



Firmware Release Note

ZyWALL 35

Release 4.00(WZ.2)

Date:	Oct. 24, 2005
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ZyXEL ZyWALL 35 Standard Version release 4.00(WZ.2) Release Note

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Supported Platforms:

ZyXEL ZyWALL 35

Versions:

ZyNOS F/W Version : V4.00(WZ.2) | 10/24/2005

BootBase : V1.08 | 01/30/2005

Vantage Agent Version : 1.0.0

Note:

1. Restore to Factory Defaults Setting Requirement: No.
2. The setting of ignore triangle route is on in default ROM FILE. Triangle route network topology has potential security crisis. If you are not clear about it, please refer to Appendix for the triangle route issue.
3. IKE process in phase 2 will check ID information between system and the peer. If you found that the IPSec connection is failed, please check your settings.
4. When firewall turns from "off" to "on", the firewall initialization procedure will disconnect all connections running through the ZyWALL.
5. SUA/NAT address loopback feature was enabled on ZyWALL by default, however, if users do not need it, a C/I command "ip nat loopback off" could turn it off.
6. In WLAN configuration, a switch for enable / disable WLAN is added. The default value is "**disable**" since WLAN without any security setting is vulnerable. Please configure MAC filter, WEP and 802.1X when you enable WLAN feature.
7. When UPnP is on, and then reboot the ZyWALL, Windows XP will not detect UPnP and refresh "My Network Places→Local Network". Plug in network wire again can solve this problem.
8. The default roles for LAN/DMZ ports setting are: port 1 to 4 = LAN ports.
9. If the encapsulation type of WAN1 and WAN2 are both PPTP, The PPTP IP settings (My IP Addr, My IP Mask and Server IP Addr) on WAN1 and WAN2 must be different subnet.
10. For users using the default ROMFILE in former release, please remove "ip nat session 1300" from autoexec.net by CI command "sys edit autoexec.net".
11. The first two entries for static route are reserved for creating WAN1 and WAN2 default routes and are READ-ONLY.
12. The default max NAT session number per host is changed to 10000.

13. In bridge mode, If LAN side DHCP clients want to get DHCP address from WAN side DHCP server, you may need to add and turn on the firewall rule for BOOT_CLIENT service type in WAN-LAN direction.
14. Under Bridge Mode, all LAN ports will behave as a hub, and all DMZ ports will also behave as another hub.
15. The DMZ TxPkts counter increment at about 1 pkt/min even without any Ethernet cables ever connected. This is because RIP on DMZ port is turned on by default.
16. In previous 3.64 firmware, the VID value of DPD is not correct. VID change will cause current version doesn't work with the wrong value. Please be sure to connect with devices which has updated VID, or the DPD may not work correctly.
17. In SMT menu 24.1, "WCRD" only represents the WLAN card status when you insert WLAN card into the ZyWALL. If you insert TRUBO card, you will see "WCRD" is always down.
18. If you do not want a mail to be scanned by Anti-Spam feature, you can add this mail into whitelist in eWC->Anti-Spam->Lists.
19. If you had activated content filtering service but the registration service status is "Inactive" after upgrading to 4.00, please click "Service License Refresh" in "eWC->REGISTRATION->Registration" or wait until device synchronize with the MyZyXEL.com.

Known Issues:

[Interface]

1. Currently, ZyWALL Multiple WAN does not support WAN 1/WAN 2 on the same sub-net. If you configure WAN 1 and WAN 2 to "Ethernet" encapsulation, you should not connect then to the same IP subnet.
2. You must notice those metric values of WAN 1, WAN 2, Traffic-Redirect and Dial-backup. You should better give those values, Dial-backup > Traffic-Redirect > WAN 2 > WAN 1. For example, WAN 1(1), WAN 2(2), Traffic-Redirect(14), Dial-backup(15).
3. If the metric of dial-backup is smaller (has higher priority) than the metric of Traffic-Redirect, Traffic-Redirect can't be triggered any more.
4. Symptom: LAN host can ping Internet while LAN host change cable from LAN port to DMZ port.
Condition:
 - (1) Host connect to LAN port and get DHCP address from router.
 - (2) Unplug LAN host cable and plug it into DMZ port.
 - (3) The host can still ping Internet using LAN DHCP address
 - (4) The scenario will continue about 30secs.
5. At SMT24.1, the collisions for WAN2, LAN and DMZ port are not really counted.
6. In eWC->Statistics, Tx data for Dial Backup is not correct.

[UPnP]

7. Sometimes on screen the "Local Area Connection" icon for UPnP disappears. The icon shows again when restarting PC.
8. When you use MSN messenger, sometimes you fail to open special applications, such as whiteboard, file transfer and video etc. You have to wait more than 3 minutes and

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retry these applications.

[BWM]

9. Bandwidth Management doesn't work on wireless LAN.
10. Bandwidth management H.323 service does not support Netmeeting H.323 application.

[Content Filter]

11. Can't block ActiveX in some case. (Windows will cache it in C:\WINNT\Downloaded Program Files\)

[Bridge Mode]

12. When device boots in Bridge Mode, some CI command error messages will be displayed on console. This is because some predefined CI commands in autoexec.net is forbidden to execute in Bridge Mode.
13. Don't use CI command "bridge rstp bridge enable" to enable RSTP" to enable RSTP, it will change the initial Path Cost value to an incorrect value.

[WLAN]

14. G-100 WLAN card, does not support the fragment size below 800.
15. Device sometimes crashes when use wireless for a long time.

[Firmware]

16. Some limitations on Firewall CLI configuration, (1) User can not delete specific address or custom port entry from a rule. (2) CLI doesn't support Modify and Move for rules implemented in eWC. (3) eWC can not display firewall rule field correctly if rule is added by CI command and its type is port/address range.

[ALG]

17. Symptom: P2002 can not connect with each other in Peer-to-Peer mode.
Condition:
Topology: P2002--(LAN)ZyWALL_A(WAN, IP=172.21.2.151)--(WAN, IP=172.21.1.134)ZyWALL_B(LAN)--P2002
 - (1) In ZyWALL_A and ZyWALL_B, add a "WAN to LAN" firewall rule to pass traffic with port "5060".
 - (2) In ZyWALL_A and ZyWALL_B, add a port forwarding rule "5060" to P2002.
 - (3) In ZyWALL_A and ZyWALL_B, enable SIP ALG.
 - (4) Setup both P2002 to Peer-to-Peer mode.
 - (5) Making the SIP connection by P2002 will be failed.

[Anti-Spam]

18. Mail can not be delivered successfully.
Condition:
Topology: Mail Client ----- ZyWALL_A---- ZyWALL_B--- Mail Server
 - (1) Turn on Anti-Spam at ZyWALL A and B.
 - (2) Mail Client sent mail to Mail Server.
 - (3) Sometimes mail can not be sent or received successfully.
19. Symptom:
Can not send mail (L to W: SMTP) when device is in bridge mode and the subnet of device IP is different with mail client's.
Condition:
Topology: Mail Server(192.168.12.123/24)---Internet----ZyWALL(192.168.11.9/23)----PC(192.168.1

2.163)

- (1) Change device to Bridge Mode, IP = 192.168.11.9, Mask = 255.255.254.0, Gateway = 192.168.10.11, DNS = 168.95.1.1.
- (2) Edit web eWC>Anti Spam, enable Anti Spam.
- (3) Edit web eWC>Anti Spam>External DB Enable, threshold = 0.
- (4) PC can not send mail to MailServer.
- (5) If disable Anti-Spam or change device's IP subnet to 192.168.12.x/24, mail can be sent.

[VPN]

20. Symptom: VPN Relay does not work

Condition:

Topology: Branch_A[ZyWALL] ----- HQ[ZyWALL] ----- Branch_B[ZyWALL]

(1) Network Settings:

Branch_A	WAN:10.0.0.2	LAN : 192.168.167.0/24
HQ	WAN:10.0.0.1	LAN: 192.168.168.0/24
Branch_B	WAN:10.0.0.3	LAN: 192.168.169.0/24

(2) VPN settings:

Branch_A has one VPN policy:

Local IP address: 192.168.167.0/24,

Remote IP address: 192.168.168.0~192.168.169.255

Headquarter has two VPN policies, one is to Branch_A, the other is to Branch_B.

(i) Policy to Branch_A

Local IP address: 192.168.168.0~192.168.169.255,

Remote IP address: 192.168.167.0/24

(ii) Policy to Branch_B

Local IP address: 192.168.167.0~192.168.168.255,

Remote IP address: 192.168.169.0/24

Branch_B has one VPN policy:

Local IP address: 192.168.169.0/24,

Remote IP address: 192.168.167.0~192.168.168.255

(3) Dial up VPN from both Branch A and Branch B to HQ. Then you can ping Branch B from Branch A, but you can not login any FTP server in Branch A from Branch B.

21. Symptom: PC can't ping remote gateway through VPN tunnel under this special topology.

Condition:

PC-----LAN ZyWALL_A WAN-----LAN ZyWALL_B

WAN-----Internet

(192.168.1.33) (192.168.100.33) (192.168.100.1) (172.202.77.145)

(1) VPN configuration in ZyWALL_A:

WAN IP Address=192.168.100.33 , WAN IP Subnet Mask=255.255.255.0 , Gateway IP Address=192.168.100.1.

Gateway policy , Name=IKE1 , Remote Gateway Address=192.168.100.1 , Pre-Shared Key=12345678.

Network policy for IKE1 , Active=enable , Name=IPSec1 , Local Network/Starting IP Address=192.168.1.33 , Remote Network/Starting IP Address=0.0.0.0

(2) VPN configuration in ZyWALL_B

WAN IP Address=172.202.77.145 , WAN IP Subnet Mask=255.255.0.0 , Gateway IP Address=172.202.77.1.

Gateway policy , Name=IKE1 , Remote Gateway Address=192.168.100.33 , Pre-Shared Key=12345678.

Network policy for IKE1 , Active=enable , Name=IPSec1 , Local Network/Starting IP Address=0.0.0.0 , Remote Network/Starting IP Address=192.168.1.33.

(3) When we established the VPN tunnel between ZyWALL_A and ZyWALL_B, we can access ZyWALL_B (192.168.100.1) with the remote management, such as Telnet, FTP..., these traffic will go through VPN tunnel. However, we can not ping ZyWALL_B (192.168.100.1) successfully because this ICMP traffic did not go through VPN tunnel to ZyWALL_B.

Features:

Modifications in V4.00(WZ.2) | 10/24/2005

Modify for formal release.

Modifications in V4.00(WZ.2)b2 | 10/19/2005

1. [BUG FIX] 051014198, 051014199, 051014200

Symptom: Use registration wizard to enable service, and last page wording error.

Condition:

- (1) In eWC->HOME->Internet Access button, go to the last page.
- (2) Registration status wording was wrong.

2. [BUG FIX] 051012087, 051012086

Symptom: ZyWALL wan 2 interface can not do port forwarding correctly when both wan interface build PPPOE connection.

Condition:

- (1) Take a ZW35 device with 400WZ1C0 firmware. Reset to default romfile.
- (2) In NETWORK >> WAN check ※Active/Active Mode§ and select ※Load Balancing Algorithm = NONE§.
- (3) Both of wan interfaces build PPPOE connection.
- (4) Set a firewall rule {source address = any destination address = 192.168.1.33 service type = FTP(TCP: 20, 21) action = permit} in FIREWALL >> Rule Summary >> WAN to LAN, and active firewall.
- (5) Set port forwarding rule {Incoming port = 21,21 service IP address = 192.168.1.33} both in NAT >> port Forwarding >> WAN1 and WAN2.
- (6) Connect a FTP server (ip 192.168.1.33) to ZyWALL LAN interface (ip 192.168.1.1). Then reboot ZYWALL.
- (7) Initialize ftp connection pass through WAN 1 can access successfully but if to initialize a ftp connection pass through WAN 2 we can found WAN 2 interface do not forward the FTP packet to 192.168.1.33. And the log shows block FTP packet "WAN to WAN" instead of "WAN to LAN".

3. [BUG FIX] 051014221, 051014222, 051014223

Symptom: Spelling error in eWC->Registration page.

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Condition:

- (1) In eWC->REGISTRATION-> Registration page, set two different passwords.
- (2) Press "Apply" button, the status shows "Password and Confirm password are differencet".
- (3) A word "differencet" spells error. It should be "different".

4. [BUG FIX]

AS fail count will not be increased even the real timeout occurs

5. [BUG FIX] 050928542, 051012075, 051012076, 051012077

Symptom: The added source IPs of Firewall rule will be lost.

Condition:

- (1) Go to GUI->FIREWALL->RULE EDIT page.
- (2) Edit a firewall rule.
- (3) Add a source IP(or destination IP) that exceeds its maximum size.
- (4) The added item will be lost.

6. [FEATURE CHANGE] 051018364 , 051018365 , 051018366

In eWC->Registration page, change Username field behavior.

WAS: "-" character is not allowed to key in.

IS: "-" character is allowed to key in.

7. [BUG FIX] 051018403

Symptom: PPTP (GRE) cannot pass through NAT.

Condition: PPTP

Server(192.168.1.33)--(LAN:192.168.1.1)DUT(WAN:192.168.11.100)—PC
(192.168.11.200)

- (1) Add PPTP Server(192.168.1.33) as Default Server in Port Forwarding
- (2) Firewall is disabled.
- (3) PC(192.168.11.200) can not dial in PPTP on 192.168.11.100

Modifications in V4.00(WZ.2)b1 | 10/08/2005

1. [BUG FIX]050906259

Symptom: Disable bridge mode Firewall "Log Broadcast Frame". Broadcast logs always appear.

Condition:

- (1) In bridge mode, disable all Firewall -> Default Rule -> "Log Broadcast Frame".
- (2) Broadcast logs always appear.

2. [BUG FIX]050825052

Symptom: Tfgen tool causes router crash.

Condition:

- (1) Use tfgen to send 40000 to 172.21.0.254 and turn it off.
- (2) Use "dev chan disp enet3" to make sure the sending bit is 1.
- (3) Unplug and plug wan2 and router will crash.

3. [BUG FIX]050912438

Symptom: Device will hang and reboot after "Email Log Now" in mode.

Condition:

- (1) Topology(Public IP): PC(211.72.158.115) ---
[LAN]ZyWALL_BridgeMode(211.72.158.116)[WAN] ---
Internet/MailServer/MailRecipient.
- (2) Set the device as Bridge mode.
- (3) Configure eWC->LOGS: "E-mail Log Settings".
- (4) Click eWC->"Email Log Now" to send log mail.
- (5) System will hang and then reboot by software watchdog.

4. [BUG FIX]050905192

Symptom: Anti-Spam causes memory leak in bridge mode.

Condition:

- (1) Topology: Mail Client --- ZyWALL --- Mail Server
- (2) Turn on Anti-Spam at ZyWALL (Bridge Mode).
- (3) Mail Client sends mail to Mail Server. (You can try 500 mails with 2 attachments, total size is about 30k).
- (4) ZyWALL memory leaks.

5. [BUG FIX]050922955

Symptom: After updating signature, sometimes the server IP address is incorrect in centralized log.

Condition:

- (1) In SMT 24.8, type "sys update signatureUpdate".
- (2) After updating signature, type "sys log dis".
- (3) Sometimes you can see a signature update log with incorrect server IP "127.0.0.1".

6. [ENHANCEMENT]

In eWC->FIREWALL->EDIT RULE page, we added the limitation on the number of source ip address and destination ip address. The limitation is 20.

7. [ENHANCEMENT]

The device will not retry to update the signature if the update is triggered by user. Ex. CI command "sys update signatureUpdate", "idp update start", "av update start" or "Update Now" button in eWC.

8. [ENHANCEMENT]

In eWC>Anti-Spam>General>Action taken when mail sessions threshold is reached, the wording of "Discard" will mislead user to think the system will "drop the mail" when mail session reach the system's limit. In fact, the system doesn't drop the mail, it just drop the mail connection until system have an available mail session to process incoming connection. We replaced "Discard" with "Block" and the wording of "Block" will be explained in web help and User's Guide by "System will Block this mail until a mail session is available".

9. [BUG FIX]

Symptom: Sometimes device will crash when receiving special mails.

Condition:

Topology: Mail_Client --- ZyWALL --- Mail_Server

- (1) ZyWALL turn on Anti-Spam, turn on external DB, threshold = 0.
- (2) Mail_Client receive mail from Mail Server.
- (3) Sometimes ZyWALL will crash due to "Data Abort", "not mbuf cookie", "mbuf

- double free”, or mail did not tagged with spam string.
10. [BUG FIX]050926383,050926384,050926385
Symptom: AS+AV Enable, it can't send or receive mail if attached virus files.
Condition:
(1) AS and AV enable.
(2) AV General Setup select all.
(3) Send or receive a mail with attached virus files.
(4) It will can't send or receive mail.
11. [BUG FIX]051003282
Symptom: PC can not transfer file from server (172.20.0.38)
Condition:
Topology: PC ---- ZyWALL(WAN:172.x.x.x)(Bridge/Router) --- trunk (172.20.0.38)
(1) Restore default romfile.
(2) PC get file from trunk, but it always fails after several seconds.
12. [BUG FIX]050930643
Symptom: Edit NAT port forwarding default server = 192.168.1.33, then ping from DUT2 to DUT1, it should show W to L logs, but it show W to W logs.
Condition: PC1-----LAN DUT1 WAN-----PQA LAB-----WAN DUT2 LAN
(1) Set with CI commend "sys romrly"
(2) Edit web eWC/WAN/WAN1,My WAN IP Address =172.202.77.121,My WAN IP Subnet Mask=255.255.0.0 ,Gateway IP Address=172.202.77.1
(3) Edit NAT port forwarding default server = 192.168.1.33, then ping from DUT2 to DUT1, it should show W to L logs, but it show W to W logs.
 ➔ If we telnet from DUT2 to DUT1, it shows W to L logs, and this right.
 ➔ If we ping from DUT2 to DUT1, it shows W to W logs, but it should show W to L logs.
13. [BUG FIX]051003323
Symptom: NAT many one to one cannot work.
Condition:
(1) Edit web eWC/NAT/Address Mapping,WAN Interface =WAN2,Insert a Many One-to-One rule (Local Start IP=192.168.1.41,Local End IP=192.168.1.42,Global Start IP=192.168.12.100,Global End IP=192.168.12.101) on eWC/NAT/Address Mapping page.
(2) Set with CI command "ip nat reset enif1".
(3) 192.168.12.110 do port scan 192.168.12.100(port 1-100) and 192.168.12.101(port 1-100)
(3) 192.168.1.41 and 192.168.1.42 cannot capture all port scan packets.
14. [BUG FIX]050930647
Symptom: Some mails should have SPAM tag or NoScore tag but they didn't have any tag
Condition:
(1) Enable AS.
(2) eWC->AS->ExternalDB-: Enable external DB, set the threshold=0, fill the tag for no spam score.
(3) MS Outlook Express received a lot of mails from the mail server.
(4) Some mails did not have any Spam/No Score tag.

15. [FEATURE CHANGE]

WAS: Allow timeouted ConeNAT session to recreate NAT session from WAN to LAN.

IS: Do not allow timeouted ConeNAT session traffic to recreate NAT session from WAN to LAN.

Modifications in V4.00(WZ.1) | 09/28/2005

Modify for formal release.

Modifications in V 4.00(WZ.1)b2 | 09/21/2005

1. [BUG FIX]

Symptom: Content filter was registered in router mode and changed to bridge mode without configure DNS server. One PC open a web site can make DUT crash.

Condition:

- (1) In router mode, register content filter and enable it. Edit eWC/Content Filter/Categories/Select Categories, and enable some items(Pornography, Business, Gambling,...,etc)
- (2) Change DUT to bridge mode without configure DNS server.
- (3) PC1 on LAN open a website, and IE would show "block(DNS resolving failed)"
- (4) DUT crashed.

Modifications in V 4.00(WZ.1)b1 | 09/12/2005

1. [ENHANCEMENT]

Add CI command "ip urlfilter bypass [LAN/DMZ/WAN] [ON/OFF]" to let traffic matches LAN->LAN, DMZ->DMZ or WAN->WAN directions can be bypassed content filtering.

NOTE: (1) This is a runtime CI command, user can add it into autoexec.net.

(2) This command only support in router mode.

2. [ENHANCEMENT]

Periodically sending the keep-alive zero window TCP ACK when the AS engine handles the mail. The default value is 5 seconds.

3. [BUG FIX] 050804161

Symptom: Rom convert has some problems for port roles setting.

Condition:

1. Download F/W to V3.64(WZ.3)C0 and restore default rom file.
2. Upload F/W to V4.00(WZ.0)b2.
3. The eWC/ DMZ/ Port Roles page, Port_4 setting changes to WLAN automatically, the setting should be keep to LAN as the default configuration in V3.64(WZ.3)C0.

4. [BUG FIX] 050830189

Symptom: Enable AS "Discard SMTP mail" and send a mail with attached file will cause the device hangs up (ZW 5,35,70)

Condition:

- (1) Enable AS "Discard SMTP mail"
- (2) Send a over 20k sized mail
- (3) The device hangs up

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5. [BUG FIX] 050831205
Symptom: Device will crash if users turn on myZyxelCom debug message then process device registration and trial service activation.
Condition:
(1) Turn on myzyxel.com debug message by "sys myZyxelCom debug type 3"
(2) Go to eWC>REGISTRATION, register device and activate trial service for Content Filter.
(3) Device will crash.
6. [BUG FIX] 050701018
Symptom: DHCP client gets IP failed
Condition:
(1) Topology
original: PC --- (192.168.1.1) Router
switch to: PC --- (192.168.70.250) DUT
(2) PC connects to the router LAN port with DHCP, and get an IP.
(3) DUT set a static DHCP rule for the PC.
(4) PC switch to DUT, and gets an IP failed. The user must release IP manually, then PC will get IP successfully.
7. [BUG FIX]
Symptom: ZyWALL sends [HASH][DELETE] to delete VPN tunnel after output timed-out even they keeps traffic via the tunnel.
Condition: PC1 -----ZyWALL-----PC2(Zywall VPN client)
(L) (W) |-----PC3(Zywall VPN client)
(1). Configure a dynamic VPN-rule in the ZyWALL.
(2). Establish first VPN tunnel by PC2 using ZyWALL VPN client.
(3). Establish Second VPN tunnel by PC3 using ZyWALL VPN client.
(4). Both PC2 and PC3s' PCs keep ping to PC1.
(5). ZyWALL sends [HASH][DEL] to 2nd VPN peer only every 2 minutes which is output Idle time-out timer.
8. [BUG FIX] 050907311
Symptom: Bridge mode VPN can't work if configure by Wizard.
Condition:
(1) Configure bridge mode VPN with wizard.
(2) Dial VPN rule and it always fail.
9. [BUG FIX] 050907308
Symptom: Device will hang forever when editing firewall custom service
Condition:
(1) Enable firewll and add custom service, service name=test1, IP protocol=TCP/UDP , port range=2222-2223.
(2) Edit eWC/firewall/rule summary, packet direction=WAN to WAN/ZyWALL, insert service "test1", Action for matched packet=permit.
(3) Edit eWC/firewall/service and add another custom service, service name=test2, IP protocol=TCP , port range=100-200.
(4) Edit eWC/firewall/rule summary, packet direction=LAN to WAN, insert service "test2", Action for matched packet=Drop.
(5) Edit eWC/firewall/service and modify custom service "test2", change IP protocol

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to UDP then click apply.

(6) Device will hang.

10. Change default rule on eWC>FIREWALL>Default Rule.

(1) WLAN to LAN => Drop & Log

(2) WLAN to DMZ => Drop & Log

(3) WLAN to WLAN / ZyWALL => Drop & Log

Modifications in V4.00(WZ.0) | 09/02/2005

Modify for formal release.

Modifications in V4.00(WZ.0) b5 | 09/02/2005

1. [BUG FIX]

Symptom: Fix for "Device crashed because 'mbuf double free' when doing FTP Stress test".

Modifications in V4.00(WZ.0) b4 | 08/27/2005

1. [BUG FIX] 050819823

Symptom: Device will crash.

Condition:

(1) Enable Anti Spam.

(2) Enable "Discard SMTP mail. Forward POP3 mail with tag in mail subject".

(3) Send a spam mail.

(4) Device will crash.

2. [BUG FIX] 050822932

Symptom: CPU loading will be very heavy.

Condition:

(1) Set two IKE rules which secure gateways are both domain name.

(2) Go to CI command "sys cpu display", CPU loading is 100%.

3. [BUG FIX] 050824993, 050824994, 050824995

Symptom: Sometimes system DNS cannot resolve domain name to IP address.

Condition:

(1) In CLI, enter "ip dns query name myupdate.zywall.zyxel.com"

(2) Try (1) more times and sometimes cannot be resolved.

4. [BUG FIX] 050823954

Symptom: The IPSec rule swap without configuring ID Content will fail (XAUTH case).

Condition:

(1) Add one static IPSec rule with XAuth (Rule one).

(2) Add one dynamic IPSec rule with XAuth. Keep the "Peer ID Content" and "Local ID Content" unchanged "0.0.0.0" (Rule two).

(3) Dial the VPN tunnel from peer gateway, the device won't swap to rule two, and the connection can not be built up.

5. [BUG FIX] 050822915

Symptom: VPN can not be established if reponder has multiple rules and the correct rule's phase 2 ID type is subnet.

Condition:

Topology: ZyWALL_A(WAN)----(Internet)----(WAN) ZyWALL_B

- (1) IPSec policy in ZyWALL_A:
Policy 1:
Local: 192.168.3.10/255.255.255.0
Remote: 192.168.2.7/255.255.255.0
Policy 2:
Local: 192.168.1.10/255.255.255.0
Remote: 192.168.2.6/255.255.255.0
 - (2) IPSec policy in ZyWALL_B:
Policy 1:
Local: 192.168.2.0/255.255.255.0
Remote: 192.168.1.0/255.255.255.0
 - (3) The other phase 1 and phase 2 parameters for ZyWALL_A and ZyWALL_B are the same.
 - (4) Establish policy 1 tunnel from ZyWALL_B.
 - (5) ZyWALL_A should establish VPN tunnel by using policy 2, but it fails.
6. [ENHANCEMENT]
Add CI command "aux usrmdn [1/0]" to switch USR modem flag. If this flag is on, user can dial USR modem successfully.
Note:
(1) For USR modem, user should disable hardware flow control(initial string is "at&f1"); or the modem speed should be 38400 bps.
(2) This is a runtime CI command, and this flag is not saved into flash. User can add this command into autoexec.net.
7. [BUG FIX] 050517977
Symptom: IPSec check rule conflict on IP 0.0.0.0 is incorrect.
Condition:
(1) Restore default romfile.
(2) Configure the two IPSec rules shown as follow:
Rule A: local:0.0.0.0 remote:192.168.3.33
Rule B: local:192.168.70.94 remote:192.168.3.33
These two IPSec rules conflict and we should add check for it.
8. [BUG FIX] 050823946, 050819858, 050820885
Symptom: The UPnP discovery mechanism cannot work normally.
Condition:
(1) Disable the UPnP function.
(2) Reboot device.
(3) Enable the UPnP function.
(4) The XP network place cannot show the UPnP icon.
9. [BUG FIX] 050822912
Symptom: Device crash when do VPN stress testing.
Condition:
(1) Create 40 VPN tunnels and do stress test.
(2) Device will crash and output the following message on console.
- Prefetch abort exception
Fault Status = 0xFFFFFFFF
Fault Addr = 0xFFFFFFFF

Modifications in V4.00(WZ.0) b3 | 08/17/2005

1. [BUG FIX] 050727190
Symptom: Spelling invalid in IDP eWC.
Condition:
 - (1) In eWC>IDP>Signature, click the "Switch to query view".
 - (2) The wording of the type selection item "Trojan Hourse" is not right. The word "Hourse" should be "Horse".
2. [BUG FIX] 050721987
Symptom: VPN can't update gateway domain.
Condition: PC A – ZyWALL A -- Internet – ZyWALL B -- PC B
 - (1) ZyWALL A adds a DDNS rule with Policy "Use WAN IP address" and enable HA.
 - (2) ZyWALL B adds a VPN tunnel and Remote Gateway is ZyWALL A's DDNS.
 - (3) Set Global Setting>Gateway Domain Name Update Timer to 2 minutes in ZyWALL B.
 - (4) Build up VPN, and change ZyWALL A link from WAN1 to WAN2.
 - (5) Make sure that ZyWALL A DDNS been update.
 - (6) Wait more than 2 min, ZyWALL B's VPN gateway was not updated.
3. [BUG FIX] 050721992
Symptom: Inactivate Wireless without wireless card will cause device hang.
Condition:
 - (1) Insert wireless card, and enable wireless function.
 - (2) After taking out B-100 card, upgrade firmware and disable wireless function.
 - (3) Reboot the device, the device will hang and cannot finish the system booting.
4. [BUG FIX] 050715808
Symptom: The wireless clients with 802.1x + dynamic WEP cannot ping each other.
Condition:
 - (1) Setup 802.1x+dynamic WEP environment.
 - (2) We find that these wireless clients cannot ping each other after rebooting the device.
5. [ENHANCEMENT]
Make AntiVirus LOG be consistent with IDP LOG in signature Release Date format.
6. [ENHANCEMENT]
Change the strategy of the search by name to be case-insensitive in eWC->IDP->Signature->Query page.
7. [FEATURE CHANGE]
Change the wording "WLAN ZONE" to be "WLAN" in the SMT menu 7.1.
8. [BUG FIX]
Symptom: Device crashes in Bridge Mode when enable IDP and Content filter
Condition:
 - (1) Insert Turbo card and restart device to Bridge Mode.
 - (2) Download signature to device and restart.
 - (3) In "eWC->IDP->General", enable IDP and activate all interface.
 - (4) In CI command, type
 - (4.1) idp tune load
 - (4.2) idp tune con l7Httpasm on
 - (4.3) idp tune save

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- (5) In "eWC->Content Filter->General", enable content filter.
- (6) In "eWC->Content Filter->Customization", enable customization and add a forbidden web site "www.zyxel.com".
- (7) Access <http://www.zyxel.com> from a LAN PC.
- (8) Device crashes.
- 9. [BUG FIX] 050727161
Symptom: Output idle timer should not be disabled.
Condition: In eWC->VPN->Global Setting page and SMT 24.8, we should not allow users to set output idle timer = 0.
- 10. [FEATURE CHANGE]
In SMT 24.1, Wording change: CARD -> WCRD.
- 11. [BUG FIX] 050728301, 050728302, 050728303
Symptom: Execute SMT 24.1->Press Command->"9-Reset Counters", device will crash.
Condition:
 - (1) Insert turbo card.
 - (2) Execute SMT 24.1->Press Command->"9-Reset Counters" many times, device will crash.
- 12. [ENHANCEMENT] 050708441, 050708442 and 050712620
 - (1) In eWC>AV/IDP>Update, avoid a blank web page be displayed.
 - (2) In eWC>WIRELESS CARD>Wireless Card, remove "Your device must have a wireless card installed..." if the wireless card is installed.
 - (3) In eWC>AV>General/IDP>General, remove "Your device must have a turbo card installed..." if the turbo card is installed.
- 13. [BUG FIX] 050616759, 050708438, 050712618
Symptom: System crashes sometimes while signature update or service license refresh.
Condition:
 - (1) Disconnect WAN interface when you update signature. Hence, the update will fail.
 - (2) Re-connect the device WAN interface to Internet.
 - (3) After the update fail, the device will crash sometimes.
- 14. [ENHANCEMENT] 050808225
Include "WLAN to WLAN" for Firewall hint message.
WAS :In eWC>Firewall>Default Rule page, update message is "Warning:When this box is checked, all LAN to LAN, WAN to WAN, DMZ to DMZ and packets will bypass the Firewall check."
IS :In eWC>Firewall>Default Rule page, change message to "Warning: When this box is checked, all LAN to LAN, WAN to WAN, DMZ to DMZ and WLAN to WLAN packets will bypass the Firewall check."
- 15. [ENHANCEMENT] 050808256
Message in signature update needs to be update.
WAS :In eWC>IDP>signature update>waiting page, update message is "This may take up a few seconds. Please wait..."
IS :In eWC>IDP>signature update>waiting page, change message to "This may take up to minutes. Please wait..."
- 16. [ENHANCEMENT]
WAS: In eWC>REGISTRATION>Service page, when service is expired, the

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Expiration Day field and Registration Type is empty.

IS : In eWC>REGISTRATION>Service page, when service is expired, the Expiration Day field shows expired date, and Registration Type shows type of expired service.

17. [BUG FIX] 050803125

Symptom: Create two VPN rules which Remote Gateway IP are domain name, the second security gateway can't update automatically.

Condition: PC1 ---- ZyWALL_1 (wan)----Internet ---- (wan) ZyWALL_2 ---- PC2

(1) ZyWALL_1 configuration:

- Set WAN Encapsulation = PPPoE mode.
- Set DDNS & active it.
- Create 2 IKE & 2 ipsec, both security gateway are IP address.

(2) ZyWALL_2 configuration:

- Set WAN Encapsulation = Ethernet/ Static IP.
- Set DNS server= 168.95.1.1.
- Create 2 IKE & 2 ipsec, both security gateway are domain.
- eWC/ VPN/ Global Setting, Set " Gateway Domain Name

(3) Dial up 2 VPN tunnels.

(4) Drop ZyWALL_1's PPPoE line then dial up again.

(5) After 2 minutes into ZyWALL_2's menu 24.8, issue " ipsec ikeL" to check the security gateway IP --> The Second security gateway not update new IP .

18. [ENHANCEMENT]

Add a centralized LOG "Error: download signature file failed." for signature update fail due to not receive complete signature file. This situation most happens when the network connection is not stable so that device can not receive complete signature.

19. [BUG FIX]

Symptom: Mail can not be sent or received when device turn on Anti-Spam.

Condition:

(1) Device turn on Anti-Spam

(2) Generate a lot of mail sessions with a lot of mails from LAN side hosts at the same time.

(3) Mail can not be sent or received in the following conditions:

- (3.1) If queued 20k mail can not be sent successfully after query succeed, then that mail will send fail.
- (3.2) ACK packets generated by ZyWALL will cause the TCP connection between client and server abnormal.
- (3.3) Re-transmit packets from mail client or server may be dropped by ZyWALL.

20. [ENHANCEMENT]

Improve Anti-Spam external database query timeout rate by adjusting internal system parameters.

21. [BUG FIX] 050814513

Symptom: System timer will be exhausted when using TfGen to send heavy traffic to LAN interface.

Condition:

(1) Enable AV/IDP feature.

- (2) In LAN side PC, Use TfGen to generate heavy traffic to LAN interface. (Heavy traffic : 40000 kbps/sec up.)
- (3) In SMT 24.8, type "sys updateServer signatureUpdate", the router will crash.

Modifications in V4.00(WZ.0)b2 | 07/25/2005

1. [FEATURE CHANGE] Update registration message

WAS:

- (1) When user upgrade IDP/AV/AS services, the LOGS shows "service upgrade successfully" but users can not know which service is upgraded"
- (2) When user activate trial service(s), the LOGS shows "trial service activation successfully" but users can not know which service is activated.

IS:

- (1) When user upgrade services, the LOGS will show "Content Filter service upgrade successfully" or "IDP/Anti-Virus service upgrade successfully" or "Anti-Spam service upgrade successfully" depends on which service license key is used.
- (2) When user activate trial service(s), the LOGS shows which trial service is activated. Ex. "Content Filter, IDP/Anti-Virus trial service(s) activation successfully"

2. [FEATURE CHANGE]

WAS: After deleting the white/black rule via CLI, user needs to type the save command.

IS: After deleting the white/black rule via CLI, user needn't to type the save command.

3. [BUG FIX] 050614631

Symptom: IP overlapping check function in eWC->ADVANCED->NAT->Address Mapping sometimes will malfunction

Condition:

- (1) In eWC->ADVANCED->NAT->Address Mapping->Edit a rule.
- (2) Select Type "Many-To-Many Overload", set "Local Start IP" as "0.0.0.0", "Local End IP" as "1.0.0.5" "Global Start IP" as "1.0.0.2", "Global End IP" as "6.0.0.8".
- (3) Click "Apply", this rule will be saved, it should not.

4. [ENHANCEMENT] AS GUI wordings change

In eWC>IDP>Signature>Signature Groups Table, refine "select all", "select partial" and "select none" icons in Active / Log / Alert fields.

5. [BUG FIX] 050624163

Symptom: Host traffic can't pass through VPN tunnel with dial backup

Condition: PC1-----ZW35 A-----Internet-----ZW35 B-----PC2 Dial backup

- (1) ZW35A add one IKE and one Ipsec rules ,Enable Dial backup
- (2) ZW35B add one IKE and one Ipsec rules
- (3) Dial from ZW35 A, and make sure VPN tunnel build up
- (4) PC1 ping PC2 and PC2 ping PC1 is successful
- (5) Pull out ZW35A WAN line ,Dial backup will dial up ,Dial from ZW35 A, and make sure VPN tunnel is rebuild
- (6) PC1 ping PC2 is successful, but PC2 ping PC1 is fail

6. [BUG FIX] 050628469

Symptom: In bridge mode of the multiple-WAN devices, the LAN web site hits of

eWC->LOGS->Reports on WAN2 have not any data.

Condition:

- (1) In Bridge mode, the WAN 1 is disconnected and WAN 2 is connected.
- (2) Enable LOGS->Reports "Collect Statistics" and "Send Raw Traffic Statistics to Syslog Server for Analysis".
- (3) A LAN PC uses IE to connect to "www.google.com".
- (4) Set "Statistics Report"->"Report type" is Web Site hits, and we cannot find any data.

7. [BUG FIX] 050701007

Symptom: After displaying the log by CI, you will see the logs related to Anti-spam are broken.

Condition:

- (1) Enable Anti-Spam and send a Email(not spam mail) through the ZyWALL.
- (2) Use CI->sys logs display to display the logs.
- (3) You will see the logs related to Anti-spam are broken like "!"
er1@192.168.70.20 Subject:EmailBomb".

8. [BUG FIX] 050705232

Symptom: In VPN rule name, when users key-in " ' ", GUI will corrupt.

Condition:

- (1) In eWC>VPN>VPN Rules(IKE) Summary Table, click "+" to add a gateway policy.
- (2) Fill in "Name" field with " ' ".
- (3) Key in "Pre-Shared Key" with 12345678 and click "Apply".
- (4) The GUI will refresh to VPN Rule(IKE) Summary Table page, but is abnormal.

9. [BUG FIX] 050628421

Symptom: Device will crash after testing dial backup a period time.

Condition:

- (1) Set WAN 1 as PPTP and enable Dial backup and Set Allocated Budget=1 minute, period=1 hour.
- (2) Ping 168.95.1.1 with DOS command from LAN site host successfully.
- (3) Dial backup will hang up after 1 minute.
- (4) Device will crash after pull out WAN and LAN and Dial Backup line for 10 mins.

10. [ENHANCEMENT] 050708486, 050712606, 050719906, 050707395, 050712605

Add protection to avoid setting unsupported security in "eWC->Wireless Card" when inserted wireless card is B100. Note: B100 does not support WPA, WPA-PSK, 802.1x + Dynamic WEP.

11. [BUG FIX] 050707366

Symptom: Device cannot get DHCP IP after WAN IP is released.

Condition:

- (1) Device WAN port connects to DHCP server (WAN get DHCP IP).
- (2) Use SMT 24.4.2, "WAN DHCP Release" but not use "WAN DHCP Renewal".
- (3) LAN side PC ping outside, device cannot renew DHCP automatically.

12. [BUG FIX]

Symptom: Content filter cannot add keyword.

Condition:

- (1) Goto GUI->Content Filter->Customization page.
- (2) Add Trusted website to its maximum number.

- (3) Add Forbidden website to its maximum number.
- (4) Keyword cannot be added any more.
- 13. [BUG FIX] 050707368, 050708419
Symptom: In the eWC->Firewall Rule Summary page, insert a new rule and click "Back" button of IE. Then insert rule again, Firewall will have a null record rule.
Condition:
 - (1) In eWC>Firewall>Rule Summary page, click "Insert" button, then click IE "Back" button.
 - (2) Click "Insert" button again, and set one rule then "Apply".
 - (3) Rule Summary page have an additional null record rule.
- 14. [BUG FIX] 050708444, 050708443
Symptom: When IDP/AV service expired, the expiration day displayed incorrect format in eWC/AV/Update page.
Condition:
 - (1) DUT IDP/AV service expired.
 - (2) The expiration day displayed incorrect format in eWC>IDP and AV>Update.
- 15. [ENHANCEMENT]
Change AV>Update error message.
WAS : In eWC>AV>Update, update message is "The signature search engine is not ready".
IS : In eWC>AV>Update, change message to "Can not find the signature , please update the signature!"
- 16. [BUG FIX] 050706310
Symptom: Hardware watchdog wake up and sometimes device hang.
Condition:
 - (1) In SMT24.8, input "ip ping 168.95.1.1"
 - (2) Use Ctrl+C to break it.
 - (3) Repeat steps 1, 2 fast and you can see the watch dog wake up or device hand up.
- 17. [ENHANCEMENT]
Add firewall predefined services: POP3S/IMAP/IMAPS
- 18. [BUG FIX] 050627328
Symptom: ZyWALL will log "SMTP successfully" when SMTP authentication fail.
Condition:
 - (1) In "eWC->LOGS->Log Settings", set "E-mail Log Settings".
 - (2) Enable "SMTP Authentication" and set wrong "Mail Sender".
 - (3) In "eWC->View Log", click "Email Log Now".
 - (4) There will have a log "SMTP successfully".
 - (5) Actually, the mail was not sent because SMTP server return a error code (454).
- 19. [BUG FIX] 050725067
Symptom: Fail in receiving the specific mail when the AV works Condition:
 - (1) Enable POP3 AV , Enable POP3 Assembly mode
 - (2) Run POP3 Based-64 AV test with a lot of mail samples
 - (3) Some mails couldn't be received
- 20. [FEATURE CHANGE]
WAS: When Turbo card is not inserted, and accessing IDP at the moment, it shows "The turbo card is not ready , please insert the card and reboot! "

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IS: When Turbo card is not inserted, and accessing IDP at the moment, it shows "The turbo card is not ready. Please power down the appliance, insert the card and reboot!".

21. [FEATURE CHANGE]

WAS: Wording "WLAN" in the network status field in SMT menu 24.1 indicates the wireless card status. Wording "ZONE" indicates the WLANZONE channel status.

IS: "WLAN" -> "CARD", "ZONE" -> "WLAN". So that Wording "CARD" in the network status field in SMT menu 24.1 indicates the wireless card status. Wording "WLAN" indicates the WLANZONE channel status.

22. [FEATURE CHANGE]

When the device sends registration information to MyZyXEL.com server, the router should send 3 digit country number.

23. [BUG FIX] 050713682

Symptom: The router should filter the country code when it is "0".

Condition:

(1) In SMT 24.8, type "sys myZyXelCom register 123456 123456 1234@1.2.3.4 0" (the country code is 0 which is invalid).

(2) It should not be accepted by the router.

24. [BUG FIX] 050712614

Symptom: In eWC>WIRELESS CARD>Wireless card page, the max length of "ESSID" field is too short.

Condition:

In eWC>WIRELESS CARD>Wireless card page, the max length of "ESSID" field is 30 characters, but user can key in 32 characters via SMT.

25. [BUG FIX] 050715784, 050715785, 050715786

Symptom: In eWC->UPnP page, after saving the related items by Firefox will cause device crash sometimes.

Condition:

(1) Open the Firefox browser and goto the eWC->UPnP page.

(2) Disable the UPnP function, and enable some items.

(3) Click the "Apply" button, the device will crash sometimes.

26. [ENHANCEMENT]

Add help pages.

27. [FEATURE CHANGE]

(1) Modify "Update Server" and "myZyXEL.com" logs.

(2) Pop-up new browser in IDP security policy links.

28. [ENHANCEMENT]

Add hyper link to pop up a new window to display certificate error reasons for certificate log message.

29. [ENHANCEMENT]

Unify eWC>Logs date time format to ISO 8601 (YYYY-MM-DD hh:mm:ss)

30. [ENHANCEMENT]

Update G100/110 AP F/W version from 1.0.4.3 to 1.2.8.0.

31. [ENHANCEMENT]

Add the Anti-Virus decompress option in eWC>Anti-Virus->General.

32. [BUG FIX] 050715809

Symptom: The device will reboot in bridge mode when setting wireless authentication as 802.1x.

33. [ENHANCEMENT]

In eWC>REGISTRATION>Registration page and eWC>HOME>wizard page, add username field format check for the myzyxel.com registration.

34. [ENHANCEMENT]

- (1) Add the available free memory to the eWC->Home->memory
- (2) GUI Memory bar will become red when the memory usage percentage is larger than 90%

35. [ENHANCEMENT]

- (1) Change signature version format from 001.001 to 1.001 in the eWC->IDP/AV->Update page
- (2) After signature updated, GUI shows "Get signature success". It should be "Get signature successfully."
- (3) We should provide users hidden CI commands for clearing signature files. These CI commands are "idp/av clearAllSig".
- (4) When the Turbo card is not inserted, in the console: "Current IDP Signatures: N/A" may confuse users. Change to "Turbo card is not installed" when Turbo card is not installed.
- (5) The severity sorting function should perform according to the severity ,not the string case in the eWC->IDP->Signature/Query page
- (6) There should be one space after the SID in the IDP log. Was: IDP:10578,Windows Ping Is: IDP:10578, Windows Ping
- (7) In LOG "Update the signature file successfully", it should be modified as "Signature updat OK - New pattern version: V1.001 Release Date: 2005-06-24".
- (8) The "idp/av update display" should be consistent to the eWC->IDP->Update page

36. [ENHANCEMENT] Wording

WAS: The device will now reboot. As there will be no indication of when the process is complete, please wait for one minute before attempting to access the router again

IS: The system will now reboot. As there will be no indication of when the process is complete, please wait for one minute before attempting to access the system again.

37. [BUG FIX] 050714719 ,050714720, 050714735

Symptom: If VPN policy enable NAT Traversal, VPN tunnel can't be built up.

Condition:

PC1(192.168.33.33)-----VPN1(192.168.1.33)--(L)DUT(W)(192.168.12.100)----(192.168.12.101)VPN2--(192.168.2.33)PC2

- (1) Edit DUT web eWC/NAT/Port Forwarding, index1/Incoming Port(s)=500-500, index1/Server IP Address=192.168.1.33
- (2) Edit VPN1 web eWC/VPN:
 - IKE: NAT-T=Enable, Name=IKE1, Remote Gateway Address=192.168.12.101, Pre-Shared Key=12345678, Local ID Content=192.168.1.33, Peer ID Content=192.168.12.101
 - IPSec: Active=Yes, Name=IPSec1, Gateway Policy=IKE1, Local Network Starting IP Address=192.168.33.33 Remote Network Starting IP Address=192.168.2.33
- (3) Edit VPN2 web eWC/VPN:

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- IKE: NAT-T=Enable, Name=IKE1, Remote Gateway Address=192.168.12.100, Pre-Shared Key=12345678, Local ID Content=192.168.12.101, Peer ID Content=192.168.1.33
- IPSec: Active=Yes, Name=IPSec1, Gateway Policy=IKE1, Local Network Starting IP Address=192.168.2.33, Remote Network Starting IP Address=192.168.33.33
- (4) To dial up VPN policy, and it will fail.
- 38. [ENHANCEMENT]
 - (1) In eWC>AV/IDP>General, add some warning messages if turbo card is not inserted but AV/IDP is activated. The behavior is similar with WLAN.
 - (2) When Turbo card is not inserted, in eWC>IDP/AV>Update>Current IDP Signatures will display "Turbo card is not installed".
 - (3) eWC> MAINTENANCE> Backup&Restore changes to eWC> MAINTENANCE> Backup & Restore.
- 39. [ENHANCEMENT]
 - Add centralized logs for signature updating events and errors.
- 40. [ENHANCEMENT]
 - Add a centralized log when WAN ping check fails.
- 41. [FEATURE CHANGE]
 - Change signature numbers displayed in "eWC->IDP->Signature" page.
- 42. [ENHANCEMENT]
 - Display IDP action in centralized log.
- 43. [BUG FIX] 050715787, 050715788, 050715789.
 - Symptom: In eWC "HOME" page , "System Time" display error.
 - Condition:
 - (1) Go to eWC>HOME Page.
 - (2) "System Time" display error, the field length is too short.
- 44. [BUG FIX] 050719921
 - Symptom: Mail can't be received via POP3.
 - Condition: Topology:
 - PC ----- ZyWALL ----- Mail Server
 - 1. Enable Anti-Spam.
 - 2. PC receives mails from Mail Server.
 - 3. PC sometimes can't receive mail and mail client will timeout.

Modifications in V 4.00(WZ.0)b1 | 07/01/2005

- 1. [ENHANCEMENT]
 - Change the input format of trap destination in eWC->Remote Management->SNMP from text to IP format.
- 2. [ENHANCEMENT]
 - Support small font size on ZyWALL GUI.
- 3. [ENHANCEMENT]
 - Replace the Cerberian logo by Blue Coat in Content Filter blocked page.
- 4. [ENHANCEMENT]
 - Support Turbo Card (external IDP/AV signature search accelerator)

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5. [ENHANCEMENT]
Add ARP probe for DHCP server.
(1) Change probe type by CLI command "sys probeType [icmp | arp]".
(2) Default type is "ICMP".
(3) ARP probe only works when you use ARP probe type and DHCP mode should be "Server".
(4) This value will be saved in ROM.
6. [FEATURE CHANGE]
Add ALG configuration in navigation panel.
7. [ENHANCEMENT]
Re-layout ZyWALL navigation panel on GUI.
8. [ENHANCEMENT]
Add "Service Status" and "Expiration Date" in Content Filter GUI. The modified GUIs are:
eWC>CONTENT FILTER>Categories
9. [ENHANCEMENT]
Add a sender email field in "E-mail Log Settings".
10. [ENHANCEMENT]
When the daylight saving is activated, there should be a "DST" string trailed behind the time in eWC.
11. [ENHANCEMENT]
WAS: DNS domain name is not case insensitive.
IS: DNS domain name is case insensitive.
12. [ENHANCEMENT]
Firewall "Available Services" add some common services which are
 1. Microsoft RDP (remote desktop protocol) - tcp:3389
 2. VNC (virtual network computer) - tcp:5900
 3. NTP - tcp/udp:123
13. [ENHANCEMENT]
Consolidate log "Under SYN flood attack, sent TCP RST"
14. [ENHANCEMENT]
 1. Users cannot enter characters into eWC>VPN>GATEWAY POLICY >EDIT>SA Life Time (Seconds)
 2. User cannot enter characters in eWC>VPN>NETWORK POLICY >EDIT>Protocol
 3. Users cannot enter characters into eWC>VPN>NETWORK POLICY >EDIT>SA Life Time (Seconds)
15. [ENHANCEMENT]
Add IDP, Anti-Virus and Anti-Spam features.
16. [ENHANCEMENT]
Add the SMTP server to the log entry.
17. [ENHANCEMENT]
Add sequence number and SPI in log for ESP / AH packets.
18. [ENHANCEMENT]
DHCP log shows the hostname.
19. [ENHANCEMENT]

- Add VPN over Bridge feature.
20. [ENHANCEMENT]
Add MyZyxel.Com and Registration features.
21. [ENHANCEMENT]
Add Firewall Custom Service enhancements.
Modifications are listed below:
(1) Allow user to configure ICMP type and code in Firewall ACL.
(2) Allow user to configure IP protocol in Firewall ACL.
(3) Add "Any IP Protocol" in default service.(GUI only)
(4) Replace "PING" with "Any ICMP" in default service. (GUI only)
(5) Allow user to configure Firewall rule name.
(6) Firewall (default/rule) action supports "permit", "drop" and "reject".
(7) Centralized LOGS shows descriptions for matched ICMP packet instead of displaying type/code value only.
22. [ENHANCEMENT]
Enhance Firewall Custom Service
1. In eWC>Firewall>add new page "Service", it displays the summary of custom services and predefined services.
2. In eWC>Firewall>Service>Firewall Service Edit page, add two new options: IP protocol and ICMP.
23. [ENHANCEMENT]
On eWC>FIREWALL>Threshold, add a GUI option to enable/disable DoS Attack protection.
24. [ENHANCEMENT]
Each static route entry should have its own "Modify" and "Delete" icons.
25. [ENHANCEMENT]
Add dial backup support for CI command.
The following is the original SPR description.
Enhance SMT "sys rn accessblock 0" debug message.
1. CI "sys rn load 3"
2. CI "sys rn accessblock 0"
3. CI "sys rn save"
4. And SMT will occur message "[-6103] Bad entry number"
26. [ENHANCEMENT]
Enhance Firewall Edit GUI to make it more user-friendly.
Before: When users click Add/Modify/Delete button to configure an address or select a service from Available Service to Selected Service, the page will be submitted to the ZyWALL immediately to have a rule check and then refresh. It consumed too much time on editing a firewall rule for a user.
Now: When users click Add/Modify/Delete or select a service, the page will not be submitted to the ZyWALL immediately. The page will be submitted to the ZyWALL to have a rule check after users click "Apply" button. It reduces the refresh time and it is more convenient for the users.
27. [ENHANCEMENT]
1. Enhance WLAN to be an independent interface so that traffic passes through WLAN can be handled by firewall.

2. WLAN can be bound to LAN or DMZ for user's chosen.
3. DHCP sever can be applied on LAN, DMZ and WLAN.

Modifications in V 3.64(WZ.3) | 06/21/2005

Modify for formal release

Modifications in V 3.64(WZ.3)b2 | 06/16/2005

1. [BUG FIX] 050613567
Symptom: There is no conflict check between VPN dynamic rule and static rule on local ip address.
Condition:
(1) Goto CUI VPN page, add one dynmaic IKE rule and static IKE rule.
(2) Add one policy with local ip set as 192.168.1.0/24 into dynamic rule.
(3) Add one policy with local ip set as 192.168.1.1/32 into static rule.
(4) The static rule's policy can be saved without conflict error.

Modifications in V 3.64(WZ.3)b1 | 06/15/2005

2. [BUG FIX]
Symptom: IPSec input idle timer does not work correctly.
Condition:
Topology:
PC1-ZWA--Intranet--ZWB-PC2
Add normal VPN rule in both side.
(1) In ZWB, set "Input Idle Timeout" as "30" seconds.
(2) Dial the tunnel up, there is no traffic in the tunnel.
(3) In ZWB, SMT 24.8, type "ipsec sho sa", the "input idle count" in "INBOUND" will be decreasing, it works correctly.
(4) Now, In PC1, ping PC2 from PC1 with one packet then stop the traffic in the tunnel.
(5) In ZWB, SMT 24.8, type "ipsec sho sa", the "input idle count" in "INBOUND" stay unchanged.
(6) The input idle timeout mechanism will not work anymore.
3. [BUG FIX]
Symptom: Output idle timer doesn't work correctly.
Condition:
PC1--(L)ZW-A(W)--Intranet--(W)ZW-B(L)--PC2
(1) ZW-A and ZW-B had established VPN tunnel.
(2) Output idle timer=120 secs, input idle timer=30 secs.
(3) Disconnect the WAN link between ZW-A and ZW-B, make a ICMP echo request to PC2 from PC1.
(4) ZW-A doesn't send out "are u there" packets to peer gateway after 120 seconds.
4. [BUG FIX]
Symptom: IPSec check rule conflict on IP 0.0.0.0 is incorrect.
Condition:
(1) Restore default romfile.

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- (2) Configure the two IPSec rules shown as follow:
Rule A: local:0.0.0.0 remote:192.168.3.33
Rule B: local:192.168.70.94 remote:192.168.3.33
these two IPSec rules conflict and we should add check for it.
5. [BUG FIX] 050613567
Symptom: There is no conflict check between VPN dynamic rule and static rule on local ip address.
Condition:
(1) Goto CUI VPN page, add one dynmaic IKE rule and static IKE rule.
(2) Add one policy with local ip set as 192.168.1.0/24 into dynamic rule.
(3) Add one policy with local ip set as 192.168.1.1/32 into static rule.
(4) The static rule's policy can be saved without conflict error.
6. [BUG FIX]
Symptom: DNS Address Record must case-insensitive
Condition:
Topology:
PC – ZW35 – network --- www.hinet.net (61.219.38.89)
|-www.hinet.net(1.1.1.1)
(1) Restore default romfile.
(2) Add a Address record www.hinet.net IP is 1.1.1.1
(3) LAN DHCP First DNS is Relay Second and Third is none.
(4) LAN PC release and renew.
(5) LAN PC ping www.hinet.net will resolving IP 1.1.1.1 (right)
(6) LAN PC ping www.HINET.net will resolving IP 61.219.38.89 (wrong) DNS must case-insensitive
7. [BUG FIX]
Symptom: Router crash.
Condition:
(1) Use router for a long time.
(2) Sometimes Router will crash and the console shows "Common TOS: Free queue session number > max session number..\tos.c:960 sysreset()".
8. [BUG FIX] 050615687
Symptom: The "Log Consolidation Period" field in "log setting" page display wrong vaule.
Condition:
1. Goto eWC->LOGS->Log Settings page, input the vaule, 300, into "Log Consolidation Period" field then apply the setting.
2. Refresh the Log Settings page, the value in "Log Consolidation Period" field show as 44.

Modifications in V 3.64(WZ.2) | 06/07/2005

Modify for formal release

Modifications in V 3.64(WZ.2)b2 | 05/30/2005

1. [BUG FIX] 050527747
Symptom: DNS of Dail backup has some problems if WAN's Encapsulation= PPTP

mode.

Condition:

- (1) Restore default romfile.
- (2) WAN is configured as PPTP, and WAN is connected.
- (3) Configure Dial backup.
- (4) Unplug the WAN, and WAN is disconnected, and Dial backup is connected.
- (5) In eWC/DNS/System, DNS server keep old DNS IP (Assigned from PPTP server).

Modifications in V 3.64(WZ.2)b1 | 05/25/2005

1. [BUG FIX]

Symptom: Dynamic rule with more than two initiators has problem.

Condition:

- (1) ZyWALL as responder has one dynamic rule.
- (2) Two initiators (two devices or two vpn clients..).
- (3) Dial one of them, the packets can be transmitted through the tunnel correctly.
- (4) Dial the second, only one of them can work correctly.

2. [BUG FIX] 050328353

Symptom: Trigger dial fail in dial backup.

Condition:

- (1) Restore default rom file.
- (2) Setup dial backup account and phone number, and make sure it can work.
- (3) Put a PC in router's LAN and ping 168.95.1.1 continually.
- (4) Unplug modem's phone line and wait for 5 mins.
- (5) Plug it and router will not dial from modem automatically.

3. [BUG FIX] 050425199

Symptom: Dial back-up does not support FULL-FEATURE NAT.

Condition:

- (1) Enter SMT menu 11.3 for "dial backup" remote node
- (2) Go to "Edit IP" and change NAT selection to FULL Feature. (will see the NAT Lookup Set= 3)
- (3) Go to SMT menu 15.1 and found there is no NAT_SET 3.

4. [BUG FIX] 050502013

Symptom: VPN tunnel can't be up with dynamic rule.

Condition:

Initiator: One IKE with one policy. And in policy, local ID type = Subnet. Dest ID type = Subnet.

Responder: One dynamic IKE with two policies:

- (1) Policy 1: Encryption is wrong. Local ID type = Subnet. Local starting IP Address is wrong.
- (2) Policy 2: All setting is correct.

5. [BUG FIX] 050506314

Symptom: Modification to existing WANtoWAN rule (with IKE and BOOTP) can not work

Condition: In the example, use SSH

- (1) Change SSH port to 2222 in Remote MGMT.

- (2) Go to WAN to WAN / ZyWALL and create a custom service, TCP/UP 2222.
- (3) Add the rule in the default rule that has IKE and Bootp. <===
- (4) Try to connect with Putty or other preferred SSH client. ===> doesn't work
- (5) Now add the standard SSH (or any other predefined TCP rule) service to the same firewall rule. It to work
6. [BUG FIX]
Symptom: Router crash.
Condition:
 - (1) Turn on firewall.
 - (2) Sometimes router will crash when suffer attack.
7. [BUG FIX]
Symptom: DNS cannot work after switching WAN and Dial backup.
Condition:
 - (1) Restore default romfile.
 - (2) WAN is configured as PPTP, and nail-up, and WAN is connected.
 - (3) Configure Dial backup, and is always-on.
 - (4) Unplug the WAN, and WAN is disconnected, and Dial backup is connected.
 - (5) Plug in the WAN line again, and PPTP is connected, get an IP.
 - (6) Go to eWC->DNS->DHCP page, DNS from ISP is none; if PC DNS is ZyWALL, it cannot browse to the internet.
8. [BUG FIX]
Symptom: Input more than 20 number of source address or destination address in Firewall rule, but only the first 20 rules will be shown on GUI.
Condition:
 - (1) Entered more than 20 source addresses in a firewall rule and saved that rule.
 - (2) After saving, only the first 20 source addresses are shown in the list.
9. [BUG FIX] 050502041
Symptom: Daylight Saving problem: Current Time is faster 2 hours than Taiwan during daylight saving.
Condition:
 - (1) Restore default romfile.
 - (2) Go to eWC->Maintenance->TimeAndDate. and the problem happened only when
 - (3) Apply the "Time Zone" = "(GMT+08:00)", activate "Enable Daylight Saving" and set the date range include the current time.
 - (4) Click the "Apply" button and the page will be refreshed.
 - (5) The current time is faster 2 hours than Taiwan, it should be faster 1 hour only.
10. [BUG FIX]
Symptom: PPTP does not work successfully.
Condition:
 - (1) Edit web eWC/WAN/WAN1, Encapsulation=PPTP, User Name=test, Password=test, Retype to Confirm=test, My IP Address=192.168.65.222, My IP Subnet Mask=255.255.255.0, Server IP Address=192.168.65.33, Connection ID/Name=C:1, WAN IP Address Assignment=Get Automatically from ISP.
 - (2) Dial WAN1 form eWC/HOME. It works successfully.
 - (3) Edit web eWC/WAN/WAN1, Encapsulation=Ethernet.
 - (4) Edit web eWC/WAN/WAN2 , Encapsulation=PPTP, User Name=test,

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Password=test, Retype to Confirm=test, My IP Address=192.168.65.223, My IP Subnet Mask=255.255.255.0, Server IP Address=192.168.65.33, Connection ID/Name=C:1, WAN IP Address Assignment=Get Automaticlly from ISP.

(5) Dial WAN2 form eWC/HOME, and it fails.

(6) If we dial WAN2 first, then dial WAN1, both WAN1 and WAN2 success. If fails when we dial WAN1 first then dial WAN2.

Modifications in V 3.64(WZ.1) | 05/04/2005

Modify for formal release.

Modifications in V 3.64(WZ.1)b1 | 04/26/2005

1. [ENHANCEMENT]
Enlarge content filter web site, forbidden key word and trusted website size to 100.
2. [ENHANCEMENT]
Add sequence number and SPI in log for ESP / AH packets
3. [ENHANCEMENT]
Change DNS Address Record size from 8 to 30
4. [EHNANCEMENT] 050419889
Add IP information for my IP address and Secure Gateway address. In CI command, "ipsec ikeDisp #" will show IKE rule configuration. When my IP address or secure gateway address is domain name, the resolved IP will show after domain name.
5. [BUG FIX] 050128770
Symptom: When users remotely manage the ZyWALL via a PPTP connection, a strange firewall session (between PPTP server and PPTP client) timeout log may be observed.
Condition:
(1) Configure the ZyWALL's WAN port to use PPTP encapsulation.
(2) Remotely login eWC (http/https) via the PPTP connection.
(3) After a few minutes, check the centralized logs or syslogs, you will observe a sequence of firewall logs of http/https session timeout.
6. [BUG FIX] 040507153
Symptom: Telnet function takes too much time.
Condition:
(1) Type the CI command "ip telnet host_A".
(2) When telnet from router to non-exist server host_A, it always takes about 40 seconds or more to connect. And users cannot interrupt the router and can do nothing.
7. [BUG FIX] 041004064
Symptom: P2000W and P2000W can not talk to each other in P2P mode.
Condition:
(1) Topology:
P2000W----DUT---Internat---DUT---P2000W
(2) P2000W and P2000W can not talk to each other in P2P mode.
8. [BUG FIX] 050302164
Symptom: In bridge mode, after device synchronized the defined NTP server, the result displayed failed.
Condition:

- (1) PC(192.168.1.33) --- DUT(192.168.1.254) --- NAT(192.168.12.106) --- Internet.
 - (2) In eWC/Maintenance/Time and Date, get from Time Server: Time Protocol=NTP (RFC 1305), Time Server Address= a.ntp.alphazed.net, then clicked "Synchronize Now" button.
 - (3) The result displayed failed. ("System Time and Date Synchronization Fail")
 - (4) However, a successful log showed in eWC/LOGS.
 - (5) Actually, the device was successful to synchronize the defined NTP server.
9. [BUG FIX] 050217478
Symptom: Netbios packet cannot pass through VPN tunnel .
Condition:
- (1) Configure a VPN tunnel as follows:
 - 1.1 local subnet mask is 192.168.1.1/255.255.0.0.
 - 1.2 remote subnet mask is 192.169.1.1/255.255.0.0.
 - 1.3 Enable "Netbois pass through" in local and remote gateway.
 - 1.4 PC A(Local)-----ZyWALLA-----ZyWALLB---PC B(Remote)192.168.1.1/24 192.169.1.1/24
 - (2) Establish the VPN tunnel.
 - (3) In PC A, Search PC B's computer name.
 - (4) PC A will send a broadcast packet to search PC B.
 - (5) ZyWALL A will change destination IP address from 192.168.255.255 to 192.169.255.255 and send to ZyWALL B after encryption. Horever, ZyWALL A should adjust the UDP checksum but it didn't.
 - (6) PCB will drop the received broadcast UDP pcket from PC A due to error UDP checksum.
10. [BUG FIX] 050214274
Symptom: VPN My IP Addr will resolving fail
Condition:
- (1) Add a VPN rule and My IP Address and Remote Gateway Address are domain type.
 - (2) Click Dial button, it will fail to build tunnel first time (second time is ok)
 - (3) Check log will display "Cannot resolve My IP Addr for rule xxx"
11. [BUG FIX] 050304284
Symptom: There is no log for replay packets
Condition:
- (1) Enable "Anti-Replay" function.
 - (2) Sniffer an ESP packet and replay it.
 - (3) This ESP packet will be dropped by there is no log.
 - (4) There should be log to show this action.
12. [BUG FIX] 050316859
Symptom: ZyWALL (3.64) crashes while remote VPN software (ZyWALL VPN Client) make a VPN connection
Condition:
- (1) ZyWALL start negotiating with remote VPN software.
 - (2) The remote VPN software sends too long VID size.
 - (3)device will crash.
13. [BUG FIX] 050221575

Symptom: Max. Concurrent Sessions Per Host problem.

Condition:

- (1) In eWC->NAT , change Max. Concurrent Sessions Per Host to 300
- (2) Use ipscan tool to make session
- (3) Log show “192.168.1.33 exceeds the max. number of session per host! “ when exceeds the max. number of session per host, but Max. Concurrent Sessions Per Host (Historical high since last startup: 286), it’s not reach 300

14. [BUG FIX] 050407160

Symptom: PC cannot ping remote secure gateway's LAN IP via VPN tunnel

Condition:

PC A (1.33) – (1.1)ZW70 --- LAB ---- ZW5 (2.1) ----(2.33) PC B

- (1) Add a VPN rule(ZW70), and in IPsec rule Local Network select Subnet Address, Starting IP is 192.168.1.0 / 255.255.255.0. Remote Network select Subnet Address Starting IP is 192.168.2.0 / 255.255.255.0.

(2) ZW5 had opposite setting.

(3) Build up this tunnel, PC A can ping PC B, but PC A can’t ping 192.168.2.1(ZW5 gateway LAN IP)

15. [BUG FIX] 050301086

Symptom: Remote gateway Address can’t configure as domain type when ipsec Nail-Up option is on.

Condition:

- (1) Add a VPN rule(Static rule) with Remote gateway Address set as domain type.
- (2) In Ipsec rule, enable Nail-Up option.
- (3) Return to IKE rule page, change some fields and click Apply. The Status will show “This ipsec rule bounds to dynamic IKE rule. Please inactive nail up.” and it can’t be saved.

16. [BUG FIX] 050309435

Symptom: Router crash when receive UDP packets which comes from TfGen.

Condition:

- (1) Restore default rom file.
- (2) In WAN side, place a PC and open TfGen tool to send packets to router's WAN.
- (3) The TfGen's setting in my PC is: Utilization: 4kbps, Destion: 192.168.70.34, Port: 500.

17. [BUG FIX] 050214258

Symptom: DNS inverse query causes system crash.

Condition:

- (1) Set A PC on the device LAN site.
- (2) The DNS server of the PC sets to the device.
- (3) The PC sends DNS inverse query continually, the device will crash sometimes.

18. [BUG FIX] 050204235

Symptom: Responder receive duplicate package when VPN tunnel established

Condition:

- (1) At Initiator edit one VPN rule and Extended Authentication=enable=client mode
- (2) At responder edit one VPN rule and Extended Authentication=enable=server mode
- (3) when VPN tunnel established ,Responder log show “Rule[IKE1] receives

- duplicate packet”
19. [BUG FIX] 050412413
Symptom: There is no “Ping of Dead” log message when performing
“Consolidate every 10 seconds (Attack: ping of death) ”
Condition:
(1) Dos command ”ping 192.168.1.1 -l 2000”
(2) User can not see ”ping of death” consolidation log on eWC/LOGS page
(3) Bridge mode only.
20. [BUG FIX] 050303203
Symptom: DNS inverse query causes memory leak.
Condition:
(1) Set A PC on the ZyWALL LAN site.
(2) The DNS server of the PC sets to the ZyWALL.
(3) The PC sends DNS inverse query continually (ex: 140.113.23.1), the system will generate memory leak.
21. [BUG FIX] 050201040
Symptom: "Gateway Domain Name Update Timer" in eWC --> VPN --> Global Setting didn't work.
Condition:
(1) Set one IKE rule which secured gateway address is domain name.
(2) Set "Gateway Domain Name Update Timer" to 15 minutes and apply.
(3) System will not update secured gateway domain name according to the setting unless system reboot.
22. [BUG FIX] 050415692
Symptom: Resolving a domain name which start with number (for example 4youcard.com) will fail.
Condition: CI command "ip ping 4youcard.com" and it will fail.
23. [BUG FIX] 050314705
Symptom: FTP cannot work after setting a policy route with IP gateway.
Condition:
(1) Restore default rom file.
(2) Set WAN as A/A mode and add a policy route with "protocol=TCP" and "Gateway=192.168.70.250". Note: My WAN status is: WAN IP:172.21.2.101, WAN 2 IP:192.168.70.32.
(3) Ftp:ftp.ncu.edu.tw (account:anonymous/a@a.a.a) in LAN side and it cannot work.
(4) Disable this policy route and the ftp is OK.
24. [BUG FIX] 050406055
Symptom: ZyWALL VPN traffic will lose from time to time
Condition:
(1) To create tunnel from zw70 to peer.
(2) To ping the LAN PC of peer VPN gateway fom the LAN PC of zw70 via the tunnel.
(3) About 1 min, it will re-key again.
(4) The tunnel loses packet.
25. [BUG FIX] 041201001
Symptom: Router will crash when receive an unrecognizable DNS response

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Condition:

Environment:

PC(192.168.1.33)----(192.168.1.1)ZW70---Internet

(1) Set ZW70's system DNS server as "164.67.128.1"

(2) From PC, send a DNS query to ZW70. The DNS format is as following:

cf 07 01 00 00 01 00 00 00 00 00 04 75 63 6c

61 03 65 64 75 00 00 ff 00 01

(3) ZW70 will relay the DNS query to "164.67.128.1".

(4) ZW70 will crash after receive DNS response from "164.67.128.1"

26. [BUG FIX] 050311685

Symptom: Firewall WAN to DMZ Reject can't work.

Condition: PC A ---- (W)ZW70 (DMZ) 10.1.1.1 --- 10.1.1.100 ZW10W

(1) In eWC Firewall Default Action WAN to DMZ select Reject. And enable Log

(2) One ZW10W connect to ZW70 DMZ port and IP is 10.1.1.100

(3) Add default server 10.1.1.100.

(4) PC A also can ftp to DMZ ZW10W.

(5) Check Picture [ZW70]Firewall W2D item 3->1

27. [BUG FIX] 050420986

Symptom: External content filter cannot work.

Condition

(1) Enable external content filter.

(2) Use external content filter for a long time.

(3) System cannot create socket anymore and external content filter cannot work.

(4) Use CI command "ip ping 168.95.1.1", there will be a message "Can't create socket" in console.

(5) You can see there are many used sockets via CI command "sys socket".

28. [BUG FIX]

Symptom: For firewall ACL schedule, if two rules have the same policies except "schedule", only the first rule will work.

Condition:

(1) Set two firewall rules have same policies except schedule.

(2) Only the first rule will work.

Modifications in V 3.64(WZ.0) | 03/04/2005

Modify for formal release.

Modifications in V 3.64(WZ.0)b4 | 02/24/2005

1. [BUG FIX]

Symptom: In bandwidth management priority base, FTP transfer speed slow down until to disconnect .

2. [BUG FIX]

Symptom: Custom traffic will send over 100 kbps in bridge mode.

Condition:

(1)In bridge mode, set WAN as 1000 kbps with fairness mode.

(2)Create a custom class, budget=50, priority=2, no borrow.

(3)Create a ftp class, budget=200, priority=3, no borrow.

- (4) Use `tfgen` to generate UDP traffic to match custom class.
- (5) Use `ftp` to generate TCP traffic to match `ftp` class.
- (6) In GUI statistics page, custom class will be over 100 kbps.
- 3. [BUG FIX]
Symptom: VPN XAuth rule swap fail.
Condition:
DUT1 :
 - (1) Edit web eWC/VPN , add gateway policy , Name=IKE1 , Remote Gateway Address=192.168.11.101 , Pre-Shared Key=12345678 , Enable Extended Authentication=enable , Client Mode/User Name=dut1 , Client Mode/Password=dut1
 - (2) Edit web eWC/VPN , add network policy for IKE1 , Active=enable , Name=IPSec1 , Local Network/Starting IP Address=192.168.1.33 , Remote Network/Starting IP Address=192.168.2.33DUT2 :
 - (1) Edit web eWC/AUTH SERVER/Local User Database , index1/Active=enable
 - (2) Edit web eWC/VPN , add gateway policy , Name=IKE1 , Remote Gateway Address=192.168.12.100 , Pre-Shared Key=12345678
 - (3) Edit web eWC/VPN , add gateway policy , Name=IKE2 , Remote Gateway Address=0.0.0.0 , Pre-Shared Key=12345678 , Enable Extended Authentication=enable , Client Mode/User Name=dut1 , Client Mode/Password=dut1
 - (4) Edit web eWC/VPN , add gateway policy , Name=IKE3 , Remote Gateway Address=0.0.0.0 , Pre-Shared Key=12345678 , Enable Extended Authentication=enable , Server Mode=enable
 - (5) Edit web eWC/VPN , add network policy for IKE1 , Active=enable , Name=IPSec1 , Local Network/Starting IP Address=192.168.2.43 , Remote Network/Starting IP Address=192.168.1.33
 - (6) Edit web eWC/VPN , add network policy for IKE2 , Active=enable , Name=IPSec2 , Local Network/Starting IP Address=192.168.2.53
 - (7) Edit web eWC/VPN , add network policy for IKE3 , Active=enable , Name=IPSec3 , Local Network/Starting IP Address=192.168.2.33
- 4. [BUG FIX]
Symptom: In eWC->Wireless, When select WPA or WPA PSK, the Authentication Databases field always says: Local User first then RADIUS.
Condition: Go to eWC>WLAN>Wireless, when select WPA or WPA PSK, the Authentication Databases field always says: "Local User first then RADIUS". But it shouldn't.
 - (1) When selecting "WPA", we should show "Authentication Database = RADIUS" instead of "Authentication Databases Local User first then RADIUS"
 - (3) When selecting "WPA+PSK", "Authentication Databases" should be hidden.
- 5. [BUG FIX]
Symptom: Upgrade firmware from 3.63 to 3.64, the wildcard field of address records on the DNS page will be enabled.

Modifications in V 3.64(WZ.0)b3 | 02/03/2005

1. [BUG FIX]
Symptom: DPD vendor ID is not correct.
Condition: VID value of DPD is not compatible with RFC3706.
2. [BUG FIX]
Symptom: OpenPhone H.323 traffic will be blocked by Firewall if connection is initiated from WAN side to LAN side.
3. [BUG FIX]
Symptom: Device will crash.
Condition: Use IXIA to simulate 1012 ip address to access web site (every ip has 10 sessions), device will crash.

Modifications in V 3.64(WZ.0)b2 | 01/30/2005

1. [BUG FIX]
Symptom: The name of Domain name does not check properly in SMT 1.
Condition:
(1) In SMT 1->Edit Dynamic DNS->Edit Host, fill the record 1's "domain name" with "xxx.dyndns.org". and record 2's "domain name" with "xxx.dyndns.org ". (the domain name of record 2 contains a space at the end)
(2) The domain should not contain space, we should have a filter to check this.
(3) Set record 1's "Update policy" with "Use WAN IP Address" and record 2's "Update policy" with "Let DDNS Server Auto Detect".
(4) After the DDNS process updating, the domain name "xxx.dyndns.org" will be resolved by the policy "Let DDNS Server Auto Detect" not "Use WAN IP Addrsss". (the first DDNS query result was overwritten by the second executed, "xxx.dyndns.org" is the first, "xxx.dyndns.org " is the second)
2. [ENHANCEMENT] On eWC>BW MGMT>Class Setup, add a popup warning message "Delete Class : class name ?" before user delete a Class.
3. [ENHANCEMENT] Add a active checkbox for ipsec rule on VPN wizard.
4. [BUG FIX]
Symptom: The wording of Dial Backup in SMT is not consistent with GUI.
Condition:
(1) In "eWC->WAN->Dial Backup", one of the wording in "Budget" is "Always On".
(2) In SMT, the wording is "Nailed-Up Connection".
5. [BUG FIX]
Symptom: The content of "My IP Address" should show domain name on eWC/VPN/VPN Rules(IKE).
Condition:
(1) Go to eWC->DNS->DDNS, fill the "domain name" with "aaa.com" then click "Apply".
(2) Go to eWC->VPN->VPN Rules (IKE), Add a gateway policy, fill the "name" with "test", select "My domain name" as "aaa.com", fill the "pre-share key" with "12345678" then click "Apply".
(3) In the VPN rules summary, my IP Address should be "aaa.com" but the router

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shows "0.0.0.0".

6. [BUG FIX]

Symptom: Enter special URL will cause device crash.

Condition: Form LAN site, enter
http://192.168.1.1/Forms/rpAuth_1?ZyXEL%20ZyWALL%
20Series<script>top.location.pathname=%20""</script> on browser, the device will
crash.

7. [BUG FIX]

Symptom: The CI command "ip nat service irc" may display strange Enable state.

Condition:

- (1) Execute "ip nat service irc he_is_good".
- (2) Execute "ip nat service irc 0".
- (3) Execute "ip nat service irc he_is_bad".

After Step 3, you will see that a strange Enable state, e.g., "IRC enable = 12".

8. [BUG FIX]

Symptom: The eWC>Firewall>Rule Summary>EDIT RULE page might be corrupted.

Condition:

- (1) Go to eWC>Firewall>Rule Summary.
- (2) Add or Edit a firewall rule.
- (3) Try to delete a Source Address (or Destination Address) without first selecting an address.
- (4) Or try to delete a Service without first selecting a service.
- (5) With 3 or 4, you will see an error message on the status bar.
- (6) Click on any button of this page, then you will see that the values of some fields on this page are lost. Also you won't be able to escape this page by clicking on the Cancel button.

9. [ENHANCEMENT] Add SIP protocol in service list in firewall rule edit page.

10. [BUG FIX]

Symptom: In SMT 15.1 address mapping rule error message not correct.

Condition:

- (1) In SMT 15.1, configure NAT address mapping many to many overload(or many one to one).
- (2) Configure local address from 0.0.0.0 to 255.255.255.255.
- (3) Configure global address from 0.0.0.0 to 255.255.255.255.
- (4) Save the configuration =>error message show "The end IP address must be great than the start IP address " not correct.

11. [BUG FIX]

Symptom: Configure WAN page, and WAN priority will become 1.

Condition:

- (1) In "eWC->WAN->General", set WAN1 priority to 5.
- (2) In "eWC->WAN->WAN", set encapsulation type to PPTP or PPPoE.
- (3) Go to "eWC->WAN->General", WAN's priority will become 1.

12. [ENHANCEMENT] Give a warning message when user configure FTP/SIP/H.323 filter on BWM but FTP/SIP/H.323 ALG is not enabled.

GUI : Save the filter and show the warning message. Warning: This is a SIP(FTP,

H.323) filter, you have to enable SIP(FTP, H.323) ALG by CI command "ip alg enable".

CI command : After running "bm config save", the router will save the configuration and check all filters in all interface. Then show a list of filters which are conflicted.

13. [ENHANCEMENT] NAT address mapping need prevent user configure local IP range and global IP range overlap.
14. [BUG FIX]
Symptom: SIP WiFi-Phone's voice communication failed.
Condition:
(1) Use following topology to test.
WiFi A-DUT----Internet(SIP server)---DUT----WiFi B
(2) Both ZyWALL reset to default romfile.
(3) In SMT 24.8 CI command, both type "ip alg enable ALG_SIP" to enable SIP ALG.
(4) WiFi A make a phone call to WiFi B, voice communication works fine.
(5) Terminate the phone call ,then WiFi B make a phone call to WiFi A, voice communication fail.
(6) Fail status: WiFi A can hear voice, but WiFi B can't.
15. [BUG FIX]
Symptom: The device crashes while the user is changing the SNMP access right configuration.
Condition:
(1) Restore default romfile.
(2)Set the SNMP Access = Disable.
(3) Use MS-SOFT to query the device.
(4) Before the query timeout, change Access = ALL, the device will crash.
16. [BUG FIX]
Symptom: In authentication server, the local user database should check if the input user name is duplicate.
Condition:
(1) Restore to default romfile.
(2) In record 1, active = yes, name = test, password = 1234 In record 2, active = yes, name = test, password = 5678
(3) Press Save and this configuration will be accept by router.
17. [BUG FIX]
Symptom: BWM linear search can not find first match filter.
Condition:
PC1 ----- (LAN) DUT(WAN) ----- PC2
(1) Enable BWM on WAN, setup two classes for WAN Root class:
Root 1000kbps
|-----Class 1: 200kbps
|-----Class 2: 200kbps
Filters table:
Class 1: FTP SrcIP = 192.168.1.0/24
Class 2: FTP DstIP = 192.168.70.0/24
(2) FTP upload file from PC1 to PC2.

- (3) In this case, BWM will match Class 2's filter. But it's wrong, in linear search algorithm, we should return the first match filter for traffic.
18. [BUG FIX]
Symptom: When manual mode encapsulation is Tunnel, responder can't build up tunnel. Condition:
(1) PC A – DUT ---- DUT - PC B
(2) On eWC/VPN/Manual add two manual rules in DUT and DUT. Rule 1 is inactive. Rule 2 is active and encapsulation is Tunnel.
(3) PC A ping PC B, check SA Monitor, ZW70 tunnel had been built up but no tunnel is up in ZW5, vice versa.
(4) If PC B ping PC A this time, tunnel can be built up in both sides and traffic can be transferred.
19. [BUG FIX]
Symptom: LAN static DHCP can save the same data.
Condition:
(1) Restore default rom file.
(2) In GUI>LAN>Static DHCP, add two record as MAC: 01:01:01:01:01:01, IP: 192.168.1.33 MAC: 02:02:02:02:02:02, IP: 192.168.1.66 and apply it.
(3) Change these two record as MAC: 03:03:03:03:03:03, IP: 192.168.1.99 and apply it.
(4) It can be saved and it is wrong.
20. [BUG FIX]
Symptom: Nail up warning message does not show correctly in eWC->WAN->WAN.
Condition:
(1) Edit a VPN rule and enable nail up
(2) In eWC->WAN->WAN, set encapsulation with PPPoE and no nailed-up enabled, click "apply" to save, the status will show "Warning: VPN Nailed-Up may trigger dial WAN links."
(3) Click "apply" again, the status will show "Nothing changed; no need to perform save"
21. [BUG FIX]
Symptom: VPN tunnel can not be disconnected.
Condition:
(1) PC1-DUT-----HUB-----ZW10W(V362WH7)--PC2
(2) DUT has one IKE and two IPSec rules
(3) ZW10W has two VPN rules
(4) ZW10W initiates these two VPN rules
(5) ZW10W delete these two VPN tunnels but one of DUT VPN tunnels still exist.
22. [BUG FIX]
Symptom: When out of call schedule, the device still cannot send traffic out.
Condition:
(1) Set WAN 1 encapsulation is Ethernet.
(2) Edit SMT menu 24.10, Time Protocol = Manual, New Time (hh:mm:ss) = 10:00:00, New Date (yyyy-mm-dd) = 2004-06-01.
(3) Edit SMT menu 26, enter Schedule Set Number to Configure = 1, Edit Name = FD-Once.

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- How often = Once
 - Once Date = 2004-06-01
 - Start Time = 10:05
 - Duration = 00:02
 - Action = Force Down
- (4) Edit SMT menu 11.1, schedule = 1.
- (5) However, when out of schedule about 5 minutes, device still cannot send traffic out.
23. [ENHANCEMENT] In bridge mode, add "Session Table is Full!" log message, when TOS session is full.
24. [BUG FIX]
Symptom: Wireless CI command "wlan active 100" can be save.(The value should be 1 or 0)
Condition:
(1) Plug in B120 and reboot router.
(2) Use "wlan active 100" and it can be save.
(3) Go to smt3-5, router will crash.
25. [BUG FIX]
Symptom: The centralized log shows the strange DHCP entry with hex IP address.
Condition:
(1) Reset to default rom file.
(2) A PC is set on device LAN site with dynamic IP and no system hostname.
(3) The PC sends DHCP request to device.
(4) The device will show the strange log message have the hex IP address. (ex: 101 01/15/ 2005 10:15:50 DHCP server assigns 0xa0a01e6 to 00:0E:08:AA:B6:B3)
26. [ENHANCEMENT] When router crashes, console will display the restart date and time.
27. [BUG FIX]
Symptom: VPN page cannot be configured.
Condition:
(1) Add a IKE rule.
(2) Add 10 IPSec rules, and bind them to step1 IKE.
(3) Delete IKE rule.
(4) VPN page can't be configured anymore.
28. [BUG FIX]
Symptom: Enhance the VPN error description
Condition:
(1) On eWC VPN, add a IKE rule Dynamic rule (Remote Gateway Address is 0.0.0.0)
(2) Add a IPSec rule, and fill some value instead of 0.0.0.0 in "Remote Network" fields.
(3) Status will show "This policy cannot bound to the dynamic rule"
(4) User may not know where is wrong.
29. [FEATURE CHANGE] Enhance Gateway Domain Name Update Timer. If Gateway Domain Name Update Timer is enabled. The ZyWALL will resolve the IP from a VPN gateway policy whose IKE remote gateway is domain name type in every cycles. If the ZyWALL finds that the new remote gateway IP is different from the old one(which is

used by tunnel now), the ZyWALL will delete this tunnel.

30. [BUG FIX]

Symptom: Save a legal VPN gateway policy but the ZyWALL shows an error message.

Condition:

(1) GO to eWC>VPN>GATEWAY POLICY - EDIT

(2) Save a GATEWAY POLICY whose name = GW, My Address = www.abc.com.tw, Remote Gateway Address = www.cde.com.tw and Pre-Shared Key = 12345678

(3) GO to eWC>VPN>NETWORK POLICY - EDIT

(4) Save a NETWORK POLICY whose name = NW, Active = Yes, Starting IP Address = 192.168.1.33, Starting IP Address = 192.168.2.33 and Pre-Shared Key = 12345678

(5) Go back to eWC>VPN>Rules and edit rule "GW" and set its My Address as 0.0.0.0, then save

(6) The ZyWALL shows an error message "This IKE rule has static policy rules.", but it should not.

31. [BUG FIX]

Symptom: There are no logs in eWC>Logs>Log Settings when SMTP authentication fail .

Condition:

(1) Go to eWC>Logs>Log Settings. Configure a wrong Mail Server/Send Log to/Send Alerts to/ User Name of SMTP Authentication/Password of SMTP Authentication and save.

(2) Go to eWC>Logs>View Log. There are no logs about SMTP Auth failures/SMTP failures.

(3) If the configuration is correct. There is also no log to tell users that the result is successful.

32. [ENHANCEMENT] Add port information in centralized log message when a netbios packet was blocked.

33. [ENHANCEMENT] After the device rebooting, the system will synchronize Time server until any WAN is up or all WAN links are failed exceed 5 minutes.

34. [BUG FIX]

Symptom: VPN tunnel can establish but traffic cannot go through tunnel.

Condition: PC1 – DUT -- internet – DUT -- PC2

(1) Configure corresponding VPN setting in both DUT.

(2) Dial VPN tunnel

(3) After tunnel established, PC1 cannot ping PC2 .

35. [BUG FIX]

Symptom: The router can not flush correctly in eWC->LOGS->Reports.

Condition:

(1) In Bridge Mode.

(2) In eWC->LOGS->Reports, enable "Collect Statistics", interface = LAN, Report type= "Host IP Address".

(3) When pressing "Flush" button, there is still one record existing "192.168.70.123 Outgoing 3913 bytes". "192.168.70.123" is router's IP address.

(4) It has the same problem when changing interface from "LAN" to "DMZ" if we do

the same action.

36. [BUG FIX]

Symptom: In bridge mode, SIP traffic can not be managed by BWM.

Condition: SIP Phone1 ----- (LAN)DUT(WAN) ----- SIP Phone2

(1) Change router to Bridge Mode.

(2) Enable BWM, and add a SIP filter at WAN interface.

(3) SIP Phone1 call SIP Phone2.

(4) After connection is established, go to eWC->BW MGMT->Monitor, you will see SIP traffic falls into Default class, it's wrong.

37. [BUG FIX]

Symptom: Router crashes after VPN tunnel is built and start to transfer data.

Condition:

(1) PC1-----ZW35-----ZW70-----PC2.

(2) Create a simple VPN tunnel between ZW35 and ZW70, ZW35 as Initiator, ZW70 as Responder.

(3) PC1 ping PC2 to trigger VPN tunnel.

(4) Tunnel is built but crashes immediately after Ping go through tunnel.

38. [BUG FIX]

Symptom: Packet still can send out through NAT router when there is no unused port for it.

Condition:

(1) Configure an active port forwarding rule with incoming port range 10000 to 29999.

(2) Send a packet out of NAT router.

(3) The packet can still send out.

39. [BUG FIX]

Symptom: BWM highest priority class can not borrow residual bandwidth from parent class (using tfgen tool)

Condition:

(1) In WAN interface. Enable Priority-based Scheduler.

(2) Class Setup on WAN.

Root 100000 Kbps

|-----WAN 2000 Kbps (No Borrow, No Filter, Priority = 3)

|-----WAN1-1 500 Kbps (Borrow; Filter: SrcIP:0, DestIP:0, SrcPort:0, DestPort:90; Protocol: 17; Priority = 3)

|-----WAN1-2 300 Kbps (Borrow, Filter: SrcIP:0, DestIP: 192.168.70.0/24, SrcPort:0, DestPort:0, Protocol: 17; Priority= 6)

(3) From LAN host, use tfgen (UDP packet generator) to generate two session to match class WAN1-1 and WAN1-2.

session 1: Utilization = 2000Kbps, Destination = WAN host (192.168.70.57), port=90. This will match WAN1-1 class.

session 2: Utilization = 2000Kbps, Destination = WAN host(192.168.70.57), port = default. This will match WAN1-2 class

(4) From Monitor, WAN1-1 should be protected at 500Kbps, and WAN1-2 should borrow remaining bandwidth from parent class.

But you will see WAN1-1 still borrow remaining bandwidth and WAN1-2 almost

borrow nothing from parent class.

40. [BUG FIX]

Symptom: There is no response from DMZ after set system name by SNMP.

Condition:

- (1) Reset to factory default setting.
- (2) Disable firewall.
- (3) Ping router's DMZ IP address continuity.
- (4) Set DUT's system name by SNMP tool "MG-SOFT MIB browser".
- (5) There is no response from DMZ anymore.

41. [BUG FIX]

Symptom: BM filter can not be deleted via CI command.

Condition:

- (1) On eWC->BW MGMT->Class Setup, create 3 classes on LAN interface and all class's filter is enabled.
- (2) Go to SMT 24.8, delete the third filter by "bm filter lan del 3" and then save data by "bm config save"
- (3) By typing, "bm show filter", you will see the third filter still exists.

42. [BUG FIX]

Symptom: Memory leak in DNS query.

Condition:

- (1) Set the device as the network gateway.
- (2) Some PCs assign the DNS server to the device.
- (3) After some days, the DNS query will cause memory leak.

43. [BUG FIX]

Symptom: Executing CI command "ip nat service irc" will make the router crash.

Condition:

- (1) In SMT 24.8, type "ip nat service irc" then press enter.
- (2) The router crash.

44. [BUG FIX]

Symptom: NAT address mapping functionality fail.

Condition:

- (1) Restore to factory default.
- (2) In SMT4, set "Network Address Translation" as "Full Feature".
- (3) In SMT 15.1.1, insert a rule in rule 1. Take an example with my setting: Type: One to One. Local IP: 192.168.1.33 Global IP: 192.168.70.111
- (4) In PC/192.168.1.33, ftp to server/192.168.70.8. In FTP server, you can find the incoming IP is 192.168.70.111.
- (5) Change step3 address mapping rule, Global IP: 192.168.70.123
- (6) Repeat step 4, you can find the incoming still 192.168.70.111. This is wrong, it should be 192.168.70.123.

45. [FEATURE CHANGE] Extend "devID" field to six hexadecimal numbers(12 characters) in syslog format.

46. [BUG FIX]

Symptom: Netmeeting H.323 traffic will be blocked by Firewall if connection is initiated from WAN side to LAN side.

Condition:

PC1(Netmeeting)------(LAN) ZyWALL (WAN) ----- PC2(Netmeeting)

- (1) Enable Firewall, setup a WAN2LAN firewall rule for H.323 service
- (2) Enable NAT port forwarding for port 1720(H.323) to PC 192.168.1.33
- (3) PC1 and PC2 use Netmeeting, PC2 call PC1.
- (4) Netmeeting application traffic will be blocked by Firewall, you will see a lot of Firewall blocked log in Centralized LOG.

47. [ENHANCEMENT]

BWM children's bandwidth's sum will not exceed parent's.

Modifications in V 3.64(WZ.0)b1 | 12/17/2004

1. [ENHANCEMENT]

IPSec enhancement :

- (1) Remove SMT27 for VPN setup.
- (2) Redesign CI commands for VPN
- (3) One IKE rule(Gateway policy) bind with multi IPSEC rules(Network Policy).
- (4) Add the log for "VPN connectivity check"
- (5) Support Multiple Proposals.
- (6) On eWC>VPN>Global Settings, add IPSec timers configuration.
- (7) For Network Policy, add Netbios passthrough field.
- (8) For Gateway Policy , add FQDN field for My Address.

2. [FEATURE CHANGE]

Support (Port Restricted) Cone NAT

3. [ENHANCEMENT]

Bandwidth Management add "Filter List". Classifier will search Filter List sequentially to find matching class.

4. [FEATURE CHANGE]

For wireless feature, remove WPA mixed mode function.

5. [ENHANCEMENT]

Add eWC>Content Filter>Cache page to display URL cache.

6. [ENHANCEMENT]

New Wizard design for VPN and Internet Access

7. [ENHANCEMENT]

Enhance ZyWALL GUI according to beta testers' feedbacks.

(1) To allow more than two child windows open from multiple ZyWALLs, the second parameter (windowName) of the JavaScript function Window.open() will be the MAC address of the ZyWALL that is currently being managed. The child windows include the following.

- 1). Wizards
- 2). Help
- 3). Show Statistics
- 4). Show DHCP Table
- 5). VPN Status
- 6). BWM statistics

(2) For identification purpose, the title of the eWC parent window, as well as its child windows, will contain the system FQDN of the ZyWALL that is currently being managed.

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8. [ENHANCEMENT]
Integration of TOS & NAT information
(1) Current concurrent sessions = max(TOS current concurrent sessions, NAT current concurrent sessions)
(2) Historical high since last startup = max(TOS historical high since last startup, NAT historical high since last startup)
9. [ENHANCEMENT]
In eWC>HOME>Show Statistics page, the ZyWALL will keep the configuration modified by users. Therefore, next time when users access this page, they don't have to configure the settings in order to see proper info again.
10. [ENHANCEMENT]
Add Log Consolidation into eWC>Logs>Settings.
11. [ENHANCEMENT]
Remove the metric configuration field from eWC>WAN Traffic Redirect and Dial Backup Pages
12. [ENHANCEMENT]
Add VT6105 and NPE Speed Configuration function. User can force VT6105 or NPE to 10/100 half/full mode.
Note: If user's setting is wrong, the network status will be unstable. For example:
1. 100/Full<-->10/Half: LED blinking on 10/Half side and link is unstable.
2. 100/Half<-->10/Half: The link status is opposite on both side. User should be aware of this issue.
3. ZyWALL 35 LAN/DMZ not support this feature.
13. [ENHANCEMENT]
Enable "ip alg" command in bridge mode.
14. [ENHANCEMENT]
In eWC>DNS>System>Address Record, add Wildcard.
15. [ENHANCEMENT]
1. In eWC>Home>Current Time, add GMT timezone + DST offset.
2. In eWC>Date&Time>Current Time, GMT add timezone + DST offset.
16. [ENHANCEMENT]
Add GUI for LAN DHCP Relay feature.
17. [ENHANCEMENT]
Add a API function to move rules for NAT address mapping table. CI command: ip nat acl move <set#> <rule# from> <rule# to>
18. [FEATURE CHANGE]
For Manual IPSec rule, remove My Domain Name and change Secure Gateway Address into IP field
19. [ENHANCEMENT]
On eWC>HOME>VPN wizard, My ZyWALL address supports Domain Name.

Modifications in V3.63(WZ.0) | 12/02/2004

Formal release

Modifications in V3.63(WZ.0)b3 | 11/17/2004

1. [BUG FIX]
Symptom: Bandwidth Management sub class cannot borrow budget from parent.
Condition:
 甲、Add a subclass on WAN and set budge 2048Kbps
 乙、Enable "Borrow bandwidth from parent class"
 丙、Upload file to WAN site's FTP server=>Fail, "Borrow bandwidth from parent class" can not work correctly
 2. [BUG FIX]
Symptom: Bandwidth management ALG can not work on PPPoE and PPTP
Condition: Bandwidth ALG(FTP,SIP,H.323) can not work while WAN is PPPoE / PPTP.
 3. [BUG FIX]
Symptom: Cannot find help pages.
Condition:
 (1) In "eWC->POLICY ROUTE", the help page cannot be found.
 (2) In "eWC->POLICY ROUTE->Edit", the help page cannot be found.
 4. [BUG FIX]
Symptom: No "Forward web site" log.
Condition:
 (1) In "eWC->CONTENT FILTER->General", enable content filter.
 (2) In "eWC->LOGS->Log Settings", select "Forward Web Sites".
 (3) Access an allowed web site.
 (4) In "eWC->LOGS->View Log", there is no "forward web site" log entry.
 5. [BUG FIX]
Symptom: session.exe causes ZyWALL to crash.
Condition:
 (1) Run session.exe tool.
 (2) On session.exe console, execute the command "session.exe -ip_destination 192.168.1.1 -port_destination 443", where 192.168.1.1 could be the address of ZyWALL's any (LAN/DMZ/WAN) interface.
 (3) After a while, the system will crash because it runs out of available timers.
 6. [BUG FIX]
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.
 7. [FEATURE CHANGE]
Change default setting of SMT 15.1.2
Was: The default "Set Name" is NULL.
Is: The default "Set Name" is NAT_SET.
 8. [FEATURE CHANGE]
Modify CI command "ip arp add" from hidden to visible.
- Modifications in V3.63(WZ.0)b2 | 10/23/2004**
1. [ENHANCEMENT] Support CI command "ip alg..." in bridge mode.
 2. [BUG FIX]
Symptom: The eWC idle timeout mechanism sometimes may malfunction.

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Condition:

- (1) Log onto the ZyWALL eWC.
- (2) Go to eWC>Maintenance>General and set the "Administrator Inactivity Timer" to 1 minute.
- (3) Go to eWC>Maintenance>Time&Date and manually adjust the system time backward by an amount more than the system up time.
- (4) Do not log out. Wait for more than 1 minute, and then attempt to access the eWC again.
- (5) You will find that the eWC has not timed out and is still accessible.

3. [BUG FIX]

Symptom: Help page can't show picture

Condition: On eWC HOME>> Show Statistics >>Help page ,it first Label lack a picture.

4. [BUG FIX]

Symptom: Use IXIA create session cause zw35 crash

Condition: Use IXIA create 10100 session and run about 20 minutes, device crash2.

5. [BUG FIX]

Symptom: Throughput of VPN IKE DES by SmartBits and IXIA both fail

6. [BUG FIX]

Throughput of LAN to WAN by IXIA occur fail in frame size 64/128/256.

7. [BUG FIX]

Symptom: The length of Peer Subject Name ID Content in eWC>VPN - EDIT VPN RULE was wrong.

Condition:

- (1) Go to eWC>VPN - EDIT VPN RULE.
- (2) Click "Certificate" as Authentication Method.
- (3) Choose "Subject Name" for Peer ID Type.
- (4) The max length of Peer Subject Name ID Content is 255 characters, but only up to 31 characters can be entered.

8. [BUG FIX]

Symptom: WAN cannot send RIP packets.

Condition:

- (1) Enable WAN 1 RIP and Multicast, and capture packet on WAN side, but device cannot send RIP packets.
- (2) Enable WAN 2 RIP and Multicast, and capture packet on WAN side, but device cannot send RIP packets.

9. [BUG FIX]

Symptom: WAN 2 does not get RIP packets.

Condition:

- (1) In Failover mode, the WAN 2 priority is 1 and the WAN 1 priority is 3.
- (2) Enable WAN 2 RIP and Multicast and capture packets at WAN side, the device cannot get RIP packets anymore.

10. [BUG FIX]

Symptom: In GUI, System DNS Server configuration is inconsistent .

Condition:HOME>Internet Access, the system dns server is inconsistent with DNS>Name Server Record.

11. [BUG FIX]

Symptom: LAN DHCP Server cannot work after CI command "sys rn save" for dial backup.

Condition:

- (1) Reset default rom file
- (2) On SMT menu 24.8 , CI command:
 - a. "sys rn load 3".
 - b. "sys rn accessblock 1".
 - c. "sys rn save"
- (3) On SMT menu 3.2, LAN DHCP option will change from "Server" to "None", and we cannot change this option to "Server" forever.

12. [BUG FIX]

Symptom: The system mails logs with the incorrect "DATE" mail header in the daylight saving period.

Condition:

- (1) Go to eWC->MAINTENANCE->Time and Date page.
- (2) Click the checkbox of "Enable Daylight Saving" option
- (3) Configure ZyWALL's system time in daylight saving period via the "Start Date" option and the "End Date" option.
- (4) Go to eWC->LOGS->Log Settings page
- (5) Configure "E-mail Log Settings"
- (6) Go to eWC->LOGS->View Log page and click "EMail Log Now" button to mail logs.
- (7) Receive the mail sent in (6) and check the "DATE" header in the mail is "Date: Fri, 1 Oct 2004 15:34:04 +0800" and not in the daylight saving period. The correct date should be "Date: Fri, 1 Oct 2004 16:34:04 +0900".

13. [BUG FIX]

Symptom: WAN2 can not get ip address from DHCP server.

Condition:

- (1) Restore default rom file and plug in with WAN1.
- (2) Set BM=>Summary=>WAN1 enable and add a subclass and enable it.
- (3) Set BM=>Summary=>WAN1 disable,BM=>Summary=>WAN2 enable.
- (4) Pull out WAN1 and plug in WAN2.
- (5) WAN2 can not get ip address from DHCP server anymore.

14. [BUG FIX]

Symptom: SMT shows strange message "[error] Failed to send message.

Condition:

- (1) Restore default rom file.
- (2) Go to SMT 24.1, and press "9" to reset counter many times, the message "[error] Failed to send message" shows.

15. [FEATURE CHANGE][INTERNAL]

Was: The default ROM file has default DNS server of WAN1.

Is: Remove the default DNS server of WAN1 from default ROM file.

16. [BUG FIX]

Symptom: eWC will fill the "Connection ID/Name" field with "C:1" when the fetch data is empty.

Condition:

- (1) In eWC, set "Connection ID/Name" as empty in PPTP mode and apply it.
 - (2) Go to another page and go back the WAN page, the "Connection ID/Name" field is filled with "C:1" even we set the field as empty.
17. [FEATURE CHANGE] In eWC->LOG->Log settings->Active Log and Alert, remove the options (Asymmetrical Routes, Multicasts/Broadcasts, TCP Reset, Packet Filter, UPnP, Forward Web Sites) in default ROM file.
 18. [FEATURE CHANGE] In eWC->FIREWALL->Anti-Probing, change the value of "Respond on PING on" to "LAN & WAN & DMZ" in default ROM file.
 19. [FEATURE CHANGE] In eWC->FIREWALL->Rule Summary, "WAN to LAN" packet direction, add a non-active rule that will forward BOOTP_CLIENT(UDP:68) from WAN to LAN for DHCP service in bridge mode.
 20. [FEATURE CHANGE] Change the default behavior of URL checking mechanism in Content Filter's Customization page in default ROM file. Now, we extend the URL checking range from domain name to entire URL (fullpath plus filename) and it is case insensitive.
 21. [BUG FIX]
Symptom: SMT NAT trigger port cannot save
Condition: Check SMT menu 5.3.1, save flash rom seems fail.
 22. [BUG FIX]
Symptom: In eWC, wizard Spoof MAC does not work when encapsulation is PPPoE/PPTP.
Condition:
 - (1) In eWC>HOME>Internet Access, select PPPoE/PPTP and enable the "Spoof this computer's MAC Address - IP Address".
 - (2) Go to SMT 24.1 and check WAN MAC. not be spoofed.
 23. [BUG FIX]
Symptom: PPPoE/PPTP can't set Fixed IP Address
Condition:
 - (1) Restore default ROM.
 - (2) PPPoE / PPTP can't set fixed IP Address in WAN 1 or WAN 2. In PPTP and PPPoE mode, set the WAN IP only (do not set the mask and REM IP) and we can not apply it.
 24. [BUG FIX]
Symptom: In bridge mode, the device should not check route assessments.
Condition:
 - (1) In router mode, enable the ICMP check for route assessments.
 - (2) Switch to bridge mode.
 - (3) The device still runs the ICMP check.
 25. [BUG FIX]
Symptom: Device Mode does not show status.
Condition:
 - (1) Under Router mode, in MAINTANCE > Device Mode does not show status.
 - (2) Under Bridge mode, in MAINTANCE > Device Mode status shows router mode.
 26. [BUG FIX]
Symptom: In centralized log, the router shows wrong gateway IP for policy route.

Condition:

- (1) WAN1 use PPPoE/PPTP and the packets can go through WAN1 successfully.
- (2) Go to eWC->POLICY ROUTE, edit a rule.
- (3) Criteria block: Active the rule, select LAN interface, fill the Destination Starting IP Address and Ending IP Address with "168.95.1.1".
- (4) Routing Action Block: Select WAN Interface with WAN1 and Log with Yes then save the rule.
- (5) Ping "168.95.1.1" in the PC.
- (6) Go to eWC->LOGS, we got a log "Policy route rule matched: ICMP, rule: 1, GW: "0.0.0.0".

27. [BUG FIX]

Symptom: WAN 2 MSN Messenger 6.2 some function cannot work.

Condition:

- (1) Use WAN 2 and enable UPnP.
- (2) MSN Messenger 6.2, voice, white board, program cannot work.

28. [BUG FIX]

Symptom: DNS query causes cbuf leak.

Condition: Router will sync with NTP server once a day, sometimes this action may be a failure and cause cbuf leak.

29. [BUG FIX][INTERNAL]

Symptom: WAN2 PPPoE idle timer still functions when Nailed-Up is enabled.

Condition:

- (1) Restore to default ROM file.
- (2) Connect WAN2 to a DSL modem.
- (3) Set WAN2 encapsulation to "PPPoE".
- (4) Enable "Nailed-Up".
- (5) After idling for a few minutes, the ZyWALL drops the PPPoE connection. Immediately after the disconnection, the ZyWALL dials a PPPoE connection.

30. [BUG FIX]

Symptom: Firewall "WAN to LAN" log does not show.

Condition:

- (1) In eWC->LOG->Log setting->Active Log and Alert, disable "Multicasts / Broadcasts" option .
- (2) Check eWC->LOG, the packets belong to "WAN to LAN" category will not be shown.

31. [BUG FIX]

Symptom: Datetime calibration failed to sync with user-defined NTP server.

Condition:

- 丁、Restore default ROM file.
- 戊、Go to eWC->MAINTENANCE->Time and Date, set Time Server Address with "time.stdtime.gov.tw".
- 己、Reboot the router.
- 庚、Go to eWC->LOG, the router will start time synchronization process, it does not sync user-defined server first (no log).

32. [BUG FIX]

Symptom: Max Firewall ACL rule will cause device crash.

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Condition:

- (1) Enter eWC->Firewall.
- (2) Add firewall rules to cause acl memory full.
- (3) Add a service port in one firewall rule.
- (4) Save the acl will cause device crash.

33. [BUG FIX]

Symptom: The policy route log shown on GUI has some problem.

Condition:

Topology : The WAN 1 uses ethernet and is down, a PC connects to ZyWALL LAN-side.

- (1) Go to eWC->POLICY ROUTE, edit a rule.
- (2) Criteria block: Active the rule, select LAN interface, fill the Destination Starting IP Address and Ending IP Address with "168.95.1.1".
- (3) Routing Action Block: Select WAN Interface with WAN1 and Log with Yes then save the rule.
- (4) Ping "168.95.1.1" in the PC.
- (5) Go to eWC->LOGS, we got a log "Policy route rule matched: ICMP, rule: 1, GW: 168.95.1.1".
- (6) The ping is failed and the router should not show the log, the GW in the log is wrong (168.95.1.1).

Modifications in V3.63(WZ.0)b1 | 09/23/2004

1. [FEATURE CHANGE] New feature, Multiple WAN Access. Please see Appendix 7.
2. [FEATURE CHANGE] New feature, Load Balancing.
3. [FEATURE CHANGE] New feature, DNS Server.
4. [FEATURE CHANGE] New feature, Bridge Mode.
5. [FEATURE CHANGE] New feature, Wi-Fi Protected Access(WPA) on WLAN.
Please see Appendix 8.
6. [FEATURE CHANGE] New feature, Firewall>NAT>Bandwidth Management ALG for SIP/H.323.
7. [ENHANCEMENT] Support up to 35 IPSec VPN connections simultaneously. User can configure 40 IPSec policies.
8. [ENHANCEMENT] Support 48 policy route rules.
9. [ENHANCEMENT] Support 10000 NAT sessions.
10. [ENHANCEMENT] Support up to 50 NAT rules and 50 port forwarding rules.
11. [ENHANCEMENT] Firewall ACL buffer size is up to 40K bytes, the user can configure up to 100 customer ports.
12. [ENHANCEMENT] The size of the cache of Cerberian content filter is up to 2048K bytes.
13. [ENHANCEMENT] Support to use ZyAIR B-120 and ZyAIR G-100 WLAN card.
14. [ENHANCEMENT] Add call schedule for dial backup. The SMT 11.3, for dial backup, has the "Schedules=" option to enable schedule rules.
15. [ENHANCEMENT] Add a new firewall service type - Roadrunner(TCP/UDP:1026) in

```
eWC>FIREWALL>EDIT RULE.
```

16. [ENHANCEMENT] In eWC>Home page, add a new entry for displaying Dial Backup status into the Network Status table.
17. [FEATURE CHANGE] In eWC>LAN>LAN page, those settings for DNS Server address has been moved to eWC>DNS>LAN page.
18. [FEATURE CHANGE] In eWC>WIRELESS LAN, the page 802.1X, has been merged into the security list box of the Wireless page. The user can setup those settings for 802.1X, WPA, and WEP by selecting the security.
19. [ENHANCEMENT] In eWC>WAN, the “Route” tag has been changed to “General” tag.
20. [ENHANCEMENT] In eWC>WAN>General page, a new Operation Mode group has been added in the top of this page. The user can setup ZyWALL to be Active/Passive mode or Active/Active mode. The user also can setup the Load balancing for WAN 1/WAN 2 in here. Please reference to Appendix 7 to know more information about ZyWALL Multiple WAN.
21. [ENHANCEMENT] In eWC>WAN>General page, the wording, “Route Assessment” has been changed to “Connectivity Check”.
22. [FEATURE CHANGE] In eWC>WAN>WAN 1 and WAN 2 page, NAT Full Feature selection has been moved to eWC>NAT>NAT overview page.
23. [FEATURE CHANGE] In eWC>WAN>WAN 1 and WAN 2 page, the Windows Networking group has been moved to eWC>WAN>General page.
24. [ENHANCEMENT] In eWC>VPN>VPN>VPN Edit VPN Rule page, the user can setup my IP address to the domain name which the user has been setup in the DNS server.
25. [ENHANCEMENT] eWC>SUA>NAT has been re-designed. The new Web GUI for NAT has four pages, they are NAT Overview, Address Mapping, Port Forwarding, and Port Triggering. WAN 1 and WAN 2 have separated NAT Address Mapping tables, Port Forwarding tables and Port Triggering tables.
26. [ENHANCEMENT] Changing the format of daylight saving to correspond with the popular configuration.
daylight save: old config: start month – day
 end month - day
 new config: start month - nth week - weekday – hour
 end month - nth week - weekday – hour
27. [ENHANCEMENT] Enhance HOME GUI.
 - (1) Add LAN and DMZ IP Alias information. Users can expand or collapse LAN and DMZ to show or hide the IP Alias information by clicking the [+]/[-] icon at the beginning of each entry in Home Network Status Table.
 - (2) Remove NAT sessions and add TOS sessions information.
 - (3) Merge Current Date and Current Time into System Time and append GMT Time Zone information at the end.
28. [ENHANCEMENT] Add warning message on login page GUI.
Add warning message "You must enable JavaScript on your browser to access the web configurator." to remind users that Scripting should be turned on if Scripting is not enabled on browser.

29. [ENHANCEMENT] Enhance NAT GUI.
In NAT>NAT Overview page, add Concurrent Session per Host Historical High information since Startup.
30. [ENHANCEMENT] Enhance eWC>Logs>Report GUI.
 - (1) Add a checkbox field "Collect statistics" to eWC>Logs>Reports Page. Next time after reboot, users don't need to click "Start collection".
 - (2) Add a checkbox field "Send raw traffic statistics to syslog server for analysis" to eWC>Logs>Reports Page.
 - (3) Add a flush button for users to clear the report.
31. [ENHANCEMENT] Add VPN dial on VPN GUI.
 - (1) Add a "Dial" icon at the end of each VPN rule in VPN Summary page to dial a selected rule.
 - (2) There are warning messages shown on the status bar if users dial an inactive VPN rule or a dynamic rule or manual key rule, or etc.
 - (3) A "VPN DIAL" page will be displayed after users click the "Dial" icon at the end of each dial-able rule.
32. [ENHANCEMENT] Enhance LOGS GUI.
 - (1) In LOGS>Log Settings page, add "Asymmetrical Routes", "Multicasts / Broadcasts" log setting items under Access Control.
 - (2) In LOGS>View Logs page, if users check any sub log under the Access Control, but doesn't check Access Control, the checked logs will not include in the Display List field.
33. [ENHANCEMENT] The ZyWALL now records the time adjustment offset in the time synchronization successful log.
34. [ENHANCEMENT] Add log for dial backup starting and ending.
35. [ENHANCEMENT] Modify Logout screen.
If users click on LOGOUT, a popup window asking "Are you sure you want to log out?" will be displayed. And if users click "Yes", the ZyWALL will get back to the login screen, if users click "Cancel", it will go back to the previous screen.
36. [ENHANCEMENT] Add interface options (DMZ/LAN) in eWC>Logs>Reports.
37. [FEATURE CHANGE] For Connectivity Monitor,
Before: If the check point of route DNS resolve failed, the route status will be assigned to pending.
Now: If the check point of route DNS resolve failed, the route status will be assigned to DNS resolve failed and its state is down.
38. [FEATURE CHANGE]
Before:
 - (1) The system hides the roadrunner entry from being seen at nat/port forward menu.
 - (2) This entry active state is set to TRUE at initialization and negotiation state.
Now:
 - (1) This entry will appear at the end of NAT/port forward menu.
 - (2) This entry will be set to TRUE if encapsulation type is Ethernet and service type is not standard, otherwise set to FALSE.
39. [ENHANCEMENT] Remove the metric configuration field from eWC>WAN Traffic Redirect and Dial Backup Pages.
40. [ENHANCEMENT] The error message of eWC>Firewall>Summary will always be

displayed on the status bar.

41. [ENHANCEMENT] Content Filtering enhancement.
Redirect Content Filtering blocked page to a user specified URL for displaying policy.
42. [ENHANCEMENT]
 - (1) Support user config for SIP session timeout value
 - (2) Support SIP SDP multiple RTP port
 - (3) Delete unused ALG type
 - (4) CI Command for ALG enable/disable and sip timeout
43. [ENHANCEMENT] Add PAT(Port Address Translation) configuration on GUI.
44. [FEATURE CHANGE]

Before: In Call Schedule, if the "How Often" = "Once", then the "Once Date" must be bigger than "Start Date".

Now: When the "How Often" = "Once", the system will disable and ignore the "Start Date" setting.
45. [ENHANCEMENT] Add Log Consolidation into eWC>Logs>Settings GUI.
46. [ENHANCEMENT] On eWC>NAT>Port Forwarding, add Road-Runner server reserved rule to the last in Port Forwarding Rule Table.
47. [ENHANCEMENT] For LAN DHCP server, if user changes LAN IP or LAN alias 1, LAN alias 2 IPs to cause the static DHCP IP Addresses not valid. DHCP server cannot give the clients the requested STATIC IP, system will generate a centralized log.
48. [ENHANCEMENT] For LAN DHCP server, user can set static IP address in the subnet of LAN alias 1 or LAN alias 2.
49. [ENHANCEMENT] When NAT is enabled and the packet does not match any NAT rule then the packets will pass device in routing mode.
50. [ENHANCEMENT] ZyReport record DMZ and its 2 aliases logs.
Note:
 - (1) For URL, Packet, Port, change their link lists and hashes to link list arrays and hash arrays. 0 for LAN, 1 for DMZ.
 - (2) for CI command,

```
ip rpt active [0:lan|1:dmz][1:yes|0:no]
ip rpt start [0:lan|1:dmz]
ip rpt stop [0:lan|1:dmz]
ip rpt url [0:lan|1:dmz] maxnum
ip rpt ip [0:lan|1:dmz] maxnum
ip rpt srv [0:lan|1:dmz] maxnum
```
51. [ENHANCEMENT] Tuning the performance for IP Policy Route.
52. [ENHANCEMENT] Consolidate "Exceed maximum sessions per host" logs.
53. [ENHANCEMENT] Firewall can bypass AX.25 (protocol #93) & IPv6 (protocol #41) protocols.
54. [ENHANCEMENT] External content filtering supports full URL checking.
Was: External content filtering only takes domain name or IP address of URL into category checking.
Is: External content filtering put entire URL into category checking.
55. [ENHANCEMENT] Add CNM agent version control. Vantage agent needs a mechanism to maintain bug fix or feature change. When agent has any bug fix or

feature change , the agent version will be updated and checked in into trunk. User can check the agent version using ci command "cnm version".

56. [ENHANCEMENT] Firewall ACL: add source port support.
57. [ENHANCEMENT] Enhance eWC>Home "System Statistics" GUI.
 - (1) In eWC> Home page, users can click "Show Statistics" button to see the system statistics with "Table Chart" mode.
 - (2) If users want to see with "Line Chart" mode, they can click a "Line Chart" icon at the beginning of this page.
58. [ENHANCEMENT] Each unified ALG can be enabled/disabled.
CI command:
 - (1) "ip alg display" to display the enable/disable information of each ALG.
 - (2) "ip alg enable <ALG_FTP|ALG_H323|ALG_SIP>" to enable an ALG.
 - (3) "ip alg disable <ALG_FTP|ALG_H323|ALG_SIP>" to disable an ALG.
59. [ENHANCEMENT] Centralized log add
 - (1) Triangle route log switch.
 - (2) Broadcast/Multicast log switch.

Note:

Add CI commands:

 - (1) "sys logs switch".
 - (2) "sys logs switch display".
 - (3) "sys logs switch bmlog <0:no|1:yes>".
 - (4) "sys logs switch trilog <0:no|1:yes>".
60. [ENHANCEMENT] Add Source Interface check for Policy Route.
Note: The error message is "At least one Source Interface must be assigned."
61. [ENHANCEMENT] ZyReport can show LAN IP alias information.
62. [ENHANCEMENT] ZyReport can show service name by Firewall custom port.
63. [ENHANCEMENT] Modify eWC>Bridge GUI.
Add a JavaScript range check(0-240) for Bride RSTP Port Priority. Users just can input 0-240 number in RSTP Port Priority field.
64. [ENHANCEMENT] Router will show a warning message "Warning! No NAT address mapping rule configured in system" when user does not configure any NAT address mapping rule in full feature NAT.
65. [ENHANCEMENT]
 - (1) On the My Certificates>Trusted CAs>Trusted Remote Hosts, if the subject/issuer name is too long for display, it will be truncated by 3 trailing dots.
 - (2) On a certificate's Details page, the internal buffers are enlarged in order to fully display the Certification Path as well as the Certificate Information.
 - (3) On the My Certificate Create page, the max lengths of the Host Domain Name/E-Mail/Organizational Unit/Organization/Country fields are adjusted to 63 bytes.
66. [ENHANCEMENT]
 - (1) Remove the redundant log: "Time calibration is successful"
 - (2) Change wording: "Time initialized by XXX server" ==> "Time set from XXX server"
67. [ENHANCEMENT] Perform a range check on the port triggering rule ports. If an NAT port triggering rule entry has been configured (i.e., name is not empty), then its start

- port should be greater than 0.
68. [ENHANCEMENT]
Enhance FIREWALL > FIREWALL > EDIT RULE page.
(1) In FIREWALL > FIREWALL > EDIT RULE page, add hour (0 - 23) and minute (0 - 59) check for firewall schedule. If users configure the value out of the range and click Apply, the error message will be displayed in the status bar.
(2) The End time should always be greater than Start time. If users set the End time less than Start time, an error message will be displayed in the status bar.
69. [ENHANCEMENT] In Home page, set the percentage string to the center of each usage bar by using JavaScript. This modification applies to Memory, TOS Session and Policy Route usage bars.
70. [ENHANCEMENT] Modifies the default settings of Connectivity check.
Note:
(1) Default Fail Tolerance value from 2 to 3.
(2) Period range is between 5 and 300 (seconds).
(3) Timeout range is between 1 and 10 (seconds).
(4) Fail Tolerance range is between 1 and 10 (successive checks).
71. [ENHANCEMENT] Modify WLAN MAC Filter log
WLAN MAC Filter Success=>WLAN STA allowed by WLAN MAC Filter
WLAN MAC Filter Fail=>WLAN STA denied by WLAN MAC Filter
72. [ENHANCEMENT] Certificate GUI wording changes:
(1) "My Certificates Setting" ==> " My Certificates"
(2) "Trusted CA Setting" ==> "Trusted CA Certificates"
(3) "Trusted Remote Hosts Setting" ==> "Trusted Remote Host Certificates"
(4) "Directory Services Setting" ==> "Directory Services"
73. [ENHANCEMENT] NAT GUI wording change: "Trigger Port" ==> "Port Triggering"
74. [ENHANCEMENT] Modify the WAN GUI.
(1) In WAN > DialBackup page, when users click "Edit" button to setup advanced modem configuration, the WAN > Advanced Setup page will be displayed in the main frame instead of a pop-up window.
(2) If users click "Cancel" button in WAN > Advanced Setup page, it will go to the previous WAN > DialBackup page.
(3) When users click "Apply" button in WAN > Advanced Setup page, if there is an error, a message will be displayed in the status bar; if no error, the configuration will be saved and then go to the previous WAN > DialBackup page.
75. [ENHANCEMENT] The ZyWALL now uses GMT+0000 time zone when it verifies if a certificate is within its validity period. The GMT+0000 time is not adjusted to reflect changes either to or from Daylight Saving Time.
76. [ENHANCEMENT] Remove the eWC>Remote MGMT>DNS page when the ZyWALL is in Bridge Mode.
77. [ENHANCEMENT] Enhancement NAT GUI.
(1) In WAN1, WAN2 and Dial Backup page, change the wordings of "Enable Network Address Translation (NAT)" to "Enable NAT (Network Address Translation)".
(2) Change the wordings of "Port Forwarding Setup" to "Port Forwarding Rules" in Port Forwarding page.

- (3) Change the wordings of "Trigger Port Setup" to "Port Triggering Rules" in Port Triggering page.
 - (4) In Address Mapping page, change the wordings of "Address Mapping Setup" to "Full Feature Address Mapping Rules" and add "Default Address Mapping Rules" section at the beginning of this page to display the 2 SUA default rules.
 - (5) In NAT Overview page, when users click the "Copy to WAN 1" or "Copy to WAN 2" button, it will pop-up a confirm window to remind users whether to do this action or not.
78. [ENHANCEMENT] Supports Intel TE28F640 J3C120 and TE28F128 J3C150 Flash ROM when ZyWALL is programming flash and displaying flash type information by using "sys atsh".
79. [ENHANCEMENT] Modify VPN to support multiple WAN.
- (1) My IP Address is not 0.0.0.0
 - a) Support My IP address is x.x.x.x type.
 - b) Support My IP address is DDNS host name.
 - (2) My IP Address is 0.0.0.0 and secure gateway IP address is configured.
 - a) Secure gateway is in the same network with a WAN interface.
Ex: Secure gateway is 1.0.0.2 and WAN2 IP Address is 1.0.0.3
 - b) A configured Policy Route Rule
Ex: Policy Route Rule destination IP 1.0.0.x and Secure gateway 1.0.0.2
80. [ENHANCEMENT] Add "Copy to WAN 1" and "Copy to WAN 2" buttons to copy the settings of port forwarding table and trigger port table of WAN 1 or WAN 2 to that of WAN 2 or WAN 1.
81. [FEATURE CHANGE]
- Before: If router set default server in port forwarding, users will see duplicated messages while tracerouting. For example:
- ```
[c:\]tracert -d 172.21.0.254
Tracing route to 172.21.0.254 over a maximum of 30 hops
 1 <1 ms <1 ms <1 ms 192.168.1.1
 2 1 ms <1 ms <1 ms 172.21.0.254
 3 1 ms <1 ms <1 ms 172.21.0.254
Trace complete.
```
- Now: Users will see only one message while tracerouting no matter if the router set default server.
- Note: The change is that if there is an ICMP packet and its destination is the same with default server, router will not decrease TTL.
82. [FEATURE CHANGE] Remove the "Phone Number" field from SMT Menu 2.
83. [FEATURE CHANGE] Change UPnP device name for ZyWALL35  
WAS: "ZyXEL ZyWALL 35 Internet Security Gateway"  
IS: "ZyXEL ZyWALL 35 Internet Security Appliance"
84. [FEATURE CHANGE] If the SGID of device is changed then device will reset SGMP state machine (cnm reset).  
This is modified as follows:
- (1) If SGID is changed when SGMP is in the state of SGMP\_STATE\_ACTIVE, then device will reset SGMP state machine.



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- (2) If SGID is changed when SGMP is in other states, such as registering to Vantage, then device will not reset SGMP state machine.
85. [FEATURE CHANGE] Vantage doesn't support new DDNS in 3.63 firmware version currently.
86. [ENHANCEMENT] In eWC>WAN>WAN1/WAN2>PPPoE/PPTP, if users check the Nailed-Up, the Idle Timeout field will be grayed out by scripting.
87. [ENHANCEMENT] In eWC>Firewall>Rule Summary, if users input an invalid range of firewall rule and click "Apply", an error message "Valid firewall rule number: 1~xxx" will be displayed on the status bar, instead of the pop-up scripting.
88. [ENHANCEMENT] For DNS HA and Proxy, if the name of DNS query is NULL, the system will drop the packet.
89. [ENHANCEMENT] eWC>DNS>Cache table columns title should display an underline when the mouse moves over, in order to indicate that the table can be sorted by different column title.
90. [ENHANCEMENT] If users plug in wireless card and enable wireless LAN, the status of WLAN in eWC>Home>Network Status Table will display the speed of the wireless card.
91. [ENHANCEMENT] eWC/BW MGNT/Class setup page, if the user select any service(FTP, H.323 or SIP), the Destination Port, Source Port, and Protocol ID would be grayed out.
92. [ENHANCEMENT] Supports SIP ALG for ZyXEL Wi-Fi phone under P-2-P condition.
93. [ENHANCEMENT] Supports SIP ALG for ZyXEL P2002 device.

**Modifications in V3.62(WZ.2) | 06/28/2004**

Formal release.

**Modifications in V3.62(WZ.2)b1 | 06/08/2004**

1. [ENHANCEMENT] Support Vantage CNM 2.0 (Vantage Centralized Network Management).
2. [BUG FIX]  
Symptom: Trigger port will disappear after system reboot.  
Condition:
  - (1) Configure Trigger port rule.
  - (2) System reboots.
  - (3) The configured Trigger port rule disappeared.

**Modifications in V3.62(WZ.1) | 05/25/2004**

Formal release.

**Modifications in V3.62(WZ.1)b1 | 05/13/2004**

1. [BUG FIX] Symptom: TCP bandwidth usage is too low when the service is managed by Bandwidth management.  
Condition: If there is a TCP service going through ZyWALL and is managed by router's bandwidth management mechanism, the bandwidth of this service is much slower than the limited bandwidth.
2. [BUG FIX] Symptom: Bandwidth management "barrow bandwidth" mechanism is not correct  
Condition:
  - (1) Set up a sub-class A under root. A's priority is 3.
  - (2) Set up two sub-classes under A, call them B and C. Both B and C's priority is 3, too.
  - (3) When B and C are running, they can't borrow bandwidth even their "Borrow bandwidth from parent class" is checked.

**Modifications in V3.62(WZ.0) | 04/07/2004**

1. Formal release.

**Modifications in V3.62(WZ.0)b5 | 04/06/2004**

1. [BUG FIX]  
Symptom: NAT address mapping rule disappears after router reboots.  
Condition:
  - (1) In eWC→SUA/NAT→Address Mapping page
  - (2) Adds 50 rules.
  - (3) Reboots router, user can only see the first 22 rules and the other rules disappear.
2. [BUG FIX]  
Symptom: The behavior in priority-based Bandwidth Management is not correct.  
Condition:
  - (1) In eWC→BW MGMT→Summary, activates WAN1 root class with Speed = 1500 kbps and Scheduler = Priority-Based
  - (2) In eWC→BW MGMT→Class Setup, Adds two sub-classes under WAN1 root class. Where WAN1-1 : Bandwidth Budget = 200, Priority = 7(higher than WAN1-2), and "Borrow bandwidth from parent class" is selected; WAN1-2 : Bandwidth Budget = 500, Priority = 1, "Borrow bandwidth from parent class" is also selected.
  - (3) First generates traffic that satisfies WAN1-2 class, users will find WAN1-2 borrow the whole available bandwidth from parent, and the traffic is bound at about 1500kbps.
  - (4) Then generates traffic that satisfies WAN1-1 class. Users will find WAN1-1 can not borrow bandwidth from parent class and bandwidth is bound at about 200kbps even though WAN1-1 has higher priority than WAN1-2.

**Modifications in V3.62(WZ.0)b4 | 03/24/2004**

1. [BUG FIX]  
Symptom: When initiator receives wrong phase 1 ID from responder, it will jump to another rule.  
Condition: During IKE negotiation in Main mode, if responder's "Local ID Content" mismatches initiator's "Peer ID Content", initiator will do rule swap and choose another rule to negotiate.
2. [BUG FIX]  
Symptom: The daylight saving feature does not function normally. When leaving the daylight saving period, the system will not automatically adjust time.  
Condition:
  - (1) Configure current time in daylight saving.
  - (2) After the current time leaves the end date of daylight saving, the system does not adjust to correct time.
3. [BUG FIX]  
Symptom: Fixed a wording error "Use WAN IP Address" in SMT1.1.  
Condition:
  - (1) Go to SMT1.1 (Dynamic DNS).
  - (2) The words "Use WAN IP Address" should be "Use IP Address".
4. [ENHANCEMENT]  
In eWC→MAINTENANCE→Time and Date :
  - (1) The original page is separated into three parts
    - (a) Current Time and Date only displays the information about the system time and date and it's read-only.
    - (b) Time and Date Setup includes:
      - Manual (None, use no time protocol)
      - Get from Time Server (Use protocol Daytime, Time or NTP)
    - (c) Time Zone Setup: users can configure the time zone and the daylight saving.
  - (2) After pressing 'Synchronize Now' button, ZyWALL not only synchronizes with time server immediately but also stores the configurations. After pressing the synchronize button, a warning screen will appear.
  - (3) There are two different behaviors when configuring the date and time.
    - (a) If users only change the time zone and daylight saving but don't change the original time and date. The new time and date will be updated based on the new time zone and if it is in the daylight saving period.
    - (b) If users change the time or date, no matter if users change the time zone and daylight saving, ZyWALL will store the new date and time directly, regardless of the time zone and daylight saving which were configured by the user.
  - (4) In Daytime and Time protocol process, set the TCP connection timeout as 6 seconds.
  - (5) In NTP protocol process, every time server in ZyWALL's default time server list is tried 3 times at most.
5. [ENHANCEMENT]  
In eWC→HOME,
  - (1) Let text boxes of 'current time' and 'current date' looked like labels.

- (2) Changed the wording from "NAT Session" to "NAT Concurrent Session".
6. [BUG FIX]  
Symptom: Router will crash.  
Condition: Use CI command "ip urlfilter webControl cache timeout"
7. [BUG FIX]  
Symptom: SMT menu 25 shows 6 more policy route entries than predefined entry number.  
Condition:  
(1) Login SMT and go to menu 25  
(2) Press Next Page until the last page  
(3) Assume we define 24 as policy route rule number, we will see 30 rules on the last page.
8. [BUG FIX]  
Symptom: Can't set wireless channel ID when country code is 219 (France).  
Condition:  
(1) Set country code with 219.  
(2) Set channel ID with 6 - 13 via SMT or eWC.  
(3) After applying changes, the channel ID will restore to 1.
9. [ENHANCEMENT]  
In eWC→MAINTENANCE→Time and Date:  
(1) Changed the warning message displayed when router is synchronizing with Time Server.  
(2) Removed the data format for current time and current date.  
(3) Added a note for reminding users of that "Time Server Address" is Optional. There is a pre-defined NTP time server list.
10. [ENHANCEMENT]  
The ZyWALL now also records the time server address (domain name or IP address) in the time synchronization result (successful or failed) logs.
11. [BUG FIX]  
Symptom: After successful time synchronization with LAN side NTP server, the "Destination" IP address for LOG message "Time initialized by NTP server" is WAN IP address.  
Condition:  
(1) Go to eWC→MAINTENANCE→Time Setting  
(2) Choose "Time Protocol" as "NTP(RFC-1305)"  
(3) Setup "Time Server Address" as a server located at LAN side.  
(4) Click Apply and then press "Synchronize Now".  
(5) Go to eWC→LOGS→View Log, will see a log "Time initialized by NTP server" where the "Destination" address is router's WAN IP address, it should be router's LAN IP address.
12. [FEATURE CHANGE]  
Was: When user access web sites which is in LAN IP alias or DMZ, content filter will check these traffic need to block or not.  
Is: Content filter does not block web traffic if the web site is in router's LAN/LAN IP Alias/DMZ.
13. [BUG FIX]

Symptom: Some trusted web sites' pictures cannot be seen.

Condition:

- (1) In "eWC→CONTENT FILTER→Customization", select "Disable all Web traffic except for trusted Web sites" and "Don't block Java/ActiveX/Cookies/Web proxy to trusted Web sites".
- (2) At the same page, add "kobeoffshore.com" to "Trusted Web Sites".
- (3) Open web browser to access "kobeoffshore.com".
- (4) All the pictures cannot be seen.

14. [BUG FIX]

Symptom: The router crashes after the user configures the log setting.

Condition:

- (1) Go to eWC→LOGS→Log settings page.
- (2) Configure Mail Server, Mail Subject, Send log to, Active Syslog Logging fields and choose all check boxes under "Send Immediate Alert".
- (3) Connect WAN1 to network.
- (4) The system will crash after getting DHCP address.

15. [BUG FIX]

Symptom: Responder will jump to wrong VPN rule when current rule's phase 2 parameter is wrong.

Condition:

Initiator -----NAT router ----- Responder

- (1) Initiator has one VPN rule in which NAT traversal is on.
- (2) In responder, there are two VPN rules.
  - Rule 1: NAT traversal is on, and phase 2 parameters are wrong.
  - Rule 2: NAT traversal is off, and all other parameters are correct.
- (3) Trigger tunnel from initiator, and responder will use rule 1 to negotiate.
- (4) When phase 2 negotiation starts, responder found rule 1's parameters are wrong, and will jump to rule 2.
- (5) Negotiation will keep going and tunnel will be up.

16. [ENHANCEMENT]

If the Local/Remote Address Type is "Subnet Mask", the "Local/Remote IP Address" in VPN summary table must be like "1.1.1.1 / 255.0.0.0".

WAS: "1.1.1.1 - 255.0.0.0"

IS: "1.1.1.1 / 255.0.0.0"

17. [BUG FIX]

Symptom: In SSH connection, if users paste a large number data into CI command then the system will crash.

Condition:

- (1) Create SSH connection.
- (2) Enter the CI command mode.
- (3) Paste a large number data as command.
- (4) The system will crash.

18. [BUG FIX]

Symptom: NAT loopback fail.

Condition:

- (1) Host A runs FTP server in ZyWALL's LAN side.

- (2) Turn on SUA and NAT loopback on ZyWALL.
  - (3) Configure default server to host A.
  - (4) Turn on Firewall.
  - (5) Host A runs FTP client and connect to ZyWALL's WAN IP.
  - (6) Connection fails.
19. [FEATURE CHANGE]  
Add more information about content filter's error events in centralized log and block message. When the packet was blocked because of error happens.  
For centralized log:  
Was: The blocked log displays "domain" in the message filed.  
Is: The blocked log display <domain>: <reason> in the message files. The wording of reasons contains:  
(1) "Waiting content filter server timeout"  
(2) "DNS resolving failed"  
(3) "Creating socket failed"  
(4) "Connecting to content filter server fail"  
(5) "License key is invalid"  
For block message:  
Was: The blocked page only shows a deny message if the license key of external content filter is invalid.  
Is: The blocked page will show <Deny message> : "License key is invalid" in this case.
20. [FEATURE CHANGE]  
Give different returned error message between timeout and invalid license in eWC→CONTENT FILTER→Categories→Test Against Internet Server  
Was: It returns "Request error" if the license key of external content filtering is invalid or the request is timeout.  
Is:  
(1) It returns "Request timeout" if the request is timeout  
(2) It returns "License key is invalid" if the license key is invalid.
21. [BUG FIX]  
Symptom: Router will crash.  
Condition:  
(1) In eWC→CONTENT FILTER→General, select "Enable Content Filter" and click "Apply"  
(2) In eWC→CONTENT FILTER→Categories, select "Enable External Database Content Filtering" and at least one category in "Select Categories". Click "Apply" after selection.  
(3) Open web browser and access a web site which belongs to the category you select in step 2.  
(4) In eWC→CONTENT FILTER→Categories, un-select the category selected in step 2 and keep at least one category is selected. Click "Apply" after selection.  
(5) Repeat step 3 immediately after step 4.  
(6) Router will crash or hang.
22. [BUG FIX]  
Symptom: No firewall checking when using dial backup connection.  
Condition:

- (1) Setup dial backup environment.
- (2) Enable firewall and block WAN to WAN traffic.
- (3) Pull out the WAN line and make dial backup turn on.
- (4) Try to FTP to firewall WAN ip address from outside workstation.
- (5) Firewall will not block the ftp connection.

Note: to enable Firewall checking for Dial Backup, please re-configure and save Dial Backup configuration again.

23. [BUG FIX]

Symptom: Content filter cannot work under traffic redirect.

Condition:

- (1) Set router's traffic redirect check point as a PC or router in LAN or DMZ
- (2) Force router to traffic redirect.
- (3) All web traffic will bypass content filter.

24. [BUG FIX]

Symptom: In VPN negotiation, if responder jumps to a new rule which has empty phase 1 peer ID content, tunnel will not be up.

Condition: There are two rules in responder and one rule in initiator. All rules in initiator and responder are in aggressive mode.

Responder: Rule 1: dynamic rule (Secure gateway IP is 0.0.0.0).

Rule 2: static rule with wrong phase 2 ID.

Both rule 1 and rule 2 has empty phase 1 peer ID (i.e., in SMT menu 27.1.1, "Peer ID Content" is empty).

When trigger tunnel from initiator, negotiation will fail.

25. Symptom: Responder will jump to wrong rule when phase 1 parameter of current rule is wrong.

Condition: There is one rule in initiator and three rules in responder.

Initiator:

Rule 1==> Negotiation mode = pre-shared key. Encapsulation mode = Tunnel mode.

Responder:

Rule 1==> Negotiation mode = Certificate. Encapsulation mode = Tunnel mode.

Phase 2 local ID is wrong.

Rule 2==> Negotiation mode = pre-shared key. Encapsulation mode = Transport mode.

Phase 2 local ID is wrong.

Rule 3==> Negotiation mode = pre-shared key. Encapsulation mode = Tunnel mode.

Phase 2 ID is correct. (This rule should be chosen eventually).

When trigger tunnel from initiator, responder will use Rule 1 to negotiate and then jump to Rule 2. And eventually tunnel won't be up because initiator ID mismatches during phase 2 negotiation.

26. [BUG FIX]

Symptom: Firewall eWC available service only shows max 60 entries, including predefined ports(services) and custom ports. Currently there are 43 predefined ports. If user defines more than eighteen custom ports, some of the predefined ports will not be on the eWC list.

Condition:

- (1) There are 43 predefined ports on the firewall eWC available services.
- (2) Add more than 18 custom ports. Some of the predefined ports will not be on the

eWC list.

27. [BUG FIX]

Symptom: CI command error, ZyWALL will show some CI commands which don't belong to current command set.

Condition:

- (1) Go to SMT 24.8, CI command mode.
- (2) Type "ip dns system", ZyWALL will correctly print two available commands, "edit" and "display".
- (3) Type "ip dns sys", ZyWALL will unexpectedly print nine available commands instead of two. Those extra seven commands are not under "ip dns system".

28. [BUG FIX]

Symptom: DHCP client cannot get address from router.

Condition:

- (1) In eWC→LAN→LAN, configure router as a DHCP server and set IP pool starting address as 192.168.1.33
- (2) In eWC→LAN→Static DHCP, configure all rules in static DHCP table and the IP addresses are 192.168.1.33~192.168.1.40.
- (3) Use a PC which MAC address is not in the static DHCP table to get a IP address from router.
- (4) The PC cannot get the IP address.

29. [BUG FIX]

Symptom: The ZyWALL will reset the current eWC HTTP session even when the LAN IP configuration is not successfully changed. Under this situation, users have to re-log in the ZyWALL.

Condition:

- (1) Log in ZyWALL eWC, and go to eWC→LAN.
- (2) Deliberately configure the LAN IP address as within the WAN subnet.
- (3) Click Apply, then the status will show an error message indicating address conflict.
- (4) The ZyWALL will then automatically break the current eWC HTTP session. To access the ZyWALL, users have to log in again.

30. [ENHANCEMENT]

Support Intel 16Mbytes Flash ROM.

31. [ENHANCEMENT]

In WC→LAN→Port Roles and eWC→DMZ→Port Roles :

- (1) When users change port roles. ZyWALL needn't be rebooted.
- (2) Add a waiting page to warn users that the ZyWALL is re-configuring its hardware, and during this period, users might not access ZyWALL momentarily.

**Modifications in V3.62(WZ.0)b3 | 02/16/2004**

1. [FEATURE CHANGE] Extend eWC→static route number from 30 to 50
2. [FEATURE CHANGE] Change eWC→policy route number from 72 to 48
3. [FEATURE CHANGE] Extend rule number in eWC→SUA/NAT→SUA Server from 30 to 50.
4. [FEATURE CHANGE] Extend NAT session number from 2,048 to 10,000



5. [FEATURE CHANGE] Extend Firewall max rule number from 100 to 200
6. [FEATURE CHANGE] Extend Cerberian content filter max connection number from 20 to 50
7. [FEATURE CHANGE] Extend number of classes from 20 to 50 for Bandwidth Management
8. [FEATURE CHANGE] Extend number of filters from 20 to 50 for Bandwidth Management
9. [FEATURE CHANGE] Extend max depth of classes in the tree from 1 to 3 for Bandwidth Management
10. [FEATURE CHANGE] Extend Certificate buffer size from 32K to 64K
11. [ENHANCEMENT]  
Support wireless driver B100+B120+G100
12. [ENHANCEMENT]  
Content filter supports to block two kinds of special URL.  
(1) URL has the '@' sign. For example, <http://zyxel@209.247.228.201>  
(2) IP address is transferred to decimal. For example, <http://209.247.228.201> ==> <http://3522684105>
13. [ENHANCEMENT]  
Enhance fatal error log. When a fatal error occurs, system will reboot. In the past, there is no useful information before rebooting. Now, there will be some error logs shown on console before system reboots.
14. [BUG FIX]  
Symptom: SMT Menu 27.1.1 "Peer ID Type" behavior is wrong when authentication method is pre-shared key.  
Condition:  
(1) In Menu 27.1.1, change "Peer ID Type". For example, change "Peer ID Type" from IP to DNS.  
(2) Go to Menu 27.1.1.1  
(3) Go back to Menu 27.1.1 by pressing "Esc" button.  
(4) "Peer ID Type" is still "IP", which should be "DNS" in this case.
15. [BUG FIX]  
Symptom: SSH can't restrict server access.  
Condition: In eWC-->Remote Management-->SSH: Whatever users choose in "Server Access", users can always access server in any interface.
16. [ENHANCEMENT]  
The centralized log mechanism will merge repeated content filter license error logs into a single log, instead of showing the log repeatedly.  
Note: System will count the number of repeated content filter license error logs, and append this information to the log message.
17. [BUG FIX]  
Symptom: If there are more than 10 VPN tunnels, the 10th tunnel in Current IPSec Security Associations table (eWC>Home>VPN Status) will be covered by the bottom frame.  
Condition:  
(1) Open eWC.  
(2) Go to "Home" page.

- (3) Click VPN Status button.
- (4) If there are more than 10 VPN tunnels, the 10th tunnel in Current IPSec Security Associations table will be covered by the bottom frame.
- 18. [BUG FIX]  
Symptom: IKE negotiation will success when PFS parameter is different between Initiator and Responder.  
Condition:
  - (1) Initiator has only one rule without PFS.
  - (2) Responder has only one rule with PFS parameter is DH1.
  - (3) Initiator dial to Responder.
  - (4) Tunnel establishment will success, but should fail in this case.
- 19. [BUG FIX]  
Symptom: EWC wording error.  
Condition: In eWC -> "Login" page -> "Replace Factory Default Certificate" page: wording "Ingore" spelling error.
- 20. [BUG FIX]  
Symptom: EWC wording error.  
Condition: In eWC -> "MAINTENANCE" page -> "Time Setting" page: wording "Dalight" spelling error.
- 21. [BUG FIX]  
Symptom: EWC cannot show correct NAT session usage in "HOME" page of backup line mode.  
Condition:
  - (1) Switch active WAN to WAN2 or Dial Backup in backup line mode.
  - (2) In eWC -> "HOME" page, the NAT session usage is incorrect.
- 22. [BUG FIX]  
Symptom: Router will reply the ping packet on behave of the NAT default server located on LAN.  
Condition:
  - (1) Set NAT default server IP address to an address on LAN.
  - (2) Ping from WAN side to the NAT default server IP address.
  - (3) Router will reply the ping on behave of the NAT default server, which then never receives the ping packet and thus never replies it.
- 23. [BUG FIX]  
Symptom: In ZW35 eWC home page, the NAT session is always 2048.  
Condition: When ZW35 boots up, the NAT session number is always 2048.
- 24. [BUG FIX]  
Symptom: In eWC, the system cannot display the login page when the eWC connection has timed out (or disconnected) and the user clicks on an eWC button.  
Condition:
  - (1) Log in eWC.
  - (2) Enter console mode to disconnect eWC.
  - (3) Click buttons, such as Apply and Refresh, in eWC.
  - (4) The browser will show "Object Not Found".
- 25. [BUG FIX]  
Symptom: In the SMT menu 11 and eWC, the user cannot assign the Ethernet static IP

of the WAN2.

Condition:

- (1) Log in SMT.
- (2) Enter menu 11 to configure WAN2.
- (3) Configure a Ethernet static IP in the menu 11.3
- (4) The router cannot store this configuration.

26. [BUG FIX]

Symptom: PC can't setup TCP connections via ZyWall to the internet when ZyWALL's WAN encapsulation is PPTP.

Condition:

- (1) Set WAN encapsulation with PPTP.
- (2) Setup a TCP connection to the internet. For example : Use browser to create an HTTP connection.
- (3) Browser won't retrieve any information because ZyWALL always resets TCP connections.

27. [BUG FIX]

Symptom: Traceroute or PingPlotter are not able to discover ZyWALL's LAN interface.

Condition:

- (1) Running Traceroute or PingPlotter on desktop.
- (2) Both applications can not discover ZyWALL's LAN interface.
- (3) Firewall log shows "Unsupported/out-of-order ICMP: ICMP(type:11, code:0)".

28. [ENHANCEMENT]

- (1) Re-layout the zw35 Port Roles pages to fix the out of alignment problem when users set Windows OS font size to "Large".
- (2) Modify the CSS by adding IP field width to fix the problem that the IP Address field will become two lines when users set Windows OS font size to "Large".

29. [BUG FIX]

Symptom: X-Auth behavior in VPN rule setting page isn't correct.

Condition:

- (1) eWC-->VPN-->Extended Authentication: Do not select "Enable Extended Authentication" ( X-Auth is disabled).
- (2) Select "Client mode" and keep "User name" and "Password" empty.
- (3) VPN rule can't be saved and message "Both User Name and Password are required " shows on "Status".

30. [BUG FIX]

Symptom: On IE, the BWM (Bandwidth Management) tree view can be expanded and collapsed. But on Mozilla, BWM tree can't be expanded or collapsed.

Condition:

- (1) Go to eWC>BW MGMT>Class Setup
- (2) If there is no any sub-class, use the 'Add Sub-Class' button to add one.
- (3) Go back to eWC>BW MGMT>Class Setup, click the hyperlink in BWM tree, the tree can't be expanded.

31. [ENHANCEMENT]

- (1) After the ZyWALL sends an update request to DDNS server and receives a return code from DDNS server, the ZyWALL will record the return code in centralized log.
- (2) The IP address of the last update request will be recorded in centralized log.

- (3) Once the user changes the hostname in the SMT menu 1.1 or Web, ZyWALL will send an update request to DDNS.
  - (4) When the ZyWALL receives an error code from the DDNS server, ex: "badauth", "nohost", "abuse", it will stop updating.
  - (5) When the user chooses the option (Let the DNS server auto detect the IP Address) to use CheckIP (Server Auto Detect) to determine the current IP address, the request string to checkip.dyndns.org sent by the ZyWALL is ended with "CRLF CRLF".
  - (6) By DyDNS.org's abuse policy, the force update period is changed from 5 days to 28 days.
  - (7) Let wordings in SMT1.1 and the DDNS web page to be consistent.
32. [BUG FIX]  
Symptom: The ZyWALL will send updates when the user has not entered a userid or password or all host names.  
Condition: Set a userid or password or host names as empty one in the SMT menu 1.1 or Web.
33. [BUG FIX]  
Symptom: Fixed a wording error "domian name" in eWC>CONTENT FILTER>Categories.  
Condition:  
(1) Go to eWC>CONTENT FILTER>Categories>Test Web Site Attribute>Test Web Site Attribute (an edit box).  
(2) The words next to the edit box is mis-spelled as "Domian name".
34. [BUG FIX]  
Symptom: Fixed a wording error "DNS Server" in eWC>WAN>DDNS.  
Condition:  
(1) Go to eWC>WAN>DDNS>IP Address Update Policy> DNS server auto detect IP Address(a radio button). Or go to SMT1.1>DNS Server Auto Detect IP Address.  
(2) The words "DNS server" in "DNS server auto detect IP Address" should be "DDNS server".
35. [BUG FIX]  
Symptom: Router will crash.  
Condition:  
(1) A host connects to router.  
(2) User accesses website then disconnect.  
(3) After 2 hours, user accesses website again.
36. [BUG FIX]  
Symptom: In eWC->UPnP->UPnP Setup, the "Note: For UPnP to function normally, the HTTP service must be available for LAN computers using UPnP." is missing, the <HR> is missing, the Apply and Reset buttons are aligned left.  
Condition:  
(1) Go to eWC->UPnP->UPnP Setup page.  
(2) "Note: For UPnP to function normally, the HTTP service must be available for LAN computers using UPnP." is missing.  
(3) <HR> HTML line is missing.  
(4) Apply and Reset buttons are aligned left on this page.
37. [BUG FIX]

Symptom: LAN host cannot access Internet.

Condition: When one host continuously tries to setup a new connection, sometimes it fails and the host never can access Internet.

38. [ENHANCEMENT]

Pause console display when the NAT session information fills a console screen.

39. [BUG FIX]

Symptom: Console hangs when editing VPN rule at SMT menu 27.1

Condition:

(1) Go to SMT menu 27.1 and edit a new rule.

(2) Leave "Name" field blank, enter "Edit IKE Management Setup" directly.

(3) Press ESC return to previous menu.

(4) Console hangs.

40. [BUG FIX]

Symptom: System memory leak and eventually causing the reboot.

Condition:

(1) Start collecting data in eWC->LOGS->Reports or using CI command "ip rpt start".

(2) Run for a very long time.

(3) System will run out of memory and become very unstable.

41. [BUG FIX]

Symptom: Warning message of the SMT11 and WAN web page is wrong.

Condition:

(1) Configure WAN1 IP address to be a static IP address in the SMT11.3 or WAN web page.

(2) Continue to configure WAN2 IP address to be a static IP address that is in the same network with LAN or DMZ or WAN1.

(3) The warning message of the SMT or WEB will keep appearing "WAN must not be on same subnet as LAN" even it may be in the same network with WAN1 or DMZ.

42. [BUG FIX]

Symptom: Internet access wizard is always opened in the Ethernet mode.

Condition:

(1) Go to eWC>Home>Internet Access Wizard or eWC>WAN>WAN1 and configure settings as the PPTP or PPPoE mode.

(2) Go back to eWC>Home>Wizard and click the Internet Access button.

(3) Wizard always display in Ethernet mode no matter ZyWALL is in PPTP/PPPoE.

43. [BUG FIX]

Symptom: Internet access wizard displays the wrong value of remote IP/subnet mask in PPTP/PPPoE mode.

Condition:

(1) Go to eWC>Home>Internet Access Wizard or eWC>WAN>WAN1 and configure PPTP's My IP Address.

(2) Go back to eWC>Home>Wizard and click the Internet Access button.

(3) Change to PPTP mode.

(4) Remote IP/subnet mask of PPTP/PPPoE mode are different from eWC>WAN>WAN1 and SMT11.1.

44. [BUG FIX]

Symptom: eWC>LOGS>Log Settings, E-mail Log Settings, if Log Schedule = None,

the "Day for Sending Log" option is not grayed out.

Condition:

(1) Go to eWC>LOGS>Log Settings>E-mail Log Settings on Netscape, Mozilla or Firebird.

(2) The checkbox 'Day for Sending Log' needs to be grayed out when the checkbox 'Log Schedule' is not chosen as 'weekly'.

45. [BUG FIX]

Symptom: Router crashed and reboot when editing SMT menu 3.5

Condition:

(1) Insert WLAN card, then restart router.

(2) In CI command, enter "wlan active 11" instead of "wlan active 1" to active WLAN on router.

(3) Enter SMT 3.5, router crashed and reboot.

46. [BUG FIX]

Symptom: ZyWALL cannot establish IPSec connection to SSH Sentinel.

Condition: When ZyWALL and Sentinel both enable XAUTH, the IKE negotiation will fail.

47. [BUG FIX]

Symptom: IPSec XAUTH cannot work with SoftRemote version 8.0.0

Condition:

(1) Configure corresponding IPSec rule with XAUTH on SoftRemote and ZyWALL.

(2) Trigger SoftRemote IPSec rule.

(3) SoftRemote log shows "no proposal chosen" and connection fails.

48. [FEATURE CHANGE]

Modify wireless channel ID mapping table with Country code setting.

49. [FEATURE CHANGE]

Modify the Time & Date setting policy.

(1) Wording in SMT menu 24.10: Time Protocol= None -> Manual.

(2) Only under Manual mode, users can set the New Time & New Date.

(3) If users change the Time Zone without modifying the New Time or New Date, the system time will automatically be shifted according to new Time Zone.

(4) If users change the Time Zone and also modify the New Time or New Date, the system time will be updated to the New Time and New Date, disregarding the new Time Zone.

Note: This enhancement only works in SMT24.10 now.

50. [BUG FIX]

Symptom: Router will crash.

Condition: When using "ip nat hash" command, router will crash.

51. [BUG FIX]

Symptom: When the Ethernet chip VT6105 operates under Half Duplex mode, its TX functionality might hang permanently due to severe collisions.

Condition:

(1) Connect the ZW35 WAN1 (or LAN port) to a 10M Hub so that the port will operate in 10M/Half-Duplex mode.

(2) Generate a lot of traffic over the 10M Hub.

(3) Have the ZW35 WAN1 port (or LAN port) continuously transmit a lot of packets.

- (4) After an indefinite time period, the ZW35 WAN1 port (or LAN port) might permanently fail to transmit packets, as a result of too severe collisions.
52. [BUG FIX]  
Symptom: IPsec NAT-Traversal can not work.  
Condition:  
(1) Setup NAT-Traversal rule at Initiator and Responder, both sides are Tunnel encapsulation mode.  
(2) Connect from Initiator side.  
(3) Tunnel can not be established.
53. [BUG FIX]  
Symptom: Rule swap failed when NAT-Traversal is on.  
Condition:  
(1) Initiator setup one NAT-Traversal rule and transport encapsulation mode.  
(2) Responder setup two NAT-Traversal rules, the first is tunnel mode, and the second is transport mode.  
(3) Initiator starts to establish connection for the transport mode rule.  
(4) IKE negotiation will fail.
54. [BUG FIX]  
Symptom: IPSec rule swap is fail with NAT traversal.  
Condition:  
Initiator -----NAT Router -----Responder  
(1) Initiator has one rule with NAT Traversal on.  
(2) Responder has two rules:  
- Rule 1: NAT Traversal is on, and phase 2 ID is wrong.  
- Rule 2: NAT Traversal is off, and phase 2 ID is correct.  
- All other parameters in rule 1 and rule 2 are correct.  
(3) Dial tunnel from initiator. Responder will use rule 1 to start negotiate.  
(4) In phase 2, since phase 2 ID is wrong, responder will swap to rule 2 and eventually tunnel will be up because system won't check NAT Traversal flag when swapping the rule.
55. [BUG FIX]  
Symptom: ICMP packet of NAT loopback will be blocked by Firewall.  
Condition:  
(1) Enable Firewall.  
(2) NAT default server is set to host A.  
(3) Turn on NAT loopback.  
(4) Host A pings router's WAN IP address.  
(5) Host A does not receive echo reply packet and Firewall log shows "Land Attack".
56. [FEATURE CHANGE]  
Change behavior when router detects that the external content filter's license key is invalid.  
Was: Disable external content filter and add a centralized log "Content filter's license key expired! disable web control."  
Is: Don't disable external content filter and add a centralized log "External content filtering's license key is invalid."
57. [FEATURE CHANGE]

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When user registers external content filter, the traffic will not be blocked by "blocking JAVA" option.

Was: When user registers external content filtering and content filter's "blocking JAVA" option is selected, the traffic will be block by content filtering.

Is: The web traffic to content filter's registration site is always forwarded by content filtering.

Note: The protection does not work when system's DNS servers are not set properly.

58. [ENHANCEMENT]

Implement the timeout mechanism on content filter's local cache. Once the cache entry is timeout, it will be delete.

Note: User can set the cache time via CI command "ip urlfilter webControl cache timeout". The unit of setting is hour. Router checks whether there are timeout entries every 30 minutes.

**Modifications in V3.62(WZ.0)b2 | 01/13/2004**

1. [BUG FIX]

Symptom: Configure VPN rule at eWC fails

Condition:

(1) Edit an VPN rule, choose Certifiacte authentication method and E-mail as Peer ID Type.

(2) Fill in the Content field with peer's E-Mail ID Content value generated by default certificate.

(3) eWC will show "The maximum ID Content length of DNS or E-Mail is 32 characters" at Status bar.

2. [ENHANCEMENT] On Log Settings page ( Send Log - Time for Sending Log ), added range check for time format.

3. [BUG FIX ] In eWC Firewall->Threshold, the field 'Deny new connection request for ... minutes' can't store the value 256. And also added a range checking in the fix.

4. [ENHANCEMENT] Added a blank space in Perfect Forward Secrecy(PFS) of VPN - VPN RULE - EDIT - ADVANCED.

5. [BUG FIX]

Symptom: Nat incikeport command can not work in autoexec.net.

Condition:

(1) Goto SMT 24.8

(2) Type "sys edit autoexec.net" and add "ip nat incikeport enifl on" after "ip nat lookback on" .

(3) Reboot ZyWall

(4) After reboot, the error message "The nat table of iface enifl is not allocated" will pop up.

6. [ENHANCEMENT] Add a new firewall service type - Roadrunner(TCP/UDP:1026)

7. [BUG FIX]

Symptom: Content filter cannot block cookie content for some web sites.

Condition:

(1) Enable "block cookie" in eWC.



- (2) Access <http://www.tomshardware.com> from PC.
- (3) PC has cookie contents which are written from the web site. The cookie contents should be blocked by router.
- 8. [BUG FIX]  
Symptom: When system's WAN mac is changed to any PC's mac attached on LAN, LAN traffic will be blocked and can not access Internet for a period of time.  
Condition:
  - (1) Change system's WAN mac to any PC's mac attached on LAN.
  - (2) PC ping system's LAN IP.
- 9. [BUG FIX]  
Symptom: HOME/Internet Access , the Ethernet service type is always "Standard", and can not set other service type  
Condition:
  - (1) In eWC, HOME->Internet Access
  - (2) Choose Ethernet encapsulation and change service type
  - (3) After refreshing page, service type was not be changed
- 10. [BUG FIX]  
Symptom: In eWC, HOME->Internet Access , the ethernet fixed ip address is always 0.0.0.0  
Condition:
  - (1) Goto eWC->WAN, setup a fixed up with Ethernet Encapsulation
  - (2) Goto HOME->Internet Access, Press Next
  - (3) IP address is always 0.0.0.0, it should be IP address configured in step 1
- 11. [BUG FIX]  
Symptom: In eWC, HOME->Internet Access , the default Login Server IP Address of Ethernet service type RR-Toshiba / RR-Manager / RR-Telstra is "0.1.0.0"  
Condition:
  - (1) Goto eWC->HOME->Internet Access.
  - (2) Choose Ethernet encapsulation and service type RR-Toshiba / RR-Manager / RR-Telstra
  - (3) The default Login Server IP is 0.1.0.0
- 12. [BUG FIX]  
Symptom: The "Show Statistics" button is missing on eWC->HOME page  
Condition:
  - (1) Goto eWC->HOME
  - (2) "Show Statistics" button is missing.
- 13. [BUG FIX]  
Symptom: Router will display "File size is changing: done" everytime the router is rebooting.  
Condition:
  - (1) Reboot system.
  - (2) Router will display "File size is changing: done" even without processing rom convert.
  - (3) It happens everytime when rebooting system.
- 14. [ENHANCEMENT]  
Add GUI for the new feature of configurable port setting. Using this new feature, users

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can dynamically set LAN/DMZ port roles.

**Modifications in V3.62(WZ.0)b1 | 12/29/2003**  
First Release.

## **Appendix 1 Remote Management Enhancement (Add SNMP & DNS Control)**

### **New function**

- (1) You can change the server port.
- (2) You can set the security IP address for each type of server.
- (3) You can define the rule for server access. (WAN only/LAN only, None, ALL).
- (4) The secure IP and port of the SNMP server is read only
- (5) The port of the SNMP and DNS server is read only.
- (6) The default server access of the SNMP and DNS is ALL.

### **Modification**

- (1) The default value for Server access rule is **ALL**.
- (2) Under the default setting: You can setup the Menu 15 to forwarding the server to LAN IP address. Thus you can configure the router through the WAN and you don't need to modify the server management or filter.

#### **Menu 24.11 - Remote Management Control**

```
TELNET Server: Port = 23 Access = ALL
 Secure Client IP = 0.0.0.0
FTP Server: Port = 21 Access = ALL
 Secure Client IP = 0.0.0.0
SSH Server: Certificate = auto_generated_self_signed_cert
 Port = 22 Access = ALL
 Secure Client IP = 0.0.0.0
HTTPS Server: Certificate = auto_generated_self_signed_cert
 Authenticate Client Certificates = No
 Port = 443 Access = ALL
 Secure Client IP = 0.0.0.0
HTTP Server: Port = 80 Access = ALL
 Secure Client IP = 0.0.0.0
SNMP Service: Port = 161 Access = ALL
 Secure Client IP = 0.0.0.0
DNS Service: Port = 53 Access = ALL
 Secure Client IP = 0.0.0.0
Press ENTER to Confirm or ESC to Cancel:
```

## Appendix 2 Trigger Port

### Introduction

Some routers try to get around this "one port per customer" limitation by using "triggered" maps. Triggered maps work by having the router watch *outgoing* data for a specific port number and protocol. When the router finds a match, it remembers the IP address of the computer that sent the matching data. When the requested data wants to come back *in* through the firewall, the router uses the port mapping rules that are linked to the trigger, and the IP address of the computer that "pulled" the trigger, to get the data back to the proper computer.

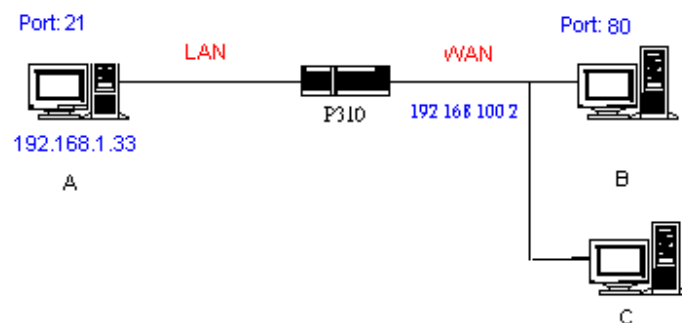
These triggered events can be timed so that they erase the port mapping as soon as they are done with the data transfer, so that the port mapping can be triggered by another Client computer. This gives the *illusion* that multiple computers can use the same port mapping at the same time, but the computers are really just taking turns using the mapping.

### How to use it

Following table is a configuration table.

| Name                      | Incoming          | Trigger      |
|---------------------------|-------------------|--------------|
| <b>Napster</b>            | <b>6699</b>       | <b>6699</b>  |
| <b>Quicktime 4 Client</b> | <b>6970-32000</b> | <b>554</b>   |
| <b>Real Audio</b>         | <b>6970-7170</b>  | <b>7070</b>  |
| <b>User</b>               | <b>1001-1100</b>  | <b>1-100</b> |

### How it works



For example, you are running a FTP Server on port 21 of machine A. And you may want this server accessible from the Internet without enabling NAT-based firewall. There are one Web Server on port 80 of machine B and another client C on the Internet.

- (1) As Prestige receives a packet from a local client A destined for the outside Internet machine B, it will check the destination port in the TCP/UDP header to see if it matches the setting in "Trigger Port" (80). If it matches, Prestige records the source IP of A (192.168.1.33) in its internal table.
- (2) Now client C (or client B) tries to access the FTP server in machine A. When Prestige to forward any un-requested traffic generated from Internet, it will first check the rules in port forwarding set. When no matches are found, it will then check the "Incoming Port". If it matches, Prestige will forward the packet to the recorded IP address in the

internal table for this port. (This behavior is the same as we did for port forwarding.)

- (3) The recorded IP in the internal table will be cleared if machine A disconnect from the sessions that matches the "Trigger Port".

**Notes**

- (1) Trigger events can't happen on data coming from *outside* the firewall because the NAT router's sharing function doesn't work in that direction.
- (2) Only one computer can use a port or port range at a time on a given real (ISP assigned) IP address.

### **Appendix 3 Hard-coded packet filter for "NetBIOS over TCP/IP" (NBT)**

The new set C/I commands is under "sys filter netbios" sub-command. Default values of any direction are "Forward", and trigger dial is "Disabled".

There are two CI commands:

- (1) "sys filter netbios disp": It will display the current filter mode.

Example output:

```
===== NetBIOS Filter Status =====
LAN to WAN: Block
WAN to LAN: Forward
IPSec Packets: Forward
Trigger Dial: Disabled
```

- (2) "sys filter netbios config <type> {on|off}": To configure the filter mode for each type. Current filter types and their description are:

| Type | Description        | Default mode |
|------|--------------------|--------------|
| 0    | LAN to WAN         | Forward      |
| 1    | WAN to LAN         | Forward      |
| 6    | IPSec pass through | Forward      |
| 7    | Trigger dial       | Disabled     |

Example commands:

```
sys filter netbios config 0 on => block LAN to WAN NBT packets
sys filter netbios config 1 on => block WAN to LAN NBT packets
sys filter netbios config 6 on => block IPSec NBT packets
sys filter netbios config 7 off => disable trigger dial
```

## Appendix 4 Traffic Redirect/Static Route Application Note

### Why traffic redirect/static route be blocked by ZyWALL

ZyWALL is the ideal secure gateway for all data passing between the Internet and the LAN. For some reasons (load balance or backup line), users want traffics be re-routed to another Internet access devices while still be protected by ZyWALL. The network topology is the most important issue. Here is the common example that people misemploy the LAN traffic redirect and static route.

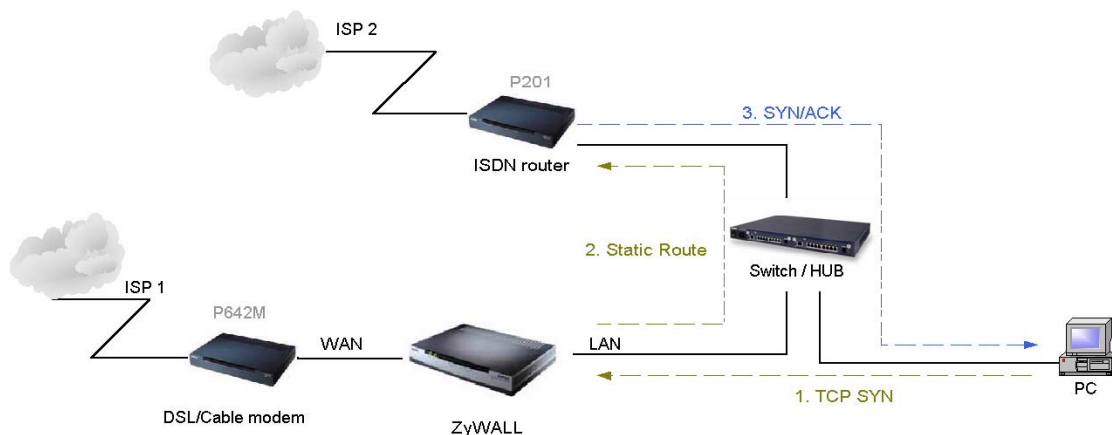


Figure 5-1 Triangle Route

Figure 5-1 indicates the triangle route topology. It works fine with turn off firewall. Let's take a look into the perspective toward this situation.

- Step 1. PC sends outgoing traffics through ZyWALL because default gateway assigned to it.
- Step 2. Then, ZyWALL will redirect the traffics to another gateway (ISDN/Router) as we expect.
- Step 3. But the return traffics do not go through ZyWALL because the gateway (say, P201) and the PC are on the same IP network. **Any traffic will easily inject into the protected network area through the unprotected gateway.**
- Step 4. When firewall turns on, it could be worse. ZyWALL will check the outgoing traffics by ACL and create dynamic sessions to allow legal return traffics. For Anti-DoS reason, ZyWALL will send RST packets to the PC and the peer because it never received TCP SYN/ACK packet.

That causes all of outgoing TCP traffics being reset!

### How traffic redirect/static route works under protection - Solutions

#### (1) Gateway on alias IP network

IP alias allows you to partition a physical network into different logical IP networks over the same Ethernet interface. The ZyWALL supports three logical LAN interfaces via its single physical Ethernet interface with the ZyWALL itself as the gateway for each LAN network. Division of protected LAN and the other gateway into different subnets will trigger the incoming traffic back to ZyWALL and it can work as normal function.

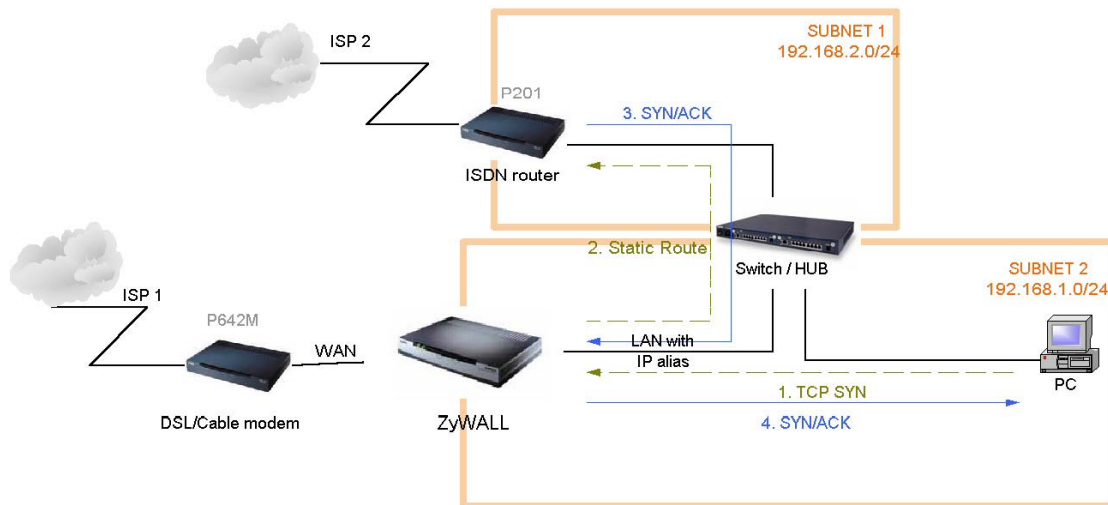


Figure 5-2 Gateway on alias IP network

## (2) Gateway on WAN side

A working topology is suggested as below.

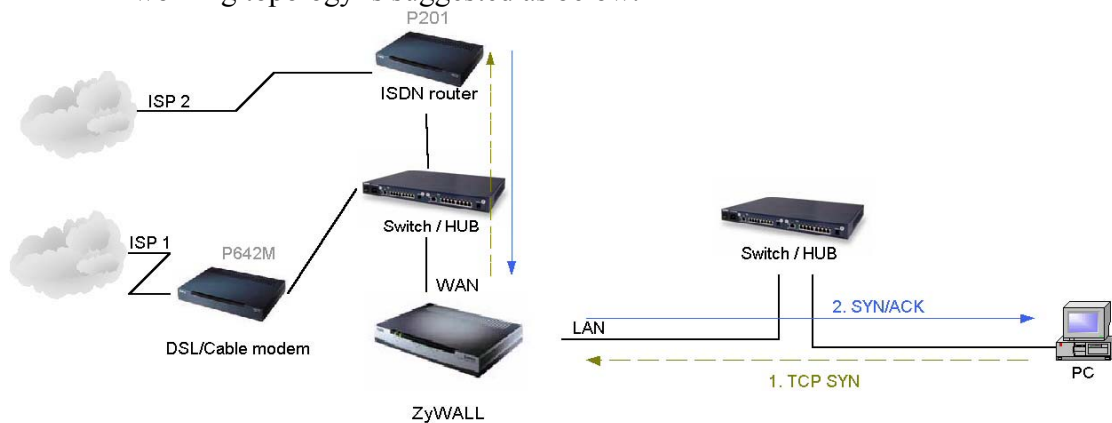


Figure 5-3 Gateway on WAN side

## Appendix 5 IPSec FQDN support

ZyWALL A-----Router C (with NAT) -----ZyWALL B  
(WAN) (WAN) (LAN) (WAN)

If ZyWALL A wants to build a VPN tunnel with ZyWALL B by passing through Router C with NAT, A can not see B. It has to secure gateway as C. However, ZyWALL B will send it packet with its own IP and its ID to ZyWALL A. The IP will be NATed by Router C, but the ID will remain as ZyWALL B sent.

In FQDN design, all three types, IP, DNS, E-Mail, can set ID content. For ID type is DNS or E-mail, the behavior is simple. ZyWALL A and ZyWALL B only checks the ID contents are consistent and they can connect.



Basically the story is the same when ID type is IP. If user configures ID content, then ZyWALL will use it as a check. So the ID content also has to match each other. For example, ID type and ID content of incoming packets must match “Peer ID Type” and “Peer ID content”. Or ZyWALL will reject the connection.

However, user can leave “ID content” blank if the ID type is IP. ZyWALL will put proper value in it during IKE negotiation. This appendix describes all combinations and behaviors of ZyWALL.

We can put all combinations in to these two tables:

(Local ID Type is IP):

| Configuration         |                             | **Run-time status |                                          |
|-----------------------|-----------------------------|-------------------|------------------------------------------|
| My IP Addr            | Local ID Content            | My IP Addr        | Local ID Content                         |
| 0.0.0.0               | *blank                      | My WAN IP         | My WAN IP                                |
| 0.0.0.0               | a.b.c.d (it can be 0.0.0.0) | My WAN IP         | a.b.c.d ( 0.0.0.0, if user specified it) |
| a.b.c.d (not 0.0.0.0) | *blank                      | a.b.c.d           | a.b.c.d                                  |
| a.b.c.d (not 0.0.0.0) | e.f.g.h (or 0.0.0.0)        | a.b.c.d           | e.f.g.h (or 0.0.0.0)                     |

\*Blank: User can leave this field as empty, doesn't put anything here.

\*\*Runtime status: During IKE negotiation, ZyWALL will use “My IP Addr” field as source IP of IKE packets, and put “Local ID Content” in the ID payload.

(Peer ID Type is IP):

| Configuration       |                 | *Run-time check                                                                                                                                                                                       |
|---------------------|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Secure Gateway Addr | Peer ID Content |                                                                                                                                                                                                       |
| 0.0.0.0             | blank           | Just check ID types of incoming packet and machine's peer ID type. If the peer's ID is IP, then we accept it.                                                                                         |
| 0.0.0.0             | a.b.c.d         | System checks both type and content                                                                                                                                                                   |
| a.b.c.d             | blank           | 1. System will check the ID type and the content.<br>2. The contents will match only if the ID content of coming packet is a.b.c.d because system will put Secure Gateway Address as Peer ID content. |
| a.b.c.d             | e.f.g.h         | 1. System will check the ID type and the content.<br>2. The contents will match only if the ID content of coming packet is e.f.g.h.                                                                   |

\*Runtime Check: During IKE negotiation, we will check ID of incoming packet and see if it matches our setting of “Peer ID Type” and “Peer ID Content”.

## **Summary:**

1. When Local ID Content is blank which means user doesn't type anything here, during IKE negotiation, my ID content will be "My IP Addr" (if it's not 0.0.0.0) or local's WAN IP.
2. When "Peer ID Content" is not blank, ID of incoming packet has to match our setting. Or the connection request will be rejected.
3. When "Secure Gateway IP Addr" is 0.0.0.0 and "Peer ID Content" is blank, system can only check ID type. This is a kind of "dynamic rule" which means it accepts incoming request from any IP, and these requests' ID type is IP. So if user put a such kind of rule in top of rule list, it may be matched first. To avoid this problem, we will enhance it in the future.

## **Appendix 6 Embedded HTTPS proxy server**

HTTPS (Hypertext Transfer Protocol over Secure Socket Layer, or HTTP over SSL) is a Web protocol developed by Netscape and built into its browser that encrypts and decrypts user page requests as well as the pages that are returned by the Web server. HTTPS is really just the use of Netscape's Secure Socket Layer (SSL) as a sublayer under its regular HTTP application layering.

The ZyWALL's embedded HTTPS proxy server is basically an SSL server which performs SSL transactions, on behalf of the embedded HTTP server, with an SSL client such as MSIE or Netscape. As depicted by the figure below, when receiving a secure HTTPS request from an SSL-aware Web browser, the HTTPS proxy server converts it into a non-secure HTTP request and sends it to the HTTP server. On the other hand, when receiving a non-secure HTTP response from the HTTP server, the HTTPS proxy server converts it into a secure HTTPS response and sends it to the SSL-aware Web browser.

By default, the HTTPS proxy server listens on port 443 instead of the HTTP default port 80. If the ZyWALL's HTTPS proxy server port is changed to a different number, say 8443, then the URL for accessing the ZyWALL's Web user interface should be changed to <https://hostname:8443/> accordingly.

## **Appendix 7 Multiple WAN Access**

Because of the expansion of broad band service, the bandwidth is more and more cheap. Some of audio and video applications become usable, such as VoIP and video conference. The company will subscribe several links for different application. They may use it for VoIP, Backup line, Load sharing, and extend bandwidth. Thus they will need a device to manage these kinds of application.

The ZyWALL has two independent WAN ports, so it offers the ability to configure a secondary WAN port for highly reliable network connectivity and robust performance. The user can connect WAN 1 to one ISP(or network), and connect the other to a second ISP(or network). This secondary WAN port can be used in "active-active" load sharing or

fail-over configuration providing a highly efficient method for maximizing total network bandwidth.

The default mode of the WAN 2 interface is “Active-Passive” or “Fail-Over” mode, that is the secondary WAN will automatically “bring-up” when the first WAN fails. The user can enter eWC/WAN/General page to select WAN to “Active/Active” mode. At “Active/Active” mode, ZyWALL can access internet through WAN 1 and WAN 2 simultaneously. The user also can setup policy route rule and static route rule to specify the traffic to certain link. ZyWALL Connectivity Check will check the connectivity of WAN 1, WAN 2 and Traffic Redirect. Please notice that even at the “Active/Active” mode, WAN 2 is still the backup line of WAN 1, and WAN 1 is also the backup line of WAN 2.

The user can use policy routing to specify the WAN port that specific services go through. If one WAN port's connection goes down, the ZyWALL can automatically send its traffic through the other WAN port, if the user allows this traffic to use the other WAN port.

The ZyWALL NAT feature allows the user to give two separate sets of rules(NAT Mapping rules and Port Forwarding rules) for WAN 1 and WAN 2.

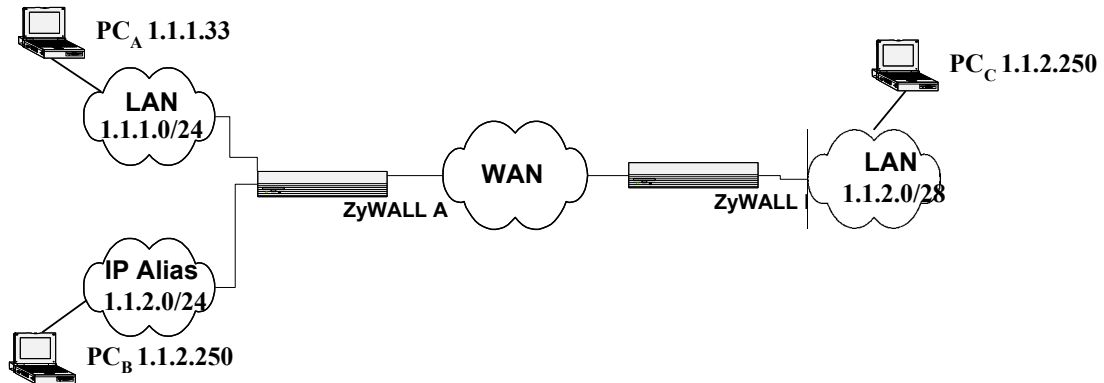
The DDNS also has the high availability feature based on Multiple WAN. That is the ZyWALL can use the other WAN interface for domain names if the original configured WAN interface goes down.

## **Appendix 8 Wi-Fi Protected Access**

Wi-Fi Protected Access(WPA) is a subset of the IEEE 802.11i. WPA improves data encryption by using TKIP, MIC and IEEE 802.1X. Because WPA applies 802.1X to authenticate WLAN users by using an external RADIUS server, so you can not use the Local User Database for WPA authentication.

For those users in home or small office, they have no RADIUS server, WPA provides the benefit of WPA through the simple “WPA-PSK”. Pre-Shared Key(PSK) is manually entered in the client and ZyWALL for authentication. ZyWALL will check the client PSK and allow it join the network if it's PSK is matched. After the client pass the authentication, ZyWALL will derived and distribute key to the client, and both of then will use TKIP process to encrypt exchanging data.

## Appendix 9 IPSec IP Overlap Support



**Figure 1**

The ZyWALL uses the network policy to decide if the traffic matches a VPN rule. But if the ZyWALL finds that the traffic whose local address overlaps with the remote address range, it will be confused if it needs to trigger the VPN tunnel or just route this packet.

So we provide a CI command “ipsec swSkipOverlapIp” to trigger the VPN rule. For example, you configure a VPN rule on the ZyWALL A as below:

Local IP Address Start= 1.1.1.1    End= 1.1.2.254  
Remote IP Address Start= 1.1.2.240    End = 1.1.2.254

You can see that the Local IP Address and the remote IP address overlap in the range from 1.1.2.240 to 1.1.2.254.

- (1) Enter “ipsec swSkipOverlapIp off”:  
To trigger the tunnel for packets from 1.1.1.33 to 1.1.2.250. If there is traffic from LAN to IP Alias (Like the traffic from PC<sub>A</sub> to PC<sub>B</sub> in Figure 1), the traffic still will be encrypted as VPN traffic and routed to WAN, you will find their traffic disappears on LAN.
- (2) Enter “ipsec swSkipOverlapIp on”:  
Not to trigger the tunnel for packets from 1.1.1.33 to 1.1.2.250. Even the tunnel has been built up, the traffic in this overlapped range still cannot be passed.

[Note]

If you configure a rule on the ZyWALL A whose

Local IP Address Start= 0.0.0.0

Remote IP Address Start= 1.1.2.240 End = 1.1.2.254

No matter swSkipOverlapIp is on or off, any traffic from any interfaces on the ZyWALL A will match the tunnel. Thus swSkipOverlapIp is not applicable in this case.

## Appendix 10 VPN Local IP Address Limitation

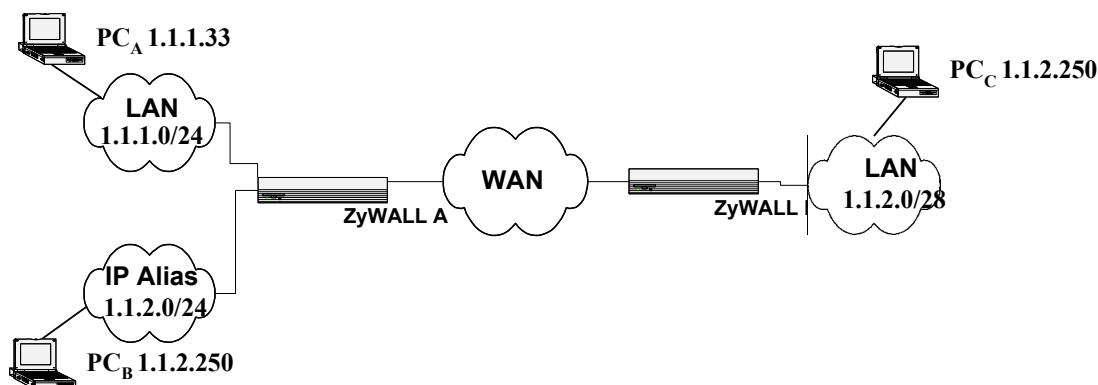


Figure 1

There is a limitation when you configure the VPN network policy to use any Local IP address. When you set the Local address to 0.0.0.0 and the Remote address to include any interface IP of the ZyWALL at the same time, it may cause the traffic related to remote management or DHCP between PCs and the ZyWALL to work incorrectly. This is because the traffic will all be encrypted and sent to WAN.

For example, you configure a VPN rule on the ZyWALL A as below:

Local IP Address Start= 1.1.1.1    End= 1.1.2.254  
 Remote IP Address Start= 1.1.2.240    End = 1.1.2.254

ZyWALL LAN IP = 1.1.1.10

ZyWALL LAN IP falls into the Local Address of this rule, when you want to manage the ZyWALL A from PC<sub>A</sub>, you will find that you cannot get a DHCP Client IP from the ZyWALL anymore. Even if you set your IP on PC<sub>A</sub> as static one, you cannot access the ZyWALL.

## Appendix 11 VPN rule swap limitation with VPN Client on XAuth

Example 1:

ZyWALL (WAN)----- VPN Client  
 (IP:1.1.1.1)                      (IP:1.1.1.2)

| ZyWALL VPN Rule: Two IKE rule                                                                                                                                                                                                          |                                                                                                                                                                                                                                        |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>➤ Dynamic IKE rule:</p> <p>Security Gateway: 0.0.0.0</p> <p>X-Auth: Server</p> <p>I. Policy one:</p> <ul style="list-style-type: none"> <li>- Name: "Rule_A"</li> <li>- Local: 192.168.2.0/24</li> <li>- Remote: 0.0.0.0</li> </ul> | <p>➤ Static IKE rule:</p> <p>Security Gateway: 1.1.1.2</p> <p>X-Auth: None</p> <p>I. Policy one:</p> <ul style="list-style-type: none"> <li>- Name: "Rule_B"</li> <li>- Local: 192.168.1.0/24</li> <li>- Remote: 1.1.1.2/32</li> </ul> |

| ZyXEL VPN Client                              |
|-----------------------------------------------|
| Security Gateway: 1.1.1.1                     |
| Phase one Authentication method: Preshare Key |
| Remote: 192.168.1.0/24                        |

In example 1, user may wonder why ZyWALL swap to dynamic rule even VPN client only set authentication method as “Preshare Key” not “Preshare Key+XAuth”. The root cause is that currently ZyXEL VPN Client will send XAuth VID no matter what authentication mode that him set. Because of the XAuth VID, ZyWALL will swap to dynamic rule.

This unexpected rule swap result is a limitation of our design. For ZyWALL, when we got initiator’s XAuth VID in IKE Phase One period, we know initiator can support XAuth. To take account of security, we will judge that initiator want to do XAuth, and we will search one matched IKE Phase One rule with XAuth server mode as the top priority. To our rule swap scheme, we search static rule first then dynamic rule. In example 1, we will find the static rule, named “Rule\_B”, to build phase one tunnel at first. After finished IKE phase one negotiation, we known initiator want to do XAuth. Since Rule\_B has no XAuth server mode, we try to search another rule with correct IKE Phase One parameter and XAuth server mode. The search result will lead us to swap rule to dynamic rule, named “Rule\_A”. Thus to build VPN tunnel will fail by Phase Two local ip mismatch.

To avoid this scenario, the short-term solution is that we recommend user to set two IKE rule with different Phase One parameter. The long-term solution is that VPN Client needs to modify the XAuth VID behavior. VPN Client should not send XAuth VID when authentication method is “Preshare key”, but send XAuth VID when authentication method is “Preshare key+XAuth”.

**Annex A CI Command List**

Last Updated: 2005/08/17

| Command Class List Table                 |                                                      |                                        |
|------------------------------------------|------------------------------------------------------|----------------------------------------|
| <a href="#">System Related Command</a>   | <a href="#">Exit Command</a>                         | <a href="#">Device Related Command</a> |
| <a href="#">Ethernet Related Command</a> | <a href="#">POE Related Command</a>                  | <a href="#">PPTP Related Command</a>   |
| <a href="#">AUX Related Command</a>      | <a href="#">Configuration Related Command</a>        | <a href="#">IP Related Command</a>     |
| <a href="#">IPSec Related Command</a>    | <a href="#">PPP Related Command</a>                  | <a href="#">Bandwidth Management</a>   |
| <a href="#">Firewall Related Command</a> | <a href="#">Certificate Management (PKI) Command</a> | <a href="#">Load Sharing Command</a>   |
| <a href="#">Bridge Related Command</a>   | <a href="#">myZyXEL.com Command</a>                  | <a href="#">Anti-Spam Command</a>      |
| <a href="#">IDP Command</a>              | <a href="#">Anti-Virus Command</a>                   |                                        |

## System Related Command

[Home](#)

| Command |             |         |                                           | Description                                                                                                                                                                 |
|---------|-------------|---------|-------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| sys     |             |         |                                           |                                                                                                                                                                             |
|         | atsh        |         |                                           | Display system information                                                                                                                                                  |
|         | 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                                                                                                                                                            |
|         | datetime    |         | [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                                                                                                                                                         |

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|  |           |           |                                                                                                          |                                                                 |
|--|-----------|-----------|----------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|
|  | fid       |           |                                                                                                          |                                                                 |
|  |           | display   |                                                                                                          | display function id list                                        |
|  | firmware  |           |                                                                                                          | display ISDN firmware type                                      |
|  | hostname  |           | [hostname]                                                                                               | display system hostname                                         |
|  | iface     |           |                                                                                                          |                                                                 |
|  |           | disp      | [#]                                                                                                      | display iface list                                              |
|  | interrupt |           |                                                                                                          | display interrupt status                                        |
|  | logs      |           |                                                                                                          |                                                                 |
|  |           | category  |                                                                                                          |                                                                 |
|  |           |           | access [0:none/1:log/2:alert/3:both]                                                                     | 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/2:alert/3:both]                                                                      | record the access control logs                                  |
|  |           |           | ike [0:none/1:log/2:alert/3:both]                                                                        | record the access control logs                                  |
|  |           |           | javablocked [0:none/1:log]                                                                               | record the java etc. blocked logs                               |
|  |           |           | mten [0:none/1:log]                                                                                      | record the system maintenance logs                              |
|  |           |           | packetfilter [0:none/1:log]                                                                              | record the packet filter logs                                   |
|  |           |           | pki [0:none/1:log/2:alert/3:both]                                                                        | record the pki logs                                             |
|  |           |           | tcpreset [0:none/1:log]                                                                                  | record the tcp reset 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   | [access attack error ipsec ike javablocke<br>d mten packetfilter pki tcpreset urlblock<br>ed urlforward] | display all logs or specify category logs                       |
|  |           | dispSvrIP |                                                                                                          | Display the IP address of email log server and<br>syslog server |
|  |           | 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                                          |



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|  |          |                 |                                 |                                                                                                                                                                                                                             |
|--|----------|-----------------|---------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  |          |                 | facility [Local ID(1-7)]        | log the messages to different files                                                                                                                                                                                         |
|  |          |                 | server [domainName/IP]          | syslog server to send the logs                                                                                                                                                                                              |
|  |          | updateSvrIP     | <minute>                        | If there is one parameter <minute>, it will change the dns timer task timeout value. Otherwise, do dns resolve to find email log server and syslog server IP.                                                               |
|  |          | consolidate     |                                 |                                                                                                                                                                                                                             |
|  |          |                 | switch <0:on 1:off>             | active to enable log consolidation                                                                                                                                                                                          |
|  |          |                 | period                          | consolidation period (seconds)                                                                                                                                                                                              |
|  |          |                 | msglist                         | display the consolidated messages                                                                                                                                                                                           |
|  |          | switch          |                                 |                                                                                                                                                                                                                             |
|  |          |                 | bmlog <0:no 1:yes>              | active to enable broadcast/multicast log                                                                                                                                                                                    |
|  |          |                 | display                         | display switch setting                                                                                                                                                                                                      |
|  |          |                 | trilog <0:no 1:yes>             | active to enable triangle route log                                                                                                                                                                                         |
|  | mbuf     |                 |                                 |                                                                                                                                                                                                                             |
|  |          | link            | link                            | list system mbuf link                                                                                                                                                                                                       |
|  |          | pool            | <id> [type][num]                | list system mbuf pool                                                                                                                                                                                                       |
|  |          | status          |                                 | display system mbuf status                                                                                                                                                                                                  |
|  |          | disp            | <address>[1 0]                  | display mbuf status                                                                                                                                                                                                         |
|  |          | cnt             |                                 |                                                                                                                                                                                                                             |
|  |          |                 | disp                            | display system mbuf count                                                                                                                                                                                                   |
|  |          |                 | clear                           | clear system mbuf count                                                                                                                                                                                                     |
|  |          | debug           | [on off]                        |                                                                                                                                                                                                                             |
|  | memwrite |                 | <address> <len> [data list ...] | write some data to memory 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                                                                                                                                                                                                        |
|  | mode     | <router/bridge> |                                 | switch router and bridge mode                                                                                                                                                                                               |
|  | model    |                 |                                 | display server model name                                                                                                                                                                                                   |
|  | proc     |                 |                                 |                                                                                                                                                                                                                             |
|  |          | display         |                                 | Display all process information. State: process state. Pri: priority, a_usg: accumulated cpu usage, p_usg: profiling cpi usage.(take count after do clear command). Size: (lowest available stack size)/(total stack size). |
|  |          | stack           | [tag]                           | display process's stack by a give TAG                                                                                                                                                                                       |
|  |          | pstatus         |                                 | display process's status by a give TAG                                                                                                                                                                                      |
|  |          | clear           |                                 | Restart cpu usage measurement. (Result will be in p_usg column from display command.                                                                                                                                        |
|  | pwc      |                 |                                 | sends information to PWC via telnet                                                                                                                                                                                         |
|  | pwderrtm |                 | [minute]                        | Set or display the password error blocking timeout value.                                                                                                                                                                   |
|  | 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,                                                                                                                                                                                        |

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|  |           |                    |                                            |                                                                                    |
|--|-----------|--------------------|--------------------------------------------|------------------------------------------------------------------------------------|
|  |           |                    |                                            | = 1 immediately boot<br>= 2 bootModule debug mode                                  |
|  | reslog    |                    |                                            |                                                                                    |
|  |           | disp               |                                            | display resources trace                                                            |
|  |           | clear              |                                            | clear resources trace                                                              |
|  | 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                                                          |
|  |           | mtu                | <value>                                    | set remote node mtu                                                                |
|  |           | save               | [entry no.]                                | save remote node information                                                       |
|  | smt       |                    |                                            | not support in this product                                                        |
|  | stdio     |                    | [second]                                   | change terminal timeout value                                                      |
|  | time      |                    | [hour [min [sec]]]                         | display/set system time                                                            |
|  | timer     |                    |                                            |                                                                                    |
|  |           | disp               |                                            | display timer cell                                                                 |
|  | tos       |                    |                                            |                                                                                    |
|  |           | display            |                                            | display all runtime TOS                                                            |
|  |           | listPerHost        |                                            | display all host session count                                                     |
|  |           | debug              | [on off]                                   | turn on or off TOS debug message                                                   |
|  |           | sessPerHost        | <number>                                   | configure session per host value                                                   |
|  |           | timeout            |                                            |                                                                                    |
|  |           |                    | display                                    | display all TOS timeout information                                                |
|  |           |                    | icmp <idle timeout>                        | set idle timeout value                                                             |
|  |           |                    | igmp <idle timeout>                        | set idle timeout value                                                             |
|  |           |                    | tcpsyn <idle timeout>                      | set idle timeout value                                                             |
|  |           |                    | tcp <idle timeout>                         | set idle timeout value                                                             |
|  |           |                    | tcpfin <idle timeout>                      | set idle timeout value                                                             |
|  |           |                    | udp <idle timeout>                         | set idle timeout value                                                             |
|  |           |                    | gre <idle timeout>                         | set idle timeout value                                                             |
|  |           |                    | esp <idle timeout>                         | set idle timeout value                                                             |
|  |           |                    | ah <idle timeout>                          | set idle timeout value                                                             |
|  |           |                    | other <idle timeout>                       | set idle timeout value                                                             |
|  | trcdisp   | parse, brief, disp |                                            | 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                                                               |
|  |           | udp                |                                            | send packet trace to other system                                                  |
|  |           |                    | switch [on off]                            | set tracepacket upd switch                                                         |

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|  |          |             |                                                   |                                                                           |
|--|----------|-------------|---------------------------------------------------|---------------------------------------------------------------------------|
|  |          |             | 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                                            |
|  | 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                                                   |
|  | mrd      |             |                                                   |                                                                           |
|  |          | atwe        | <mac> [country code] [debug flag]<br>[featurebit] | configure mac, country code, debug flag,<br>featurebit in the boot module |
|  |          | atse        |                                                   | generate the engeneering debug flag password<br>seed                      |
|  |          | aten        | <password>                                        | enter the engeneering debug flag password                                 |
|  |          | atfl        | <0:1>                                             | set engeneering debug flag                                                |
|  |          | atsh        |                                                   | show mrd setting                                                          |
|  | 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                                                 |
|  |          | certificate | <https ssh> [certificate name]                    | set server certificate                                                    |
|  |          | auth_client | <https> [on/off]                                  | specifies whether the server authenticates the<br>client                  |
|  | fwnotify |             |                                                   |                                                                           |
|  |          | load        |                                                   | load fwnotify entry from spt                                              |
|  |          | save        |                                                   | save fwnotify entry to spt                                                |
|  |          | url         | <url>                                             | set fwnotify url                                                          |
|  |          | days        | <days>                                            | set fwnotify days                                                         |
|  |          | active      | <flag>                                            | turn on/off fwnotify flag                                                 |
|  |          | disp        |                                                   | display firmware notify information                                       |
|  |          | check       |                                                   | check firmware notify event                                               |
|  |          | debug       | <flag>                                            | turn on/off firmware notify debug flag                                    |
|  | 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                                                        |
|  |          | set         | <offset> <len> <value...>                         | set spt value in memory address                                           |
|  |          | save        |                                                   | save spt data                                                             |
|  |          | size        |                                                   | display spt record size                                                   |
|  |          | clear       |                                                   | clear spt data                                                            |
|  | cmgr     |             |                                                   |                                                                           |

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|  |            |               |                                                                                                                              |                                                                       |
|--|------------|---------------|------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|
|  |            | trace         |                                                                                                                              |                                                                       |
|  |            |               | disp <ch-name>                                                                                                               | show the connection trace of this channel                             |
|  |            |               | clear <ch-name>                                                                                                              | clear the connection trace of this channel                            |
|  |            | data          | <ch-name>                                                                                                                    | show channel connection related data                                  |
|  |            | 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                                              |
|  |            | rule          | <iface>                                                                                                                      | display iface filter flag                                             |
|  |            | set           | <set>                                                                                                                        | display filter rule                                                   |
|  |            | addNetBios    |                                                                                                                              | add netbios filter                                                    |
|  |            | removeNetBios |                                                                                                                              | remove netbios filter                                                 |
|  |            | netbios       |                                                                                                                              |                                                                       |
|  |            |               | disp                                                                                                                         | display netbios filter status                                         |
|  |            |               | config <0:Between LAN and WAN, 1: Between LAN and DMZ, 2: Between WAN and DMZ, 3:IPSec passthrough, 4:Trigger Dial> <on off> | config netbios filter                                                 |
|  |            | blockbc       | [on off]                                                                                                                     | set/display broadcast filter mode                                     |
|  | roadrunner |               |                                                                                                                              |                                                                       |
|  |            | debug         | <level>                                                                                                                      | enable/disable roadrunner service<br>0: diable <default><br>1: enable |
|  |            | display       | <iface name>                                                                                                                 | display roadrunner information<br>iface-name: enif0, wanif0           |
|  |            | restart       | <iface name>                                                                                                                 | restart roadrunner                                                    |
|  |            | logout        | <iface name>                                                                                                                 | logout roadrunner                                                     |
|  |            | set           | <iface name>                                                                                                                 | set 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                                               |
|  | upnp       |               |                                                                                                                              |                                                                       |
|  |            | active        | [0:no/1:yes]                                                                                                                 | Activate or deactivate the saved upnp settings                        |
|  |            | config        | [0:deny/1:permit]                                                                                                            | Allow users to make configuration changes.<br>through UPnP            |
|  |            | display       |                                                                                                                              | display upnp information                                              |
|  |            | firewall      | [0:deny/1:pass]                                                                                                              | Allow UPnP to pass through Firewall.                                  |
|  |            | load          |                                                                                                                              | save upnp information                                                 |
|  |            | reserve       | [0:no/1:yes]                                                                                                                 | Reserve UPnP NAT rules in flash after system<br>bootup.               |
|  |            | save          |                                                                                                                              | save upnp information                                                 |
|  | mwan       |               |                                                                                                                              |                                                                       |
|  |            | load          |                                                                                                                              | Load the multiple wan common data to the<br>memory                    |
|  |            | mode          | <0:Active/Passive 1:Active/Active>                                                                                           | Change the Multiple WAN operation mode.                               |
|  |            | Save          |                                                                                                                              | Save the configuration                                                |
|  |            | Disp          |                                                                                                                              | Display the data                                                      |
|  | atmu       |               |                                                                                                                              | Show multiboot client version                                         |

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|  |           |  |              |                          |
|--|-----------|--|--------------|--------------------------|
|  | ProbeType |  | [icmp   arp] | DHCP server probing type |
|--|-----------|--|--------------|--------------------------|

## Exit Command

[Home](#)

| Command |  |  |  | Description   |
|---------|--|--|--|---------------|
| exit    |  |  |  | exit smt menu |

## Device Related Command

[Home](#)

| Command |         |           |                         | Description           |
|---------|---------|-----------|-------------------------|-----------------------|
| dev     |         |           |                         |                       |
|         | channel |           |                         |                       |
|         |         | name      | <all use>               | list channel name     |
|         |         | drop      | <channel_name>          | drop channel          |
|         |         | disp      | <channel_name> [level]  | display channel       |
|         |         | threshold | <channel_name> [number] | set channel threshold |
|         | dial    |           | <node#>                 | dial to remote node   |

## 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                                                                                                                                           |
|         | test      |        | <ch_id> <test_id> [arg3] [arg4] | do LAN test                                                                                                                                                          |
|         | ipmul     |        | <num>                           | only receive ip multicast and broadcast packet                                                                                                                       |
|         | pncconfig |        | <ch_name>                       | do pnc config                                                                                                                                                        |
|         | mac       |        | <src_ch> <dest_ch> <ipaddr>     | fake mac address                                                                                                                                                     |
|         | edit      |        |                                 |                                                                                                                                                                      |
|         |           | load   | <ether no.>                     | load ether data from spt                                                                                                                                             |
|         |           | mtu    | <value>                         | set ether data mtu                                                                                                                                                   |
|         |           | speed  | <speed>                         | set ether data speed                                                                                                                                                 |
|         |           | save   |                                 | save ether data to spt                                                                                                                                               |

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|  |             |      |               |                                                         |
|--|-------------|------|---------------|---------------------------------------------------------|
|  | dynamicPort |      |               |                                                         |
|  |             | dump |               | display the relation between physical port and channel. |
|  |             | set  | <port> <type> | set physical port belongs to which channel.             |
|  |             | spt  |               | display channel setting stored in SPT.                  |

**POE Related Command**[Home](#)

| Command |         |             |                | Description                                                                |
|---------|---------|-------------|----------------|----------------------------------------------------------------------------|
| poe     |         |             |                |                                                                            |
|         | debug   |             | [on off]       | switch poe debug                                                           |
|         | retry   |             |                |                                                                            |
|         |         | count       | [count]        | set/display poe retry count                                                |
|         |         | interval    | [interval]     | set/display poe retry interval                                             |
|         | status  |             | [ch_name]      | see poe status                                                             |
|         | master  |             |                |                                                                            |
|         |         | promiscuous | [on off]       | provide pppoe server list to client                                        |
|         |         | easy        | [on off]       | response for no service name request                                       |
|         | service |             |                |                                                                            |
|         |         | add         | <service-name> | add poe service                                                            |
|         |         | show        |                | show poe service                                                           |
|         | dial    |             | <node>         | dial a remote node                                                         |
|         | drop    |             | <node>         | drop a pppoe call                                                          |
|         | channel |             |                |                                                                            |
|         |         | enable      | <channel>      | enable a channel to carry pppoe traffic                                    |
|         |         | disable     | <channel>      | disable a pppoe channel                                                    |
|         |         | show        |                | show pppoe channel                                                         |
|         | padt    |             | [limit]        | set/display pppoe PADT limit                                               |
|         | inout   |             | <node name>    | set call direction to both                                                 |
|         | ippool  |             | [ip] [cnt]     | set/display pppoe ippool information                                       |
|         | ether   |             | [rfc 3com]     | set /display pppoe ether type                                              |
|         | proxy   | disp        |                | Display PPPoE proxy client session table                                   |
|         |         | active      | [on   off]     | Turn on / off PPPoE proxy function                                         |
|         |         | debug       | [on   off]     | Turn on / off PPPoE proxy debug function                                   |
|         |         | time        | <interval>     | Set the time out interval, it's a count. Actual time is count * 5 seconds. |
|         |         | init        |                | Initialize PPPoE proxy client session table                                |
|         |         | flush       |                | Clear PPPoE proxy client session table                                     |

**PPTP Related Command**[Home](#)

| Command |         |  |             | Description                     |
|---------|---------|--|-------------|---------------------------------|
| pptp    |         |  |             |                                 |
|         | debug   |  | [on off]    | switch pptp debug flag          |
|         | dial    |  | <rn-name>   | dial a remote node              |
|         | drop    |  | <rn-name>   | drop a remote node call         |
|         | tunnel  |  | <tunnel id> | display pptp tunnel information |
|         | enqueue |  | [size]      | set pptp max en-queued size     |

**AUX Related Command**[Home](#)

| Command |           |      |               | Description                           |
|---------|-----------|------|---------------|---------------------------------------|
| aux     |           |      |               |                                       |
|         | atring    |      | <device name> | Command the AT command to the device. |
|         | clearstat |      | <device name> | reset channel statistics              |
|         | cnt       |      |               |                                       |
|         |           | disp | <device name> | display aux counter information       |

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|  |         |       |                              |                                                      |
|--|---------|-------|------------------------------|------------------------------------------------------|
|  |         | clear | <device name>                | clear aux counter information                        |
|  | cond    |       |                              |                                                      |
|  |         | disp  | <device name>                | display aux condition information                    |
|  |         | clear | <device name>                | clear aux condition information                      |
|  | config  |       |                              | display aux config, board, line, channel information |
|  | data    |       |                              |                                                      |
|  | drop    |       | <device name>                | disconnect                                           |
|  | event   |       |                              |                                                      |
|  |         | disp  |                              | aux event trace display                              |
|  |         | clear |                              | aux event trace clear                                |
|  | init    |       | <device name>                | initialize aux channel                               |
|  | mstatus |       | <device name>                | display modem last call status                       |
|  | mtype   |       | <device name>                | display modem type                                   |
|  | netstat |       | <device name>                | prints upper layer packet information                |
|  | rate    |       | <device name>                | show tx rx rate                                      |
|  | ringbuf |       |                              |                                                      |
|  |         | cmd   |                              |                                                      |
|  |         |       | clear <device name>          | clear ringbuffer                                     |
|  |         |       | disp <device name>           | display ringbuffer                                   |
|  |         | data  |                              |                                                      |
|  |         |       | clear                        | clear command ringbuffer                             |
|  |         |       | disp <start> <len>           | display command ringbuffer                           |
|  | signal  |       | <device name>                | show aux signal                                      |
|  | speed   |       | <device name> <type> [value] | display/set aux speed                                |

## Configuration Related Command

[Home](#)

| Command  |                         |                                                         |  |  | Description                                                                                                                                               |
|----------|-------------------------|---------------------------------------------------------|--|--|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| config   |                         |                                                         |  |  | The parameters of config are listed below.                                                                                                                |
| edit     | firewall                | active <yes/no>                                         |  |  | Activate or deactivate the saved firewall settings                                                                                                        |
|          | custom-service <entry#> | name <string>                                           |  |  | Configure selected custom-service with name = <string>                                                                                                    |
|          |                         | ip-protocol <icmp   tcp   udp   tcp/udp   user-defined> |  |  | Configure IP Protocol Type for selected custom-service                                                                                                    |
|          |                         | port-range <start port> <end port>                      |  |  | When ip-protocol = “tcp   udp   tcp/udp “. configure port range for custom-service entry #. For single port configuration, start port equals to end port. |
|          |                         | user-defined-ip <1~65535>                               |  |  | When ip-protocol = “user-defined”. Configure user defined IP protocol.                                                                                    |
|          |                         | icmp-type <0~255>                                       |  |  | When ip-protocol = “icmp”, configure ICMP type.                                                                                                           |
|          |                         | icmp-code <0~255>                                       |  |  | When ip-protocol = “icmp”, configure ICMP code. This field is optional for ICMP.                                                                          |
| retrieve | firewall                |                                                         |  |  | Retrieve current saved firewall settings                                                                                                                  |
| save     | firewall                |                                                         |  |  | Save the current firewall settings                                                                                                                        |
|          | custom-service <entry#> |                                                         |  |  | Save the custom service entry specified by <entry#>                                                                                                       |
|          | anti-spam               |                                                         |  |  | Save current AntiSpam settings                                                                                                                            |

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|         |                          |            |                                                                            |  |                                                                                                                                 |
|---------|--------------------------|------------|----------------------------------------------------------------------------|--|---------------------------------------------------------------------------------------------------------------------------------|
|         | all                      |            |                                                                            |  | Save all working SPT buffer into flash.                                                                                         |
| display | firewall                 |            |                                                                            |  | Displays all the firewall settings                                                                                              |
|         |                          | set <set#> |                                                                            |  | Display current entries of a set configuration; including timeout values, name, default-permit, and number of rules in the set. |
|         |                          | set <set#> | rule <rule#>                                                               |  | Display current entries of a rule in a set.                                                                                     |
|         |                          | attack     |                                                                            |  | Display all the attack alert settings in PNC                                                                                    |
|         |                          | e-mail     |                                                                            |  | Display all the e-mail settings in PNC                                                                                          |
|         |                          | ?          |                                                                            |  | Display all the available sub commands                                                                                          |
|         | custom-service           |            |                                                                            |  | Display all configured custom services.                                                                                         |
|         | custom-service <entry #> |            |                                                                            |  | Display custom service <entry #>                                                                                                |
|         | anti-spam                |            |                                                                            |  | Display AntiSpam settings                                                                                                       |
| edit    |                          | e-mail     | mail-server <mail server IP>                                               |  | Edit the mail server IP to send the alert                                                                                       |
|         |                          |            | return-addr <e-mail address>                                               |  | Edit the mail address for returning an email alert                                                                              |
|         |                          |            | e-mail-to <e-mail address>                                                 |  | Edit the mail address to send the alert                                                                                         |
|         |                          |            | policy <full   hourly   daily   weekly>                                    |  | Edit email schedule when log is full or per hour, day, week.                                                                    |
|         |                          |            | day <sunday   monday   tuesday   wednesday   thursday   friday   saturday> |  | Edit the day to send the log when the email policy is set to Weekly                                                             |
|         |                          |            | hour <0~23>                                                                |  | Edit the hour to send the log when the email policy is set to daily or weekly                                                   |
|         |                          |            | minute <0~59>                                                              |  | Edit the minute to send to log when the email policy is set to daily or weekly                                                  |
|         |                          |            | Subject <mail subject>                                                     |  | Edit the email subject                                                                                                          |
|         |                          | attack     | send-alert <yes no>                                                        |  | Activate or deactivate the firewall DoS attacks notification emails                                                             |
|         |                          |            | block <yes no>                                                             |  | Yes: Block the traffic when exceeds the tcp-max-incomplete threshold                                                            |
|         |                          |            |                                                                            |  | No: Delete the oldest half-open session when exceeds the tcp-max-incomplete threshold                                           |
|         |                          |            | block-minute <0~255>                                                       |  | Only valid when sets 'Block' to yes. The unit is minute                                                                         |
|         |                          |            | minute-high <0~255>                                                        |  | The threshold to start to delete the old half-opened sessions to minute-low                                                     |
|         |                          |            | minute-low <0~255>                                                         |  | The threshold to stop deleting the old half-opened session                                                                      |
|         |                          |            | max-incomplete-high <0~255>                                                |  | The threshold to start to delete the old half-opened sessions to max-incomplete-low                                             |
|         |                          |            | max-incomplete-low <0~255>                                                 |  | The threshold to stop deleting the half-opened session                                                                          |
|         |                          |            | tcp-max-incomplete <0~255>                                                 |  | The threshold to start executing the block field                                                                                |
|         |                          | set <set#> | name <desired name>                                                        |  | Edit the name for a set                                                                                                         |
|         |                          |            | default-permit <forward block>                                             |  | Edit whether a packet is dropped or allowed when it does not match the default set                                              |
|         |                          |            | icmp-timeout                                                               |  | Edit the timeout for an idle ICMP session before                                                                                |



|  |  |  |                                 |                                                         |                                                                                                                                                                                                                              |
|--|--|--|---------------------------------|---------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  |  |  | <seconds>                       |                                                         | it is terminated                                                                                                                                                                                                             |
|  |  |  | udp-idle-timeout<br><seconds>   |                                                         | Edit the timeout for an idle UDP session before it is terminated                                                                                                                                                             |
|  |  |  | connection-timeout<br><seconds> |                                                         | Edit the wait time for the SYN TCP sessions before it is terminated                                                                                                                                                          |
|  |  |  | fin-wait-timeout<br><seconds>   |                                                         | Edit the wait time for FIN in concluding a TCP session before it is terminated                                                                                                                                               |
|  |  |  | tcp-idle-timeout<br><seconds>   |                                                         | Edit the timeout for an idle TCP session before it is terminated                                                                                                                                                             |
|  |  |  | pnc <yes/no>                    |                                                         | PNC is allowed when 'yes' is set even there is a rule to block PNC                                                                                                                                                           |
|  |  |  | log <yes/no>                    |                                                         | Switch on/off sending the log for matching the default permit                                                                                                                                                                |
|  |  |  | logone <yes/no>                 |                                                         | Switch on/off for one packet that create just one log message.                                                                                                                                                               |
|  |  |  | rule <rule#>                    | permit<br><forward/block>                               | Edit whether a packet is dropped or allowed when it matches this rule                                                                                                                                                        |
|  |  |  |                                 | active<br><yes/no>                                      | Edit whether a rule is enabled or not                                                                                                                                                                                        |
|  |  |  |                                 | protocol<br><0~255>                                     | Edit the protocol number for a rule. 1=ICMP, 6=TCP, 17=UDP...                                                                                                                                                                |
|  |  |  |                                 | log<br><none match not-match both>                      | Sending a log for a rule when the packet none matches not match both the rule                                                                                                                                                |
|  |  |  |                                 |                                                         |                                                                                                                                                                                                                              |
|  |  |  |                                 | alert<br><yes/no>                                       | Activate or deactivate the notification when a DoS attack occurs or there is a violation of any alert settings. In case of such instances, the function will send an email to the SMTP destination address and log an alert. |
|  |  |  |                                 | srcaddr-single <ip address>                             | Select and edit a source address of a packet which complies to this rule                                                                                                                                                     |
|  |  |  |                                 | srcaddr-subnet <ip address><br><subnet mask>            | Select and edit a source address and subnet mask if a packet which complies to this rule.                                                                                                                                    |
|  |  |  |                                 | srcaddr-range<br><start ip address><br><end ip address> | Select and edit a source address range of a packet which complies to this rule.                                                                                                                                              |
|  |  |  |                                 | destaddr-single <ip address>                            | Select and edit a destination address of a packet which complies to this rule                                                                                                                                                |
|  |  |  |                                 | destaddr-subnet <ip address><br><subnet mask>           | Select and edit a destination address and subnet mask if a packet which complies to this rule.                                                                                                                               |
|  |  |  |                                 | destaddr-range<br><start ip                             | Select and edit a destination address range of a packet which complies to this rule.                                                                                                                                         |

|  |           |                |                     |                                                           |                                                                                                                                                                                         |
|--|-----------|----------------|---------------------|-----------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  |           |                |                     | address><br><end ip<br>address>                           |                                                                                                                                                                                         |
|  |           |                |                     | tcp<br>destport-singl<br>e <port#>                        | Select and edit the destination port of a packet which comply to this rule. For non-consecutive port numbers, the user may repeat this command line to enter the multiple port numbers. |
|  |           |                |                     | tcp<br>destport-rang<br>e <start<br>port#> <end<br>port#> | Select and edit a destination port range of a packet which comply to this rule.                                                                                                         |
|  |           |                |                     | udp<br>destport-singl<br>e <port#>                        | Select and edit the destination port of a packet which comply to this rule. For non-consecutive port numbers, users may repeat this command line to enter the multiple port numbers.    |
|  |           |                |                     | udp<br>destport-rang<br>e <start<br>port#> <end<br>port#> | Select and edit a destination port range of a packet which comply to this rule.                                                                                                         |
|  |           |                |                     | desport-custo<br>m <desired<br>custom port<br>name>       | Type in the desired custom port name                                                                                                                                                    |
|  |           |                |                     | custom-ip<br><desired<br>custom<br>service<br>name>       | Type in the desired User Defined IP Protocol custom service.                                                                                                                            |
|  |           |                |                     | custom-icmp<br><desired<br>custom<br>service<br>name>     | Type in the desired ICMP custom service                                                                                                                                                 |
|  | anti-spam |                |                     |                                                           |                                                                                                                                                                                         |
|  |           | action         | <0 1>               |                                                           | Set the action for Spam Mail: add tag(0) or discard mail(1).                                                                                                                            |
|  |           | markString     | <spam tag>          |                                                           | Set the Spam tag string. This tag will add to the subject of spam mail.                                                                                                                 |
|  |           | externDB       | <0 1>               |                                                           | Enable(1)/Disable(0) External Database Query.                                                                                                                                           |
|  |           | query          | <0 1>               |                                                           | Set the action for no spam score: add tag(0) ot discard mail(1).                                                                                                                        |
|  |           | queryString    | <no spam score tag> |                                                           | Set the tag string for no spam score. This tag will add to the subject of spam mail.                                                                                                    |
|  |           | threshold      | <threshold>         |                                                           | Set the spam score threshold. If the spam score is higher than this threshold, this mail will be judge as spam mail.                                                                    |
|  |           | switch         | <0 1>               |                                                           | Enable(1)/Disable(0) AntiSpam function.                                                                                                                                                 |
|  |           | whiteRule      | <0 1>               |                                                           | Enable(1)/Disable(0) AntiSpam White Rule Filter.                                                                                                                                        |
|  |           | blackRule      | <0 1>               |                                                           | Enable(1)/Disable(0) AntiSpam Black Rule Filter.                                                                                                                                        |
|  |           | phishingString | <Phishing tag>      |                                                           | Set the phishing tag string. This tag will add to the subject of spam mail.                                                                                                             |

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|        |           |            |               |                                                                                           |                                                                              |
|--------|-----------|------------|---------------|-------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|
|        |           | rule       | <rule number> | ip <index><br>active <0 1><br>address <ip<br>address><br>netmask<br><netmask>             | Set the While(1)/Black(2) Rule IP Filter. The<br><index> is start from 0.    |
|        |           |            |               | email<br><index><br>active <0 1><br>data <email<br>address>                               | Set the While(1)/Black(2) Rule Email Filter. The<br><index> is start from 0. |
|        |           |            |               | mime<br><index><br>active <0 1><br>header<br><MIME<br>Header><br>value<br><MIME<br>Value> | Set the While(1)/Black(2) Rule MIME Filter.<br>The <index> is start from 0.  |
| delete | firewall  | e-mail     |               |                                                                                           | Remove all email alert settings                                              |
|        |           | attack     |               |                                                                                           | Reset all alert settings to defaults                                         |
|        |           | set <set#> |               |                                                                                           | Remove a specified set from the firewall<br>configuration                    |
|        |           | set <set#> | rule <rule#>  |                                                                                           | Remove a specified rule in a set from the firewall<br>configuration          |
|        | anti-spam | blackRule  |               |                                                                                           | Remove the AntiSpam Black Rule.                                              |
|        |           | whiteRule  |               |                                                                                           | Remove the AntiSpam White Rule.                                              |
| insert | firewall  | e-mail     |               |                                                                                           | Insert email alert settings                                                  |
|        |           | attack     |               |                                                                                           | Insert attack alert settings                                                 |
|        |           | set <set#> |               |                                                                                           | Insert a specified rule set to the firewall<br>configuration                 |
|        |           | set <set#> | rule <rule#>  |                                                                                           | Insert a specified rule in a set to the firewall<br>configuration            |
| cli    |           |            |               |                                                                                           | Display the choices of command list.                                         |
| debug  | <1 0>     |            |               |                                                                                           | Turn on/off trace for firewall debug information.                            |

## IP Related Command

[Home](#)

| Command |          |            |                                            | Description                                    |
|---------|----------|------------|--------------------------------------------|------------------------------------------------|
| ip      |          |            |                                            |                                                |
|         | address  |            | [addr]                                     | display host ip address                        |
|         | alias    |            | <iface>                                    | alias iface                                    |
|         | aliasdis |            | <0 1>                                      | disable alias                                  |
|         | alg      |            |                                            |                                                |
|         |          | disp       |                                            | Show ALG enable disable status                 |
|         |          | enable     | <ALG FTP ALG H323 ALG SIP>                 | Enable ALG command                             |
|         |          | disable    | <ALG FTP ALG H323 ALG SIP>                 | Disable ALG command                            |
|         |          | siptimeout | <timeout in second> or 0 for no<br>timeout | Configure SIP timeout command                  |
|         | arp      |            |                                            |                                                |
|         |          | status     | <iface>                                    | display ip arp status                          |
|         |          | add        | <hostid> ether <ether addr>                | add arp information                            |
|         |          | resolve    | <hostid>                                   | resolve ip-addr                                |
|         |          | replydif   | [<0:No 1:yes>]                             | reply different inteface ip-addr's arp request |

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|  |      |         |                                                                                                   |                                                             |
|--|------|---------|---------------------------------------------------------------------------------------------------|-------------------------------------------------------------|
|  |      | drop    | <hostid> [hardware]                                                                               | drop arp                                                    |
|  |      | flush   |                                                                                                   | flush arp table                                             |
|  |      | publish |                                                                                                   | add proxy arp                                               |
|  |      | period  | < value: 30~3000>                                                                                 | Set arp period.                                             |
|  |      | attpret | <on off>                                                                                          | Switch receive APR from the different network or not.       |
|  |      | force   | <on off>                                                                                          | Switch the time out function of the APR.                    |
|  | dhcp |         | <i face>                                                                                          |                                                             |
|  |      | client  |                                                                                                   |                                                             |
|  |      |         | release                                                                                           | release DHCP client IP                                      |
|  |      |         | renew                                                                                             | renew DHCP client IP                                        |
|  |      | mode    | <server relay none client>                                                                        | set dhcp mode                                               |
|  |      | relay   | server <serverIP>                                                                                 | set dhcp relay server ip-addr                               |
|  |      | reset   |                                                                                                   | reset dhcp table                                            |
|  |      | server  |                                                                                                   |                                                             |
|  |      |         | probecount <num>                                                                                  | set dhcp probe count                                        |
|  |      |         | dnsserver <IP1> [IP2] [IP3]                                                                       | set dns server ip-addr                                      |
|  |      |         | winsserver <winsIP1> [<winsIP2>]                                                                  | set wins server ip-addr                                     |
|  |      |         | gateway <gatewayIP>                                                                               | set gateway                                                 |
|  |      |         | hostname <hostname>                                                                               | set hostname                                                |
|  |      |         | initialize                                                                                        | fills in DHCP parameters and initializes (for PWC purposes) |
|  |      |         | leasetime <period>                                                                                | set dhcp leasetime                                          |
|  |      |         | netmask <netmask>                                                                                 | set dhcp netmask                                            |
|  |      |         | pool <startIP> <numIP>                                                                            | set dhcp ip pool                                            |
|  |      |         | renewaltime <period>                                                                              | set dhcp renew time                                         |
|  |      |         | rebindtime <period>                                                                               | set dhcp rebind time                                        |
|  |      |         | reset                                                                                             | reset dhcp table                                            |
|  |      |         | server <serverIP>                                                                                 | set dhcp server ip for relay                                |
|  |      |         | dnsorder [router isp]                                                                             | set dhcp dns order                                          |
|  |      |         | release <entry num>                                                                               | release specific entry of the dhcp server pool              |
|  |      | 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 multiple IP addresses                       |
|  |      |         | 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                                           |
|  |      | default | <ip>                                                                                              | Set default DNS server                                      |
|  |      | system  |                                                                                                   |                                                             |
|  |      |         | display                                                                                           | display dns system information                              |
|  |      |         | edita <record idx> <name><br><0:FQDN 1:wildcard> <0:from ISP<br>group 1:user defined> <isp group> | edit dns A record                                           |

|  |          |              |                                                                                                                                                |                                            |
|--|----------|--------------|------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|
|  |          |              | idx ip address>                                                                                                                                |                                            |
|  |          |              | editns <record idx> <*<domain name> <0:from ISP 1:user defined(public) 2: user defined(private)> <isp group idx dns server ip>                 | edit dns NS record                         |
|  |          |              | inserta <before record idx -1:new> <name> <0:FQDN 1:wildcard> <0:from ISP group 1:user defined> <isp group idx ip address>                     | insert dns A record                        |
|  |          |              | insertns <before record idx -1:new> <*<domain name> <0:from ISP 1:user defined(public) 2: user defined(private)> <isp group idx dns server ip> | insert dns NS record                       |
|  |          |              | movea <record idx> <record idx>                                                                                                                | move dns A record                          |
|  |          |              | movens <record idx> <record idx>                                                                                                               | move dns NS record                         |
|  |          |              | dela <record idx>                                                                                                                              | delete DNS A record                        |
|  |          |              | delns <record idx>                                                                                                                             | delete DNS NS record                       |
|  |          | system cache |                                                                                                                                                |                                            |
|  |          |              | disp <0:none 1:name 2:type 3:IP 4:refCnt 5:ttl> [0:increase 1:decrease]                                                                        | display DNS cache table                    |
|  |          |              | flush                                                                                                                                          | flush DNS cache                            |
|  |          |              | negaperiod <second(60 ~ 3600)>                                                                                                                 | set negative cache period                  |
|  |          |              | negative <0: disable 1: enable>                                                                                                                | enable/disable dns negative cache          |
|  |          |              | positive <0: disable 1: enable>                                                                                                                | enable/disable dns positive cache          |
|  | Httpd    |              |                                                                                                                                                |                                            |
|  |          | debug        | [on/off]                                                                                                                                       | set http debug flag                        |
|  | icmp     |              |                                                                                                                                                |                                            |
|  |          | echo         | [on/off]                                                                                                                                       | set icmp echo response flag                |
|  |          | data         | <option>                                                                                                                                       | select general data type                   |
|  |          |              | cmd [on/off]                                                                                                                                   | check icmp echo reply command data         |
|  |          |              | rsp [on/off]                                                                                                                                   | check icmp response                        |
|  |          |              | indication [i r l p]                                                                                                                           | set icmp indication                        |
|  |          | 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                |
|  | 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 |
|  |          | 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              |

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|  |            |                |                                                          |                                                      |
|--|------------|----------------|----------------------------------------------------------|------------------------------------------------------|
|  | stroute    |                |                                                          |                                                      |
|  |            | display        | [rule #   buf]                                           | display rule index or detail message in rule.        |
|  |            | load           | <rule #>                                                 | load static route rule in buffer                     |
|  |            | save           |                                                          | save rule from buffer to spt.                        |
|  |            | config         |                                                          |                                                      |
|  |            |                | name <site name>                                         | set name for static route.                           |
|  |            |                | destination <dest addr>[/<bits>]<br><gateway> [<metric>] | set static route destination address and gateway.    |
|  |            |                | mask <IP subnet mask>                                    | set static route subnet mask.                        |
|  |            |                | gateway <IP address>                                     | set static route gateway address.                    |
|  |            |                | metric <metric #>                                        | set static route metric number.                      |
|  |            |                | private <yes no>                                         | set private mode.                                    |
|  |            |                | active <yes no>                                          | set static route rule enable or disable.             |
|  | adjTcp     |                | <iface> [<mss>]                                          | adjust the TCP mss of iface                          |
|  | adjmss     |                | [mss]                                                    | adjust all system TCP mss of iface                   |
|  | udp        |                |                                                          |                                                      |
|  |            | status         |                                                          | display udp status                                   |
|  | rip        |                |                                                          |                                                      |
|  |            | accept         | <gateway>                                                | drop an entry from the RIP refuse list               |
|  |            | activate       |                                                          | enable rip                                           |
|  |            | merge          | [on off]                                                 | set RIP merge flag                                   |
|  |            | refuse         | <gateway>                                                | add an entry to the rip refuse list                  |
|  |            | request        | <addr> [port]                                            | send rip request to some address and port            |
|  |            | reverse        | [on off]                                                 | RIP Poisoned Reverse                                 |
|  |            | status         |                                                          | display rip statistic counters                       |
|  |            | trace          |                                                          | enable debug rip trace                               |
|  |            | mode           |                                                          |                                                      |
|  |            |                | <iface> in [mode]                                        | set rip in mode                                      |
|  |            |                | <iface> out [mode]                                       | set rip out mode                                     |
|  |            | dialin_user    | [show in out both none]                                  | show dialin user rip direction                       |
|  | tcp        |                |                                                          |                                                      |
|  |            | ceiling        | [value]                                                  | TCP maximum round trip time                          |
|  |            | floor          | [value]                                                  | TCP minimum rtt                                      |
|  |            | irtt           | [value]                                                  | TCP default init rtt                                 |
|  |            | kick           | <tcb>                                                    | kick tcb                                             |
|  |            | limit          | [value]                                                  | set tcp output window limit                          |
|  |            | max-incomplete | [number]                                                 | Set the maximum number of TCP incomplete connection. |
|  |            | mss            | [value]                                                  | TCP input MSS                                        |
|  |            | reset          | <tcb>                                                    | reset tcb                                            |
|  |            | rtt            | <tcb> <value>                                            | set round trip time for tcb                          |
|  |            | status         | [tcb] [<interval>]                                       | display TCP statistic counters                       |
|  |            | syndata        | [on off]                                                 | TCP syndata piggyback                                |
|  |            | trace          | [on off]                                                 | turn on/off trace for debugging                      |
|  |            | window         | [tcb]                                                    | TCP input window size                                |
|  | samenet    |                | <iface1> [<iface2>]                                      | display the ifaces that in the same net              |
|  | uninet     |                | <iface>                                                  | set the iface to uninet                              |
|  | telnet     |                | <host> [port]                                            | execute telnet clinet command                        |
|  | tftp       |                |                                                          |                                                      |
|  |            | support        |                                                          | prtn if tftp is support                              |
|  |            | stats          |                                                          | display tftp status                                  |
|  | traceroute |                | <host> [ttl] [wait] [queries]                            | send probes to trace route of a remote host          |
|  | xparent    |                |                                                          |                                                      |
|  |            | join           | <iface1> [<iface2>]                                      | join iface2 to iface1 group                          |

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|  |            |                |                                                                                                                                                     |                                            |
|--|------------|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|
|  |            | break          | <iface>                                                                                                                                             | break iface to leave ipxparent group       |
|  | anitprobe  |                | <0 1> 1:yes 0:no                                                                                                                                    | set ip anti-probe flag                     |
|  | forceproxy |                | <display set> [on off] [servicePort]<br>[proxyIp] [proxyport]                                                                                       | enable TCP forceproxy                      |
|  | ave        |                |                                                                                                                                                     | anti-virus enforce                         |
|  | urlfilter  |                |                                                                                                                                                     |                                            |
|  |            | enable         |                                                                                                                                                     | enable/disable url filter function         |
|  |            | reginfo        |                                                                                                                                                     |                                            |
|  |            |                | display                                                                                                                                             | display urlfilter registration information |
|  |            |                | name                                                                                                                                                | set urlfilter registration name            |
|  |            |                | eMail <size>                                                                                                                                        | set urlfilter registration email addr      |
|  |            |                | country <size>                                                                                                                                      | set urlfilter registration country         |
|  |            |                | clearAll                                                                                                                                            | clear urlfilter register information       |
|  |            | category       |                                                                                                                                                     |                                            |
|  |            |                | display                                                                                                                                             | display urlfilter category                 |
|  |            |                | webFeature [block/nonblock]<br>[activex/java/cookei/webproxy]                                                                                       | block or unblock webfeature                |
|  |            |                | logAndBlock [log/logAndBlock]                                                                                                                       | set log only or log and block              |
|  |            |                | blockCategory [block/nonblock]<br>[all/type(1-14)]                                                                                                  | block or unblock type                      |
|  |            |                | timeOfDay [always/hh:mm] [hh:mm]                                                                                                                    | set block time                             |
|  |            |                | clearAll                                                                                                                                            | clear all category information             |
|  |            | listUpdate     |                                                                                                                                                     |                                            |
|  |            |                | display                                                                                                                                             | display listupdate status                  |
|  |            |                | actionFlags [yes/no]                                                                                                                                | set listupdate or not                      |
|  |            |                | scheduleFlag [pending]                                                                                                                              | set schedule flag                          |
|  |            |                | dayFlag [pending]                                                                                                                                   | set day flag                               |
|  |            |                | time [pending]                                                                                                                                      | set time                                   |
|  |            |                | clearAll                                                                                                                                            | clear all listupdate information           |
|  |            | exemptZone     |                                                                                                                                                     |                                            |
|  |            |                | display                                                                                                                                             | display exemptzone information             |
|  |            |                | actionFlags<br>[type(1-3)][enable/disable]                                                                                                          | set action flags                           |
|  |            |                | add [ip1] [ip2]                                                                                                                                     | add exempt range                           |
|  |            |                | delete [ip1] [ip2]                                                                                                                                  | delete exempt range                        |
|  |            |                | reset                                                                                                                                               | clear exemptzone information               |
|  |            | customize      |                                                                                                                                                     |                                            |
|  |            |                | display                                                                                                                                             | display customize action flags             |
|  |            |                | actionFlags<br>[filterList/disableAllExceptTrusted/<br>unblockRWFTtoTrusted/keywordBl<br>ock/fullPath/caseInsensitive/fileNa<br>me][enable/disable] | set action flags                           |
|  |            |                | logFlags [type(1-3)][enable/disable]                                                                                                                | set log flags                              |
|  |            |                | add [string] [trust/untrust/keyword]                                                                                                                | add url string                             |
|  |            |                | delete [string] [trust/untrust/keyword]                                                                                                             | delete url string                          |
|  |            |                | reset                                                                                                                                               | clear all information                      |
|  |            | logDisplay     |                                                                                                                                                     | display cyber log                          |
|  |            | ftplist        |                                                                                                                                                     | update cyber list data                     |
|  |            | listServerIP   | <ipaddr>                                                                                                                                            | set list server ip                         |
|  |            | listServerName | <name>                                                                                                                                              | set list server name                       |
|  |            | general        |                                                                                                                                                     |                                            |
|  |            |                | enable                                                                                                                                              | enable/disable url filter function         |

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|  |            |                                                       |                                                                                      |
|--|------------|-------------------------------------------------------|--------------------------------------------------------------------------------------|
|  |            | display                                               | display content filter's general setting                                             |
|  |            | webFeature                                            | [block/nonblock]<br>[activex/java/cookei/webproxy]                                   |
|  |            | timeOfDay[always/hh:mm] [hh:mm]                       | set block time                                                                       |
|  |            | exemptZone display                                    | display exemptzone information                                                       |
|  |            | exemptZone actionFlags<br>[type(1-3)][enable/disable] | set action flags                                                                     |
|  |            | exemptZone add [ip1] [ip2]                            | add exempt range                                                                     |
|  |            | exemptZone delete [ip1] [ip2]                         | delete exempt range                                                                  |
|  |            | exemptZone reset                                      | clear exemptzone information                                                         |
|  |            | reset                                                 | reset content filter's general setting                                               |
|  | webControl |                                                       |                                                                                      |
|  |            | enable                                                | enable cbr filter                                                                    |
|  |            | display                                               | display cbr filter's setting                                                         |
|  |            | logAndBlock [log/block/both]                          | set log or block on matched web site                                                 |
|  |            | category                                              | set blocked categories                                                               |
|  |            | serverList display                                    | display current cbr filter servers                                                   |
|  |            | serverList refresh                                    | refresh cbr filter servers                                                           |
|  |            | queryURL [url][Server/localCache]                     | query url need to block or forward according the database on server or local cache   |
|  |            | cache display                                         | display the local cache entries                                                      |
|  |            | cache delete [entrynum/All]                           | delete the local cache entries                                                       |
|  |            | cache timeout [hour]                                  | Set timeout value of cache entries                                                   |
|  |            | blockonerror [log/block][on/off]                      | choose log or block when server is unavailable                                       |
|  |            | unratedwebsite[block/log][on/off]                     | choose log or block for unrated web site                                             |
|  |            | waitingTime [sec]                                     | set waiting time for server                                                          |
|  |            | reginfo display                                       | display the license key with cerberian                                               |
|  |            | reginfo refresh                                       | Check whether device had been registered and write the original license key to flash |
|  |            | zssw                                                  | change the zssw's URL                                                                |
|  | tredir     |                                                       |                                                                                      |
|  |            | failcount                                             | <count>                                                                              |
|  |            | partner                                               | <ipaddr>                                                                             |
|  |            | target                                                | <ipaddr>                                                                             |
|  |            | timeout                                               | <timeout>                                                                            |
|  |            | checktime                                             | <period>                                                                             |
|  |            | active                                                | <on/off>                                                                             |
|  |            | save                                                  | save tredir information                                                              |
|  |            | disp                                                  | display tredir information                                                           |
|  |            | debug                                                 | <value>                                                                              |
|  | rpt        |                                                       |                                                                                      |
|  |            | active                                                | [0:lan 1:dmz][1:yes 0:no]                                                            |
|  |            | start                                                 | [0:lan 1:dmz]                                                                        |
|  |            | stop                                                  | [0:lan 1:dmz]                                                                        |
|  |            | url                                                   | [0:lan 1:dmz] [num]                                                                  |
|  |            | ip                                                    | [0:lan 1:dmz] [num]                                                                  |
|  |            | srv                                                   | [0:lan 1:dmz] [num]                                                                  |
|  | dropIcmp   |                                                       |                                                                                      |
|  | nat        |                                                       |                                                                                      |
|  |            | period                                                | [period]                                                                             |
|  |            | port                                                  | [port]                                                                               |
|  |            | checkport                                             | verify all server tables are valid                                                   |
|  |            | timeout                                               |                                                                                      |
|  |            | gre [timeout]                                         | set nat gre timeout value                                                            |



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|  |      |                 |                                      |                                                                         |
|--|------|-----------------|--------------------------------------|-------------------------------------------------------------------------|
|  |      |                 | 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                                         |
|  |      |                 | udp [port] <value>                   | set nat udp timeout value of specific port                              |
|  |      |                 | display                              | display all the timeout values                                          |
|  |      | update          |                                      | create nat system information from spSysParam                           |
|  |      | iamt            | <iface>                              | display nat iamt information                                            |
|  |      | lookup          | <rule set>                           | display 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                                                 |
|  |      |                 | edit clear                           | clear one rule in the set                                               |
|  |      | service         |                                      |                                                                         |
|  |      |                 | irc [on/off]                         | turn on/off irc flag                                                    |
|  |      |                 | xboxlive [on/off]                    | turn on/off xboxlive flag                                               |
|  |      |                 | sip debug                            | enable/disable sip debug flag                                           |
|  |      |                 | sip display                          | display the sip call buffer                                             |
|  |      |                 | aol [on/off]                         | Turn on/off aol flag                                                    |
|  |      | resetport       |                                      | reset all nat server table entries                                      |
|  |      | incikeport      | [on/off]                             | turn on/off increase ike port flag                                      |
|  |      | session         | [session per host]                   | set nat session per host value                                          |
|  |      | deleteslot      | <iface> <slot>                       | delete specific slot of iface                                           |
|  |      | debug           |                                      |                                                                         |
|  |      |                 | natTraversal [on/off]                | set NAT traversal debug flag                                            |
|  |      |                 | hash [on/off]                        | set NAT hash table debug flag                                           |
|  |      |                 | session [on/off]                     | set NAT session debug flag                                              |
|  |      | hashtable       | <enifX, X=0, 1, 2, ...>              | show the NAT hash table of enifX                                        |
|  |      | natTable        | [enifX, X=0, 1, 2, ...]              | show the NAT global information                                         |
|  |      | simulation      | <enifX, X=0, 1, 2, ...>              | for engineer debug only                                                 |
|  |      | acl             |                                      |                                                                         |
|  |      |                 | display                              | display all NAT acl set and rule information                            |
|  |      |                 | load <set number>                    | load a specific acl of set number                                       |
|  |      |                 | save <set number>                    | save a specific acl of set number                                       |
|  |      | routing         | [0:LAN 1:DMZ] [0:no 1:yes]           | set NAT routing attributes                                              |
|  |      | historicalCHigh |                                      | Display the historical highest count of concurrent NAT sessions         |
|  |      | historicalHigh  |                                      | Display the historical highest count of NAT sessions based on per host. |
|  | igmp |                 |                                      |                                                                         |
|  |      | debug           | [level]                              | set igmp debug level                                                    |

|  |    |            |                             |                                                 |
|--|----|------------|-----------------------------|-------------------------------------------------|
|  |    | forwardall | [on/off]                    | turn on/off igmp forward to all interfaces flag |
|  |    | querier    | [on/off]                    | turn on/off igmp stop query flag                |
|  |    | iface      |                             |                                                 |
|  |    |            | <iface> grouptm <timeout>   | set igmp group timeout                          |
|  |    |            | <iface> interval <interval> | set igmp query interval                         |
|  |    |            | <iface> join <group>        | join a group on iface                           |
|  |    |            | <iface> leave <group>       | leave a group on iface                          |
|  |    |            | <iface> query               | send query on iface                             |
|  |    |            | <iface> rsptime [time]      | set igmp response time                          |
|  |    |            | <iface> start               | turn on of igmp on iface                        |
|  |    |            | <iface> stop                | turn off of igmp on iface                       |
|  |    |            | <iface> ttl <threshold>     | set ttl threshold                               |
|  |    |            | <iface> v1compat [on/off]   | turn on/off v1compat on iface                   |
|  |    | robustness | <num>                       | set igmp robustness variable                    |
|  |    | status     |                             | dump igmp status                                |
|  | pr |            |                             |                                                 |
|  |    | clear      |                             | clear ip pr table counter information           |
|  |    | disp       |                             | display policy route set and rule information   |
|  |    | move       |                             | move specific policy route rule to another rule |
|  |    | dispCnt    |                             | dump ip pr table counter information            |
|  |    | switch     |                             | turn on/off ip pr table counter flag            |

## IPSec Related Command

[Home](#)

| Command |              |         |                                                                                                                | Description                                                                                                                                                                |
|---------|--------------|---------|----------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ipsec   |              |         |                                                                                                                |                                                                                                                                                                            |
|         | debug        | type    | <0:Disable   1:Original on/off   2:IKE on/off   3:IPSec [SPI]on/off   4:XAUTH on/off   5:CERT on/off   6: All> | Turn on/off trace for IPsec debug information                                                                                                                              |
|         |              | level   | <0:None   1:User   2:Low   3:High>                                                                             | Set the debug level. Higher number means more detailed.                                                                                                                    |
|         |              | display |                                                                                                                | Show debugging information, include type and level.                                                                                                                        |
|         | route        | dmz     | <on/off>                                                                                                       | After a packet is IPsec processed and will be sent to DMZ side, this switch is to control if this packet can be applied IPsec again.                                       |
|         |              | 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.                                       |
|         |              | wlan    | <on/off>                                                                                                       | After a packet is IPsec processed and will be sent to WLAN side, this switch is to control if this packet can be applied IPsec again.                                      |
|         | 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 command is to show these runtime SPD. |
|         |              | List    |                                                                                                                | Display brief runtime phase 1 and phase 2 SA                                                                                                                               |

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|  |            |                 |                                                                                 |                                                                                                                                                                                                                                                          |
|--|------------|-----------------|---------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  |            |                 |                                                                                 | information                                                                                                                                                                                                                                              |
|  | 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_conn.       | <0~255>                                                                         | - Adjust auto-timer to check if any IPSec connection has “only outbound traffic but no inbound traffic” for certain period. If yes, system will disconnect it.                                                                                           |
|  |            |                 |                                                                                 | - Interval is in minutes                                                                                                                                                                                                                                 |
|  |            |                 |                                                                                 | - Default is 2 minutes                                                                                                                                                                                                                                   |
|  |            |                 |                                                                                 | - 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                                                                                                                                                                                                                                   |
|  |            | chk_input       | <0~255>                                                                         | - Adjust input timer to check if any IPSec connection has no inbound traffic for a certain period. If yes, system will disconnect it.                                                                                                                    |
|  |            |                 |                                                                                 | - Interval is in minutes                                                                                                                                                                                                                                 |
|  |            |                 |                                                                                 | - Default is 2 minutes                                                                                                                                                                                                                                   |
|  |            |                 |                                                                                 | - 0 means never timeout                                                                                                                                                                                                                                  |
|  | dial       | <policy index>  |                                                                                 | Initiate IPSec rule <policy index> from ZyWALL box                                                                                                                                                                                                       |
|  | ikeDisplay | <rule #>        |                                                                                 | Display IKE rule #, if no rule number assigned, this command will show current working buffer. NOTE: If working buffer is null, it will show error messages. Please ADD or EDIT an IKE rule before display.                                              |
|  | ikeAdd     |                 |                                                                                 | Create a working buffer for IKE rule.                                                                                                                                                                                                                    |
|  | ikeEdit    | <rule #>        |                                                                                 | Edit an existing IKE rule #                                                                                                                                                                                                                              |
|  | ikeSave    |                 |                                                                                 | Save working buffer of IKE rule to romfile.                                                                                                                                                                                                              |
|  | ikeList    |                 |                                                                                 | List all IKE rules                                                                                                                                                                                                                                       |
|  | ikeDelete  | <rule #>        |                                                                                 | Delete IKE rule #                                                                                                                                                                                                                                        |
|  | ikeConfig  | name            | <string>                                                                        | Set rule name (max length is 31)                                                                                                                                                                                                                         |
|  |            | negotiationMode | <0:Main   1:Aggressive>                                                         | Set negotiation mode                                                                                                                                                                                                                                     |
|  |            | natTraversal    | <Yes  No>                                                                       | Enable NAT traversal or not.                                                                                                                                                                                                                             |
|  |            | multiPro        | <Yes No>                                                                        | Enable multiple proposals in IKE 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                                                                                                                                                                                                                |
|  |            | authMethod      | <0:PreSharedKey   1:RSASignature   2:preShare Key+XAUTH   3:RSASignature+XAUTH> | Set authentication method in phase 1 in IKE                                                                                                                                                                                                              |
|  |            | preShareKey     | <ASCII   0xHEX>                                                                 | Set pre shared key in phase 1 in IKE                                                                                                                                                                                                                     |
|  |            | certificate     | <certificate name>                                                              | Set certificate file if using RSA signature as authentication method.                                                                                                                                                                                    |
|  |            | encryAlgo       | <0:DES   1:3DES   2:AES>                                                        | Set encryption algorithm in phase 1 in IKE                                                                                                                                                                                                               |

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|  |               |                 |                                      |                                                                                                                                                                                                                 |
|--|---------------|-----------------|--------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  |               | authAlgo        | <0:MD5   1:SHA1>                     | Set authentication algorithm in phase 1 in IKE                                                                                                                                                                  |
|  |               | saLifeTime      | <seconds>                            | Set sa life time in phase 1 in IKE                                                                                                                                                                              |
|  |               | keyGroup        | <0:DH1   1:DH2>                      | Set key group in phase 1 in IKE                                                                                                                                                                                 |
|  |               | xauth           | type <0:Client Mode   1:Server Mode> | Set client or server mode.                                                                                                                                                                                      |
|  |               |                 | username <name>                      | Set xauth user name                                                                                                                                                                                             |
|  |               |                 | password <password>                  | Set xauth password                                                                                                                                                                                              |
|  |               |                 | radius <username> <password>         | Set radius username and password                                                                                                                                                                                |
|  | ipsecDisplay  | <rule #>        |                                      | Display IPsec rule #, if no rule number assigned, this command will show current working buffer. NOTE: If working buffer is null, it will show error messages. Please ADD or EDIT an IPsec rule before display. |
|  | ipsecAdd      |                 |                                      | Create a working buffer for IPsec rule.                                                                                                                                                                         |
|  | ipsecEdit     | <rule #>        |                                      | Edit IPsec rule #                                                                                                                                                                                               |
|  | ipsecSave     |                 |                                      | Save working buffer of IPsec rule to romfile.                                                                                                                                                                   |
|  | ipsecList     |                 |                                      | List all IPsec rules                                                                                                                                                                                            |
|  | ipsecDelete   | <rule #>        |                                      | Delete IPsec rule #                                                                                                                                                                                             |
|  | ipsecConfig   | name            | <string>                             | Set rule name. (max length is 31)                                                                                                                                                                               |
|  |               | active          | <Yes   No>                           | Set active or not                                                                                                                                                                                               |
|  |               | saIndex         | <index>                              | Bind to which IKE rule.                                                                                                                                                                                         |
|  |               | multiPro        | <Yes   No>                           | Enable multiple proposals in IPsec or not                                                                                                                                                                       |
|  |               | nailUp          | <Yes   No>                           | Enable nailed-up or not                                                                                                                                                                                         |
|  |               | activeProtocol  | <0:AH   1:ESP>                       | Set active protocol in IPsec                                                                                                                                                                                    |
|  |               | encryAlgo       | <0:Null   1:DES   2:3DES   3:AES>    | Set encryption algorithm in IPsec                                                                                                                                                                               |
|  |               | encryKeyLen     | <0:128   1:192   2:256>              | Set encryption key length in IPsec                                                                                                                                                                              |
|  |               | authAlgo        | <0:MD5   1:SHA1>                     | Set authentication algorithm in IPsec                                                                                                                                                                           |
|  |               | saLifeTime      | <seconds>                            | Set sa life time in IPsec                                                                                                                                                                                       |
|  |               | encap           | <0:Tunnel   1:Transport>             | set encapsulation in IPsec                                                                                                                                                                                      |
|  |               | pfs             | <0:None   1:DH1   2:DH2>             | set pfs in phase 2 in IPsec                                                                                                                                                                                     |
|  |               | antiReplay      | <Yes   No>                           | Set antireplay or not                                                                                                                                                                                           |
|  |               | controlPing     | <Yes No>                             | Enable control ping or not                                                                                                                                                                                      |
|  |               | logControlPing  | <Yes No>                             | Enable logging control ping events or not                                                                                                                                                                       |
|  |               | controlPingAddr | <IP>                                 | Set control ping address                                                                                                                                                                                        |
|  |               | 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                                                                                                                                                                                             |
|  | policyList    |                 |                                      | List all IPsec policies                                                                                                                                                                                         |
|  | manualDisplay | <rule #>        |                                      | Display manual rule #                                                                                                                                                                                           |
|  | manualAdd     |                 |                                      | Add manual rule                                                                                                                                                                                                 |
|  | manualEdit    | <rule #>        |                                      | Edit manual rule #                                                                                                                                                                                              |
|  | manualSave    |                 |                                      | Save IPsec rules                                                                                                                                                                                                |
|  | manualList    |                 |                                      | List all IPsec rule                                                                                                                                                                                             |
|  | manualDelete  | <rule #>        |                                      | Delete IPsec rule #                                                                                                                                                                                             |

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|  |                  |                |                                     |                                                                                                                                                                                                                                                       |
|--|------------------|----------------|-------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | manualConfig     | name           | <string>                            | Set rule name                                                                                                                                                                                                                                         |
|  |                  | active         | <Yes   No>                          | Set active or not                                                                                                                                                                                                                                     |
|  |                  | myIpAddr       | <IP address>                        | Set my IP address                                                                                                                                                                                                                                     |
|  |                  | secureGwAddr   | <IP address>                        | Set secure gateway                                                                                                                                                                                                                                    |
|  |                  | 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                                                                                                                                                                                                                                   |
|  |                  | activeProtocol | <0:AH   1:ESP>                      | Set active protocol in 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                                                                                                                                                                                                                |
|  |                  | 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                                                                                                                                                                                                               |
|  | manualPolicyList |                |                                     | List all manual policy                                                                                                                                                                                                                                |
|  | swSkipOverlap    |                | <on off>                            | <ul style="list-style-type: none"> <li>- When a VPN rule with remote range overlaps with local range, the switch decides if a local to local packet should apply this rule.</li> <li>- Default value is “off” which means “no skip”.</li> </ul>       |
|  | adjTcpMss        |                | <off auto user defined value>       | <ul style="list-style-type: none"> <li>- After a tunnel is established, system will automatically adjust TCP MSS.</li> <li>- After all tunnels are drops, the MSS will adjust to the original value.</li> <li>- The default value is auto.</li> </ul> |
|  | Drop             |                | <policy index>                      | Drop an active tunnel.                                                                                                                                                                                                                                |
|  |                  |                |                                     | -                                                                                                                                                                                                                                                     |

## PPP Related Command

[Home](#)

| Command |     |           |             | Description                 |
|---------|-----|-----------|-------------|-----------------------------|
| ppp     |     |           |             |                             |
|         | bod |           |             |                             |
|         |     | remote    | <iface>     | show remote bod information |
|         |     | reset     |             | reset bod                   |
|         |     | setremote | <iface>     | set remote bod              |
|         |     | status    | <wan_iface> | show wan port bod status    |
|         |     | clear     | <wan_iface> | clear wan port bod data     |
|         |     | on        |             | set bod flag on             |

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|  |           |            |                     |                                                                 |
|--|-----------|------------|---------------------|-----------------------------------------------------------------|
|  |           | off        |                     | set bod flag off                                                |
|  |           | node       | <node> <dir>        | config the statistic method for remote node bod traffic data    |
|  |           | debug      | [on/off]            | show bod debug flag                                             |
|  |           | cnt        |                     |                                                                 |
|  |           |            | disp                | show bod state                                                  |
|  |           |            | clear               | clear bod state                                                 |
|  | ccp       |            | [on/off]            | set/display dial-in ccp switch                                  |
|  | lcp       |            |                     |                                                                 |
|  |           | acfc       | [on/off]            | set address/control field compression flag                      |
|  |           | pfc        | [on/off]            | set protocol field compression flag                             |
|  |           | mpin       | [on/off]            | set incoming call MP flag                                       |
|  |           | callback   | [on/off]            | set callback flag                                               |
|  |           | bacp       | [on/off]            | set bandwidth allocation control flag                           |
|  |           | echo       |                     |                                                                 |
|  |           |            | retry <retry_count> | set/display retry count to send echo-request                    |
|  |           |            | time <interval>     | set/display time interval to send echo-request                  |
|  | ipcp      |            |                     |                                                                 |
|  |           | close      |                     | close connection on ppp interface                               |
|  |           | list       | <iface>             | show ipcp state                                                 |
|  |           | open       |                     | open fsm link                                                   |
|  |           | timeout    | [value]             | set timeout interval when waiting for response from remote peer |
|  |           | try        |                     |                                                                 |
|  |           |            | configure [value]   | set/display fsm try config                                      |
|  |           |            | failure [value]     | set/display fsm try failure                                     |
|  |           |            | terminate [value]   | set/display fsm try terminate                                   |
|  |           | compress   | [on/off]            | set compress flag                                               |
|  |           | slots      | [slot_num]          | set number of slots                                             |
|  |           | idcompress | [on/off]            | set/display slot id compress                                    |
|  |           | address    | [on/off]            | set/display ip one address option                               |
|  | mp        |            |                     |                                                                 |
|  |           | default    |                     | show link default flag                                          |
|  |           |            | rotate              | set link default to rotate                                      |
|  |           |            | split               | set link default to split                                       |
|  |           | split      | [0 1]               | set/display link split                                          |
|  |           | rotate     | [0 1]               | set/display link rotate                                         |
|  |           | sequence   |                     | set/display mp start sequence                                   |
|  | configure |            |                     |                                                                 |
|  |           | ipcp       |                     |                                                                 |
|  |           |            | compress [on/off]   | enable/disable compress                                         |
|  |           |            | slots [slot_num]    | select number of slots                                          |
|  |           |            | idcompress [on/off] | enable/disable slot id compress                                 |
|  |           |            | address [on/off]    | set/display ip one address option                               |
|  |           | atcp       |                     | apple talk feature not supported anymore                        |
|  |           | ccp        |                     |                                                                 |
|  |           |            | ascend [on/off]     | set/display ascend stac flag                                    |
|  |           |            | history <count>     | set/display stac history count                                  |
|  |           |            | check [argv]        | set/display stac check mode                                     |
|  |           |            | reset <mode>        | set/display stac reset mode                                     |
|  |           |            | pfc [on/off]        | set/display pfc flag                                            |
|  |           |            | debug [on/off]      | set/display ccp debug flag                                      |
|  | iface     |            |                     |                                                                 |

|  |       |       |                                    |                                                                      |
|--|-------|-------|------------------------------------|----------------------------------------------------------------------|
|  |       |       | <iface> ipcp                       | show the ipcp status of the given iface                              |
|  |       |       | <iface> ipxcp                      | show the ipxcp status of the given iface                             |
|  |       |       | <iface> atcp                       |                                                                      |
|  |       |       | <iface> ccp [reset skip flush]     | show the ccp status of the given iface                               |
|  |       |       | <iface> mp                         | show the mp status of the given iface                                |
|  | show  |       | <channel>                          | show the ppp channel status                                          |
|  | fsm   |       |                                    |                                                                      |
|  |       | trace |                                    |                                                                      |
|  |       |       | break [num] [count] [flag]         | set the fsm log break value                                          |
|  |       |       | clear                              | clear the fsm log data                                               |
|  |       |       | disp                               | display the fsm log data                                             |
|  |       |       | filter [mask] [protocol]           | set the fsm log filter value                                         |
|  |       | tdata |                                    |                                                                      |
|  |       |       | filter [protocol1] [protocol2] ... | set the fsm filter data                                              |
|  |       |       | disp                               | display the fsm data                                                 |
|  |       |       | clear                              | clear the fsm data                                                   |
|  |       | struc |                                    | dump fsm data structure                                              |
|  | delay |       | [interval]                         | set the delay timer for sending first PPP packet after call answered |

## 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                    |
|         |          | cnt         |                      |                    |                                                           |
|         |          |             | disp                 |                    | Display firewall log type and count.                      |
|         |          |             | clear                |                    | Clear firewall log count.                                 |
|         |          | dynamicrule |                      |                    | SUPPORT_DYNAMIC_PORT                                      |
|         |          | 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 |
|         |          | schedule    |                      |                    |                                                           |
|         |          |             | load [ set # rule #] |                    | Load firewall ACL schedule by rule.                       |
|         |          |             | display              |                    | Display ACL schedule in buffer.                           |
|         |          |             | save                 |                    | Save buffer date and update runtime firewall ACL rule.    |
|         |          |             | week                 |                    |                                                           |
|         |          |             |                      | monday [on/off]    | Set schedule on or off by day – Monday.                   |
|         |          |             |                      | tuesday [on/off]   | Set schedule on or off by day – Tuesday.                  |
|         |          |             |                      | wednesday [on/off] | Set schedule on or off by day – Wednesday.                |
|         |          |             |                      | thursday [on/off]  | Set schedule on or off by day – Thursday.                 |
|         |          |             |                      | friday [on/off]    | Set schedule on or off by day – Friday.                   |
|         |          |             |                      | saturday [on/off]  | Set schedule on or off by day – Saturday.                 |
|         |          |             |                      | sunday [on/off]    | Set schedule on or off by day – Sunday.                   |
|         |          |             |                      | allweek [on/off]   | Quick set schedule on or off by week.                     |

|  |  |  |                                 |  |                                              |
|--|--|--|---------------------------------|--|----------------------------------------------|
|  |  |  | timeOfDay<br>[always/hh:<br>mm] |  | Set firewall ACL schedule block time of day. |
|--|--|--|---------------------------------|--|----------------------------------------------|

## Certificate Management (PKI) Command

[Home](#)

| Command      |         |                                                                                       | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|--------------|---------|---------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| certificates |         |                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|              | my_cert |                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|              |         | create                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|              |         | selfsigned <name><br><subject> [key<br>size]                                          | Create a self-signed local host certificate. <name> specifies a descriptive name for the generated certificate. <subject> specifies a subject name (required) and alternative name (required). The format is "subject-name-dn; {ip,dns,email}=value". If the name contains spaces, please put it in quotes. [key size] specifies the key size. It has to be an integer from 512 to 2048. The default is 1024 bits.                                                                                                                                                                                                                                                                                                |
|              |         | request <name><br><subject> [key<br>size]                                             | Create a certificate request and save it to the router for later manual enrollment. <name> specifies a descriptive name for the generated certification request. <subject> specifies a subject name (required) and alternative name (required). The format is "subject-name-dn; {ip,dns,email}=value". If the name contains spaces, please put it in quotes. [key size] specifies the key size. It has to be an integer from 512 to 2048. The default is 1024 bits.                                                                                                                                                                                                                                               |
|              |         | scep_enroll<br><name> <CA<br>addr> <CA cert><br><auth key><br><subject> [key<br>size] | Create a certificate request and enroll for a certificate immediately online using SCEP protocol. <name> specifies a descriptive name for the enrolled certificate. <CA addr> specifies the CA server address. <CA cert> specifies the name of the CA certificate. <auth key> specifies the key used for user authentication. If the key contains spaces, please put it in quotes. To leave it blank, type "". <subject> specifies a subject name (required) and alternative name (required). The format is "subject-name-dn; {ip,dns,email}=value". If the name contains spaces, please put it in quotes. [key size] specifies the key size. It has to be an integer from 512 to 2048. The default is 1024 bits. |
|              |         | cmp_enroll<br><name> <CA<br>addr> <CA cert><br><auth key><br><subject> [key<br>size]  | Create a certificate request and enroll for a certificate immediately online using CMP protocol. <name> specifies a descriptive name for the enrolled certificate. <CA addr> specifies the CA server address. <CA cert> specifies the name of the CA certificate. <auth key> specifies the id and key used for user authentication. The format is "id:key". To leave the id and key blank, type ":". <subject> specifies a subject name (required) and alternative name (required). The format is "subject-name-dn; {ip,dns,email}=value". If the name contains spaces, please put it in quotes. [key size] specifies the key size. It has to be an integer from 512 to 2048. The default is 1024 bits.           |
|              |         | import [name]                                                                         | Import the PEM-encoded certificate from stdin. [name]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |



|  |            |                              |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|--|------------|------------------------------|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  |            |                              |  | specifies the descriptive name (optional) as which the imported certificate is to be saved. For my certificate importation to be successful, a certification request corresponding to the imported certificate must already exist on ZyWALL. After the importation, the certification request will automatically be deleted. If a descriptive name is not specified for the imported certificate, the certificate will adopt the descriptive name of the certification request. |
|  |            | export <name>                |  | Export the PEM-encoded certificate to stdout for user to copy and paste. <name> specifies the name of the certificate to be exported.                                                                                                                                                                                                                                                                                                                                           |
|  |            | view <name>                  |  | View the information of the specified local host certificate. <name> specifies the name of the certificate to be viewed.                                                                                                                                                                                                                                                                                                                                                        |
|  |            | verify <name><br>[timeout]   |  | Verify the certification path of the specified local host certificate. <name> specifies the name of the certificate to be verified. [timeout] specifies the timeout value in seconds (optional). The default timeout value is 20 seconds.                                                                                                                                                                                                                                       |
|  |            | delete <name>                |  | Delete the specified local host certificate. <name> specifies the name of the certificate to be deleted.                                                                                                                                                                                                                                                                                                                                                                        |
|  |            | list                         |  | List all my certificate names and basic information.                                                                                                                                                                                                                                                                                                                                                                                                                            |
|  |            | rename <old name> <new name> |  | Rename the specified my certificate. <old name> specifies the name of the certificate to be renamed. <new name> specifies the new name as which the certificate is to be saved.                                                                                                                                                                                                                                                                                                 |
|  |            | def_selfsigned<br>[name]     |  | Set the specified self-signed certificate as the default self-signed certificate. [name] specifies the name of the certificate to be set as the default self-signed certificate. If [name] is not specified, the name of the current self-signed certificate is displayed.                                                                                                                                                                                                      |
|  | ca_trusted |                              |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|  |            | import<br><name>             |  | Import the PEM-encoded certificate from stdin. <name> specifies the name as which the imported CA certificate is to be saved.                                                                                                                                                                                                                                                                                                                                                   |
|  |            | export <name>                |  | Export the PEM-encoded certificate to stdout for user to copy and paste. <name> specifies the name of the certificate to be exported.                                                                                                                                                                                                                                                                                                                                           |
|  |            | view <name>                  |  | View the information of the specified trusted CA certificate. <name> specifies the name of the certificate to be viewed.                                                                                                                                                                                                                                                                                                                                                        |
|  |            | verify <name><br>[timeout]   |  | Verify the certification path of the specified trusted CA certificate. <name> specifies the name of the certificate to be verified. [timeout] specifies the timeout value in seconds (optional). The default timeout value is 20 seconds.                                                                                                                                                                                                                                       |
|  |            | delete <name>                |  | Delete the specified trusted CA certificate. <name> specifies the name of the certificate to be deleted.                                                                                                                                                                                                                                                                                                                                                                        |
|  |            | list                         |  | List all trusted CA certificate names and basic information.                                                                                                                                                                                                                                                                                                                                                                                                                    |
|  |            | rename <old name> <new name> |  | Rename the specified trusted CA certificate. <old name> specifies the name of the certificate to be renamed. <new name> specifies the new name as which the certificate is to be saved.                                                                                                                                                                                                                                                                                         |

|  |                |                                              |  |                                                                                                                                                                                                                                                                                                                                                                    |
|--|----------------|----------------------------------------------|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  |                | crl_issuer<br><name><br>[on off]             |  | Specify whether or not the specified CA issues CRL. <name> specifies the name of the CA certificate. [on off] specifies whether or not the CA issues CRL. If [on off] is not specified, the current crl_issuer status of the CA.                                                                                                                                   |
|  | remote trusted |                                              |  |                                                                                                                                                                                                                                                                                                                                                                    |
|  |                | import<br><name>                             |  | Import the PEM-encoded certificate from stdin. <name> specifies the name as which the imported remote host certificate is to be saved.                                                                                                                                                                                                                             |
|  |                | export <name>                                |  | Export the PEM-encoded certificate to stdout for user to copy and paste. <name> specifies the name of the certificate to be exported.                                                                                                                                                                                                                              |
|  |                | view <name>                                  |  | View the information of the specified trusted remote host certificate. <name> specifies the name of the certificate to be viewed.                                                                                                                                                                                                                                  |
|  |                | verify <name><br>[timeout]                   |  | Verify the certification path of the specified trusted remote host certificate. <name> specifies the name of the certificate to be verified. [timeout] specifies the timeout value in seconds (optional). The default timeout value is 20 seconds.                                                                                                                 |
|  |                | delete <name>                                |  | Delete the specified trusted remote host certificate. <name> specifies the name of the certificate to be deleted.                                                                                                                                                                                                                                                  |
|  |                | list                                         |  | List all trusted remote host certificate names and basic information.                                                                                                                                                                                                                                                                                              |
|  |                | rename <old name> <new name>                 |  | Rename the specified trusted remote host certificate. <old name> specifies the name of the certificate to be renamed. <new name> specifies the new name as which the certificate is to be saved.                                                                                                                                                                   |
|  | dir service    |                                              |  |                                                                                                                                                                                                                                                                                                                                                                    |
|  |                | add <name><br><addr[:port]><br>[login:pswd]  |  | Add a new directory service. <name> specifies a descriptive name as which the added directory server is to be saved. <addr[:port]> specifies the server address (required) and port (optional). The format is "server-address[:port]". The default port is 389. [login:pswd] specifies the login name and password, if required. The format is "[login:password]". |
|  |                | delete <name>                                |  | Delete the specified directory service. <name> specifies the name of the directory server to be deleted.                                                                                                                                                                                                                                                           |
|  |                | view <name>                                  |  | View the specified directory service. <name> specifies the name of the directory server to be viewed.                                                                                                                                                                                                                                                              |
|  |                | edit <name><br><addr[:port]><br>[login:pswd] |  | Edit the specified directory service. <name> specifies the name of the directory server to be edited. <addr[:port]> specifies the server address (required) and port (optional). The format is "server-address[:port]". The default port is 389. [login:pswd] specifies the login name and password, if required. The format is "[login:password]".                |
|  |                | list                                         |  | List all directory service names and basic information.                                                                                                                                                                                                                                                                                                            |
|  |                | rename <old name> <new name>                 |  | Rename the specified directory service. <old name> specifies the name of the directory server to be renamed. <new name> specifies the new name as which the directory server is to be saved.                                                                                                                                                                       |
|  | cert_manager   |                                              |  |                                                                                                                                                                                                                                                                                                                                                                    |
|  |                | reinit                                       |  | Reinitialize the certificate manager.                                                                                                                                                                                                                                                                                                                              |

## Bandwidth management Related Command

[Home](#)

| Command |           |      |         |                 |                 | Description                                                                                                                                                  |
|---------|-----------|------|---------|-----------------|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| bm      |           |      |         |                 |                 |                                                                                                                                                              |
|         | interface | lan  | enable  | <bandwidth xxx> |                 | Enable bandwidth management in LAN with bandwidth xxx bps. If the user doesn't set the bandwidth, the default value is 100Mbps.                              |
|         |           |      |         | <wrr pr>        |                 | Select fairness-based(WRR) or priority-based(PRR) mechanism. the default value is fairness-based.                                                            |
|         |           |      |         | <efficient>     |                 | Enable work-conserving feature.                                                                                                                              |
|         |           |      | disable |                 |                 | Disable bandwidth management in LAN                                                                                                                          |
|         |           | wan  | enable  | <bandwidth xxx> |                 | Enable bandwidth management in WAN with bandwidth xxx bps. If the user doesn't set the bandwidth, the default value is 100Mbps.                              |
|         |           |      |         | <wrr pr>        |                 | Select fairness-based(WRR) or priority-based(PRR) mechanism. the default value is fairness-based.                                                            |
|         |           |      |         | <efficient>     |                 | Enable work-conserving feature.                                                                                                                              |
|         |           |      | disable |                 |                 | Disable bandwidth management in WAN                                                                                                                          |
|         |           | dmz  | enable  | <bandwidth xxx> |                 | Enable bandwidth management in DMZ with bandwidth xxx bps. If the user doesn't set the bandwidth, the default value is 100Mbps.                              |
|         |           |      |         | <wrr pr>        |                 | Select fairness-based(WRR) or priority-based(PRR) mechanism. the default value is fairness-based.                                                            |
|         |           |      |         | <efficient>     |                 | Enable work-conserving feature.                                                                                                                              |
|         |           |      | disable |                 |                 | Disable bandwidth management in DMZ                                                                                                                          |
|         |           | wlan | enable  | <bandwidth xxx> |                 | Enable bandwidth management in WLAN with bandwidth xxx bps. If the user doesn't set the bandwidth, the default value is 100Mbps.                             |
|         |           |      |         | <wrr pr>        |                 | Select fairness-based(WRR) or priority-based(PRR) mechanism. the default value is fairness-based.                                                            |
|         |           |      |         | <efficient>     |                 | Enable work-conserving feature.                                                                                                                              |
|         |           |      | disable |                 |                 | Disable bandwidth management in WLAN                                                                                                                         |
|         | class     | lan  | add #   | bandwidth xxx   | <name xxx>      | Add a class with bandwidth xxx bps in LAN. The name is for users' information.                                                                               |
|         |           |      |         |                 | <priority x>    | Set the class' priority. The range is between 0 (the lowest) to 7 (the highest). The default value is 3.                                                     |
|         |           |      |         |                 | <borrow on/off> | The class can borrow bandwidth from its parent class when the borrow is set on, and vice versa. The default value is off.                                    |
|         |           |      | mod #   | <bandwidth xxx> |                 | Modify the parameters of the class in LAN. The bandwidth is unchanged if the user doesn't set a new value.                                                   |
|         |           |      |         | <name xxx>      |                 | Set the class' name.                                                                                                                                         |
|         |           |      |         | <priority x>    |                 | Set the class' priority. The range is between 0 (the lowest) to 7 (the highest). The priority is unchanged if the user doesn't set a new value.              |
|         |           |      |         | <borrow on/off> |                 | The class can borrow bandwidth from its parent class when the borrow is set on, and vice versa. The borrow is unchanged if the user doesn't set a new value. |

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|  |  |      |       |                 |                 |                                                                                                                                                              |
|--|--|------|-------|-----------------|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  |  |      | del # |                 |                 | Delete the class # and its filter and all its children class and their filters in LAN.                                                                       |
|  |  | wan  | add # | bandwidth xxx   | <name xxx>      | Add a class with bandwidth xxx bps in WAN. The name is for users' information.                                                                               |
|  |  |      |       |                 | <priority x>    | Set the class' priority. The range is between 0 (the lowest) to 7 (the highest). The default value is 3.                                                     |
|  |  |      |       |                 | <borrow on/off> | The class can borrow bandwidth from its parent class when the borrow is set on, and vice versa. The default value is off.                                    |
|  |  |      | mod # | <bandwidth xxx> |                 | Modify the parameters of the class in WAN. The bandwidth is unchanged if the user doesn't set a new value.                                                   |
|  |  |      |       | <name xxx>      |                 | Set the class' name.                                                                                                                                         |
|  |  |      |       | <priority x>    |                 | Set the class' priority. The range is between 0 (the lowest) to 7 (the highest). The priority is unchanged if the user doesn't set a new value.              |
|  |  |      |       | <borrow on/off> |                 | The class can borrow bandwidth from its parent class when the borrow is set on, and vice versa. The borrow is unchanged if the user doesn't set a new value. |
|  |  |      | del # |                 |                 | Delete the class # and its filter and all its children class and their filters in WAN.                                                                       |
|  |  | dmz  | add # | bandwidth xxx   | <name xxx>      | Add a class with bandwidth xxx bps in DMZ. The name is for users' information.                                                                               |
|  |  |      |       |                 | <priority x>    | Set the class' priority. The range is between 0 (the lowest) to 7 (the highest). The default value is 3.                                                     |
|  |  |      |       |                 | <borrow on/off> | The class can borrow bandwidth from its parent class when the borrow is set on, and vice versa. The default value is off.                                    |
|  |  |      | mod # | <bandwidth xxx> |                 | Modify the parameters of the class in DMZ. The bandwidth is unchanged if the user doesn't set a new value.                                                   |
|  |  |      |       | <name xxx>      |                 | Set the class' name.                                                                                                                                         |
|  |  |      |       | <priority x>    |                 | Set the class' priority. The range is between 0 (the lowest) to 7 (the highest). The priority is unchanged if the user doesn't set a new value.              |
|  |  |      |       | <borrow on/off> |                 | The class can borrow bandwidth from its parent class when the borrow is set on, and vice versa. The borrow is unchanged if the user doesn't set a new value. |
|  |  |      | del # |                 |                 | Delete the class # and its filter and all its children class and their filters in DMZ.                                                                       |
|  |  | wlan | add # | bandwidth xxx   | <name xxx>      | Add a class with bandwidth xxx bps in WLAN. The name is for users' information.                                                                              |
|  |  |      |       |                 | <priority x>    | Set the class' priority. The range is between 0 (the lowest) to 7 (the highest). The default value is 3.                                                     |
|  |  |      |       |                 | <borrow on/off> | The class can borrow bandwidth from its parent class when the borrow is set on, and vice versa. The default value is off.                                    |
|  |  |      | mod # | <bandwidth xxx> |                 | Modify the parameters of the class in WLAN. The bandwidth is unchanged if the user doesn't set a new value.                                                  |

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|  |         |            |       |                                                            |  |                                                                                                                                                                                                                    |
|--|---------|------------|-------|------------------------------------------------------------|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  |         |            |       | <name xxx>                                                 |  | Set the class' name.                                                                                                                                                                                               |
|  |         |            |       | <priority x>                                               |  | Set the class' priority. The range is between 0 (the lowest) to 7 (the highest). The priority is unchanged if the user doesn't set a new value.                                                                    |
|  |         |            |       | <borrow on off>                                            |  | The class can borrow bandwidth from its parent class when the borrow is set on, and vice versa. The borrow is unchanged if the user doesn't set a new value.                                                       |
|  |         |            | del # |                                                            |  | Delete the class # and its filter and all its children class and their filters in WLAN.                                                                                                                            |
|  | filter  | lan        | add # | Daddr <mask Dmask> Dport Saddr <mask Smask> Sport protocol |  | Add a filter for class # in LAN. The filter contains destination address (netmask), destination port, source address (netmask), source port and protocol. You may set the value as 0 if you do not care the item.  |
|  |         |            | del # |                                                            |  | Delete a filter which belongs to class # in LAN.                                                                                                                                                                   |
|  |         | wan        | add # | Daddr <mask Dmask> Dport Saddr <mask Smask> Sport protocol |  | Add a filter for class # in WAN. The filter contains destination address (netmask), destination port, source address (netmask), source port and protocol. You may set the value as 0 if you do not care the item.  |
|  |         |            | del # |                                                            |  | Delete a filter which belongs to class # in WAN.                                                                                                                                                                   |
|  |         | dmz        | add # | Daddr <mask Dmask> Dport Saddr <mask Smask> Sport protocol |  | Add a filter for class # in DMZ. The filter contains destination address (netmask), destination port, source address (netmask), source port and protocol. You may set the value as 0 if you do not care the item.  |
|  |         |            | del # |                                                            |  | Delete a filter which belongs to class # in DMZ.                                                                                                                                                                   |
|  |         | wlan       | add # | Daddr <mask Dmask> Dport Saddr <mask Smask> Sport protocol |  | Add a filter for class # in WLAN. The filter contains destination address (netmask), destination port, source address (netmask), source port and protocol. You may set the value as 0 if you do not care the item. |
|  |         |            | del # |                                                            |  | Delete a filter which belongs to class # in WLAN.                                                                                                                                                                  |
|  | show    | interface  | lan   |                                                            |  | Show the interface settings of LAN                                                                                                                                                                                 |
|  |         |            | wan   |                                                            |  | Show the interface settings of WAN                                                                                                                                                                                 |
|  |         |            | dmz   |                                                            |  | Show the interface settings of DMZ                                                                                                                                                                                 |
|  |         |            | wlan  |                                                            |  | Show the interface settings of WLAN                                                                                                                                                                                |
|  |         | class      | lan   |                                                            |  | Show the classes settings of LAN                                                                                                                                                                                   |
|  |         |            | wan   |                                                            |  | Show the classes settings of WAN                                                                                                                                                                                   |
|  |         |            | dmz   |                                                            |  | Show the classes settings of DMZ                                                                                                                                                                                   |
|  |         |            | wlan  |                                                            |  | Show the classes settings of WLAN                                                                                                                                                                                  |
|  |         | filter     | lan   |                                                            |  | Show the filters settings of LAN                                                                                                                                                                                   |
|  |         |            | wan   |                                                            |  | Show the filters settings of WAN                                                                                                                                                                                   |
|  |         |            | dmz   |                                                            |  | Show the filters settings of DMZ                                                                                                                                                                                   |
|  |         |            | wlan  |                                                            |  | Show the filters settings of WLAN                                                                                                                                                                                  |
|  |         | statistics | lan   |                                                            |  | Show the statistics of the classes in LAN                                                                                                                                                                          |
|  |         |            | wan   |                                                            |  | Show the statistics of the classes in WAN                                                                                                                                                                          |
|  |         |            | dmz   |                                                            |  | Show the statistics of the classes in DMZ                                                                                                                                                                          |
|  |         |            | wlan  |                                                            |  | Show the statistics of the classes in WLAN                                                                                                                                                                         |
|  | monitor | lan        | <#>   |                                                            |  | Monitor the bandwidth of class # in LAN. If the class is not specific, all the classes in LAN will be monitored.                                                                                                   |

|  |            |             |        |      |  |                                                                                                                                                                                                                          |
|--|------------|-------------|--------|------|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  |            |             |        |      |  | The first time you key the command will set it on; the second time you will set it off, and so on.                                                                                                                       |
|  |            | wan         | <#>    |      |  | Monitor the bandwidth of class # in WAN. If the class is not specific, all the classes in WAN will be monitored.<br>The first time you key the command will set it on; the second time you will set it off, and so on.   |
|  |            | dmz         | <#>    |      |  | Monitor the bandwidth of class # in DMZ. If the class is not specific, all the classes in DMZ will be monitored.<br>The first time you key the command will set it on; the second time you will set it off, and so on.   |
|  |            | wlan        | <#>    |      |  | Monitor the bandwidth of class # in WLAN. If the class is not specific, all the classes in WLAN will be monitored.<br>The first time you key the command will set it on; the second time you will set it off, and so on. |
|  | moveFilter | <channName> | <from> | <to> |  | User can move BWM filter order via this command.<br><channName>: lan, wan/wan1, dmz, wan2, wlan<br><from>: filter index<br><to>: filter index                                                                            |
|  | config     | save        |        |      |  | Save the configuration.                                                                                                                                                                                                  |
|  |            | load        |        |      |  | Load the configuration.                                                                                                                                                                                                  |
|  |            | clear       |        |      |  | Clear the configuration.                                                                                                                                                                                                 |

## Load Sharing Command

[Home](#)

| Command |           |           |                                         | Description                                                                                                                                                                                                                                                                                          |
|---------|-----------|-----------|-----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ls      |           |           |                                         |                                                                                                                                                                                                                                                                                                      |
|         | band      | <up down> | <WAN1 bandwidth+WAN2 bandwidth>         | It is used to configure the bandwidth parameters. The CI format is<br><br>ls band <method(up, down) WAN1 loading bandwidth  WAN2 bandwidth.<br><br>Ex: "ls band up 100 200" will configure the Load Sharing function dispatch the loading between WAN1 and WAN2 with 100K and 200K upstream loading. |
|         | wrr       |           | <Weight of WAN1> + <Weight of WAN2>     | It is used to configure the weight parameters. The CI format is<br><br>ls wrd <Weight of WAN1> + <Weight of WAN2>. The valid number of weight is 0~10<br><br>Ex: "ls wrd 10 5" will configure the weight of the WAN1 to be 10, weight of the WAN2 to be 5.                                           |
|         | spillover |           | < upper bandwidth of primary WAN >      | It is used to configure the spillover upper bandwidth of primary WAN.<br><br>Ex: "ls spillover 100", the router will send the traffic to secondary WAN when the primary WAN bandwidth exceeds 100Kbps.                                                                                               |
|         | mode      |           | <1:Least Load First 2:WRR 3:Spillover 2 | Change the dispatch mode. 1 is for dispatch packets by Dynamic Load Balancing, 2 is for dispatch packets by                                                                                                                                                                                          |

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|  |           |        |          |                                                                                            |
|--|-----------|--------|----------|--------------------------------------------------------------------------------------------|
|  |           |        | 55:None> | WRR, 3 is dispatch packets by Spillover. And 255 is for disable the Load Sharing function. |
|  | timeframe |        | <10~600> | Change the Time Frame number. The valid number of it is 10~600                             |
|  | disp      |        |          | Display the Load Sharing configuration data                                                |
|  | debug     |        |          | Debug CI commands                                                                          |
|  |           | online | <on off> | To toggle the debug message on or off. This command is useful for debugging.               |

## Bridge Related Command

[Home](#)

| Command |       |         |                                 | Description                                   |
|---------|-------|---------|---------------------------------|-----------------------------------------------|
| bridge  |       |         |                                 |                                               |
|         | mode  |         | <1/0> (enable/disable)          | turn on/off (1/0) LAN promiscious mode        |
|         | blt   |         |                                 | related to bridge local table                 |
|         |       | disp    | <channel>                       | display blt data                              |
|         |       | reset   | <channel>                       | reset blt data                                |
|         |       | traffic |                                 | display local LAN traffic table               |
|         |       | monitor | [on off]                        | turn on/off traffice monotor. Default is off. |
|         |       | time    | <sec>                           | set blt re-init interval                      |
|         | brt   |         |                                 | related to bridge route table                 |
|         |       | disp    | [id]                            | display brt data                              |
|         |       | reset   | [id]                            | reset brt data                                |
|         | cnt   |         |                                 | related to bridge routing statistic table     |
|         |       | disp    |                                 | display bridge route counter                  |
|         |       | clear   |                                 | clear bridge route counter                    |
|         | Iface |         |                                 | Related to "bridge mode" access interface     |
|         |       | active  | <yes/no>                        | Active bridge mode iface or not               |
|         |       | address | [ip]                            | Remote access IP address                      |
|         |       | dns1    | [ip]                            | First DNS server                              |
|         |       | dns2    | [ip]                            | Second DNS server                             |
|         |       | dns3    | [ip]                            | Third DNS server                              |
|         |       | mask    | [network mask]                  | Network mask                                  |
|         |       | gateway | [gateway ip]                    | Network gateway                               |
|         |       | display |                                 | Display whole interface information           |
|         | Stat  |         |                                 | related to bridge packet statistic table      |
|         |       | disp    |                                 | display bridge route packet counter           |
|         |       | clear   |                                 | clear bridge route packet counter             |
|         | Disp  |         |                                 | display bridge source table                   |
|         | fcs   |         | <BriFcsCtl>                     | set bridge fcs control flag                   |
|         | rstp  |         |                                 |                                               |
|         |       | bridge  |                                 |                                               |
|         |       |         | enable                          | enable this device RSTP function              |
|         |       |         | disable                         | disable this device RSTP function             |
|         |       |         | priority [pirority]             | set RSTP pirority                             |
|         |       |         | maxAge [max age]                | set RSTP max age                              |
|         |       |         | helloTime [hello time]          | set hello time                                |
|         |       |         | forwardDelay [forwarding delay] | set forwarding delay                          |
|         |       |         | version <STP:0 RSTP:2>          | switch STP or RSTP                            |
|         |       | port    |                                 |                                               |

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|  |  |       |                                              |                                   |
|--|--|-------|----------------------------------------------|-----------------------------------|
|  |  |       | enable <Port_NO>                             | enable RSTP on this port          |
|  |  |       | disable <Port_NO>                            | disable RSTP on this port         |
|  |  |       | pathCost <Port_NO> [path cost]               | set path cost on this port        |
|  |  |       | priority <Port_NO> [priority]                | set priority on this port         |
|  |  |       | edgePort <Port_NO> <True:1 False:0>          | set edge or non-edge on this port |
|  |  |       | p2pLink <Port_NO><br><Auto:2 True:1 False:0> | set per to per link on this port  |
|  |  |       | mcheck <Port_NO>                             | set migrate check on this port    |
|  |  | disp  |                                              | display RSTP information          |
|  |  | trace |                                              | turn on debug/trace message       |
|  |  | state |                                              | display RSTP information          |

myZyXEL.com Command

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| Command |            |                |                                                | Description                                                                              |
|---------|------------|----------------|------------------------------------------------|------------------------------------------------------------------------------------------|
| sys     |            |                |                                                |                                                                                          |
|         | myZyXelCom |                |                                                |                                                                                          |
|         |            | checkUserName  | <username>                                     | Check the username exists or not                                                         |
|         |            | register       | <username> <password> <email><br><countryCode> | Input the registration information, include username, password, email, and country code. |
|         |            | trialService   | <service>, 1 : CF, 2 : 3in1, 3 : CF + 3in1     | Input the service that to be tried.                                                      |
|         |            | serviceUpgrade | <licence key>                                  | Input license key that you want to let service from trial to standard                    |
|         |            | serviceRefresh | NULL                                           | Refresh the myZyXEL.com service status                                                   |
|         |            | display        | NULL                                           | Display all myZyXEL.com setting                                                          |
|         |            | serviceDisplay | NULL                                           | Display all service status, include expired day.                                         |

IDP Command

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| Command |         |         |          |  | Description                                                    |
|---------|---------|---------|----------|--|----------------------------------------------------------------|
| idp     |         |         |          |  | IDP CI commands                                                |
|         | display |         |          |  | Display the enable setting and the protected interface setting |
|         | load    |         |          |  | Load the enable setting and the protected interface setting    |
|         | config  |         |          |  | Config the enable setting and the protected interface setting  |
|         |         | enable  | <on off> |  | Config the enable setting.                                     |
|         |         | wan1    | <on off> |  | Config the protected interface setting.                        |
|         |         | wan2    | <on off> |  | Config the protected interface setting.                        |
|         |         | lan     | <on off> |  | Config the protected interface setting.                        |
|         |         | dmz     | <on off> |  | Config the protected interface setting.                        |
|         |         | wlan    | <on off> |  | Config the protected interface setting.                        |
|         |         | wan     | <on off> |  | Config the protected interface setting.                        |
|         | save    |         |          |  | Save the enable setting and the protected interface setting    |
|         | tune    |         |          |  | The tune command for IDP/Anti-Virus/Anti-Spam                  |
|         |         | load    |          |  | Load the tune configuration                                    |
|         |         | save    |          |  | Save the tune configuration                                    |
|         |         | display |          |  | Display the tune configuration                                 |



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|  |           |              |                |          |                                                             |
|--|-----------|--------------|----------------|----------|-------------------------------------------------------------|
|  |           | config       |                |          | Config the tune configuration                               |
|  |           |              | l4Udpcksum     | <on/off> | Enable/Disable UDP checksum check                           |
|  |           |              | l4Icmpcksum    | <on/off> | Enable/Disable ICMP checksum check                          |
|  |           |              | l4Tcpcksum     | <on/off> | Enable/Disable TCP checksum check                           |
|  |           |              | l4Tcpwindowck  | <on/off> | Enable/Disable TCP window check                             |
|  |           |              | l4Tcptomssck   | <on/off> | Enable/Disable TCP mss check                                |
|  |           |              | l7Smtpasm      | <on/off> | Enable/Disable TCP assembly for SMTP                        |
|  |           |              | l7Pop3asm      | <on/off> | Enable/Disable TCP assembly for POP3                        |
|  |           |              | l7Httpasm      | <on/off> | Enable/Disable TCP assembly for HTTP                        |
|  |           |              | l7Ftpasm       | <on/off> | Enable/Disable TCP assembly for FTP                         |
|  |           |              | l7Ftpdataasm   | <on/off> | Enable/Disable TCP assembly for FTPDATA                     |
|  |           |              | l7Otherasm     | <on/off> | Enable/Disable TCP assembly for other protocols             |
|  | update    |              |                |          | The command about signature and signature update stuffs     |
|  |           | display      |                |          | Show the signature information and the update setting       |
|  |           | load         |                |          | Load the signature update setting                           |
|  |           | save         |                |          | Save the signature update setting                           |
|  |           | start        |                |          | Start the signature update                                  |
|  |           | config       |                |          | Config the signature update setting                         |
|  |           |              | autoupdate     | <on/off> | Enable/Disable the autoupdate                               |
|  |           |              | method         | <1-3>    | Config the update method                                    |
|  |           |              | dailyTime      | <00-23>  | Config the daily hour update schedule                       |
|  |           |              | weeklyDay      | <1-7>    | Config the weekly day update schedule                       |
|  |           |              | weeklyTime     | <00-23>  | Config the weekly hour update schedule                      |
|  | signature |              |                |          | The command about signature post-process setting            |
|  |           | display      |                |          | Display the current signature setting                       |
|  |           | load         | <Signature_ID> |          | Load the signature setting that its ID is SignatureIID      |
|  |           | save         |                |          | Save the signature setting                                  |
|  |           | config       |                |          | Config the current signature setting                        |
|  |           |              | active         | <on/off> | Enable/Disable the active option                            |
|  |           |              | log            | <on/off> | Enable/Disable the log option                               |
|  |           |              | alert          | <on/off> | Enable/Disable the alert option                             |
|  |           |              | action         | <1-6>    | Set the post action                                         |
|  |           | reset        |                |          | Reset the signature setting to the default setting          |
|  |           | listFullRef  |                |          | List the IDP reference table of the full version signature  |
|  |           | listDeltaRef |                |          | List the IDP reference table of the delta version signature |
|  |           | listUserConf |                |          | List the all signature setting                              |
|  |           | reinit       |                |          | Re-initialize the search engine/backend process engine      |
|  |           | clearAll     |                |          | Clear signature file from the flash                         |
|  |           | configAll    |                |          | Config all signature settings                               |
|  |           |              | active         | <on/off> | Enable/Disable the active option to all signature settings  |
|  |           |              | log            | <on/off> | Enable/Disable the log option to all signature settings     |
|  |           |              | alert          | <on/off> | Enable/Disable the alert option to all                      |

|  |  |  |        |       |                                               |
|--|--|--|--------|-------|-----------------------------------------------|
|  |  |  |        |       | signature settings                            |
|  |  |  | action | <1-6> | Set the post action to all signature settings |

## Anti-Virus Command

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| Command |         |                 |           |          | Description                                                                                                                         |
|---------|---------|-----------------|-----------|----------|-------------------------------------------------------------------------------------------------------------------------------------|
| av      |         |                 |           |          | Anti-Virus CI commands                                                                                                              |
|         | display |                 |           |          | Show the anti-virus setting                                                                                                         |
|         | load    |                 |           |          | Load the anti-virus setting                                                                                                         |
|         | config  |                 |           |          | Config the anti-virus setting                                                                                                       |
|         |         | enable          |           |          | Enable/Disable the anti-virus function                                                                                              |
|         |         | httpScanAllMime | <on/off>  |          | Enable/Disable scanning all mime type files. If we don't enable this option , ZyWall will just scan files with the application type |
|         |         | pop3ScanAllMime | <on/off>  |          | Enable/Disable scanning all mime type files. If we don't enable this option , ZyWall will just scan files with the application type |
|         |         | smtpScanAllMime | Mon off>  |          | Enable/Disable scanning all mime type files. If we don't enable this option , ZyWall will just scan files with the application type |
|         |         | decompress      | <on/off>  |          | Enable/Disable the decompress on the fly. You should also enable tcp assembly to support the decompress on the fly.                 |
|         |         | ftp             |           |          | Config the anti-virus setting for FTP                                                                                               |
|         |         |                 | display   |          | Show the anti-virus setting for FTP                                                                                                 |
|         |         |                 | active    | <on/off> | Enable/Disable the anti-virus function for FTP                                                                                      |
|         |         |                 | log       | <on/off> | Enable/Disable the log option                                                                                                       |
|         |         |                 | alert     | <on/off> | Enable/Disable the alert option                                                                                                     |
|         |         |                 | breakfile | <on/off> | Enable/Disable the breakfile option                                                                                                 |
|         |         |                 | sendmsg   | <on/off> | Enable/Disable the sendmsg option                                                                                                   |
|         |         |                 | wan1      | <on/off> | Config the protected interface setting.                                                                                             |
|         |         |                 | wan2      | <on/off> | Config the protected interface setting                                                                                              |
|         |         |                 | lan       | <on/off> | Config the protected interface setting                                                                                              |
|         |         |                 | dmz       | <on/off> | Config the protected interface setting                                                                                              |
|         |         |                 | wlan      | <on/off> | Config the protected interface setting                                                                                              |
|         |         | http            |           |          | Config the anti-virus setting for HTTP                                                                                              |
|         |         |                 | display   |          | Show the anti-virus setting for HTTP                                                                                                |
|         |         |                 | active    | <on/off> | Enable/Disable the anti-virus function for HTTP                                                                                     |
|         |         |                 | log       | <on/off> | Enable/Disable the log option                                                                                                       |
|         |         |                 | alert     | <on/off> | Enable/Disable the alert option                                                                                                     |
|         |         |                 | breakfile | <on/off> | Enable/Disable the breakfile option                                                                                                 |
|         |         |                 | sendmsg   | <on/off> | Enable/Disable the sendmsg option                                                                                                   |
|         |         |                 | wan1      | <on/off> | Config the protected interface setting.                                                                                             |
|         |         |                 | wan2      | <on/off> | Config the protected interface setting                                                                                              |
|         |         |                 | lan       | <on/off> | Config the protected interface setting                                                                                              |
|         |         |                 | dmz       | <on/off> | Config the protected interface setting                                                                                              |
|         |         |                 | wlan      | <on/off> | Config the protected interface setting                                                                                              |
|         |         | smtp            |           |          | Config the anti-virus setting for SMTP                                                                                              |
|         |         |                 | display   |          | Show the anti-virus setting for SMTP                                                                                                |
|         |         |                 | active    | <on/off> | Enable/Disable the anti-virus function for SMTP                                                                                     |
|         |         |                 | log       | <on/off> | Enable/Disable the log option                                                                                                       |
|         |         |                 | alert     | <on/off> | Enable/Disable the alert option                                                                                                     |
|         |         |                 | breakfile | <on/off> | Enable/Disable the breakfile option                                                                                                 |
|         |         |                 | sendmsg   | <on/off> | Enable/Disable the sendmsg option                                                                                                   |

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|  |        |         |              |          |                                                         |
|--|--------|---------|--------------|----------|---------------------------------------------------------|
|  |        |         | wan1         | <on off> | Config the protected interface setting.                 |
|  |        |         | wan2         | <on off> | Config the protected interface setting                  |
|  |        |         | lan          | <on off> | Config the protected interface setting                  |
|  |        |         | dmz          | <on off> | Config the protected interface setting                  |
|  |        |         | wlan         | <on off> | Config the protected interface setting                  |
|  |        | pop3    |              |          | Config the anti-virus setting for POP3                  |
|  |        |         | display      |          | Show the anti-virus setting for POP3                    |
|  |        |         | active       | <on off> | Enable/Disable the anti-virus function for POP3         |
|  |        |         | log          | <on off> | Enable/Disable the log option                           |
|  |        |         | alert        | <on off> | Enable/Disable the alert option                         |
|  |        |         | breakfile    | <on off> | Enable/Disable the breakfile option                     |
|  |        |         | sendmsg      | <on off> | Enable/Disable the sendmsg option                       |
|  |        |         | wan1         | <on off> | Config the protected interface setting.                 |
|  |        |         | wan2         | <on off> | Config the protected interface setting                  |
|  |        |         | lan          | <on off> | Config the protected interface setting                  |
|  |        |         | dmz          | <on off> | Config the protected interface setting                  |
|  |        |         | wlan         | <on off> | Config the protected interface setting                  |
|  | save   |         |              |          | Save the anti-virus setting                             |
|  | update |         |              |          | The command about signature and signature update stuffs |
|  |        | display |              |          | Show the signature information and the update setting   |
|  |        | load    |              |          | Load the signature update setting                       |
|  |        | save    |              |          | Save the signature update setting                       |
|  |        | start   |              |          | Start the signature update                              |
|  |        | config  |              |          | Config the signature update setting                     |
|  |        |         | autoupdate   | <on off> | Enable/Disable the autoupdate                           |
|  |        |         | method       | <1-3>    | Config the update method                                |
|  |        |         | dailyTime    | <00-23>  | Config the daily hour update schedule                   |
|  |        |         | weeklyDay    | <1-7>    | Config the weekly day update schedule                   |
|  |        |         | weeklyTime   | <00-23>  | Config the weekly hour update schedule                  |
|  | tune   |         |              |          | The tune command for IDP/Anti-Virus/Anti-Spam           |
|  |        | load    |              |          | Load the tune configuration                             |
|  |        | save    |              |          | Save the tune configuration                             |
|  |        | display |              |          | Display the tune configuration                          |
|  |        | config  |              |          | Config the tune configuration                           |
|  |        |         | l4Udpcksum   | <on off> | Enable/Disable UDP checksum check                       |
|  |        |         | l4Icmpcksum  | <on off> | Enable/Disable ICMP checksum check                      |
|  |        |         | l4Tcpcksum   | <on off> | Enable/Disable TCP checksum check                       |
|  |        |         | l4Tcpwindow  | <on off> | Enable/Disable TCP window check                         |
|  |        |         | l4Tcpmssck   | <on off> | Enable/Disable TCP mss check                            |
|  |        |         | l7Smtpasm    | <on off> | Enable/Disable TCP assembly for SMTP                    |
|  |        |         | l7Pop3asm    | <on off> | Enable/Disable TCP assembly for POP3                    |
|  |        |         | l7Httpasm    | <on off> | Enable/Disable TCP assembly for HTTP                    |
|  |        |         | l7Ftpasm     | <on off> | Enable/Disable TCP assembly for FTP                     |
|  |        |         | l7Ftpdataasm | <on off> | Enable/Disable TCP assembly for FTPDATA                 |
|  |        |         | l7Otherasm   | <on off> | Enable/Disable TCP assembly for other protocols         |

## Anti-Spam Command

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| Command |               |                           |                          |                      | Description                                                                                                                                     |
|---------|---------------|---------------------------|--------------------------|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| as      |               |                           |                          |                      | Anti-Spam CI commands                                                                                                                           |
|         | asAction      | [0 1]                     |                          |                      | Forward/Block exceeding mails sessions.                                                                                                         |
|         | debug         |                           |                          |                      | Debug for AntiSpam                                                                                                                              |
|         |               | customListServ            |                          |                      | Set custom server list server                                                                                                                   |
|         |               |                           | ip                       | [IP address]         | Set custom server list server IP address                                                                                                        |
|         |               |                           | enable                   | [0:disable 1:enable] | Enable/Disable custom server list server                                                                                                        |
|         |               | customRateServ            |                          |                      | Set custom rating server server.                                                                                                                |
|         |               |                           | ip                       | [IP address]         | Set custom rating server IP address                                                                                                             |
|         |               |                           | enable                   | [0:disable 1:enable] | Enable/Disable custom rating server                                                                                                             |
|         |               | envelope                  | [on off]                 |                      | Enable/Disable envelope debug message.                                                                                                          |
|         |               | http                      | [on off]                 |                      | Enable/Disable http debug message.                                                                                                              |
|         |               | mail                      | [on off]                 |                      | Enable/Disable mail debug message.                                                                                                              |
|         |               | pop3                      | [on off]                 |                      | Enable/Disable pop3 debug message.                                                                                                              |
|         |               | smtp                      | [on off]                 |                      | Enable/Disable smtp debug message.                                                                                                              |
|         | delete        |                           |                          |                      | Delete AntiSpam static filter.                                                                                                                  |
|         |               | blackRule                 | <num start><br>[num end] |                      | Delete black rule filter. User can delete one or a set of filter.                                                                               |
|         |               | whiteRule                 | <num start><br>[num end] |                      | Delete white rule filter. User can delete one or a set of filter.                                                                               |
|         | display       |                           |                          |                      |                                                                                                                                                 |
|         |               | antisipam                 |                          |                      | Display AntiSpam configuration.                                                                                                                 |
|         |               | serverlist                |                          |                      | Display rating server list.                                                                                                                     |
|         | enable        | <0:disable  <br>1:enable> |                          |                      | Enable/Disable AntiSpam.                                                                                                                        |
|         | failTolerance | [time]                    |                          |                      | Set rating server fail tolerance time. If the rating server timeout interval over this tolerance, this server will be removed from server list. |
|         | freeSession   |                           |                          |                      | Free all mail ssessions.                                                                                                                        |
|         | getServerList | <Y:Yes N:No>              |                          |                      | Send server list request manually.                                                                                                              |