# ZyXEL

**Firmware Release Note**

# ZyWALL 35

**Release 3.62(WZ.3)**

**Date:** **Sep. 17, 2004**
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# ZyXEL ZyWALL 35 Standard Version release 3.62(WZ.3) Release Note

**Date: Sep. 17, 2004**

## Supported Platforms:

ZyXEL ZyWALL 35

## Versions:

ZyNOS Version : V3.62(WZ.3) | 09/17/2004
Bootbase Version : V1.07 | 03/23/2004

## Note:

1. Restore to Factory Defaults Setting Requirement: No.
2. The secondary WAN interface, or WAN 2, is "Backup Line". It is the backup of the Primary WAN 1. By default WAN2 is active. WAN 2 will brings-up automatically when WAN 1 connection fails.
3. 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.
4. 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.
5. Using Web to configure VPN, the phase 1 algorithms have been fixed to DES + MD5. If other algorithms are preferred, please use ADVANCE page to configure them.
6. When firewall turns from "off" to "on", the firewall initialization procedure will disconnect all connections running through the ZyWALL.
7. 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.
8. 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.
9. When UPnP is on, and then reboot the router, Windows XP will not detect UPnP and refresh "My Network Places→Local Network". Plug in network wire again can solve this problem.
10. The default roles for LAN/DMZ ports setting are: port 1 to 4 = LAN ports.
11. 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.
12. 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".

13. The first two entries for static route are reserved for creating WAN1 and WAN2 default routes and are READ-ONLY.

## Known Issues:

1. 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.
2. Sometimes on screen the "Local Area Connection" icon for UPnP disappears. The icon shows again when restarting PC.
3. 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 retry these applications..
4. On the SUA/ Address Mapping page, users can enter two or above same rules.
5. On the SUA/ Address Mapping Edit page, the user can give the same local IP and global IP.
6. SMT 15.1, if we try to edit the 11th rule then press ESC, the system returns some weird characters.
7. 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).
8. Bandwidth Management doesn't work on wireless LAN.
9. Sometimes, modify an active IPSec rule (the VPN tunnel was created) will crash the system, if this tunnel is going the re-key process.
10. Symptom: WAN2 port will duplicate received packet and modify source IP as WAN2's IP, then send out the copied packet.
    Condition:
    (1) Let WAN2 port, PC-A and PC-B connect to the same hub.
    (2) PC-A ping PC-B
    (3) PC-B will receive ICMP echo packet send from WAN2 port as well.
11. 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.
12. 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.
13. At SMT24.1, the collisions for WAN2, LAN and DMZ port are not really counted.
14. AES doesn't work with key length 192 and 256.
15. If there are two sub-classes (under same parent) running with TCP services, and both of these two classes can borrow bandwidth by parent, their current bandwidth usage will

be very unstable.

16. BWM can not control a subnet：
    (1) Add a class（all filter item is 0）under root class（call rule A
    (2) Add a class under A for a subnet（call rule B），the B never works

17. BWM out of control：
    (1) Add a class rule（all filter item is 0）under root class（call rule A）.
    (2) Add two class rules under A（rule B，C），both of them can borrow bandwidth from parent class.
    (3) When B and C are running with UDP packets，sometimes one of them bandwidth is 0.
18. BWM bandwidth should not be smaller than the sum of children classes?
    (1) Add a class（call rule A）which bandwidth is 400.
    (2) Add a subclass（call rule B）which bandwidth is 100.
    (3) Add another subclass (call rule C) with bandwidth 400.
    (4) C still can be saved, this should not be allowed.
19. When perform SPT partial reset via Vantage, device wouldn't reset all system parameters.
20. Device can't delete address mapping via Vantage.
    (1) Let device register to Vantage.
    (2) Add 2 address-mapping rules via Vantage.
    (3) Delete 1 address-mapping rule via Vantage. The rule can't be deleted.
21. P2P device may not work with SIP ALG on ZyWALL 35.
22. H.323 may not work with following scenario:
    PC1 ⟷ ZyWALL ⟷ internet ⟷ ZyWALL ⟷ PC2.

# Features:

**Modifications in V 3.62(WZ.3) | 09/17/2004**

Modify for formal release.

**Modifications in V3.62(WZ.3)b2 | 09/13/2004**

1. [BUG FIX]
   Symptom: LAN host ping device LAN IP a period time, then PPPoE/PPTP will be triggered dial.
   Condition:
   1. Set WAN 1 & WAN 2 are PPPoE.
   2. WAN 1 metric is 1 and WAN 2 metric is 2.
   3. LAN host ping device LAN IP a period time, then WAN 1 will be triggered dial.
2. [BUG FIX]
   Symptom: Firewall sends TCP RST after it blocks traffic period of time.
   Condition:
   1. Configure Firewall LAN to WAN blocked and enable log
   2. Generate one TCP SYN packet from LAN to WAN

3. Firewall will block this packet and generate block log
4. After period of time (30 seconds), Firewall log shows it sent TCP RST to both client and server side

3. [BUG FIX]
Symptom: Vantage restore from Computer, device will crash
1. Device registration to Vantage server
2. On vantage server Device >> Configuration File >> Backup rom file to local Computer
3. On vantage server Device >> Configuration File >> Restore rom file from local Computer
4. Device will do restore ,but device will crash easily.
4. [BUG FIX]
Symptom: DHCP Server can't work after CI command "sys rn accessblock 1"
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 can't change this option to "Server" forever .
5. [BUG FIX]
Symptom: LAN host will get wrong DNS server.
Condition:
1. Set SMT 3.2 DNS first DNS server as user defined 1.1.1.1. Others are none.
2. Unplug WAN port and reboot.
3. LAN host get IP address and DNS server and the DNS server is LAN IP.
6. [ENHANCEMENT] Enhance "cnm keepalive" ci command. Add "cnm keepalive 0" command to stop sending of keepalive packet to Vantage.
7. [BUG FIX] Symptom: Symptom: FTP from WAN to LAN does not work.
Condition:
1. Set a FTP server on a host in the LAN side and configure a default server to this host.
2. Using FTP from WAN to the default server with port mode.
3. After typing username and password, "ls" command does not work.
8. [BUG FIX] Symptom: LAN host will get wrong DNS server.
Condition:
1. Set SMT 3.2 DNS first DNS server as user defined 1.1.1.1. Others are none.
2. Unplug WAN port and reboot.
3. LAN host get IP address and DNS server and the DNS server is LAN IP.
9. [BUG FIX] Symptom: System Crash when change encryption key in Vantage.
Condition:
1. Device register to Vantage in router mode under DES and PPPoE.
2. configuration>>general>>system change the original encryption key and apply
3. Device receives data but soon the system crash.
10. [BUG FIX] Symptom: WAN Gateway will be reset to 0.0.0.0.
Condition:

1. In Vantage CNM add a device (the device have a static IP),when it register to Vantage. Vantage set default value to device.
2. After the device reset, WAN Gateway will be reset to 0.0.0.0.

11. [BUG FIX] Symptom: CNM agent accepts wrong CI command ”cnm keepalive -32312312222222222222222”.
    Condition:
    1. In SMT 24.8, type ”cnm keep -32312312222222222222222”.
    2. The system accepts it and saves with the value.
12. [BUG FIX] Symptom: CNM agent accepts wrong CI command ”cnm encrymode 1231223”.
    Condition:
    1. In SMT 24.8, type ”cnm encrymode 1231223”.
    2. The system accepts it and read it as ”65535”.
13. [BUG FIX] Symptom: [Vantage] Configuration>>VPN: When delete a active VPN tunnel successfully. Device sends VPN tunnel status "Destroy" to vantage.
    Condition:
    1. Create and dial up a VPN tunnel via Vantage.
    2. Delete this active rule in Vantage.
    3. Vantage server will have exception.

**Modifications in V3.62(WZ.3)b1 | 08/12/2004**

1. [ENHANCEMENT]
   Add Unified ALG for SIP and H.323.
2. [ENHANCEMENT]
   Each unified ALG can be enabled/disabled. The default ALG setting for SIP and H.323 is disabled.
3. [ENHANCEMENT]
   Firewall can bypass AX.25 (protocol #93) & IPv6 (protocol #41) protocols.
4. [BUG FIX]
   Symptom:Bandwidth management with ALG_H.323 cause system crash.
   Condition:
    1. Create a class with a Service-H.323 filter in WAN1 interface.
    2. Unplug all WAN’s cable
    3. Lanch the ”Openphone” application that supports H.323 and make a call.
    4. Router crashes.
5. [BUG FIX]
   Symptom: Router block trusted web content.
   Condition:
   1). In "eWC->CONTENT FILTER->General", enable content filter.
   2). In "eWC->CONTENT FILTER->Customization", select check boxes of "Enable Web site customization" and "Disable all Web traffic except for trusted Web sites".
   3). In "eWC->CONTENT FILTER->Customization", set "www.hellowork.go.jp" as trusted web site.
   4). Open browser and access http://www.hellowork.go.jp/kensaku/servlet/kensaku?pageid=001
   5). In the new page, select third and fourth radio bottom and click "search" bottom.

6). In the new page, click "next page" bottom.
7). The new page will be blocked.

6. [BUG FIX]
   Symptom: External Content Filtering cannot block the URL belonging to restricted category.
   Condition:
   1). In "eWC->CONTENT FILTER->Customization", unselect "Enable Web site customization".
   2). Add a URL to "trusted web sites".
   3). In "eWC->CONTENT FILTER-Customization>, select "Block Web sites which contain these keywords".
   4). In "eWC->CONTENT FILTER->Categories", select the category which the URL belongs to.
   5). Access the trusted URL.
   6). The URL will not be blocked.
7. [BUG FIX]
   Symptom: System crash by memory leak.
   Condition:
   1). Enable bandwidth management.
   2). Into eWC->Bandwidth Management->Monitor and wait for a period time.
   3). System crash by memory leak.
8. [BUG FIX]
   Symptom: Remote node CI command crashes.
   Condition:
   1). Goto SMT 24.8
   2). Load dial backup remote node to working buffer.
   3). Type CI command "sys rn accessblock 0".
   4). Save this remote.
   5). System crashes.
9. [BUG FIX]
   Symptom: System crashs when someone want to configure NAT mapping rules.
   Condition:
   1. Use the terminal program to login the console.
   2. Enter SMT 15, NAT Setup
   3. Select 1 to enter SMT 15.1, Address Mapping Sets.
   4. The system crashs.
10. [BUG FIX]
    Symptom: eWC>NAT>ADDRESS MAPPING edit page leaks memory.
    Condition:
    1. Log on to eWC.
    2. Go to eWC>NAT>ADDRESS MAPPING edit page, and then click Cancel.
    3. Repeat Step 2 for several times.
    4. Check system memory info by the CI command: system memu ms You will observe abnormal increases of memory sections, indicating memory leaks.
11. [BUG FIX]
    Symptom: The system might crash when enabling IPSec.

Condition: During IKE negotiation the system might crash.

12. [BUG FIX]
    Symptom: MSN Messenger's "Ask for Remote Assistance" function causes system crash.
    Condition:
    1. Enable UPnP.
    2. Set PC(A) and router(B) in intranet and PC(C) connects to LAN port of router(B).
    3. Test MSN Messenger's "Ask for Remote Assistance" function from PC(A) to PC(C).
    4. After PC(C) accepts the PC(A) request by "Ask for Remote Assistance" then the device will crash.
13. [BUG FIX]
    Symptom: System out of memory.
    Condition:
    1. Let the ZyWALL be a DNS proxy for LAN hosts.
    2. Do a lot of DNS inverse queries by running IPScan tool continuously from LAN host.
    3. After a long time, the ZyWALL will out of memory.
14. [FEATURE CHANGE]
    Change UPnP device name for ZyWALL35 and ZyWALL5
    WAS: "ZyXEL ZyWALL 35 Internet Security Gateway"
    IS: "ZyXEL ZyWALL 35 Internet Security Appliance"
15. [BUG FIX]
    Symptom: Packets cannot pass through NAT router to LAN hosts.
    Condition:
    1. NAT default server is on
    2. Procotol of the packet is not TCP, UDP, ICMP, ESP, GRE.
    3. Packets from WAN to router.
    4. Packets cannot pass through NAT router to LAN hosts (NAT default server)
16. Symptom: External Content filtering cannot register.
    Condition:
    1. In "eWC->content filter->categories", click "register" to connect to ZSSW.
    2. Do the registration on ZSSW.
    3. The registration will fail in the final step.
17. [ENHANCEMENT]
    External content filtering support full URL checking.
    Was: External content filtering only take domain name or IP address of URL into category checking.
    Is: External content filtering put entire URL into category checking.
18. [ENHANCEMENT]
    Centralized log add.
    1. Triangle route log switch.
    2. Broadcast/Multicast log switch.
19. [BUG FIX]
    Symptom: System time problem.
    Condition:

1. enter SMT24.10, configure time server.
2. open daylight saving, configure the start time and end time so that current time is within the dalight saving time.
3. after writing to rom file, router ask you to calibrate the system clock, answer yes.
4. If system failed to connect time server, system time will add one hour, every time you enter smt 24.1,system time add 1 hour automatically.

20. [BUG FIX]
Symptom: In SMT.4, the config menu won't change when changing the encapsulation from
Ethernet to PPTP or PPPOE.
Condition:
1. Make sure WAN2 is on.
2. Go to SMT.4.
3. Switch encapsulation to Ethernet.
4. Try to switch to PPTP or PPPOE. The config menu should change, but it won't.
21. [FEATURE CHANGE]
Change external content filtering message on centralized log and blocked page for some error events.
22. [ENHANCEMENT]
Put Cerberian company's logo on External Content Filtering blocked page.\
23. [BUG FIX]
Symptom: Router will crash because of mbuf leak.
Condition: After router (WAN or LAN) lane on/off several times, router will start leaking mbuf, and eventually system crashes.
24. [BUG FIX]
Symptom: Router will crash.
Condition: When user continuously accesses eWC and press "Apply" button, sometimes router will crash.
25. [BUG FIX]
Symptom: The system crashes after it receives a url that contains more than three "/"s behind the ip address (or domain name).
26. [BUG FIX]
Symptom: Sometimes when connect to router by TCP, FTP or HTTP will fail.
Condition:
1. One user connects to router by FTP, TELNET or HTTP.
2. In TCP handshake, client doesn't receive SYN ACK. i.e., router is in SYN RECEIVE state.
3. Client timeout and send RESET to router.
4. Related socket in router is still alive and other users can't login router until this socket timeout.
27. [ENHANCEMENT]
Auto configure MSS size according to MTU size. If users set the MSS value to 0, system would auto configure the MSS size according MTU size. Otherwise, the mss vaule would be the user specified value. The default MSS size is 1400.
28. [BUG FIX]
Symptom: eWC spelling error: eWC->Firewall→Default Rule: Allow Asymetrical

should be “Asymmetric”

29. [BUG FIX]
    Symptom: System out of memory and reboot when firewall enable.
    Condition:
    1. Enable firewall, then generate traffic.
    2. The memory will slowly leak until it uses up all the memory, then reboot.
30. [BUG FIX]
    Symptom: Generate a lot of TCP port 80 sessions to ZyWALL will cause device to hang and reboot by hardware watchdog.
    Condition:
    1. Use session.exe to generate a lot of TCP port 80 sessions to ZyWALL's LAN or WAN interface
    2. After several hundreds of sessions are established, the ZyWALL will hang and finally reboot.
31. [ENHANCEMENT]
    1. Support user config for SIP session timeout value.
    2. Support SIP SDP muliple RTP port.
    3. Delete unused ALG type.
    4. Command for ALG enable/disable and sip timeout.
32. [BUG FIX]
    Symptom: Sometimes the ZyWALL reboots by software watchdog.
    Condition:
    1.Put the ZyWALL on the network for a long time.
    2.Sometimes the ZyWALL will reboot by software watchdog.
33. [BUG FIX]
    Symptom: Generate a lot of TCP port 80 sessions to ZyWALL will cause device to hang and reboot by hardware watchdog.
    Condition:
    1. Use session.exe to generate a lot of TCP port 80 sessions to ZyWALL's LAN or WAN interface
    2. After several hundreds of sessions are established, the ZyWALL will hang and finally reboot.
34. [BUG FIX]
    Symptom: XAUTH with rule swap doesn’t work.
    Condition:
    1. In initiator, set up a VPN rule with XAUTH in client mode.
    2. In responder, there are three VPN rules:
    a. Rule 1 is XAUTH off.
    b. Rule 2 is XAUTH with client mode.
    c. Rule 3 is XAUTH with server mode (this rule corresponds to client rule).
    3. Dial from initiator, and the tunnel will never be up.
35. [BUG FIX]
    Symptom: Content filter timeout problem.
    Condition:
    1. A router is register the content filter (CF) server.
    2. Enable the CF feature.

3. Enable the external database content filtering.
4. The router log often record "Waiting content filter server (server name) timeout!".
5. A PC in lan fetch web from internet often hang for a while.

**Modifications in V3.62(WZ.2) | 06/028/2004**

Formal release.

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

1. [ENHANCEMENT] Suppout Vantage CNM 2.0 (Vantage Centralized Network Management).
2. [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.
   (2) If SGID is changed when SGMP is in other states, such as registering to Vantage, then device will not reset SGMP state machine.
3. [BUG FIX]
   Symptom: Device can't register to Linux version Vantage.
   Condition:
   (1) Device active cnm and start register process.
   (2) Device sends register request packet to Vantage.
   (3) Vantage responds register response packet to device and device get new SGID from the packet.
   (4) Device save new SGID and try to re-register to Vantage again.

   (5) Device can't register to Vantage successfully anymore.
4. [BUG FIX]
   Vantage server can't set "one to one,0.0.0.0,N/A,0.0.0.0,N/A" rule to NAT address mapping.
5. [BUG FIX]
   "WAN>>dial backup>>advance" will be reset to default values when Vantage perform "SPT partial reset".
6. [BUG FIX]
   Symptom: Trigger port will disappear after system reboot.
   Condition:
   (1) Configure Trigger port rule.
   (2) System reboot.
   (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 transfered 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) Initaitor 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 screeen.
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) Confinue 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>Inter net 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 negotiattion 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]
    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 enif1 on" after “ip nat lookback on”.
(3) Reboot ZyWall
(4) After reboot, the error message "The nat table of iface enif1 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 Enternet nncapsulation 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 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.

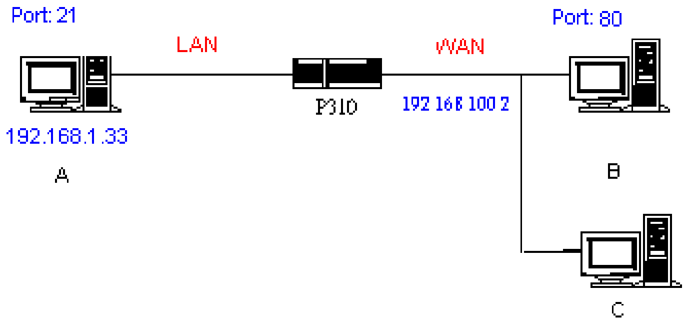
These triggered events can be timed so that they erase the port mapping as soon as they are done with the data transfer, so that the port mapping can be triggered by another Client computer. This gives the ***illusion*** that multiple computers can use the same port mapping at the same time, but the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

### How to use it

Following table is a configuration table.

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

### 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 ouput:

```
=============== 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 dail
```

## 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.

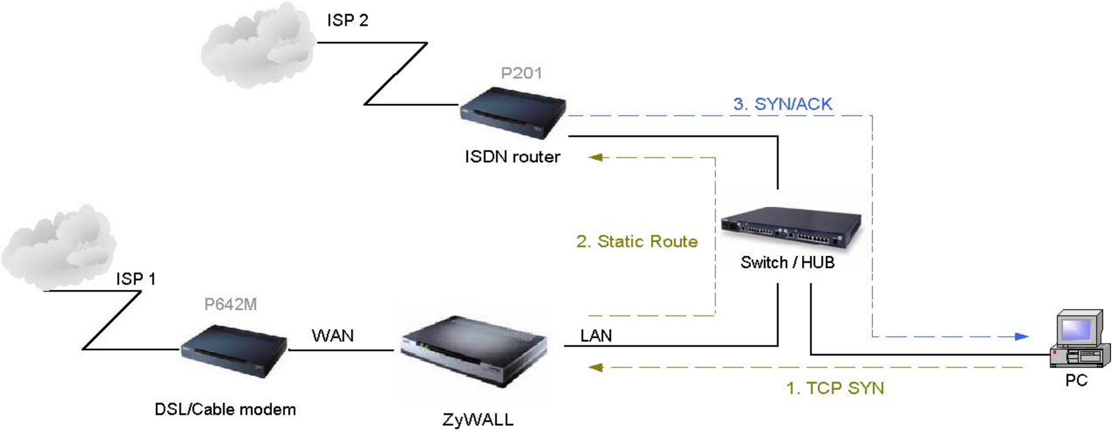


Figure 5-1 Triangle Route

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.

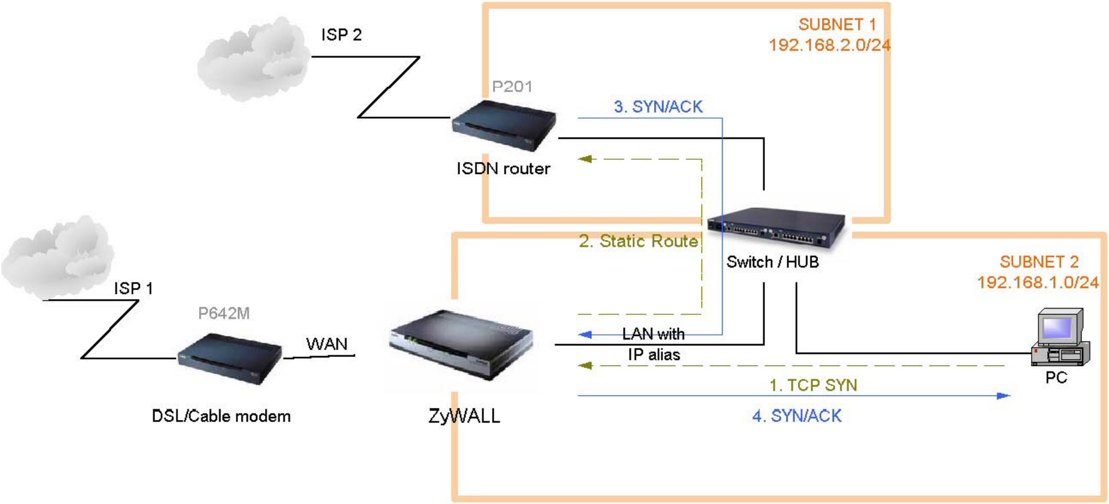


Figure 5-2 Gateway on alias IP network

(2) Gateway on WAN side

A working topology is suggested as below.

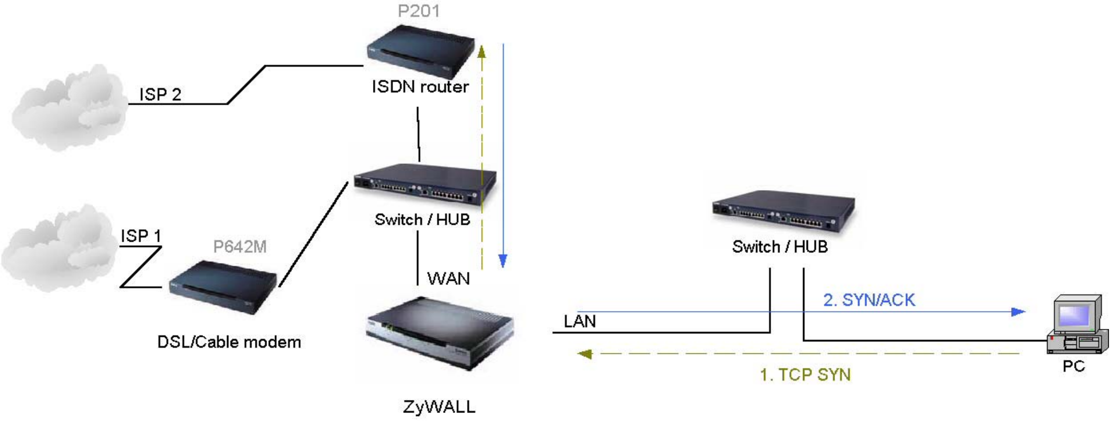


Figure 5-3 Gateway on WAN side

## 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.

# Annex A CI Command List

Last Updated: 2003/11/03

| Command Class List Table | | |
|---|---|---|
| System Related Command | Exit Command | Device Related Command |
| Ethernet Related Command | POE Related Command | PPTP Related Command |
| AUX Related Command | Configuration Related Command | IP Related Command |
| IPSec Related Command | PPP Related Command | Bandwidth Management |
| Firewall Related Command | Certificate Management (PKI) Command | |

System Related Command

Home

| Command | | | | Description |
|---|---|---|---|---|
| sys | | | | |
| | adjtime | | | retrive date and time from Internet |
| | cbuf | | | |
| | | display | [a\|f\|u] | display cbuf a: all f: free u: used |
| | | cnt | | cbuf static |
| | | | display | display cbuf static |
| | | | clear | clear cbuf static |
| | baud | | <1..5> | change console speed |
| | callhist | | | |
| | | add | <phone dir [rate] [upTime]> | add entry to call history |
| | | display | | display call history |
| | | remove | <index> | remove entry from call history |
| | clear | | | clear the counters in GUI status menu |
| | clock | | | |
| | | display | | display system clock |
| | countrycode | | [countrycode] | set country code |
| | date | | [year month date] | set/display date |
| | debug | | | |
| | | romfile | | |
| | | | cert [0:reserve/1:erase] | erase all the certificates |
| | | | display | display romfile debug settings |
| | | | isp [0:reserve/1:erase] | erase the account and password of ISP |
| | | | prekey [0:reserve/1:reset] | reset the system IPSec pre-shared key |
| | | | profile [0:reserve/1:erase] | erase the accounts and passwords of 802.1X and XAUTH |
| | | | pwd [0:reserve/1:reset] | reset system password |
| | | | radius | erase Authentication and Accounting keys |
| | | | update [0:reserve/1:erase] | update romfile depend on current configuration |
| | | | wep [0:reserve/1:erase] | erase all WEP encryption keys |
| | dir | | | display file directory |
| | 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 <num> |
| | | remove | <set 1-3> | remove extra phone numbers |
| | | reset | | reset flag and mask |
| | feature | | | display feature bit |
| | fid | | | |
| | | display | | display function id list |
| | firmware | | | display ISDN firmware type |
| | hostname | | [hostname] | display system hostname |
| | iface | | | |
| | | disp | [#] | display iface list |
| | isr | | [all\|used\|free] | display interrupt service routine |
| | interrupt | | | display interrupt status |
| | 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\|javablocked\|mten\|packetfilter\|pki\|tcpreset\|urlblocked\|urlforward] | display all logs or specify category logs |
| | | dispSvrIP | | Display the IP address of email log server and 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 [0:full/1:hourly/2:daily/3:weekly/4:none] | mail schedule policy |
| | | | schedule week [0:sun/1:mon/2:tue/3:wed/4:thu/5:fri/6:sat] | weekly time to send the logs |
| | | | server [domainName/IP] | mail server to send the logs |
| | | | subject [mail subject] | mail subject |
| | | save | | save the log setting buffer |
| | | syslog | | |
| | | | active [0:no/1:yes] | active to enable unix syslog |
| | | | display | display syslog setting |
| | | | facility [Local ID(1-7)] | log the messages to different files |
| | | | server [domainName/IP] | syslog server to send the logs |
| | | 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. |
| | map | | | display whole memory map content |
| | 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] | |
| | memory | | <address> <length> | display memory content |
| | 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 |
| | model | | | display server model name |
| | proc | | | |
| | | display | | display all process information |
| | | stack | [tag] | display process's stack by a give TAG |
| | | pstatus | | display process's status by a give TAG |
| | 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,<br>= 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 |
| | support | | | not support in this product |
| | time | | [hour [min [sec]]] | display/set system time |
| | timer | | | |
| | | disp | | display timer cell |
| | | trace | [on\|off] | set/display timer information online |
| | | start | [tmValue] | start a timer |
| | | stop | <ID> | stop a timer |
| | tos | | | |
| | | display | | display all runtime TOS |
| | | listPerHost | | display all host session count |
| | | debug | [on\|off] | turn on or off TOS debug message |
| | | dump | <session> | dump session information |
| | | sessPerHost | <number> | configure session per host value |
| | | tcprst | <session> | send TCP RST to both source and dest IP |
| | | 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 |
| | | | 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 |
| | | dead | | let watch dog take place using while loop |
| | romreset | | | restore default romfile |
| | mrd | | | |
| | | atwe | <mac> [country code] [debug flag] [featurebit] | configure mac, country code, debug flag, featurebit in the boot module |
| | | atse | | generate the engeneering debug flag password 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> <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 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 | | | |
| | | 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. 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 bootup. |
| | | save | | save upnp information |

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 |
| | | mem | <addr> <data> [type] | write memory data in address |
| | 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 |
| | debug | | | |
| | | disp | <ch_name> | display ethernet debug infomation |

| | | | | |
|---|---|---|---|---|
| | | reset | <ch_name> | reset ethernet debug state |
| | | create | <ch_name> <num> | create ethernet debug state |
| | | destory | <ch_name> | destory ethernet debug state |
| | | level | <ch_name> <level> | set the ethernet debug level<br>level 0: disable debug log<br>level 1:enable debug log (default) |
| | 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 |

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 |
| | window | | [size] | set pptp data rx-window-size |
| | rxTimeout | | [timeout] | set pptp data rx-timeout |
| | queue | | [size] | set pptp data tx-queue-size |

| | | | | |
|---|---|---|---|---|
| | enque | | [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 |
| | | 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 | | | |
| | | disp | | display TX session information |
| | | send | <device name> <pkt size> <interval(ms)> <count> | start TX session |
| | | stat | <device name> | display data statistic from TX session |
| | | stop | <session> | stop a TX session |
| | dial | | <device name> <phone number> | begin dialing |
| | disp | | <device name> | displays ndis's copy of a channel's spt profile |
| | dqtest | | <device name> <command> | send AT command |
| | drop | | <device name> | disconnect |
| | dump | | <start#> <display#> | dump aux debug information |
| | st | | <start#> <display#> | dump aux state |
| | event | | | |
| | | disp | | aux event trace display |
| | | clear | | aux event trace clear |
| | init | | <device name> | initialize aux channel |
| | is | | <device name> | send event to in-service |
| | mbuf | | <index> | dump mbuf information |
| | mem | | <addr> <data> [type] | write data at addr in memory |
| | mode | | <device name> [mode] | set mode |
| | mstatus | | <device name> | display modem last call status |
| | mtype | | <device name> | display modem type |
| | netstat | | <device name> | prints upper layer packet information |
| | oos | | <device name> | send event to out-of-service |
| | prtl | | <device name> <level> | set display level |
| | rate | | <device name> | show tx rx rate |
| | read | | <device name> | read spt from ROM and copy to ndis's copy |
| | redirect | | <device name> | invalid |
| | ringbuf | | | |
| | | cmd | | |
| | | | clear <device name> | clear ringbuffer |
| | | | disp <device name> | display ringbuffer |
| | | data | | |
| | | | clear | clear command ringbuffer |
| | | | disp <start> <len> | display command ringbuffer |
| | save | | <device name> | save aux information |
| | set | | <device name> <field> <value> | set aux information |
| | signal | | <device name> | show aux signal |

| | | | | |
|---|---|---|---|---|
| | speed | | <device name> <type> [value] | display/set aux speed |
| | test | | <device name> <type> | test aux channel |
| | version | | | invalid |

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 |
| retrieve | firewall | | | | Retrieve current saved firewall settings |
| save | firewall | | | | Save the current firewall settings |
| 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 |
| | | 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- | | The threshold to stop deleting the half-opened |

| | | | | | |
|---|---|---|---|---|---|
| | | | low <0~255> | | 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 <seconds> | | Edit the timeout for an idle ICMP session before it is terminated |
| | | | udp-idle-timeout <seconds> | | Edit the timeout for an idle UDP session before it is terminated |
| | | | connection-timeout <seconds> | | Edit the wait time for the SYN TCP sessions before it is terminated |
| | | | fin-wait-timeout <seconds> | | Edit the wait time for FIN in concluding a TCP session before it is terminated |
| | | | tcp-idle-timeout <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 <forward\|block> | Edit whether a packet is dropped or allowed when it matches this rule |
| | | | | active <yes\|no> | Edit whether a rule is enabled or not |
| | | | | protocol <0~255> | Edit the protocol number for a rule. 1=ICMP, 6=TCP, 17=UDP... |
| | | | | log <none\|match\|not-match\|both> | Sending a log for a rule when the packet none\|matches\|not match\|both the rule |
| | | | | | |
| | | | | alert <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> <subnet mask> | Select and edit a source address and subnet mask if a packet which complies to this rule. |
| | | | | srcaddr-range <start ip address> <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> <subnet mask> | Select and edit a destination address and subnet mask if a packet which complies to this rule. |
| | | | | destaddr-range <start ip address> <end ip address> | Select and edit a destination address range of a packet which complies to this rule. |
| | | | | tcp destport-single <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 destport-range <start port#> <end port#> | Select and edit a destination port range of a packet which comply to this rule. |

| | | | | | |
|---|---|---|---|---|---|
| | | | | udp destport-single <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 destport-range <start port#> <end port#> | Select and edit a destination port range of a packet which comply to this rule. |
| | | | | desport-custom <desired custom port name> | Type in the desired custom port name |
| 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 configuration |
| | | set <set#> | rule <rule#> | | Remove a specified rule in a set from the firewall configuration |
| insert | firewall | e-mail | | | Insert email alert settings |
| | | attack | | | Insert attack alert settings |
| | | set <set#> | | | Insert a specified rule set to the firewall configuration |
| | | set <set#> | rule <rule#> | | Insert a specified rule in a set to the firewall 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 |
| | 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 |
| | | drop | <hostid> [hardware] | drop arp |
| | | flush | | flush arp table |
| | | publish | | add proxy arp |
| | dhcp | | <iface> | |
| | | client | | |
| | | | release | release DHCP client IP |
| | | | renew | renew DHCP client IP |
| | | mode | <server\|relay\|none\|client> | set dhcp mode |
| | | relay | server <serverIP> | set dicp relay server ip-addr |
| | | reset | | reset dhcp table |
| | | server | | |
| | | | probecount <num> | set dhcp probe count |
| | | | dnsserver <IP1> [IP2] [IP3] | set dns server ip-addr |
| | | | winsserver <winsIP1> [<winsIP2>] | set wins server ip-addr |
| | | | gateway <gatewayIP> | set gateway |
| | | | hostname <hostname> | set hostname |
| | | | initialize | fills in DHCP parameters and initializes (for PWC purposes) |
| | | | leasetime <period> | set dhcp leasetime |
| | | | netmask <netmask> | set dhcp netmask |

| | | | | |
|---|---|---|---|---|
| | | | pool <startIP> <numIP> | set dhcp ip pool |
| | | | renewaltime <period> | set dhcp renew time |
| | | | rebindtime <period> | set dhcp rebind time |
| | | | reset | reset dhcp table |
| | | | server <serverIP> | set dhcp server ip for relay |
| | | | dnsorder [router\|isp] | set dhcp dns order |
| | | | 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 |
| | Httpd | | | |
| | | debug | [on\|off] | set http debug flag |
| | icmp | | | |
| | | echo | [on\|off] | set icmp echo response flag |
| | | data | <option> | select general data type |
| | | check | | |
| | | | 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 |
| | pong | | <hostid> [<size> <time-interval>] | pong remote host |
| | route | | | |
| | | status | [if] | display routing table |
| | | add | <dest_addr\|default>[/<bits>] <gateway> [<metric>] | add route |
| | | addiface | <dest_addr\|default>[/<bits>] <gateway> [<metric>] | add an entry to the routing table to iface |
| | | addprivate | <dest_addr\|default>[/<bits>] <gateway> [<metric>] | add private route |
| | | drop | <host addr> [/<bits>] | drop a route |
| | | flush | | flush route table |
| | | lookup | <addr> | find a route to the destination |
| | | errcnt | | |
| | | | disp | display routing statistic counters |

| | | | | |
|---|---|---|---|---|
| | | | clear | clear routing statistic counters |
| | smtp | | | |
| | | server | [addr] | set smtp server |
| | | destmail | [addr] | set destination mail addr |
| | | srcmail | [addr] | set source mail addr |
| | | sendmail | | send mail |
| | | addrlist | | list smtp server, dest, return addr |
| | | addrreset | | reset smtp server, dest, return addr |
| | status | | | display ip statistic counters |
| | 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>] <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 |
| | sidepath | | | |
| | | clear | | clear side path |
| | | disp | | display side path |
| | | set | <iface> <gateway> | set side path |
| | 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 | | pritn if tfpt 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 |
| | | 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] [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] [activex/java/cookei/webproxy] | block or unblock webfeature |
| | | | logAndBlock [log/logAndBlock] | set log only or log and block |
| | | | blockCategory [block/nonblock] [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 [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 [filterList/disableAllExceptTrusted/ | set action flags |

| | | | | |
|---|---|---|---|---|
| | | | unblockRWFToTrusted/keywordBlock/fullPath/caseInsensitive/fileName][enable/disable] | |
| | | | 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 |
| | | | display | display content filer'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 [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 |
| | | | blockonerror [log/block][on/off] | choose log or block when server is unavailable |
| | | | waitingTime [sec] | set waiting time for server |
| | | | reginfo display | display the license key with cerberian |
| | | | reginfo | No used |
| | | | zssw | change the zssw's URL |
| | tredir | | | |
| | | failcount | <count> | set tredir failcount |
| | | partner | <ipaddr> | set tredir partner |
| | | target | <ipaddr> | set tredir target |
| | | timeout | <timeout> | set tredir timeout |
| | | checktime | <period> | set tredir checktime |
| | | active | <on\|off> | set tredir active |
| | | save | | save tredir information |
| | | disp | | display tredir information |
| | | debug | <value> | set tredir debug value |
| | rpt | | | |
| | | start | | start report |
| | | stop | | stop report |

| | | | | |
|---|---|---|---|---|
| | | url | [num] | top url hit list |
| | | ip | [num] | top ip addr list |
| | | srv | [num] | top service port list |
| | dropIcmp | | [0 \| 1] | to drop ICMP fragment packets |
| | nat | | | |
| | | period | [period] | set nat timer period |
| | | port | [port] | set nat starting external port number |
| | | checkport | | verify all server tables are valid |
| | | timeout | | |
| | | | gre [timeout] | set nat gre timeout value |
| | | | iamt [timeout] | set nat iamt timeout value |
| | | | generic [timeout] | set nat generic timeout value |
| | | | reset [timeout] | set nat reset timeout value |
| | | | tcp [timeout] | set nat tcp timeout value |
| | | | tcpother [timeout] | set nat tcp other timeout value |
| | | | udp [port] <value> | set nat udp timeout value of specific port |
| | | update | | create nat system information from spSysParam |
| | | iamt | <iface> | display nat iamt information |
| | | iface | <iface> | show nat status of an interface |
| | | lookup | <rule set> | display nat lookup rule |
| | | new-lookup | <rule set> | display new nat lookup rule |
| | | loopback | [on\|off] | turn on/off nat loopback flag |
| | | reset | <iface> | reset nat table of an iface |
| | | server | | |
| | | | disp | display nat server table |
| | | | load <set id> | load nat server information from ROM |
| | | | save | save nat server information to ROM |
| | | | clear <set id> | clear nat server information |
| | | | edit active <yes\|no> | set nat server edit active flag |
| | | | edit svrport <start port> [end port] | set nat server server port |
| | | | edit intport <start port> [end port] | set nat server forward port |
| | | | edit remotehost <start ip> [end ip] | set nat server remote host ip |
| | | | edit leasetime [time] | set nat server lease time |
| | | | edit rulename [name] | set nat server rule name |
| | | | edit forwardip [ip] | set nat server server ip |
| | | | edit protocol [protocol id] | set nat server protocol |
| | | | 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 |
| | | resetport | | reset all nat server table entries |
| | | incikeport | <iface>[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 |
| | 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 | <1\|0> | | turn on\|off trace for IPsec debug information |
| | ipsec_log_disp | | | show IPSec log, same as menu 27.3 |
| | 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. |
| | | | | Remark: Only supported in ZyWALL100 |
| | | lan | <on\|off> | After a packet is IPSec processed and will be sent to LAN side, this switch is to control if this packet can be applied IPSec again. |
| | | | | Remark: Command available since 3.50(WA.3) |
| | | wan | <on\|off> | After a packet is IPSec processed and will be sent to WAN side, this switch is to control if this packet can be applied IPSec again. |
| | | | | Remark: Command available since 3.50(WA.3) |
| | show_runtime | sa | | display runtime phase 1 and phase 2 SA information |
| | | spd | | When a dynamic rule accepts a request and a tunnel is established, a runtime SPD is created according to peer local IP address. This command is to show these runtime SPD. |
| | switch | <on\|off> | | As long as there exists one active IPSec rule, all packets will run into IPSec process to check SPD. This switch is to control if a packet should do this. If it is turned on, even there exists active IPSec rules, packets will not run IPSec process. |
| | timer | chk_my_ip | <1~3600> | - Adjust timer to check if WAN IP in menu is changed |
| | | | | - Interval is in seconds |
| | | | | - Default is 10 seconds |
| | | | | - 0 is not a valid value |
| | | chk_conn. | <0~255> | - Adjust auto-timer to check if any IPsec |

| | | | | |
|---|---|---|---|---|
| | | | | connection has "only outbound traffic but no inbound traffic" for certain period. If yes, system will disconnect it. |
| | | | | - Interval is in minutes |
| | | | | - Default is 2 minuets |
| | | | | - 0 means never timeout |
| | | update_peer | <0~255> | - Adjust auto-timer to update IPSec rules which use domain name as the secure gateway IP. |
| | | | | - Interval is in minutes |
| | | | | - Default is 30 minutes |
| | | | | - 0 means never update |
| | | 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 minuets |
| | | | | - 0 means never timeout |
| | | | | Remark: Command available since 3.50(WA.3) |
| | updatePeerIp | | | Force system to update IPSec rules which use domain name as the secure gateway IP right away. |
| | | | | Remark: Command available since 3.50(WA.3) |
| | dial | <rule #> | | Initiate IPSec rule <#> from ZyWALL box |
| | | | | Remark: Command available since 3.50(WA.3) |
| | display | <rule #> | | Display IPSec rule # |
| | remote | key | <string> | I add a secured remote access tunnel with pre-shared key. It is a dynamic rule with local: the route's WAN IP. The algorithms with it are fixed to phase1: DES+MD5, DH1 and SA lifetime 28800 seconds; phase2: DES+MD5, PFS off, no anti-replay and SA lifetime 28800 seconds. The length of pre-shared key is between 8 to 31 ASCII characters. |
| | | switch | <on\|off> | Activate or de-activate the secured remote access tunnel. |
| | keep_alive | <rule #> | <on\|off> | Set ipsec keep_alive flag |
| | load | <rule #> | | Load ipsec rule |
| | save | | | Save ipsec rules |
| | config | netbios | active <on\|off> | Set netbios active flag |
| | | | group <group index1, group index2…> | Set netbios group |
| | | name | <string> | Set rule name |
| | | active | <Yes \| No> | Set active or not |
| | | keeyAlive | <Yes\| No> | Set keep alive or not |
| | | natTraversal | <Yes\| No> | Enable NAT traversal or not. |
| | | lcIdType | <0:IP \| 1:DNS \| 2:Email> | Set local ID type |
| | | lcIdContent | <string> | Set local ID content |
| | | myIpAddr | <IP address> | Set my IP address |
| | | peerIdType | <0:IP \| 1:DNS \| 2:Email> | Set peer ID type |
| | | peerIdContent | <string> | Set peer ID content |
| | | secureGwAddr | <IP address \| Domain name> | Set secure gateway address or domain name |
| | | protocol | <1:ICMP \| 6:TCP \| 17:UDP> | Set protocol |
| | | lcAddrType | <0:single \| 1:range \| 2:subnet> | Set local address type |
| | | lcAddrStart | <IP> | Set local start address |

| | | | | |
|---|---|---|---|---|
| | | lcAddrEndMask | <IP> | Set local end address or mask |
| | | lcPortStart | <port> | Set local start port |
| | | lcPortEnd | <port> | Set local end port |
| | | dnsServer | <IP> | Set DNS server for IPSec VPN |
| | | rmAddrType | <0:single \| 1:range \| 2:subnet> | Set remote address type |
| | | rmAddrStart | <IP> | Set remote start address |
| | | rmAddrEndMask | <IP> | Set remote end address or mask |
| | | rmPortStart | <port> | Set remote start port |
| | | rmPortEnd | <port> | Set remote end port |
| | | antiReplay | <Yes \| No> | Set anitreplay or not |
| | | keyManage | <0:IKE \| 1:Manual> | Set key manage |
| | | ike | negotiationMode <0:Main \| 1:Aggressive> | Set negotiation mode in phase 1 in IKE |
| | | | authMethod <0:PreSharedKey \| 1:RSASignature | Set authentication method in phase 1 in IKE |
| | | | preShareKey <string> | Set pre shared key in phase 1 in IKE |
| | | | certFile <FILE> | Set certificate file if using RSA signature as authentication method. |
| | | | p1EncryAlgo <0:DES \| 1:3DES> | Set encryption algorithm in phase 1 in IKE |
| | | | p1AuthAlgo <0:MD5 \| 1:SHA1> | Set authentication algorithm in phase 1 in IKE |
| | | | p1SaLifeTime <seconds> | Set sa life time in phase 1 in IKE |
| | | | p1KeyGroup <0:DH1 \| 1:DH2> | Set key group in phase 1 in IKE |
| | | | activeProtocol <0:AH \| 1:ESP> | Set active protocol in phase 2 in IKE |
| | | | p2EncryAlgo <0:Null \| 1:DES \| 2:3DES> | Set encryption algorithm in phase 2 in IKE |
| | | | p2AuthAlgo <0:MD5 \| 1:SHA1> | Set authentication algorithm in phase 2 in IKE |
| | | | p2SaLifeTime <seconds> | Set sa life time in phase 2 in IKE |
| | | | encap <0:Tunnel \| 1:Transport> | set encapsulation in phase 2 in IKE |
| | | | pfs <0:None \| 1:DH1 \| 2:DH2> | set pfs in phase 2 in IKE |
| | | manual | activeProtocol <0:AH \| 1:ESP> | Set active protocol in manual |
| | | manual ah | encap <0:Tunnel \| 1:Transport> | Set encapsulation in ah in manual |
| | | | spi <decimal> | Set spi in ah in manual |
| | | | authAlgo <0:MD5 \| 1:SHA1> | Set authentication algorithm in ah in manual |
| | | | authKey <string> | Set authentication key in ah in manual |
| | | manual esp | encap <0:Tunnel \| 1:Transport> | Set encapsulation in esp in manual |
| | | | spi <decimal> | Set spi in esp in manual |
| | | | encryAlgo <0:Null \| 1:DES \| 2:3DES> | Set encryption algorithm in esp in manual |
| | | | encryKey <string> | Set encryption key in esp in manual |
| | | | authAlgo <0:MD5 \| 1:SHA1> | Set authentication algorithm in esp in manual |
| | | | authKey < string> | Set authentication key in esp in manual |
| | swSkipOverlapIp | | <on\|off> | - When a VPN rule with remote range overlaps with local range, the switch decides if a local to local packet should apply this rule.<br>- Default value is “off” which means “no skip”. |
| | adjTcpMss | | <off\|auto\|user defined value> | - After a tunnel is established, system will automatically adjust TCP MSS.<br>- After all tunnels are drops, the MSS will adjust to the original value.<br>- The default value is auto. |

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 |
| | | 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 | | [inteval] | 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. |
| | | | delete | | Delete specific ACL set # rule #. |
| | | active | <yes\|no> | | Active firewall or deactivate firewall |
| | | clear | | | Clear firewall log |
| | | cnt | | | |
| | | | disp | | Display firewall log type and count. |
| | | | clear | | Clear firewall log count. |
| | | debug | | | Set firewall debug level. |
| | | disp | | | Display firewall log |
| | | init | | | ### nothing. ### |
| | | mailsubject | | | |
| | | | disp | | Display mail setting which is used to mail alert. |
| | | | edit | | Edit mail setting. |
| | | online | | | Set firewall log online. |
| | | pktdump | | | Dump the 64 bytes of dropped packet by firewall |
| | | tos | | | |
| | | | delete | | Delete specific TOS session. |

| | | | | | |
|---|---|---|---|---|---|
| | | | display | | Display TOS sessions. |
| | | | status | | Display TOS sessions' status. |
| | | | dump | | Dump TOS. |
| | | tosctrl | | | |
| | | | destination | | Display TOS destination hash |
| | | | incomplete | | Display TOS incomplete List. |
| | | dynamicrule | | | |
| | | | display | | Display firewall dynamic rules |
| | | tcprst | | | |
| | | | rst | | Set TCP reset sending on/off. |
| | | | rst113 | | Set TCP reset sending for port 113 on/off. |
| | | | display | | Display TCP reset sending setting. |
| | | dos | | | |
| | | | smtp | | Set SMTP DoS defender on/off |
| | | | display | | Display SMTP DoS defender setting. |
| | | | ignore | | Set if firewall ignore DoS in lan/wan/dmz/wlan |
| | | ignore | | | |
| | | | dos | | Set if firewall ignore DoS in lan/wan/dmz/wlan |
| | | | triangle | | Set if firewall ignore triangle route in lan/wan/dmz/wlan |
| | | 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 [always/hh:mm] | | Set firewall ACL schedule block time of day. |

Certificate Management (PKI) Command

Home

| Command | | | | Description |
|---|---|---|---|---|
| certificates | | | | |
| | my_cert | | | |
| | | create | | |
| | | | selfsigned <name> <subject> [key 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 |

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| | | | | bits. |
| | | | request <name> <subject> [key 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 <name> <CA addr> <CA cert> <auth key> <subject> [key 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 <name> <CA addr> <CA cert> <auth key> <subject> [key 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> [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 [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 |

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| | | | | name of the current self-signed certificate is displayed. |
| | ca_trusted | | | |
| | | import <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> [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 <name> [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 <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> [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> <addr[:port]> [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> <addr[:port]> [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 |

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| | | | | "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\|prr> | | 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\|prr> | | 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\|prr> | | 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\|prr> | | 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 |

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| | | | | | | 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 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. |
| | | | | <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 |

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| | | | | | | 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.<br>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. |

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| | config | save | | | | Save the configuration. |
| | | load | | | | Load the configuration. |
| | | clear | | | | Clear the configuration. |