



**Firmware Release Note**

# **Prestige 652HW-31**

## **Standard version**

**Release 3.40(IU.3)C0**

|                |                       |
|----------------|-----------------------|
| <b>Date:</b>   | <b>March 16, 2004</b> |
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# **ZyXEL Prestige 652HW-31 Standard Version Release 3.40(IU.3)C0 Release Note**

**Date:** March 16, 2004

## **Supported Platforms:**

ZyXEL Prestige 652HW-31

## **Versions:**

ZyNOS F/W Version : V3.40(IU.3) | 3/16/2004 9:00:33

BootBase : V1.14 | 10/27/2003 10:05:54

## **Notes:**

The P652HW-31 is a small-office and home device that will allow a small LAN to access the Internet. By integrating ADSL, WLAN, NAT, P652HW-31 provides the ease of installation and Internet access.

The P652HW-31 provides an PCMCIA wireless card slot for 802.11b Wireless LAN connectivity, four single auto-sensing, auto-detection 10/100BASE-T Ethernet ports for connection to the user's local network, and a single RJ-11 port for connection to ADSL line.

The version of Alcatel modem code is 3.9.122

## **Known Issues:**

1. Upgrading firmware from V3.40(IU.1) to V3.40(IU.2) without loading default ROM file needs to set Menu 1 Bridge to Yes and reboot in order to make communication between WLAN and LAN.
2. Upgrading firmware from V3.40(IU.2) to V3.40(IU.3) need to use firmware upgrade tool to update new firmware. This tool only support change firmware from V3.40(IU.2) to V3.40(IU.3), you can't use this tool to upgrade firmware from others version. [See Appendix 1.](#)
3. The Switch needs 5 minutes to refresh it's bridge table. Therefore, if LAN connection switch to another port will not work for 5 minutes.

## **CI Command List:**

## **Features:**

**Modification in 3.40(IU.3)C0 | 03/16/2004**

1. Change to FCS version.

**Modification in 3.40(IU.3)b4 | 03/10/2004**

1. [BUG FIXED]  
Symptom: Connecting 2nd IPSec tunnel cause device hang-up.  
Condition: While trying to establish 2nd IPSec tunnel will cause device hang-up.
2. [BUG FIXED]  
Symptom: Test Bandwidth Management feature cause device exception or traffic is blocked.  
Condition: 1). Enable Bandwidth Management at WAN interface. 2). Test Bandwidth Management with AX4000. 3). Device will exception or traffic is blocked.
3. [BUG FIXED]  
Symptom: Traffic is blocked.  
Condition: WLAN do FTP failed when using B120 with heavy traffic on TX direction.

**Modification in 3.40(IU.3)b3 | 02/24/2004**

1. [BUG FIXED]  
Symptom: SIP pass-through can't work fine.  
Condition: Setup a SIP phone call from WAN side to LAN side, then WAN side user can't unhook the call.
2. [BUG FIXED]  
Symptom: The link of Wireless LAN-Roaming help page is broken at eWC.

**Modification in 3.40(IU.3)b2 | 02/02/2004**

1. [BUG FIXED]  
Symptom: Firewall can not filter FTP and CuSeeMe Application.
2. [BUG FIXED]  
Symptom: In eWC Content Filter-Schedule and Trusted, the settings can't be saved.
3. [BUG FIXED]  
Symptom: WLAN hide ESSID can't work fine.
4. [BUG FIXED]  
Symptom: Default ROM file setting is not correct.  
Condition: 1. Baud rate should be 9600. 2. No default IPSec rule. 3. No default service name for PPPoE connection.
5. [BUG FIXED]  
Symptom: In eWC, the check button of "Enable WLAN" doesn't work.
6. [BUG FIXED]  
Symptom: In eWC VPN page, there is no NAT Traversal check button.
7. [BUG FIXED]  
Symptom: Setting ENET ENCAP mode and SMT Menu 24.10 cause exception happened.
8. [BUG FIXED]  
Symptom: Setting IPSec Phase 1 Encryption algorithm = 3DES, then VPN tunnel can't be established.
9. [BUG FIXED]  
Symptom: WLAN and LAN can't communicate each other.

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10. [BUG FIXED]  
Symptom: In eWC Advanced Setup/Firewall/Antiprobing & Threshold click "Apply" button, it didn't jump to previous page.
11. [BUG FIXED]  
Symptom: Firewall log message has ZW string.
12. [BUG FIXED]  
Symptom: WLAN can't ping to DMZ port.
13. [BUG FIXED]  
Symptom: Can't edit firewall rule 0, it will cause system reboot.
14. [BUG FIXED]  
Symptom: Showing firewall/rule summary cause system exception.
15. [BUG FIXED]  
Symptom: LAN can't work after reset default ROM file.
16. [BUG FIXED]  
Symptom: In eWC Firewall/Rule Summary/Edit Rule first time click ADD button will appear error message
17. [BUG FIXED]  
Symptom: Not last firewall rule can move to any rule number. Ex, two rules exist then first rule could change to rule 10.
18. [ENHANCEMENT]  
Symptom: Support WLAN WPA/Dynamic WEP key function for B-120 wireless card.
19. [ENHANCEMENT]  
Symptom: Support Vantage function.
20. [ENHANCEMENT]  
Symptom: Support enhanced wan backup mechanism.  
Condition: Nailed-up function of Dial backup node is no longer controlled by ISP node.

**Modification in 3.40(IU.3)b1 | 11/19/2003**

1. [FEATURE ENHANCE] Add Large ROM-File. Need to update bootbase.
2. [FEATURE ENHANCE] New Firewall Add Port Based VLAN, DMZ and extra Firewall rules.
3. [FEATURE ENHANCE] Add NAT traversal.
4. [BUG FIXED] VPN Can't Pass Through Router with NAT Traversal Truns On.
5. [FEATURE CHANGED] PPPoE will never dis-connect even if the internal host is shut down.
6. [FEATURE ENHANCEMENT] Add CI command "wlan active 1/0".
7. [FEATURE CHANGED] Change France and Singapore WLAN channel range to 1-13.
8. [BUG FIXED] IPSec client behind device can not establish IPSec connection to remote peer.

**Modification in 3.40(IU.2)C1 | 10/22/2003**

1. [BUG FIX] Set Menu1 Bridge=Yes in default ROM file.

**Modification in 3.40(IU.2)b1 | 09/01/2003**

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1. [BUG FIX] Fix IPSec exception when using PPPoA.
2. [BUG FIX] Fix VPN can't ping after the VPN tunnel created and PFS turned on.

**Modification in 3.40(IU.1)b1 | 07/07/2003**

1. [BUG FIX] PPPoE pass through can't work when WLAN card is inserted.
2. [BUG FIX] PPPoE connection acts abnormally with Linux PPPoE server.
3. [BUG FIX] Bandwidth management cause PCMCIA hang-up.

**Modification in 3.40(IU.0)c0 | 05/27/2003**

1. [BUG FIX] PPPoE Client can't work if the first remote node is in bridge mode and smt menu1 routing set to yes.
2. [BUG FIX] smt menu11 select bridge should not affect the submenu 11.2 SUA selection.
3. [FEATURE ENHANCE] Add CI commands by TE request. "sys romreset <1:reboot|2:no reboot>", "sys atsh", "sys atwe <mac address> <country code> <debug flag> <feature bits> < 1:reboot|0:no reboot>", and "sys stdio 0 [seconds]".
4. [FEATURE ENHANCE] Change "sys smt on/off" from internal usage to hide.
5. [FEATURE ENHANCE] Enhance the CI command "sys proc stack" & "sys proc disp" to show the maximum stack usage for THREADX.
6. [BUG FIX] In Web GUI, Port speed select is not consistent with the dial backup advance GUI.
7. [FEATURE CHANGE] Modify WLAN default channel to CH06.

**Modification in 3.40(IU.0)b10 | 05/20/2003**

1. [FEATURE CHANGE] Modify Boot base product string from "P652HW-31" to "P652H/HW-31".
2. [FEATURE ENHANCE] Add SPTGen for MAC Filter, RADIUS, and IEEE802.1X.
3. [FEATURE ENHANCE] Enlarge FTP allocated buffer.
4. [FEATURE ENHANCE] Add Multi Language Web GUI.
5. [BUG FIX] Web GUI "wan.html" shows error if PPPoE pass through is selected "Yes".

**Modification in 3.40(IU.0)b9 | 05/13/2003**

1. [BUG FIX] Dial-Backup can't work because the configuration data is saved at wrong place.
2. [FEATURE ENHANCE] Add Telnet client. Use CI command "ip telnet <host>".
3. [FEATURE ENHANCE] Add IP trace route. Use CI command "ip traceroute <host> [ttl] [wait] [queries]".

**Modification in 3.40(IU.0)b8 | 05/13/2003**

1. [BUG FIX] Dial-Backup can't work if configured through Web GUI or SMT menu.
2. [BUG FIX] VPN Rule 9 and 10 can't be set.
3. [BUG FIX] Web Log page display garbage information.
4. [BUG FIX] Time zone's start date & end date has not consistent with SMT & web.
5. [FEATURE ENHANCE] WLAN will light on under "atgt" debug mode.

**Modification in 3.40(IU.0)b7 | 05/02/2003**

1. [BUG FIX] LED problem - DSL & ACT led can not turn off right now when system reboot.
2. [BUG FIX] Web problem - Maintenance->Diagnostic Page,ping non-IP format .The result show success.
3. [BUG FIX] SMT problem - If no wireless card plug on, both Web GUI and SMT won't show any information related to WLAN.
4. [BUG FIX] Web problem - Web page wireless mac filter set only 12 set.
5. [BUG FIX] VPN problem - Can not establish 5 VPN at same secure gateway tunnel.
6. [BUG FIX] Web problem - If no change to AUX port,access WAN backup page, sys reboot.
7. [BUG FIX] Web problem - No Time setting page.
8. [BUG FIX] SMT problem - Menu 24.3.3 no context.
9. [BUG FIX] VPN problem - Remote side disconnect the VPN tunnel,VPN still exist.
10. [BUG FIX] Exception problem - System maintenance log enable and drop pppoe connection will caused exception.
11. [FEATURE ENHANCE] VPN tunnel extend to 10 entries.
12. [BUG FIX] In HTP, if the wireless LAN card exist, the WLAN LED will be on.

**Modification in 3.40(IU.0)b6 | 04/08/2003**

1. [FEATURE ENHANCE] WAN Backup Funtion.
2. [FEATURE CHANGE] Modify HTP process to test UART external before testing WLAN Internal.
3. [BUG FIX] DHCP client doesn't release the IP address.  
Symptom: DHCP client doesn't release the IP address when the IP address is expired  
Condition: System is configured in "enet encap" (DHCP client), and sometimes DHCP server doesn't response in a period of time, when the lease time is expired system should release WAN IP address.
4. [BUG FIX] IPSec bug.  
Symptom: Local and peer content can't change when ID type is IP with CI command.  
Condition: "ipsec config lcIdContent" and "ipsec config peerIdcontent" can't change the value when ID type is IP.
5. [BUG FIX] NAT  
Symptom: The router tries to search a GRE entry, but sometimes it will find an ESP entry.  
Condition:
  1. There is an ESP entry in NAT session table.
  2. There is no other GRE entry in NAT session table.
  3. There is an GRE packet from outside to WAN.
6. [BUG FIX] IPSec Bug  
Symptom: Sometimes IPSec rekey procedure failed.  
Condition: Under heavy traffic, sometimes IPSec rekey failed.  
Sympton: Even the parameter is correct, negotiation for IKE phase 1 may fail.  
Condition: There are two types of conditions. 1) When two rules have same secure gateway address, sometimes the second tunnel cannot be established after the first one is built. 2) This situation also happens in rekey. If the initiator did not send DEL phase 1 information packet first and then start another phase 1 negotiation directly,

- this negotiation may fail.
7. [BUG FIX] IPSec Bug  
Symptom: IPSec rekey procedure is not stable.  
Condition: 1) There exists an IPSec rule, it's Secure gateway address is domain name. And the phase 2 PFS is on, either DH1 or DH2. 2) Sometimes the IPSec rekey procedure will not work properly. 3) From the log, user will see ZyWALL only receives IKE packets but never responses.
  8. [FEATURE CHANGED] IPSec  
Symptom: Change the mechanism of initial contact in reboot detection (original: tunnel-based, now: machine-based).  
Symptom: In the past, after phase 2 rekey, responder still use old phase 2 SA to transmit packets for a certain period and then started use the new phase 2 SA. Now responder will use new phase 2 SA after rekey immediately.  
Symptom: In our previous design, "SA monitor" shows SAs including the old SA. So even the re-negotiated SA will be showed on SA monitor. In this case, after a tunnel re-keyed, there will be two SAs on SA monitor. The new behavior is that SA monitor just shows SA which is "non-negotiated", i.e., SA monitor shows new SA but skips old SA.
  9. [FEATURE ENHANCED] IPSec  
Symptom: When the remote address range and local address range overlap in a IPSec rule, packets from local to local can skip this rule for checking. For example, a rule: local=> start= 192.168.1.0 mask= 255.255.255.0; remote=> start= 192.168.0.0 mask= 255.255.0.0. Then user can define if a packet from 192.168.1.2 to 192.168.1.3 matches this rule.  
Symptom: Add back the inbound idle timer. When a tunnel has no inbound traffic for a certain period, the tunnel will be dropped.
  10. [FEATURE ENHANCED] Centralized Log  
Symptom: Improve Log performance. Use a macro "NEED\_LOG\_PACKET" to determine dose the router need log or not.
  11. [BUG FIXED] VCHunt  
Symptom: (1) The exception is occurred if using "wan atm vchunt remove" to remove non-existed vcHunt table.  
(2) The un-configured remoteNode (but active) would be saved the vcHunt result. This might cause system reboot.
  12. [BUG FIXED] HWSAR  
Symptom: (1) Hwsar atmCfgTable would be full if dropping the ADSL line eight times at ZD2001 platform under PPPoE encap. The would cause no packets would be transmitted or received.  
(2) Hwsar atmCfgTable would be full if changing the VPI/VCI setting eight times at ZD2001 platform under PPPoE encap. This would cause no packets transmission or receive.

**Modification in 3.40(IU.0)b5 | 04/03/2003**

1. [BUG FIX] DHCP client doesn't release the IP address  
Symptom: DHCP client doesn't release the IP address when the IP address is expired.  
Condition: System is configured in "enet encap" (DHCP client), and sometimes

DHCP server doesn't response in a period of time, when the lease time is expired system should release WAN IP address.

2. [BUG FIX] Centralize log Bug

Symptom: The errlog type does not match the centralized log type.

Condition: ERR\_INFO will be logged into LOGS\_TYPE\_ERROR.

Reason: The translated function makes a wrong mapping between errlog & centralized log type.

3. [BUG FIX] IPSec Bug

Symptom: NAT router will create two session entries when building IPSEC tunnel.

Reason&Solution: When creating a new session entry for IPSEC port 500 incoming packets, it will not record the initiator cookie. Next the same packet comes will create a new session entry again. The solution is to record the initiator cookie.

Symptom: Can not save phase 1 ID in smt27.1.1

Condition: In IPSec setup page, when phase 1 ID type is IP and phase 1 ID content is empty, setting can not be saved in smt27.1.1, and the warning message "ID Content Should Be IP Format" shows at the bottom of smt27.1.1.

Symptom: When phase 1 ID check failed, IKE log didn't show the ID content correctly.

Condition: 1) Set Peer ID type = IP and leave Peer ID content as blank.

2) Set different ID content in the peer site.

3) Establish the tunnel. Due to phase 1 ID content is different, the procedure will fail. But in the log, "configured peer ID content" doesn't show correctly.

Reason: in proc\_id(), there is no checking mechanism if ID content is blank.

Solution: Add a check. If peer ID content is blank, use secure gateway address as ID content.

Symptom: Two IPSec hosts can establish IPSec connection when one uses main mode and the other chooses aggressive mode.

Condition: When local and peer hosts use different IKE phase1 negotiation mode, they still can establish IPSec connection.

Solution: If the ipsec host is responder, it will check the IKE phase1 negotiation mode is the same or not.

4. [BUG FIX] Web Bug

Symptom: After Web Configurator - Wizard setup, all remote nodes will be changed.

Condition: All remote nodes will change to the same Route/Bridge mode with ISP node.

Solution: Remove call configRNodes() in SaveWizardData().

5. [BUG FIXED] Wireless bug with 802.1x

Symptom: Wireless WEP key in web page have probelm.

Condition: While device support 802.1x, set WEP key in web page can't pass RADIUS authenticate.

6. [BUG FIXED] Wireless bug

Symptom: Display wrong wireless card version.

Condition: Use CI command "wlan version" to display wireless card version, the primary firmware version is always same as secondary version.



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7. [FEATURE ENHANCED] On line switch multi\_language.
8. [BUG FIX] Web Bug  
Symptom: From RFC 1483/Bridge to PPPoE/Route, PC can not dial up.  
Cause: The configured valued have saved to Device, but fail to correctly switch between Bridge and Routing mode.
9. [BUG FIX] Web Bug  
Symptom: The function,spWrite802\_1xEntry, been accessed in rpWLan\_v.c when 802.1x pages are not needed.  
Cause: Compiler flags, IEEE802\_1X and RADIUS not add into the related files.
10. [BUG FIX] All LAN traffic is blocked.  
Symptom: If product has FILTER\_NETBIOS\_BLOCK defined on ZD2001 platform, all LAN traffic will be blocked.  
Cause: Miss judge NetBIOS packets.
11. [BUG FIX] ROM version increases by 1 every time the router reboot.  
Symptom: If product has CYBER\_PATROL, or CONTENT\_FILTER defined, when every time the router reboot will cause "RomFile Version" and "RomFile Checksum" increased by 1.  
Cause: When processing spConv(), the function will always update ROM file.  
Solution: Avoid update ROM if Cyber Patrol parameters are already updated.
12. [FEATURE CHANGED] Change AT command "ATLD" to hide while turn off EngDebugFlag.
13. [BUG FIXED] Protected "rom-0" file, when user no login.

**Modification in 3.40(IU.0)b4 | 03/12/2003**

1. [BUG FIX] HTP test LAN external loop back fail.
2. [FEATURE ENHANCE] Add AUX External Loop Back Test in HTP.
3. [FEATURE ENHANCE] SMT4 will save empty login name and password instead of saving a space.

**Modification in 3.40(IU.0)b3 | 03/12/2003**

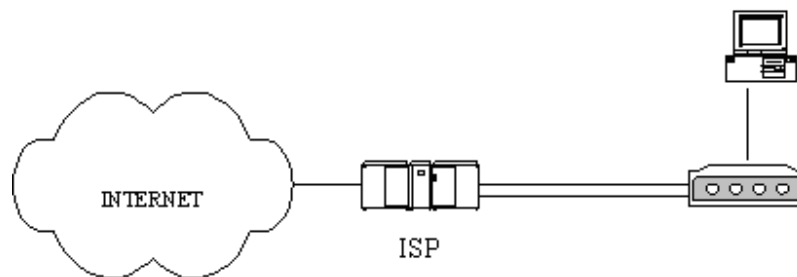
1. [FEATURE ENHANCE] Add DES ASIC in HTP.

## **Appendix 1: ZyXEL F/W Upgrade Tool**

### **Network Environment:**

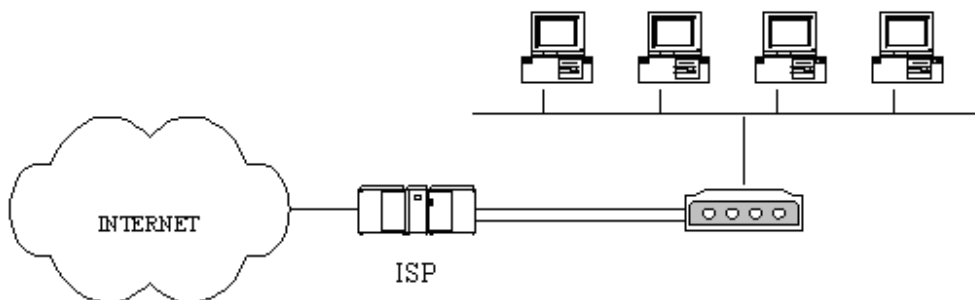
#### **1. Prestige Modem Series**

The target network environment is a PC connected to Prestige modem directly. The below figure shows a typical Internet access application. (If there is any IP sharing devices, like router, or switch between PC and Prestige modem, users must connect the PC to Prestige modem directly first before running the program.)



#### **2. Prestige Router Series**

The target network environment is a small number of PCs using the Prestige DHCP service for IP address assignment. Following figure shows a typical Internet access application.



### **Firmware Upgrade Procedure**

1. Change the Router's password to "1234".
2. Change the Router's LAN IP to "192.168.1.1" and make sure that PC can connect to Router.
  - ⇒ If your PC's IP is dynamic assigned by router, please release original IP and renew it from router's DHCP service.
  - ⇒ If your PC's IP is static assigned, please change it and make sure the new IP address at same subnet with router. (Ex: Set PC's IP to 192.168.1.33).
3. Executing the upgrade tool and wait about 6 minutes to wait firmware upgrade procedure finished.
4. If the original password is not "1234", change back to original setting.
5. Restore the original IP setting of router and reboot it if necessary.

## Annex A CI Command List

| Command Class List Table                |                                       |  |
|---|---------------------------------------|--|
| <a href="#">System Related Command</a>  | <a href="#">Exit Command</a>          | <a href="#">Ethernet Related Command</a> |
| <a href="#">WAN Related Command</a>     | <a href="#">WLAN Related Command</a>  | <a href="#">IP Related Command</a>       |
| <a href="#">IPSec Related Command</a>   | <a href="#">PPP Related Command</a>   | <a href="#">Bridge Related Command</a>   |
| <a href="#">Radius Related Command</a>  | <a href="#">8021x Related Command</a> | <a href="#">Firewall Related Command</a> |
| <a href="#">Vantage Related Command</a> |                                       |  |

## 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<br>0:crash no save,not in debug mode (default)<br>1:crash no save,in debug mode<br>2:crash save,not in debug mode<br>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<br><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       |         |   |   |

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|  |           |          |  |   |
|--|-----------|----------|--|---|
|  |           | 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            |
|  |           |          | 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<br>[0:full/1:hourly/2:daily/3:weekly/4:non<br>e] | mail schedule policy                      |
|  |           |          | schedule week<br>[0:sun/1:mon/2:tue/3:wed/4:thu/5:fri/6:<br>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                    |

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|  |           |           |  |   |
|--|-----------|-----------|--|---|
|  | 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<br>code = 0 cold boot,<br>= 1 immediately boot<br>= 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><br>[none incoming outgoing bothway] | <channel name>=enet0,sdsl00, fr0<br>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  |

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|  |          |          |   |  |
|--|----------|----------|---|--|
|  |          | 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><br><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.<br>mode: 1: turn off receiving<br>2: receive only packets of this interface<br>3: mode 2+ broadcast<br>5: mode 2 + multicast<br>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            |

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|  |  |               |                  |  |
|--|--|---------------|------------------|--|
|  |  | open          |                  | Open ADSL line   |
|  |  | opencmd       |                  | Open ADSL line with specific standard  |
|  |  | opmode        |                  | Show the operational mode  |
|  |  | perfdata      |                  | Show performance information,CRC,FEC, error seconds..  |
|  |  | rdata         | [start] [length] | Read DSP CTRL 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  |



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|  |       |               |                                |   |
|--|-------|---------------|--------------------------------|---|
|  |       |               |                                | 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 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   |

WLAN Related Command

[Home](#)

| Command |         |  |  | Description              |
|---------|---------|--|--|--------------------------|
| wlan    |         |  |  |                          |
|         | version |  |  | Show WLAN AP F/W version |

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  |

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|  |          |            |  |  |
|--|----------|------------|--|--|
|  |          |            | 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            |
|  |          | 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      |            |  |  |

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|  |           |                |                             |  |
|--|-----------|----------------|-----------------------------|--|
|  |           | 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        |                             | prtn if tftp 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        |                |                             |  |

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|  |     |            |                                      |   |
|--|-----|------------|--------------------------------------|---|
|  |     | 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            |

IPSec Related Command

[Home](#)

| Command |              |       |          | Description  |
|---------|--------------|-------|----------|--|
| ipsec   |              |       |          |  |
|         | debug        | <1 0> |          | turn on/off trace for IPsec debug information  |
|         | route        | lan   | <on/off> | After a packet is IPsec processed and will be sent to LAN side, this switch is to control if this packet can be applied IPsec again. |
|         |              |       |          | Remark: Command available since 3.50(WA.3)   |
|         |              | wan   | <on/off> | After a packet is IPsec processed and will be sent to WAN side, this switch is to control if this packet can be applied IPsec again. |
|         |              |       |          | Remark: Command available since 3.50(WA.3)   |
|         | show_runtime | sa    |          | display runtime phase 1 and phase 2 SA information   |
|         |              | spd   |          | When a dynamic rule accepts a request and a tunnel is established, a runtime SPD is created according to peer local IP address. This |

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|  |              |               |                                       |  |
|--|--------------|---------------|---------------------------------------|--|
|  |              |               |                                       | command is to show these runtime SPD.  |
|  | switch       | <on/off>      |                                       | As long as there exists one active IPSec rule, all packets will run into IPSec process to check SPD. This switch is to control if a packet should do this. If it is turned on, even there exists active IPSec rules, packets will not run IPSec process. |
|  | timer        | chk_my_ip     | <1~3600>                              | - Adjust timer to check if WAN IP in menu is changed   |
|  |              |               |                                       | - Interval is in seconds   |
|  |              |               |                                       | - Default is 10 seconds  |
|  |              |               |                                       | - 0 is not a valid value   |
|  |              | chk_conn.     | <0~255>                               | - Adjust auto-timer to check if any IPSec connection has no traffic for certain period. If yes, system will disconnect it.   |
|  |              |               |                                       | - Interval is in minutes   |
|  |              |               |                                       | - Default is 2 minuets   |
|  |              |               |                                       | - 0 means never timeout  |
|  |              | update_peer   | <0~255>                               | - Adjust auto-timer to update IPSec rules which use domain name as the secure gateway IP.  |
|  |              |               |                                       | - Interval is in minutes   |
|  |              |               |                                       | - Default is 30 minutes  |
|  |              |               |                                       | - 0 means never update   |
|  |              |               |                                       | Remark: Command available since 3.50(WA.3)   |
|  | updatePeerIp |               |                                       | Force system to update IPSec rules which use domain name as the secure gateway IP right away.  |
|  |              |               |                                       | Remark: Command available since 3.50(WA.3)   |
|  | dial         | <rule #>      |                                       | Initiate IPSec rule <#> from ZyWALL box  |
|  |              |               |                                       | Remark: Command available since 3.50(WA.3)   |
|  | display      | <rule #>      |                                       | Display IPSec rule #   |
|  | config       | netbios       | active <on/off>                       | Set netbios active flag  |
|  |              |               | group <group index1, group index2...> | Set netbios group  |
|  |              | name          | <string>                              | Set rule name  |
|  |              | active        | <Yes   No>                            | Set active or not  |
|  |              | keyAlive      | <Yes   No>                            | Set keep alive or not  |
|  |              | lcIdType      | <0:IP   1:DNS   2:Email>              | Set local ID type  |
|  |              | lcIdContent   | <string>                              | Set local ID content   |
|  |              | myIpAddr      | <IP address>                          | Set my IP address  |
|  |              | peerIdType    | <0:IP   1:DNS   2:Email>              | Set peer ID type   |
|  |              | peerIdContent | <string>                              | Set peer ID content  |
|  |              | secureGwAddr  | <IP address   Domain name>            | Set secure gateway address or domain name  |
|  |              | protocol      | <1:ICMP   6:TCP   17:UDP>             | Set protocol   |
|  |              | lcAddrType    | <0:single   1:range   2:subnet>       | Set local address type   |
|  |              | lcAddrStart   | <IP>                                  | Set local start address  |
|  |              | lcAddrEndMask | <IP>                                  | Set local end address or mask  |
|  |              | lcPortStart   | <port>                                | Set local start port   |
|  |              | lcPortEnd     | <port>                                | Set local end port   |
|  |              | rmAddrType    | <0:single   1:range   2:subnet>       | Set remote address type  |
|  |              | rmAddrStart   | <IP>                                  | Set remote start address   |
|  |              | rmAddrEndMask | <IP>                                  | Set remote end address or mask   |
|  |              | rmPortStart   | <port>                                | Set remote start port  |
|  |              | rmPortEnd     | <port>                                | Set remote end port  |

|  |  |            |   |  |
|--|--|------------|---|--|
|  |  | antiReplay | <Yes   No>                              | Set anitreplay or not                          |
|  |  | keyManage  | <0:IKE   1:Manual>                      | Set key manage                                 |
|  |  | ike        | negotiationMode <0:Main   1:Aggressive> | Set negotiation mode in phase 1 in IKE         |
|  |  |            | preShareKey <string>                    | Set pre shared key in phase 1 in IKE           |
|  |  |            | p1EncryAlgo <0:DES   1:3DES>            | Set encryption algorithm in phase 1 in IKE     |
|  |  |            | p1AuthAlgo <0:MD5   1:SHA1>             | Set authentication algorithm in phase 1 in IKE |
|  |  |            | p1SaLifeTime <seconds>                  | Set sa life time in phase 1 in IKE             |
|  |  |            | p1KeyGroup <0:DH1   1:DH2>              | Set key group in phase 1 in IKE                |
|  |  |            | activeProtocol <0:AH   1:ESP>           | Set active protocol in phase 2 in IKE          |
|  |  |            | p2EncryAlgo <0:Null   1:DES   2:3DES>   | Set encryption algorithm in phase 2 in IKE     |
|  |  |            | p2AuthAlgo <0:MD5   1:SHA1>             | Set authentication algorithm in phase 2 in IKE |
|  |  |            | p2SaLifeTime <seconds>                  | Set sa life time in phase 2 in IKE             |
|  |  |            | encap <0:Tunnel   1:Transport>          | set encapsulation in phase 2 in IKE            |
|  |  |            | pfs <0:None   1:DH1   2:DH2>            | set pfs in phase 2 in IKE                      |
|  |  | manual     | activeProtocol <0:AH   1:ESP>           | Set active protocol in manual                  |
|  |  | manual ah  | encap <0:Tunnel   1:Transport>          | Set encapsulation in ah in manual              |
|  |  |            | spi <decimal>                           | Set spi in ah in manual                        |
|  |  |            | authAlgo <0:MD5   1:SHA1>               | Set authentication algorithm in ah in manual   |
|  |  |            | authKey <string>                        | Set authentication key in ah in manual         |
|  |  | manual esp | encap <0:Tunnel   1:Transport>          | Set encapsulation in esp in manual             |
|  |  |            | spi <decimal>                           | Set spi in esp in manual                       |
|  |  |            | encryAlgo <0:Null   1:DES   2:3DES>     | Set encryption algorithm in esp in manual      |
|  |  |            | encryKey <string>                       | Set encryption key in esp in manual            |
|  |  |            | authAlgo <0:MD5   1:SHA1>               | Set authentication algorithm in esp in manual  |
|  |  |            | authKey <string>                        | Set authentication key in esp in manual        |

## 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 promiscuous 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                  |

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|  |      |       |  |  |
|--|------|-------|--|--|
|  |      | 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              |

## Radius Related Command

[Home](#)

| Command |      |  |  | Description   |
|---------|------|--|--|---|
| radius  |      |  |  |   |
|         | auth |  |  | show current radius authentication server configuration |
|         | acco |  |  | show current radius accounting server configuration     |

## 8021x 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 |

## Firewall Related Command

[Home](#)

| Command |          |             |          | Description   |
|---------|----------|-------------|----------|---|
| sys     |          |             |          |   |
|         | firewall |             |          |   |
|         |          | acl         |          |   |
|         |          |             | disp     | Display specific ACL set # rule #, or all ACLs.           |
|         |          | active      | <yes/no> | Active firewall or deactivate firewall                    |
|         |          | ent         |          |   |
|         |          |             | disp     | Display firewall log type and count.                      |
|         |          |             | clear    | Clear firewall log count.                                 |
|         |          | pktdump     |          | Dump the 64 bytes of dropped packet by firewall           |
|         |          | update      |          | Update firewall   |
|         |          | dynamicrule |          |   |
|         |          | 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        |          |   |
|         |          | 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      |          |   |
|         |          |             | triangle | Set if firewall ignore triangle route in lan/wan/dmz/wlan |

## Vantage Related Command

[Home](#)

| Command |  | Description |
|---------|--|-------------|
|---------|--|-------------|

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|     |           |                         |  |   |
|-----|-----------|-------------------------|--|---|
| cnm | active    | [0/1/2]                 |  | Display or set the CNM features to enable or disable .<br>0: disable<br>1: enable CNM features and communicate through WAN interface.<br>2: enable CNM features and communicate through WAN/LAN interfaces.   |
|     | sgid      |                         |  | Display sgid which is the unique ID of the device in Vantage.   |
|     | managerIP | [addr]                  |  | Display or set the IP of Vantage server/COMServer which manage this device. [addr] specifies the IP of the Vantage serve/COMServer.   |
|     | debug     | [0/1/2/3<addr>/4<addr>] |  | Display or set the way of outputting CNM debug messages.<br>0: disable debug messages.<br>1: output the debug messages to console and can accept SGMP inquire message only after the device is registered to Vantage server.<br>2: output the debug message to console and accept SGMP inquire message even if the device is not registered to Vantage server.<br>3: output the debug messages to console and a remote server to log debug messages.<br>4: output the debug messages to a remote log server only and no console output. |
|     | reset     |                         |  | Reset the state machine of SGMP and return to the state of SGMP_STATE_UNKNOWN. Device will re-register to Vantage server if CNM is active.  |
|     | encrykey  | [string]                |  | Display or set encryption key. [string] specifies the encryption key. to be set.<br>Key length can not less than 8 alphanumeric characters long, if ecrymode is DES.<br>Key length can not less than 24 alphanumeric characters long, if ecrymode is 3DES.  |
|     | encrymode | [0/1/2]                 |  | Display or set the encryption mode for SGMP messages.<br>[0:NONE /1:DES/2:3DES] specifies the encryption mode to be set.  |