: (1) Type invalid data in 'Number of Associated Stations' field on SMT 3.5 (2) An incorrect warning message appear. Expect: The warning message should be 'The number of associated stations should be between 1 to 32.
5.   [BUG FIXED]
Symptom : When using duplicate system account login the eWC page, the warning message should appear.
Condition : When using duplicate system account login the eWC page, the warning message should appear
6.   [BUG FIXED]
Symptom : System reboot when active roaming configuration on SMT 3.5.2

Condition : System reboot when active roaming configuration on SMT 3.5.2
7. [BUG FIXED]
    Symptom : SMT:In PPTP encapsulation, change IP address assignment to 'Static', PPTP my ip will be changed to Static.
    Condition : SMT:In PPTP encapsulation, change IP address assignment to 'Static' on menu4, menu 11\PPTP my ip will be changed to Static too.
8. [BUG FIXED]
    Symptom : There are wrong/corrupt entries and time stamps in the eWC logs page.
9. [BUG FIXED]
    Symptom : In heavy traffic situation, system will reset by sw watchdog.
10. [FEATURE CHANGED]
    The default Log Schedule been set to 'None'

Modification in 3.50(HF.2)b1 | 02/04/2004

1. [FEATURE ENHANCED]
    Support WPA
2. [FEATURE ENHANCED]
    Support PPTP dialer over dynamic IP
3. [FEATURE ENHANCED]
    Redefine the rules of firewall auto config mechanism.
4. [BUG FIXED]
    Symptom:The router allocates the DNSs from the DHCP and not the DNSs from the PPTP tunnel.

Modification in 3.50(HF.1)b7 | 12/03/2003

1. [BUG FIXED]
    [Symptom] Abnormal packet delay when WEP is enabled.

Modification in 3.50(HF.1)b6 | 11/27/2003

1. [BUG FIXED]
    [Symptom] STA can not associate with device when roaming is enabled but WAN port is disconnected or doesn't get an IP address.

Modification in 3.50(HF.1)b5 | 11/14/2003

1. [BUG FIXED]
    Fix TELIA LOGIN for the username and password are sent only the 3 first characters.
2. [FEATURE CHANGE]
    Firewall generated packets (TCP RST) do not reset remote node (PPPoE/PPTP) idle timer and do not trigger remote node dial. This feature change solves "PPPoE + Firewall + e-mule = always on" problem.

Modification in 3.50(HF.1)b4 | 10/31/2003

1. [FEATURE ENHANCED]
    Support TELIA LOGIN.
2. [BUG FIXED]
    Symptom: Router will hang when NT4.0 wants to get IP from router.

Condition: The router will lock-up when it is acting as a DHCP server, and attempts to assign a IP address to a Windows NT 4.0 Workstation.

Modification in 3.50(HF.1)b3 | 9/29/2003

1.   [FEATURE CHANGED]
Apply AP firmware ver. 3828.

Modification in 3.50(HF.1)b2 | 9/24/2003

1.   [FEATURE ENHANCED]
Support 2048 NAT sessions.
2.   [FEATURE ENHANCED]
Support WLAN watchdog timer.
3.   [BUG FIXED]
Symptom : Switch WAN Encapsulation method, the user name string will be damaged.
Condition : When user set user name under PPPoE encapsulation method and save, then switch encapsulation method to Ethernet and save, then switch encapsulation back to PPPoE, the user name is damaged.
4.   [BUG FIX]
Symptom : WAN connection will drop in case of using PPTP for ADSL modem (Alcatel ANT1000, Alcatel SpeedTouch Home and Thomson SpeedTouch 510), especially if there is "high speed" on ADSL (512/256).
Condition : The ADSL modem like Alcatel ANT1000 replies the ACK too slow such that the system will queue too many packets in memory.   If the condition gets worse, the mbuf will be used out and the system will drop the PPTP connection at last. Solution: Add protection mechanism to prevent from queuing too many packets in memory.
5.   [FEATURE CHANGED]
Change IP Anti-Probe value to 1.
6.   [BUG FIXED]
Symptom : Fixed wizard setting problem.
Condition : When you press reset button, you can save the setting via web winzrad and it works then you switch off/on after reboot try to modify something via web Winzard page, then you got error Detect error on Router Error: spSetEther () fail with Error –1.
7.   [BUG FIX]
Fix bug of Association client value become "0"
8.   [FEATURE ENHANCED]
Support Romania country code.

Modification in 3.50(HF.1)b1 | 8/27/2003

1.   [FEATURE ENHANCED]
Support SPTGEN.
2.   [FEATURE ENHANCED]
Support Israel country code.

Modification in 3.50(HF.0)b6 | 7/17/2003

1.   [FEATURE CHANGED]

Change model name to ZyAIR B-2000 v.2.
2. [FEATURE ENHANCED]
Add RADIUS Accounting attribute – Terminate Cause.
3. [BUG FIXED]
Send EAP-Fail message to supplicant when supplicant`s idle timeout expired, etc.
4. [BUG FIXED]
Symptom : Display error in CI command "config display firewall".
Condition : Use CI command type "config disp firewall" ACL set 7 and set8 show LAN/ZyWALL
should change to LAN/ZyAIR.

Modification in 3.50(HF.0)b5 | 7/09/2003

1. [BUG FIXED]
Symptoms : Warning message error on eWC set WEP key.
Condition : Use eWC set Wireless WEP key, use 128 bits Hex mode, if user set just set 1 key, it show
28Hex, should change to 26 Hex. And if user just key in one key, please show warning message like "
please key in 4 keys".
2. [BUG FIXED]
Symptom:sys reset by cinfigure NAT rule Condition : Run auto test program to config NAT rule will
cause system reset . please refer attach file.

Modification in 3.50(HF.0)b4 | 7/02/2003

1. [BUG FIXED]
Symptoms : Warning message error on eWC set WEP key.
Condition : Use eWC set Wireless WEP key, use 128 bits Hex mode, if user set just set 1 key, it show
28Hex, should change to 26 Hex. And if user just key in one key, please show warning message like "
please key in 4 keys".
2. [BUG FIXED]
Symptom : use eWC open NAT port, did not create firewall rule.
Condition : use eWC open set SUA/NAT port, did not open firewall rule.
3. [BUG FIXED]
Symptom : Should login twice to eWC.
Condition : Use eWC to configure B2020, sometime it should login twice.
4. [BUG FIXED]
Symptom : enable the RTS/CTS and Fragmentation show wrong status.
Condition:Use eWC to enable the RTS/CTS and Fragmentation but didn not change value, apply it will
reports "Nothing changed; no need to perform save".
5. [BUG FIXED]
Symptom : all configuration reset to orginal value.
Condition : Use eWC set LAN, after change DNS server type will cause other field reset to orginal
value.
6. [BUG FIXED]
Symptom : eWC system setup reset to orginal value.
Condition : In eWC System General setup , after change DNS server type, all other fields setup will reset
to orginal value.
7. [BUG FIXED]
Symptom : Can not set WAN ethernet Toshiba via eWC.

Condition : Ues eWC set WAN as Ethernet and type set Toshiba, Manager, Telstra. when Apply it will get "ERROR : Fail to update due to unternal error (-9)!" error message.

8. [BUG FIXED]
    Symptom : When rebooting via SMT menu 24.4.11, the Win XP Telnet hangs - MUST send a RST to the telnet session on reboot.
    Condition : When rebooting via SMT menu 24.4.11, the Win XP Telnet hangs - MUST send a RST to the telnet session on reboot. This problem has solved on most ZyWALL devices recently.

9. [BUG FIXED]
    Symptom : set roaming cause b2020 crash.
    Condition : Use SMT 3.5 set roaming configure, when enable it. B2020 crash.

10. [FEATURE CHANGED]
    The LED control is changed, SYS LED will blink with red light when the device is booting and turn green while the device is ready.

11. [BUG FIXED]
    Symptom : Modify rom version and check sum fail.
    Condition :From debug mode change country code to Japan (EA) or Australia (F4) then upgrade rom file, rom version and check sum fail.

12. [BUG FIXED]
    Symptom:sys reset by cinfigure NAT rule.
    Condition : Run auto test program to config NAT rule will cause system reset . please refer attach file.

Modification in 3.50(HF.0)b4 | 6/13/2003

1. [BUG FIXED]
    Symptom : mbuf leak problem when using DNS proxy.
    Condition : When PC (LAN side) DNS server IP address is LAN IP address.

2. [BUG FIXED]
    Symptom : eWC set DNS server fail.
    Condition : eWC set LAN DNS, set First DNS = User-Defined and set Servedr IP, then select Second DNS = User-Defined, after web refresh, fiest DNS IP addr = 0.0.0.0.

3. [FEATURE CHANGED]
    AP firmware is changed to v.3613 to improve the stability of wireless connection.

Modification in 3.50(HF.0)b2 | 5/30/2003

1. [BUG FIXED]
    Symptom : system reboot with SB test.
    Condition : Use Smartbits test report, when use 50 Mbps send packet from LAN to WAN, B2020 will reboot.

2. [BUG FIXED]
    Symptom : Number of Wireless Stations Allowed reset to 0.
    Condition : Use eWC set Wireless, change the value of "Number of Wireless Station Alloewd", reboot system then use eWC set Wireless MAC Filter, the number of "Number of Wireless Station Alloewd" will reset to 0.

3. [BUG FIXED]
    Symptom:eWC LOGS\Reports function did not work.
    Condition : eWC LOGS\Reports function did not work.

4. [BUG FIXED]

Symptom : SMT 3.2 DNS fail.
Condition : From SMT 3.2 set DNS server, can not apply to DHCP client, from eWC LAN setup check it, the IP address show 0.0.0.0

5. [BUG FIXED]
    Symptom: Handover function doesn't work.
    Condition: After the STA roams to another BSS, the STAs in original BSS cannot ping the roamed out STA unless the STA ping the STAs in original BSS first.

6. [BUG FIXED]
    Symptom: Station cannot associate with device while roaming is enabled unless user reset wireless LAN.
    Condition: When station is turned on before the roaming enabled device is turned on, the station cannot associate the device unless the user reset the wireless LAN by re-configure the wireless setting or issue "wlan reset".

7. [BUG FIXED]
    Symptom :Disable Intra-BSS Traffic fail.
    Condition : Disable Intra-BSS Traffic fail.

8. [BUG FIXED]
    Symptom : B2020 unable to obtain an IP lease from DHCP server when firewall is enabled.
    Condition : Enable firewall, set WAN as Ethernet mode and dynamic get IP address, B2020 can not get IP from DHCP server.

9. [BUG FIXED]
    Symptom : Did not open firewall rule.
    Condition : Enable firewall and open NAT port, the service still block by firewall.

10. [BUG FIXED]
    Symptom :SMT 24.1 display version + fail.
    Condition :SMT 24.1 displays firmware version as:ZyNOS F/W Version+ V3.50(HF.0)b1 | 5/8/2003 I think the + sign after version should be a :

11. [BUG FIXED]
    Symptom :Enable WEP cause wireless throughput down 30 %.
    Condition : Enable WEP cause wireless throughput down 30 %.

12. [BUG FIXED]
    Symptom :Delete keyword button can not work.
    Condition : Use eWC firewall set filter , add keyword, press delete button, it ddoes not work.

13. [BUG FIXED]
    Symptoms : Warning message error on eWC set WEP key.
    Condition : Use eWC set Wireless WEP key, use 128 bits Hex mode, if user set just set 1 key, it show 28Hex, should change to 26 Hex.

14. [FEATURE CHANGED]
    Wireless default channel is CH06.

Modification in 3.50(HF.0)b1 | 5/8/2003

1. First release for C3 baseline firmware

CI Command List

Command Class List Table		
System Related Command	Exit Command	Ethernet Related Command
Wireless LAN Related Command	IP Related Command	Bridge Related Command
Radius Related Command	802.1x Related Command	

System Related Command   Home

Command				Description
sys				
	Adjtime			retrive date and time from Internet
	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
	Rn			
		load	<entry no.>	load remote node information
		disp	<entry no.>(0:working buffer)	display remote node information
		nat	<none|sua|full_feature>	config remote node nat
		nailup	<no|yes>	config remote node nailup
		save	[entry no.]	save remote node information
	Stdio		[second]	change terminal timeout value
	systemname		[system name]	Change system name
	time		[hour [min [sec]]]	display/set system time
	Trcdisp	parse, brief, disp		monitor packets
	Trclog			
	trcpacket			
	Syslog			
		server	[destIP]	set syslog server IP address
		facility	<FacilityNo>	set syslog facility
		type	[type]	set/display syslog type flag
		mode	[on|off]	set syslog mode

	Version			display RAS code and driver version
	View		<filename>	view a text file
	Wdog			
		switch	[on|off]	set on/off wdog
		cnt	[value]	display watchdog counts value: 0-34463
	romreset			restore default romfile
	Socket			display system socket information
	Filter			
		netbios		
	roadrunner			
		debug	<level>	enable/disable roadrunner service 0: diable <default> 1: enable
		display	<iface name>	display roadrunner information iface-name: enif0, wanif0
		restart	<iface name>	restart roadrunner
	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
	Firewall			
		acl		
			disp	Display specific ACL set # rule #, or all ACLs.
			delete	Delete specific ACL set # rule #.
		active	<yes|no>	Active firewall or deactivate firewall
		clear		Clear firewall log
		cnt		
			disp	Display firewall log type and count.
			clear	Clear firewall log count.
		debug		Set firewall debug level.
		disp		Display firewall log
		init		### nothing. ###
		mailsubject		
			disp	Display mail setting which is used to mail alert.
			edit	Edit mail setting.
		online		Set firewall log online.
		pktdump		Dump the 64 bytes of dropped packet by firewall
		tos		
			delete	Delete specific TOS session.
			display	Display TOS sessions.
			status	Display TOS sessions' status.
			dump	Dump TOS.
		tosctrl		
			destination	Display TOS destination hash
			incomplete	Display TOS incomplete List.
		update		Update firewall
		dynamicrule		
			display	Display firewall dynamic rules
		tcprst		
			rst	Set TCP reset sending on/off.
			rst113	Set TCP reset sending for port 113 on/off.
			display	Display TCP reset sending setting.

		icmp		
			block_code3	Set ICMP block code3 on/off
			display	Display ICMP block code3 setting.
		dos		
			smtp	Set SMTP DoS defender on/off
			display	Display SMTP DoS defender setting.
			ignore	Set if firewall ignore DoS in lan/wan/dmz/wlan
		ignore		
			dos	Set if firewall ignore DoS in lan/wan/dmz/wlan
			triangle	Set if firewall ignore triangle route in lan/wan/dmz/wlan

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
		ioctl	<ch_name>	Useless in this stage.
		status	<ch_name>	see LAN status
	version			see ethernet device type
	edit			
		load	<ether no.>	load ether data from spt
		save		save ether data to spt

Wireless LAN Related Command   [Home](#)

Command				Description
wlan				
	active		[on|off]	set on/off wlan
	association			display association list
	chid		[channel id]	set channel
	diagnose			self-diagnostics
	essid		[ess id]	set ESS ID
	scan			scan wireless channels
	version			display WLAN version information

IP Related Command   [Home](#)

Command				Description
ip				
	address		[addr]	display host ip address
	alias		<iface>	alias iface
	aliasdis		<0|1>	disable alias
	arp			
		status	<iface>	display ip arp status
	dhcp		<iface>	
		client		
			release	release DHCP client IP
			renew	renew DHCP client IP

		status	[option]	show dhcp status
	dns			
		query		
		server	<primary> [secondary] [third]	set dns server
		stats		
		default		set default DNS server
	httpd			
	icmp			
		status		display icmp statistic counter
		discovery	<iface> [on|off]	set icmp router discovery flag
	ifconfig		[iface] [ipaddr] [broadcast <addr> |mtu <value>|dynamic]	configure network interface
	ping		<hostid>	ping remote host
	route			
		status	[if]	display routing table
		add	<dest_addr|default>[/<bits>] <gateway> [<metric>]	add route
		addiface	<dest_addr|default>[/<bits>] <gateway> [<metric>]	add an entry to the routing table to iface
		addprivate	<dest_addr|default>[/<bits>] <gateway> [<metric>]	add private route
		drop	<host addr> [/<bits>]	drop a route
	status			display ip statistic counters
	udp			
		status		display udp status
	rip			
	tcp			
		status	[tcb] [<interval>]	display TCP statistic counters
	telnet		<host> [port]	execute telnet clinet command
	tftp			
	traceroute		<host> [ttl] [wait] [queries]	send probes to trace route of a remote host
	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

Radius Related Command   [Home]

Command			Description
radius			
	auth		show current radius authentication server configuration
	acct		show current radius accounting server configuration

802.1x Related Command   [Home]

Command			Description
8021x			
	debug	Level	[debug level]	set ieee802.1x debug message level
		Trace	show all supplications in the supplication table
		User	[username]	show the specified user status in the supplicant table