ZyXEL

Firmware Release Note

Prestige 2602HWL-61

Standard version

Release 3.40(MK.1)C0

Date: **Mar. 23, 2005**
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Supported Platforms:

ZyXEL Prestige 2602HWL-61

Versions:

ZyNOS Version: V3.40(MK.1) | 03/23/2005 11:30:00
Bootbase Version: V1.09 | 07/29/2004 16:00:00

Notes:

The Prestige 2602HWL-61, is 4th generation of ZyXEL ADSL product family. It is a high performance ADSL/ADSL2 router for small/medium office to have Internet access and LAN-to-LAN application over the existing copper line. P2602HWL-61 takes advantage of much higher data rate than ADSL, speed up to 12Mbps (ADSL2), faster start-up, advanced diagnostics and better power management. This high performance ADSL router is a high integrated 4 port 10/100M auto MDI/MDIX switch, advanced secure VPN/Firewall, Bandwidth Management, IEEE 802.11g wireless access, and Voice over IP communication capability for small/medium business or small remote office. P2602HWL-61 provides an embedded mini-PCI module for 802.11g Wireless LAN connectivity, four single auto-sensing, auto-detection 10/100BASE-T Ethernet ports for connection to the user's local network, and a single RJ-11/RJ-45 port for connection to ADSL/ADSL2 line.

The version of modem code is 01.01.00.00.

Features:
Modifications in V 3.40(MK.1)c0 | 03/23/2005
1. Change to FCS version.

Modifications in V 3.40(MK.1)b4 | 01/20/2005
1. [BUG FIXED]
    Symptom: a. When DUT get SIP file from auto-provision function, the value of VPI/VCI and Phone2's outgoing setting can't be written into DUT and sometimes DUT occurs expectations.

2. [BUG FIXED]
    Symptom: eWC timeout but it can save change .
        step1.eWC in remote management

step2. change telnet port 23 to 23023 and wait 3 minutes
step3. apply it
step4 turn on login face and login step5.in remote management the telnet port have changed frome23 to 23023

3. [BUG FIXED]
   Symptom: the DHCP can distribute 10.0.0.0 and the client can get the ip and connect to internet .

4. [BUG FIXED]
   Symptom: static dhcp have problem .
   Step1:In SMT menu24.8 use ci comment "ip dhcp ...."add a static ip 192.168.1.33 to pc1 ,while the ip is used by LAN pc2
   step2: pc2 releases the ip while pc1 can't get the ip 192.168.1.33.

5. [BUG FIXED]
   Symptom: menu1 sys name can accept "." and "@" which is out of define

6. [BUG FIXED]
   Symptom: in menu25 the ip routing policy name can accept the character out of define. such as "@" and "."

7. [ENHANCEMENT]
   Support new Firewall and NAT for the e-mule issue.

8. [BUG FIXED]
   Symptom: Upload wrong romfile by SMT Restore Configuration may cause device crash.
   Condition: If the upload romfile is text format or wrong content binary image, after Restore from SMT 24.6, the device may crash.

9. [BUG FIXED]
   Symptom: Sometimes, VC hunt has finished successful but connection fail page is redirected by WEB.
   Condition: Connection to Hi-Net and enable Zero Configuration, VC Hunt,

10. [BUG FIXED]
    Symptom: Sometimes system will reboot or exception at threadx library.
    Condition: Enable vc hunt

11. [ENHANCEMENT]
    Support new MAC address, 001349XXXXXX

12. [ENHANCEMENT]
    Remove the "ATDC" and "ATFE" in AT Command and "ATDC" in CI Command.

Modifications in V 3.40(MK.1)b3 | 01/12/2005

1. [BUG FIXED]
   Symptom: When ping some ip address and type"ctrl+c at the same time.System will crash and reboot
   Condition: 1.In Menu 24.8 typing "ip ping 192.168.8.1" (the ip address from which

you can get response". the default times of ping is three.

2.When the device get response in the first time or the second time.type"ctrl+c".then type the Up key and Enter quickly. the system will crash and reboot.

2. [BUG FIXED]
    Symptom: When we get rom-t from lan side by FTP , and modified it, then put rom-t , the device won't accept the new rom-t
    Condition: When we get rom-t from LAN side by FTP , and modified it, then put rom-t ,the device won't accept the new rom-t. (Just only use ultraedit modify rom-t, the DUT can accept it, but while use other utilities--DOS Edit/Word/Notepad/WordPad modify the rom-t, the DUT can not accept it.)

3. [BUG FIXED]
    Symptom: Enter special url will cause device crash.
    Condition: 1. Form LAN site, enter
        http://192.168.1.1/Forms/rpAuth_1?ZyXEL%20ZyWALL% 20Series<script>top.location.pathname=%20""</script> on browser, the device will crash.

4. [BUG FIXED]
    Symptom: When get rom-t from LAN side by FTP, and modify it, then put rom-t, the DUT will show not enough memory.

5. [BUG FIXED]
    Symptom: VC hunt can not alloc mbuf again when VC hunt table is more than 9.

Modifications in V 3.40(MK.1)b2 | 12/30/2004
1. [BUG FIXED]
    Symptom: Callee side fail to hangup Peer to Peer VoIP call. Callee will send bye to proxy server not caller.
    Condition: 1: Caller to make peer to peer call to callee.
        2: Callee hang-up. But the bye message would send to proxy server, not caller.

2. [BUG FIXED]
    Symptom: Set PPPoA encapsulation and enable nail-up. After changing user-name several times, the connection can't be dialed-up.
    Condition: 1.During the saving process of remote node, the remote node will be dropped and inactive. Then, it will be open and active again.
        2. There is a periodical timer to process the nail-up task, the inactive period will affect the task process. For example, the remote node is sometimes active in the begining of the task process. But, the remote node is inactive after a few moment. This will mess up the state of the task.

3. [BUG FIXED]
   Symptom: Ippr will not be active.
   Condition: we have set IPPR rule in menu 25 and apply it in menu 3-2 then reboot
       device.

4. [BUG FIXED]
   Symptom: DUT should send DNS query periodically if the domain name of syslog or
       mail server can not find by DNS server.
   Condition: 1. Set syslog or mail server as abc.def.com.
       2. DUT will send DNS query only once.

5. [BUG FIXED]
   Symptom: Autopro change WAN IP would can not work.
   Condition: Autopro can not change WAN IP in next procedure:
     Case I
     1. DUT set Enet encap and static IP 192.168.10.57
     2. Get rom-t from DUT and change IP to 192.168.10.58
     3. Download configuration file from TFTP server
     Case II
     1. DUT set Enet encap and static IP 192.168.10.57
     2. Configuration file set as dynamic IP
     3. Download file from TFTP server

6. [BUG FIXED]
   Symptom: Packet tranfer from LAN to WAN will fail after autopro.
   Condition: 1. IAD set Enet Encap and static IP.
       2. Enable autopro from CI command
       3.Download configuration file from TFTP server (Enet Encap/ Static IP)

Modifications in V 3.40(MK.1)b1 | 12/09/2004
1. [BUG FIXED]
   Symptom: In smt 3 2 ,when we change nothing but it still save to romfile.
   Condition: we change nothing in smt menu 3-2 and it still save to rom.

2. [BUG FIXED]
   Symptom: Ippr will not be active.
   Condition: we have set IPPR rule in menu 25 and apply it in menu 3-2 ,and then reboot
       device.

3. [ENHANCEMENT]
   1. Change SIP server port and register server port start range from 1024 to 1
   2. Change local SIP port and RTP port start range from 1024 to 1025

4. [BUG FIXED]
   Symptom: If user selects "IP Alias 1" from "No" to "Yes" but doesn't change other settings and save to flash. Then the SMT display in "IP Alias 1" filed is not consistent with SPTGEN (rom-t).

5. [BUG FIXED]
   Symptom: Use "d c d all" to cancel connection then the connection cannot be triggered anymore.
   Condition: In PPPoE mode if use "d c d all" to drop all connection then the connection can't be triggered anymore no matter by LAN-to-WAN traffic or by manually until reboot the debice.

6. [BUG FIXED]
   Symptom: Use ENET ENCAP mode, traffic redirect function does not work.
   Condition: 1: Use ENET ENCAP mode.
   2: Configure Wan Backup(Traffic Redirect) in menu 2.
   3: When DSL line is down, the traffic match specific destination does not use the traffic redirect node.

7. [BUG FIXED]
   Symptom: Device will crash when doing PAP with INode PPPoE server.
   Condition: If PPPOE server use Password Authentication Protocol and then our device receive a packet PAP ACK or PAP NAK.

8. [BUG FIXED]
   Symptom: PPPoE passthrough function fail in Wireless.
   Condition: PPPoE passthrough function can't work from wireless LAN.

9. [BUG FIXED]
   Symptom: 1. Auto-Provision will periodically execute spt-save by each section but doesn't matter whether content is different or not.
   2. Auto-Provision can't accept part of text file.
   Condition: mark active flag in data_parser and remark it if wrong in data_check. Remove redundant data struct.

10. [BUG FIXED]
    Symptom: The IAD would sends the Syslog messages for SIP registrations sucessfull with the Level Emergency!
    Condition: 1. SMT menu 24.3.2 need to setting PC address.
    2. To install "kiwi syslog daemon " on PC and to capture system log from device.

11. [BUG FIXED]
    Symptom: When doing peer to peer call, device will send request to outbound proxy instead of peer directly if outbound proxy is set.

12. [BUG FIXED]
    Symptom: The range of autopro retry expired time is mismatched between SMT
    (120~65535) and SPTGEN (180~65535)

13. [ENHANCEMENT]
    Record the time of ADSL line is disconnect and when ADSL line is connect then
    restart SGMP State Machine and call the function,adslLineInterruptionInfo , to send
    the recorded times to the Centrolize Log.

14. [ENHANCEMENT]
    (1) Support to configure flash max/min time and dialing   short/long interval in sptgen
    and auto-provision.
    (2) Support to configure 8 bits for TOS.
    (3) Change acceptable range of session timer, min-se and dial interval.

15. [BUG FIXED]
    Symptom: Packet tranfer from LAN to WAN will fail after autopro
    Condition: 1. IAD set Enet Encap and static IP
              2. Enable autopro from CI command
              3. Download configuration file from TFTP server (Enet Encap/ Static IP)
              Result: Ping from LAN to WAN will fail after 5~10 minutes

16. [BUG FIXED]
    Symptom: The ZyXEL WLAN products don't accept the default value
    00:00:00:00:00:00 as a valid MAC Address. 00:00:00:00:00:00 should be
    always filtered out when the MAC filtering function is active!

17. [BUG FIXED]
    Symptom: NAT SIP ALG issue.
    Condition: The IAD rewrite of a SIP message would cause error when the public IP
              address is shorter than the LAN IP address of the SIP device. (Ex: P2000W).
              It will leave the last (difference in length of the IP addresses) digits of the
              LAN IP-address in the message.

18. [BUG FIXED]
    Symptom: When injecting multicast traffic from WAN to LAN in bridge mode, CPU
    loading is heavier than injecting unicast traffic.

Modifications in V 3.40(MK.0)C0 | 11/04/2004
1. Change to FCS version.

Modifications in V 3.40(MK.0)b6 | 11/02/2004
1. [BUG FIXED]
    Symptom: Watch dog cause system reboot.
    Condition: When CPU loading is always 100% in 3 minutes even we can still perform
              traffic transmit.

2. [BUG FIXED]
    Symptom: When Off Hook at first ting, users hear Caller-ID sound. Caller-ID can't
        display on phone 1.

3. [BUG FIXED]
    Symptom: RTP port range on WEB show inconsistence with TFTP auto-provision and
        SPTGEN.

Modifications in V 3.40(MK.0)b5 | 10/29/2004
1. [BUG FIXED]
    Symptom: IAD occur exception after setting RTP from port to 1024 and initiate VoIP
        call.
    Condition: 1. Setting RTP start port is 1024.
        2. Save then to make call.
        3. The device will exception when on-hook the phone.

2. [ENHANCEMENT]
    Change auto provision mechanism to use the same input text file with sptgen.

Modifications in V 3.40(MK.0)b4 | 10/27/2004
1. [BUG FIXED]
    Symptom: When user change port number in menu 24.11, the web redirect function
        cannot work properly.

2. [BUG FIXED]
    Symptom: Routing table doesn't update when change different remote IP in memu 11.
    Condition: 1. Set remote IP address as 192.168.2.1 in ENET ENCAP.
        2. Check routing table is right.
        3. Change remote IP address to 192.168.3.1.
        4. Check routing table you will see the old routing entry "192.168.2.1"
            doesn't remove.

3. [BUG FIXED]
    Symptom: We delete Menu4 the mode change to Multi mode while default set to
        G.DMT or other

4. [BUG FIXED]
    Symptom: Callee side can't terminate VoIP call on IAD.
    Condition: 1. Setting: P2602(Caller) <-->LAN <--> P2602(Callee), set domain(ex:
        pqa.lab) different from proxy address.
        2. Initiate Call from Caller side.
        3. Answer call on Callee side.(Voice is OK)
        4. Hang up on Callee. Caller can't hear Busy tone.

PS: If the call was terminate on Caller side, then it's OK.

5. [BUG FIXED]
   Symptom: RTP range should be start from 1024~65535

6. [BUG FIXED]
   Symptom: Interop with some of the server (telephonica, sylantra...and etc.) Call would
   fail due to non-proxy checking mechanism.
   Condition: Move the non-proxy checking temporarily.

7. [ENHANCEMENT]
   Change Voice - SIP Settings -> Advanced Settings to Voice - SIP Settings ->
Advanced Settings on eWC.

Modifications in V 3.40(MK.0)b3 | 10/13/2004
1. [BUG FIXED]
   Symptom: CPU loading will reach to 100% easily and impact system performance.
   Condition: Under heavy traffic in downstream and without quick bridge enable.

2. [BUG FIXED]
   Symptom: Wan backup help is wrong.
   Condition: If the backup type is "DSL Link", it still ask user to fill in a wan IP.

3. [BUG FIXED]
   Symptom: WAN Backup page doesn't support dial backup but help page has dial
   backup help.

4. [BUG FIXED]
   Symptom: Issue "wan oos 1" will cause system exception.
   Condition: 1. Issue "wan oos" will have some remind message.
            2. Issue "wan oos 1" will cause system exception.
            3. This command is just for debug flag turn on.

5. [BUG FIXED]
   Symptom: Use smartbits to test downstream throughput, the throughput is poor in
   small packet(64 bytes).
   Condition: 1. Set router in quick bridge.
            2. Use smartApplication to test throughput.
            3. The throughput is about 3.52%.

6. [BUG FIXED]
   Symptom: DNS server can't work after set DNS server in smt3.2 or web LAN page, it
   need reboot system to let DNS server work.

7. [BUG FIXED]
    Symptom: The IP Alias is active in rom-t, but it is actually inactive in SMT.
    Condition: IP Alias is configured and inactive in SMT. After getting the rom-t from the
        device, the IP alias in the rom-t will be active.

8. [BUG FIXED]
    Symptom: eWC will get hang-up when UPnP feature is enabled
    Condition: 1. Install windows XP service pack 2 in PC
        2. Enable firewall of windows XP and also enable UPnP framework
           passthrough or disable firewall of windows XP
        3. Login via eWC and enable UPnP in system
        4. The eWC wil get hang, but it doesn't happen everytime.

9. [BUG FIXED]
    Symptom: After pressing the back button in the page of NAT - Address Mapping rules,
        the error message will occur.
    Condition: GUI → Advanced Setup → NAT → Select Full Feature and press Edit
        Details → press the back button in the page of Address Mapping Rules and
        error message will appear.

10. [BUG FIXED]
    Symptom: Packets sent to one PVC(Enet encap) from WAN will be replied to another
        PVC(RFC1483 bridge).
    Condition: Device is configured as 2 PVCs. The first is Enet Encap, and the other is
        RFC1483 bridge. The packets,e.g. ARP, which have to be sent to the 1st
        PVC, will be sent to the 2nd PVC. The problem makes the remote VLAN
        enabled router coufused and the communication will fail.

11. [BUG FIXED]
    Symptom: When delete smt 4 the mode change to Multi mode (default is G.DMT
        mode).
    Condition: 1. Set operation mode as G.DMT.
        2. Delete smt 4.
        3. In smt 24.2.1 it will show Multi mode.

12. [BUG FIXED]
    Symptom: On Win2000 using IE6.0, click VoIP Register/Unregister button all the time
        that will show stranger button.

13. [BUG FIXED]
    Symptom: If we ping from Lan PC to internet and change Encapsulation to PPPoA or
        PPPoE will cause ping fail.

14. [BUG FIXED]
    Symptom: If changed PPPoA or PPPoE setting several times like static IP <->

Dynamic IP , Idle time out <-> Nailed, VC<-> LLC the status will keep in N/A.

15. [BUG FIXED]
    Symptom: CI command "ppp lcp echotime" does not work
    Condition: Set lcp echo time interval using "ppp lcp echotime".

16. [BUG FIXED]
    Symptom: In web content filter key word blocking page if we key-in capital letter that the content filter function can't work.

17. [BUG FIXED]
    Symptom: Chariot test will let mbuf full then device reboot.
    Condition: 1. Register SIP -> Success.
             2. Unplug DSL link.
             3. VoIP LED is still show on but eWC show SIP register failed.

18. [BUG FIXED]
    Symptom: WE delete menu3 the system do reboot while VC hunt function enable.
    Condition: 1. Delete SMT>> Menu 4.
             2. Config Menu11.
             3. Connect to DSLAM.

19. [BUG FIXED]
    Symptom: TFTP timeout time always delay about 10sec to be executed.

20. [BUG FIXED]
    Symptom: TFTP client timer is not stopped when terminate auto-provision.
    Condition:

21. [BUG FIXED]
    Symptom: Callee side can't terminate VoIP call on IAD.
    Condition: 1. Setting: P2002(Caller) <-->LAN <--> P2002(Callee), set domain(ex: pqa.lab) different from proxy address.
             2. Initiate Call from Caller side.
             3. Answer call on Callee side.(Voice is OK)
             4. Hang up on Callee. Caller can't hear Busy tone. PS: If the call was terminate on Caller side, then it's OK.

22. [BUG FIXED]
    Symptom: Support the call-hold method by "c=0.0.0.0" (RFC2543) and "a=sendonly" (RFC3261)
    Condition: support these two methods at the same time.

23. [BUG FIXED]
    Symptom: The session timer will be conflict with the call-holding.

Condition: Use the call-hold/ call-unhold from the caller and callee twice. And wait for the session timer is triggerred. The call will be dropped when the session timer is triggerred.

24. [BUG FIXED]
Symptom: When doing peer to peer call, device will send request to outbound proxy instead of peer directly if outbound proxy is set.

25. [BUG FIXED]
Symptom: VAD cause a click sound when entering silence mode, cut off the first word back from silence mode, and the generated idle noise is too quiet.

26. [BUG FIXED]
Symptom: interop with broadsoft will cause exception.
Condition: copy data to a new memory to avoid that this data be free twice.

27. [BUG FIXED]
Symptom: Device can't distinguish if an incoming call is from proxy or non-proxy (peer to peer).
Condition: 1. User get an incoming call which is non-poxy from the peer.
2. User hang up the call but the BYE request is cast to proxy server instead of peer.

28. [BUG FIXED]
Symptom: Users hear echo during conversation.
Condition: 1. Lower down the SLIC volume.
2. Adjust SLIC impendence.
3. Modify DSP EC settings.

29. [BUG FIXED]
Symptom: Auto-Provision can't work from wan(firewall enable)
Condition: Auto-Provision can not work from wan port when firewall has been enable.

30. [ENHANCEMENT]
Add SAR debug level to dump OAM raw data for trace purpose.

31. [ENHANCEMENT]
Add CI command to display items in auto-provision database.

32. [ENHANCEMENT]
Support auto-provision key word display, So you can use CI command "voice autopro dbdisplay" to show key word.

33. [ENHANCEMENT]
Auto Provision Configuration Generator with Triple DES Encrypted.

34. [ENHANCEMENT]
    Support TFTP server address in domain name format.

35. [ENHANCEMENT]
    Change rtp port range from 40000~65535 to 1025~65535.

36. [ENHANCEMENT]
    Use timer instead of semaphore when TFTP is not available to avoid system hang for 60 seconds.

37. [ENHANCEMENT]
    Provide APIs for GUI to start/terminate auto-provision mandatorily.

38. [ENHANCEMENT]
    Add one switch to turn on/off auto-provision. (This is only a global variable, not saved in flash.)

39. [ENHANCEMENT]
    Enhance outbound proxy keep-alive. The keep-alive function will be triggered only after register successfully.

40. [ENHANCEMENT]
    Support outbound proxy keep-alive.

41. [ENHANCEMENT]
    Support outbound proxy.

42. [ENHANCEMENT]
    Support SPTGEN for VoIP.

Modifications in V 3.40(MK.0)b2 | 09/14/2004
1. [BUG FIXED]
   Symptom: Caller ID still send out even disable on eWC.
   Condition: Disable caller ID send from eWC and callee still can show caller ID on
            phone.

2. [BUG FIXED]
   Symptom: When IAD is boot up and DSL link is not ready, IAD always show SIP account register failed.
   Condition: system bootup and IAD always show SIP account register failed when DSL
            link in not ready.

3. [BUG FIXED]
   Symptom: When DSL link is down, VoIP LED is still show on
   Condition: 1. Register SIP -> Success.

2. Unplug DSL link.
3. VoIP LED is still show on but eWC show SIP register failed.

4. [BUG FIXED]
   Symptom: RTP/SIP ToS range incorrectly limited to "0~5" on CI command.
   Condition: the RTP/SIP TOS range would show 0 ~ 5 from CI command.

5. [BUG FIXED]
   Symptom: Edit a "use proxy" speed dial entry, the entry will show as "non-proxy" type.

6. [BUG FIXED]
   Symptom: Online configuration for Phone function(etc..Outgoing SIP selection) on
   eWC doesn't work.
   Condition: 1. configuration phone function on eWC.
              2. it can not work before system reboot.

7. [BUG FIXED]
   Symptom: VoIP call drop after 3 minutes.
   Condition: 1. IAD <-->DSLAM <--> IAD
              2. Initiate dual channel VoIP call.
              3. Run for overnight test

8. [BUG FIXED]
   Symptom: Configure local / register server / proxy server port to below "1024", the SIP
   number or Server address field will changed to value "1024"

9. [BUG FIXED]
   Symptom: SIP number should allow "alpha" character : a~z,'.','_','-'.

10. [BUG FIXED]
    Symptom: When SIP account is not activated, press "register" button on eWC. eWC
    show "User-ID can't be empty".

11. [BUG FIXED]
    Symptom: IAD doesn't generate Busy tone in off-hook scenario.
    Condition: 1. Make IAD both Phone Off-hook
               2. Initiate VoIP call to IAD.
               3. Caller doesn't generate Busy Tone

12. [BUG FIXED]
    Symptom: Add customized port rule in Firewall cause exception.
    Condition: 1. To add customized port rule in Firewall on eWC.
               2. To save it would cause exception.

13. [BUG FIXED]
    Symptom: setting NAT rule would cause system exception.

Condition: 1. Add one "Many to One" rule in Menu 15.1.1.
2. Set the start is 192.168.1.33, and end is 192.168.1.1. Save the rule.

14. [BUG FIXED]
Symptom: In eWC, WAN dial backup, if Backup type select "DSL Link", click save, it will show error message that need enter check IP.

15. [BUG FIXED]
Symptom: In eWC, Advanced Setup -> Logs -> Log Settings, Send Log ="When Log is Full", should be default to "None".

16. [BUG FIXED]
Symptom: FXS port lock after keep pressing on-off hook on Phone repeatly

17. [BUG FIXED]
Symptom: Phone LED sometimes not sync with FXS's action. After On-hook Phone, sometimes IAD Phone's LED still show light on for few seconds

18. [BUG FIXED]
Symptom: WAN Backup - traffic redirect doesn't work and cause continuous exception.

19. [BUG FIXED]
Symptom: One of FXS port sending ringing for 1~2 times only
Condition: Phone A,B -> IAD(1) -> WAN -> IAD(2) -> Phone C,D
1. IAD(1) initiate VoIP call by using SIP 1, Phone D will ring for only 1~2 times. Phone C will continue ringing.
2. IAD(2) initiate VoIP call by using SIP 2, Phone C will ring for only 1~2 times. Phone D will continue ringing.

20. [BUG FIXED]
Symptom: phone1 and phone2 can not match with SIP1 and SIP2
Condition: IAD use inverse SIP account send out SIP signaling packet.Set Phone 1 mapping to SIP Account 1 and Phone 2 mapping to SIP Account 2.
Result: Phone 1 use SIP Account 2 to send out SIP INVITE.

21. [BUG FIXED]
Symptom: Online configuration doesn't work in SIP advance setting / QoS / Phone setting.
Condition: 1.To change SIP advance setting / QoS / Phone setting.
2. New setting can not work, need to system reset.

22. [BUG FIXED]
Symptom: Unplug IAD's DSL line during VoIP call, IAD occur exception.
Condition: 1. To do VoIP call and conversation.
2. Unplug IAD's DSL line and system would cause exception.

23. [BUG FIXED]
    Symptom: IAD1 set G.711only , IAD2 set G.729 only. IAD1 can make call with IAD2
    using G.711.

24. [BUG FIXED]
    Symptom: Wireless WEP 64 key should not treat "0123456789" as HEX value on
    eWC.Only key start as "0x" can be treated as HEX value
    Condition: 1. input wireless Lan setting and select "WEP Encryption" is 64-bit WEP on
    eWc.
    2. key-in 0123456789 and to apply it.
    3. it can access as HEX value.

25. [BUG FIXED]
    Symptom: SMT show wrong noise margin value
    Condition: 1. using CI command to show ADSL noise margin.
    2. sometimes the value is wrong.

26. [BUG FIXED]
    Symptom: caller would cause system exception when it send info to callee.
    Condition: when caller send out info to callee, it will cause exception.

27. [BUG FIXED]
    Symptom: VoIP call drop after 3 minutes.
    Condition: 1. IAD <-->DSLAM <--> IAD.
    2. Initiate dual channel VoIP call.
    3. Run for overnight test

28. [BUG FIXED]
    Symptom: Disable/Enable Firewall sometimes would cause system reboot.
    Condition: 1. system would cause system reboot when enable/disable firewall several
    times on eWC.

29. [BUG FIXED]
    Symptom: IAD appear unstable during measurement voice quality by Radcom voice
    quality testing equipment.
    Condition: 1. Measure VoIP quality by Radcom.
    2. After measurement, sometimes IAD can't make VoIP call anymore until
    reboot IAD

30. [BUG FIXED]
    Symptom: Set IAD in PPPoE mode with NAT Full feature mode enabled. Modify NAT
    Full-feature rule and Add one One to One entry, sometimes IAD reboot
    with exception

31. [BUG FIXED]
    Symptom: If PC is with windows XP, the AnyIP feature sometimes doesn't work

Condition: Only happens on Windows XP PC.

32. [BUG FIXED]
Symptom: To selection data of radio button can be saved when Apply button is done.

33. [BUG FIXED]
Symptom: Router will reboot when issue "wan atm debug on".

34. [BUG FIXED]
Symptom: Any IP feature will impact static route

35. [BUG FIXED]With CID supported Phone, sometimes the Phone Call can't be picked up when Phone is Ringing. After Pickup Phone Call, the PHONE LED on IAD is still blinking.

36. [BUG FIXED]
Symptom: [Phone Book] Add two speed dial entries with MAX characters in SIP number and name field. The first entry's name field will include and overlap with second entry's name.

37. [BUG FIXED]
Symptom: [Phone Book] Fill in MAX characters in name field and Add the entry. Then edit the entry and check "Name" field. The last character will show one more "space" character

38. [BUG FIXED]
Symptom: [Phone Book] Fill in MAX characters in SIP number, name and input non-proxy IP. Then edit the entry. Problem: The "Non-proxy IP" will show in "Name" field.

39. [BUG FIXED]
Symptom: After restart IAD and the time setting become default value

40. [BUG FIXED]
Symptom: Configure IAD to use PPPoE+Static IP on eWC. The Static IP's Default gateway will become "0.0.0.0" on System Status page.
Condition: setting PPPoE mode and static IP on eWC. Then the system status would show "0.0.0.0" on Default gateway.

41. [BUG FIXED]
Symptom: When upload wrong romfile twice from SMT, DUT has show upload ras code than DUT will fail to boot up.

42. [BUG FIXED]

Symptom: Using MAC OS-X to login IAD will fail. Environment: MAC OS-X IE5.2 version.

43. [BUG FIXED]
Symptom: log schedule setting have some error.
Condition: Set Log schedule setting to "When Log is Full" and press Apply. The "Day for sending log" will become "Sunday".

44. [BUG FIXED]
Symptom: IAD show unknown "Error, RTP connection can't close" in RTP log even not make any VoIP call.
Condition: 1. Don't make any call.
2. Change IP of device.
3. "Error, RTP connection cannot close" is shown in centralized log.

45. [BUG FIXED]
Symptom: echo cancellation can not work.
Condition: Echo Cancellation seems doesn't work after Turn ON/OFF. Setting default Speaking/Listening Volume.

46. [BUG FIXED]
Symptom: Disable SIP 1 account and register SIP 1 account on eWC. Then enable SIP 1 account again. SIP 1 will not be able to register unless reboot ATA.
Condition: 1. Configure 2 sip accounts on device and let both SIP accounts registered.
2. Disable SIP 1 account and register SIP 1 account.
3. Enable SIP 1 account again. SIP 1 account can't register now. Root cause: Can't find match ccmPortId in sipCCMConvert table.

47. [BUG FIXED]
Symptom: It will cause system memory weak, when do fax action with media-change.
Condition: Primary invite tx be delete, so callee became Client from Server.

48. [BUG FIXED]
Symptom: On line config RTP port can not work.
Condition: 1. Configure RTP port range as 40000~60000.
2. Change RTP port range to 50000~60000.
3. Make a call then you'll find that the RTP port allocated is still in the range of 40000~60000.

49. [BUG FIXED]
Symptom: SIP Info show incorrect information on eWC.
Condition: 1. Default ROM file.
2. Change SIP account 1 and input MAX character in SIP number and SIP server.
3. The SIP account on Maintenance page will show SIP_number@SIP_ServerChangeMe@192.168.1.33

50. [BUG FIXED]
    Symptom: IAD sometimes doesn't generate Busy tone when receiving 4xx response
    from proxy server.

51. [BUG FIXED]
    Symptom: Change Codec to "G.711 -> G.729" and Apply. Enter Advance Setting
    again, the Codec will become "G.711 Only".
    Condition: 1. Enter Advance Setting to setting codec from any type to G.711 -> G.729
and Apply on eWC.
                   2. To check the Advance page on eWC again.
                   3. it will show G.711 Only.

52. [BUG FIXED]
    Symptom: Volume Control function doesn't work. G.711/G.729 codec volume always
    keep in 2.0/2.7 dB.

53. [BUG FIXED]
    Symptom: Online Configuration VAD function doesn't work with G.711 Codec.
    Condition: 1. Change IAD to G.711 Only Codec.
                   2. Enable / Disable VAD function in Phone page.
                   3. Monitor "Comfort Noise" packet by using Ethereal.
                   4. The Enable/Disable VAD function will work after reboot.

54. [BUG FIXED]
    Symptom: Disable SIP account 1 then register or unregister SIP account 2 will failed
by using "Register/Unregister" button on eWC..
    Condition: 1. Configure both SIP accounts as active.
                   2. Change the first sip account from active to inactive.
                   3. Can't do register/unregister on the second SIP account.

55. [BUG FIXED]
    Symptom: Exception occur when open "Show Statistics" Page on eWC and Make VoIP
Call.
    Condition: 1. IAD1-> IAD2.
                   2. Initiate VoIP Call.
                   3. Click "Show Statistics" Page on eWC.
                   4. Wait few seconds for statistics refresh, IAD will occur exception.

56. [BUG FIXED]
    Symptom: Exception occur when at CI command mode use IP DNS query.
    Condition: 1.system boot-up and into CI command mode
                    2. key in "ip dns query address 168.95.1.1" when ADSL not link up yet.
                    3. the system would cause exception.

57. [BUG FIXED]

Symptom: The router incorrectly leasing static DHCP address to the wrong computers.
Condition: 1. Go to Advanced Setup>LAN>Static DHCP and configure the first rule
        with the MAC address of workstation 1 and the IP Address of
        192.168.1.33.
       2. Attach workstation 2 to the router. It will pull the 192.168.1.33 address
        which is incorrect.
       3. Attach Workstation 1 to the router. It will fail to pull an IP address
        from the router.

58. [BUG FIXED]
Symptom: IAD show "User-ID can't be empty" during click register button
        on WEB when PPPoE connection is IDLE.

59. [BUG FIXED]
Symptom: DNS query constantly send out every 5 secs when FQDN name was
        used in SIP server setting

60. [BUG FIXED]
Symptom: Exception occur when NAT set to Full feature and build a many
        to many no overload rule.
Condition: 1. Configuration SMT menu 4 SUA or None or Full feature.
       2. Configuration SMT menu 15.1 many to many no overload
       3. To change menu 4 and menu 15 several times and system would cause
        exception.

61. [BUG FIXED]
Symptom: PSTN call was disconnected when IAD bootup.
        to many no overload rule.
Condition: 1. Power Off ATA.
       2. Initiate call to PSTN.
       3. Power On ATA.
       4. When IAD boot up, PSTN call was disconnected.

62. [BUG FIXED]
Symptom: Incoming PSTN call CID display doesn't work.

63. [BUG FIXED]
Symptom: After disconnect DSL line on calle side during ringing. Callee side LED
        will continueous flashing and ringing unless reboot on IAD on Callee side.
Condition: Setup: Phone A -> IAD(1) <--> WAN <--> IAD(2) -> Phone B
       1. Phone A initiate VoIP call to Phone B.
       2. Detach DSL line on Phone B.
       3. IAD(2)'s LED will continue flashing and Phone B will continue ringing
        until reboot IAD(2).

64. [BUG FIXED]

Symptom: eWC shows incorrect warnings message "User ID can't be empty" when click SIP registration on non-active SIP account in maintenance page.

65. [BUG FIXED]
Symptom: IAD doesn't turn on "End of Event" in last DTMF RTP payload(RFC2833).By RFC2833, the last DTMF event in RTP payload should turn on "End of Event" bit.

66. [BUG FIXED]
Symptom: Configure "RTP From Port" in SIP advance setting to less than "49152" on eWC, The "RTP To Port" will become "49152"(default:50000). Configure "RTP To Port" to less than "49152", the codec setting will become empty.

67. [BUG FIXED]
Symptom: IAD should not send out dial tone when VoIP service is not ready to use.
(For example: After upgrade F/W, registration fail or SIP or account not set ..etc)Expect: When IAD's VoIP service is not available, IAD FXS should relay to FXO when phone is off-hook.

68. [BUG FIXED]
Symptom: PSTN relay lock in one of FXS port
Condition: 1. Phone A(PSTN) -> IAD -> Phone B,C
2. Calling from Phone A to Phone B,C through PSTN and Phone B,C to Phone A serveral times. One of FXS port PHONE LED will keep light on even both Phone B,C is on-hook.
3. After this, only the PHONE light on port can dial out to PSTN.

69. [BUG FIXED]
Symptom: PSTN call fail with overnight test
Condition: 1. Phone A,B -> IAD(1) <-> LAN <-> IAD(2) -> Phone C,D
2. Initiate PSTN call from Phone A to Phone C
2. Initiate VoIP call from Phone B to Phone D.
3. PSTN call drop off after overnight test

70. [BUG FIXED]
Symptom :Daytime protocol doesn't work on eWC.
Condition: 1. setting current time on eWC.
2. then system on/off to restart.
2. To display the current and it would show default time 0.

71. [BUG FIXED]
Symptom: After disconnect DSL line on calle side during ringing. Callee side LED will continueous flashing and ringing unless reboot on IAD on Callee side.
Condition: Setup: Phone A -> IAD(1) <--> WAN <--> IAD(2) -> Phone B
1. Phone A initiate VoIP call to Phone B.
2. Detach DSL line on Phone B.

3. IAD(2)'s LED will continue flashing and Phone B will continue ringing until reboot IAD(2).

72. [BUG FIXED]
Symptom: The firewall -> Default Policy page would show unnecessary string on eWC.

73. [BUG FIXED]
Symptom: When both VAD and firewall are enabled, can't hear voice from NetCentrex server unless some noise is made.
Condition: 1. Enable VAD and firewall on P2602HWL.
2. Register to NetCetrex server.
3. Press "091", "093" or let peer press "**" after call is established; can't hear voice from server if no noise is made.

74. [BUG FIXED]
Symptom: Device answer a PSTN call, and then VoIP call causes system exception.
Condition: 1. Answer a PSTN call.
2. Hang-up the call.
3. Receive a VoIP call.

75. [BUG FIXED]
Symptom: Multiple PPPOE PVC will work improper manner
Condition: 1. Create two or more than two PPPOE PVCs in CPE device
2. After two PVC connection are established,change the VPI/VCI setting of first PVC on the DSLAM.
3. The first PVC won't drop the connection (menu 24.1, the status still keep as "UP" and also the IP still keep the same), and the traffic still can go out via CPE device(via PVC2).

76. [BUG FIXED]
Symptom: When vc auto hunt is activating, if user goes to Wizard and configure the correct VPI/VCI values, and then the vc auto hunt will stop, but start IE can't go on Internet at first time

77. [BUG FIXED]
Symptom: Ping a wrong IP address, the device will get success information.
Condition: When pinging an address (IP or domain name), device will reslove this address first to see if it's a valid IP, then do a dns query to see if it's a valid domain name. During the resolve function, the dot '.' and slash '/' character will be changed to '\0', and then changed back. So, if directly returning error before the characters are changed back, the original address is changed, and the dns query of this changed address will fail. For example, "www.google.com.tw" will be "www" after resolving, and the dns query of "www" will fail.

78. [BUG FIXED]
    Symptom: When performing stress test using Chariot, the console display "Can't alloc mbug in copyMsdu function"message. And a memory leakage will accompany this error.
    Condition: When AP gets an broadcast packet from WLAN interface, it would like to make a copy of the received packet in order to broadcast it over WLAN interface. The AP will allocate an MSDU descriptor to specify the packet, then an mbuf to copy the data of the received packet. This error message is due to failure to allocate the mbuf. At the same time, the previous- allocated MSDU descriptor has not been freed, so that a memory leakage occurs.

79. [BUG FIXED]
    Symptom: Exception occurs when DUT1's compression type change to "G.729 > G.711", DUT1 dial to DUT2, DUT2 off hook and on hook immediately.

80. [BUG FIXED]
    Symptom: Help page didn't have DTMF description.

81. [BUG FIXED]
    Symptom: VLAN ID show on help page is from 1 to 4095, but should be from 0 to 4095.

82. [BUG FIXED]
    Symptom: Exception occurs after setting SIP number to "127" character.

83. [BUG FIXED]
    Symptom: life line can't work some times.

84. [BUG FIXED]
    Symptom: when set 4 bridge node and 4 route node (8 route node), start AX4000 test will exception.

85. [BUG FIXED]
    Symptom: Register authentication fails to some servers (ex: Asterisk SIP server).
    Condition: Register authentication fails if the server is doing authentication with 407 response and "Proxy-Authenticate" header.

86. [BUG FIXED]
    Symptom: In Web/GUI, if we switch PPPoE pass-through from off to on, it can't work immediately until reboot device it work
    Condition: Only happens in Web/GUI, SMT is fine

87. [BUG FIXED]
    Symptom: There are two same strings appearing in SMT 15.1
    Condition: "Enter Menu selection number:" appears duplicately in SMT 15.1

88. [BUG FIXED]
    Symptom: In web content filter key word blocking page if we key-in capital letter
    that the conter filter function can't work
    Condition: 1. Setting content filter restricte keyword "Yahoo" and enable keyword
    blocking on eWC.
    2. Use browser to access "www.yahoo.com" it still can access.

89. [BUG FIXED]
    Symptom: When multiple stations connected to AP, once the previous one
    leave, the other stations also disappeared
    Condition: 1.Use Web to show association list.
    2. When station disconnect the association list still have it's data.
    3. When one satin disconnect and then another join the association list will
    show.

90. [BUG FIXED]
    Symptom: Use CI command "wlan association" to show association list will
    cause system reboot.
    Condition: When 3 station connection to device if Use CI command "wlan association"
    to show association list will cause system reboot.

91. [BUG FIXED]
    Symptom: Auto-Provision can't work from wan(firewall enable)
    Condition: Auto provision can not work fine from wan when firewall enable.

92. [ENHANCEMENT]
    Change valid RTP port range as 40000 ~ 65535

93. [ENHANCEMENT]
    Add centralized for for VoIP.

94. [ENHANCEMENT]
    change SIP number's Max characters from 31 to 96.

95. [ENHANCEMENT]
    SIP number allow "alpha" character : a~z,'.','_','-'

96. [ENHANCEMENT]
    Voice -> SIP setting, Authentication User-ID should allow blank User-ID and change
length from 20 to 96.

97. [ENHANCEMENT]
    Support privacy call (including RFC3325 and call draft). Add CI command let
RFC3325 and call draft adjustable

98. [ENHANCEMENT]
    Add Ring Timeout Timer = 180 seconds. Ring timer would fire once ringing. If timeout then terminate itself and send 486(Request   Terminated) out to terminate the caller.

99. [ENHANCEMENT]
    Don't care SIP Packet when all headers are un-known.

100.   [ENHANCEMENT]
    Can't interoperate with telia softphone through telia sip server which support TCP & UDP.

101.   [ENHANCEMENT]
    Support different TOS setting in RTP and SIP packet. Now only CI command supported. eWC will setup both to the same setting

102.   [ENHANCEMENT]
    Support RemovePound: Press '#' when inputting dial digit number will make device to make call immediately.

103.   [ENHANCEMENT]
    Suggest to change default Volume setting to -1

104.   [ENHANCEMENT]
    CI command to enable/disable SIP ALG

105.   [ENHANCEMENT]
    Add help page for speed dial on eWC, Remove T2 timer show in Help Page, Change VLAN ID show from 1~4024 to 0~4095 in help page

106.   [ENHANCEMENT]
    SPTGEN support WLAN Enable/Disable, and WPA, 802.1x setting

107.   [ENHANCEMENT]
    [Help page]
    1. T2 timer show in Help Page.
    2. No DTMF function description in help page.
    3. VLAN ID show 1~4024 in help page.
    4. No VAD function description in help page.

108.   [ENHANCEMENT]
    No speed dial function explanation on eWC -> Voice.Voice Function

109.   [ENHANCEMENT]
    Make sure your device is connected to a telephone jack using the included phone wire. Otherwise contact your ISP.

110.   [ENHANCEMENT]
When set to PPPoE + IDLE timeout, IAD show warning message.

Modifications in V 3.40(MK.0)b1 | 06/23/2004
1. Create this project for OBM version.

Annex A CI Command List

Command Class List Table		
System Related Command	Exit Command	Ethernet Related Command
WAN Related Command	WLAN_Related_Command	IP Related Command
IPSec Related Command	PPP Related Command	Bridge Related Command
Radius Related Command	8021x Related Command	Firewall Related Command
Configuration Related Command	SMT Related Command	

System Related Command   Home

Command				Description
sys				
	adjtime			retrive date and time from Internet
	cbuf			
		display	[a|f|u]	display cbuf a: all f: free u: used
		cnt		cbuf static
			display	display cbuf static
			clear	clear cbuf static
	baud		<1..5>	change console speed
	callhist			
		display		display call history
		remove	<index>	remove entry from call history
	clear			clear the counters in GUI status menu
	countrycode		[countrycode]	set country code
	date		[year month date]	set/display date
	domainname			display domain name
	edit		<filename>	edit a text file
	enhanced			return OK if commands are supported for PWC purposes
	errctl		[level]	set the error control level 0:crash no save,not in debug mode (default) 1:crash no save,in debug mode 2:crash save,not in debug mode 3:crash save,in debug mode
	event			
		display		display tag flags information
		trace		display system event information
			display	display trace event
			clear <num>	clear trace event
	extraphnum			maintain extra phone numbers for outcalls
		add	<set 1-3> <1st phone num> [2nd phone num]	add extra phone numbers
		display		display extra phone numbers
		node	<num>	set all extend phone number to remote node <num>
		remove	<set 1-3>	remove extra phone numbers
		reset		reset flag and mask
	feature			display feature bit
	fid			
		display		display function id list
	firmware			display ISDN firmware type
	hostname		[hostname]	display system hostname
	iface			

		disp	[#]	display iface list
	isr		[all|used|free]	display interrupt service routine
	interrupt			display interrupt status
	log			
		category		
			access [0:none/1:log]	record the access control logs
			attack [0:none/1:log/2:alert/3:both]	record and alert the firewall attack logs
			display	display the category setting
			error [0:none/1:log/2:alert/3:both]	record and alert the system error logs
			ipsec [0:none/1:log]	record the access control logs
			mten [0:none/1:log]	record the system maintenance logs
			upnp [0:none/1:log]	record upnp logs
			urlblocked [0:none/1:log/2:alert/3:both]	record and alert the web blocked logs
			urlforward [0:none/1:log]	record web forward logs
		clear		clear log
		display		display all logs
		errlog		
			clear	display log error
			disp	clear log error
			online	turn on/off error log online display
		load		load the log setting buffer
		mail		
			alertAddr [mail address]	send alerts to this mail address
			display	display mail setting
			logAddr [mail address]	send logs to this mail address
			schedule display	display mail schedule
			schedule hour [0-23]	hour time to send the logs
			schedule minute [0-59]	minute time to send the logs
			schedule policy [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
	mbuf			
		cnt		
			disp	display system mbuf count
			clear	clear system mbuf count
		link	link	list system mbuf link
		pool	<id> [type]	list system mbuf pool
		status		display system mbuf status
		disp	<address>	display mbuf status
		debug	[on|off]	
	memory		<address> <length>	display memory content

memwrite			<address> <len> [data list ...]	write some data to memory at <address>
memwl			<address>	write long word to memory at <address>
memrl			<address>	read long word at <address>
memutil				
	usage			display memory allocate and heap status
	mqueue		<address> <len>	display memory queues
	mcell		mid [f|u]	display memory cells by given ID
	msecs		[a|f|u]	display memory sections
	mtstart		<n-mcell>	start memory test
	mtstop			stop memory test
	mtalloc		<size> [n-mcell]	allocate memory for testing
	mtfree		<start-idx> [end-idx]	free the test memory
model				display server model name
proc				
	display			display all process information
	stack		[tag]	display process's stack by a give TAG
	pstatus			display process's status by a give TAG
queue				
	display		[a|f|u] [start#] [end#]	display queue by given status and range numbers
	ndisp		[qid]	display a queue by a given number
quit				quit CI command mode
reboot			[code]	reboot system code = 0 cold boot, = 1 immediately boot = 2 bootModule debug mode
reslog				
	disp			display resources trace
	clear			clear resources trace
stdio			[second]	change terminal timeout value
time			[hour [min [sec]]]	display/set system time
timer				
	disp			display timer cell
	trace		[on|off]	set/display timer information online
	start		[tmValue]	start a timer
	stop		<ID>	stop a timer
trcdisp				monitor packets
trclog				
	switch		[on|off]	set system trace log
	online		[on|off]	set on/off trace log online
	level		[level]	set trace level of trace log #:1-10
	type		<bitmap>	set trace type of trace log
	disp			display trace log
	clear			clear trace
	call			display call event
	encapmask		[mask]	set/display tracelog encapsulation mask
trcpacket				
	create		<entry> <size>	create packet trace buffer
	destroy			packet trace related commands
	channel		<name> [none|incoming|outgoing|bothway]	<channel name>=enet0,sdsl00, fr0 set packet trace direction for a given channel
	string			enable smt trace log
	switch		[on|off]	turn on/off the packet trace
	disp			display packet trace

		udp		send packet trace to other system
			switch [on|off]	set tracepacket upd switch
			addr \<addr\>	send trace packet to remote udp address
			port \<port\>	set tracepacket udp port
		parse	[[start_idx], end_idx]	parse packet content
		brief		display packet content briefly
	version			display RAS code and driver version
	view		\<filename\>	view a text file
	wdog			
		switch	[on|off]	set on/off wdog
		cnt	[value]	display watchdog counts value: 0-34463
	romreset			restore default romfile
	server			
		access	\<telnet|ftp|web|icmp|snmp|dns\> \<value\>	set server access type
		load		load server information
		disp		display server information
		port	\<telnet|ftp|web|snmp\> \<port\>	set server port
		save		save server information
		secureip	\<telnet|ftp|web|icmp|snmp|dns\> \<ip\>	set server secure ip addr
	spt			
		dump		dump spt raw data
			root	dump spt root data
			rn	dump spt remote node data
			user	dump spt user data
			slot	dump spt slot data
		save		save spt data
		size		display spt record size
		clear		clear spt data
	cmgr			
		trace		
			disp \<ch-name\>	show the connection trace of this channel
			clear \<ch-name\>	clear the connection trace of this channel
		cnt	\<ch-name\>	show channel connection related counter
	socket			display system socket information
	filter			
		clear		clear filter statistic counter
		disp		display filter statistic counters
		sw	[on|off]	set filter status switch
		set	\<set\>	display filter rule
		netbios		
			disp	display netbios filter status
			config \<0:LAN to WAN, 1:WAN to LAN, 2:LAN to DMZ, 3:IPSec passthrough, 4:Trigger Dial\> \<on|off\>	config netbios filter
	ddns			
		debug	\<level\>	enable/disable ddns service
		display	\<iface name\>	display ddns information
		restart	\<iface name\>	restart ddns
		logout	\<iface name\>	logout ddns
	cpu			
		display		display CPU utilization

ZyXEL Confidential

Exit Command

Command				Description
exit				exit smt menu

Ethernet Related Command

Command				Description
ether				
	config			display LAN configuration information
	driver			
		cnt		
			disp <name>	display ether driver counters
			clear <name>	clear ether driver counters
		iface	<ch_name> <num>	send driver iface
		ioctl	<ch_name>	Useless in this stage.
		mac	<ch_name> <mac_addr>	Set LAN Mac address
		reg	<ch_name>	display LAN hardware related registers
		rxmod	<ch_name> <mode>	set LAN receive mode. mode: 1: turn off receiving 2: receive only packets of this interface 3: mode 2+ broadcast 5: mode 2 + multicast 6: all packets
		status	<ch_name>	see LAN status
		init	<ch_name>	initialize LAN
	version			see ethernet device type
	pkttest			
		disp		
			packet <level>	set ether test packet display level
			event <ch> [on|off]	turn on/off ether test event display
		sap	[ch_name]	send sap packet
		arp	<ch_name> <ip-addr>	send arp packet to ip-addr
		mem	<addr> <data> [type]	write memory data in address
	test		<ch_id> <test_id> [arg3] [arg4]	do LAN test
	pncconfig		<ch_name>	do pnc config
	mac		<src_ch> <dest_ch> <ipaddr>	fake mac address

WAN Related Command

Command				Description
wan	adsl	bert		ADSL ber
		chandata		ADSL channel data, line rate
		close		Close ADSL line
		coding		ADSL standard current
		ctrleint		ADSL CTRLE response command
		defbitmap		ADSL defect bitmap status
		dyinggasp		Send ADSL dyinggasp
		fwav		Test the ADSL F/W available ping
		fwdl		Download modem code, but must reset first
		linedata		
			near	Show ADSL near end noise margin
			far	Show ADSL far end noise margin

		open		Open ADSL line
		opencmd		Open ADSL line with specific standard
		opmode		Show the operational mode
		perfdata		Show performance information,CRC,FEC, error seconds..
		rdata	[start] [length]	Read DSP CTRLE registers 512 bytes
		reset		Reset ADSL modem, and must reload the modem code again
		selftest		
			long	ADSL long loop test
			short	ADSL short loop test
		status		ADSL status (ex: up, down or wait for init)
		version		ADSL version information
		vendorid		ADSL vendor information
		utopia		Show ADSL utopia information
		cellcnt		Show ADSL cell counter
		display		
			shutdown	Show the counter of rate adaptive mechanism happening
			rateup	Show real status that rate adaptive mechanism happened
		rateadap	[on|off]	Turn on/off rate adaptive mechanism
		dumpcondition	[on|off]	Turn on/off online debug information of rate adaptive mechanism
		sampletime	[mins]	Tune the sample time of rate adaptive mechanism
		noisegt	[dB]	if noise margin is 3db greater than before, and rate is worse than before, then system will do "L1 shutdown RA3", default is 3db
		noisemargin	[dB]	if noise margin is greater than this value, and rate is worse than before, then system will do "L1 shutdown RA3", default is 8db
		persisttime	[time]	when the adaptive condition is matched system will continue to monitor the time period "persisttime" before doing "L1 shutdown RA3", default is 30 seconds
		timeinterval	[mins]	when "L1 shutdown RA3" is done twice, and still can't reach the max rate which system recorded, it will delay a time period that the period base time is"timeinterval" before starting again. The time-based default is 2 hrs
		defectcheck	[on|off]	Turn on/off detect table checking, default is on
		txgain	[value]	Set the CTRLE register (0xc3), the value is from 0xfa to 0x06
		targetnoise	[value]	Set the CTRLE register (0xc4), the value is from 0xfa to 0x06
		maxtonelimit	[value]	Set the CTRLE register (0xc5), the value is from 0xfa to 0x06
		rxgain	[value]	Set the CTRLE register (0xc6), the value is from 0xfa to 0x06
		txoutputpwr	[value]	Set the CTRLE register (0xc7), the value is from 0xfa to 0x06
		rxoutputpwr	[value]	Set the CTRLE register (0xc8), the value is from 0xfa to 0x06
		maxoutputpwr	[value]	Set the CTRLE register (0xc9), the value is from

				0xfa to 0x06
	errorsecond			
		sendes		Send current error second information immediately
	dygasprecover			
	dygasprecover	level [value]		By default is 100, after receiving 100 dying gasp system will reboot
	dygasprecover	active [on|off]		Turn on/off this mechanism
	rsploss	[1|0]		Turn on means to response signal loss of CTRLE immediately, default is off
atm	test	[fix|rand|period|oam|loopback]		Generate ATM traffic
hwsar	disp			Display hwsar packets incoming/outgoing information
	clear			Clear hwsar packets information

WLAN Related Command   <u>Home</u>

Command				Description
Wlan				
	active	[on|off]	[0|1]	Turn on/off wireless lan
	association			Show association list
	load			Load WLAN configuration into buffer.
	Display			Display WLAN configuration data.
	chid			Configure channel ID
	essid			Configure ESSID
	hiddenssid		[on/off]	Enable/Disable hidden SSID
	threshold			
		rts	<RTS threshold value>	Set threshold rts value
		Fragment	<Fragment threshold value>	Set threshold fragmentation value
	wep			
		type	<none|64|128|256>	Set WEP key to 64, 128 or 256 bits.
		Key	Set <set> <value>	Set WEP key value per set
		Key	Default <set>	Set WEP default key set
	macfilter			
		Enable		Enable macfilter
		Disable		Disable macfilter
		Action	<allow|deny>	When action match, allow or deny this mac
		Set	<Set#> <MAC Address>	Set mac address by set
	Clear			Clear all WLAN configuration data.
	Save			Save WLAN configuration working buffer to Rom file.
	filter			
		[incoming | outgoing]	<generic>[set#1][set#2][set#3][set#4]	To set generic filter for wireless channel

IP Related Command   <u>Home</u>

Command				Description
ip				
	address		[addr]	display host ip address
	loopbackaddr		<IP1> [IP2]	Set loopback address.
	alias		<iface>	alias iface
	aliasdis		<0|1>	disable alias
	arp			

		status	<iface>	display ip arp status
		add	<hostid> ether <ether addr>	add arp information
		resolve	<hostid>	resolve ip-addr
		drop	<hostid> [hardware]	drop arp
		flush		flush arp table
		publish		add proxy arp
	dhcp		<iface>	
		client		
			release	release DHCP client IP
			renew	renew DHCP client IP
		mode	<server|relay|none|client>	set dhcp mode
		relay	server <serverIP>	set dicp relay server ip-addr
		reset		reset dhcp table
		server		
			probecount <num>	set dhcp probe count
			dnsserver <IP1> [IP2] [IP3]	set dns server ip-addr
			winsserver <winsIP1> [<winsIP2>]	set wins server ip-addr
			gateway <gatewayIP>	set gateway
			hostname <hostname>	set hostname
			initialize	fills in DHCP parameters and initializes (for PWC purposes)
			leasetime <period>	set dhcp leasetime
			netmask <netmask>	set dhcp netmask
			pool <startIP> <numIP>	set dhcp ip pool
			renewaltime <period>	set dhcp renew time
			rebindtime <period>	set dhcp rebind time
			reset	reset dhcp table
			server <serverIP>	set dhcp server ip for relay
			dnsorder [router|isp]	set dhcp dns order
		status	[option]	show dhcp status
		static		
			delete <num>|all	delete static dhcp mac table
			display	display static dhcp mac table
			update <num> <mac> <ip>	update static dhcp mac table
	dns			
		query		
			address <ipaddr> [timeout]	resolve ip-addr to name
			debug <num>	enable dns debug value
			name <hostname> [timeout]	resolve name to ip-addr
			status	display dns query status
			table	display dns query table
		server	<primary> [secondary] [third]	set dns server
		stats		
			clear	clear dns statistics
			disp	display dns statistics
		table		display dns table
	httpd			
		debug	[on|off]	set http debug flag
	icmp			
		echo	[on|off]	set icmp echo response flag
		data	<option>	select general data type
		status		display icmp statistic counter
		trace	[on|off]	turn on/off trace for debugging

		discovery	<iface> [on|off]	set icmp router discovery flag
	ifconfig		[iface] [ipaddr] [broadcast <addr> |mtu <value>|dynamic]	configure network interface
	ifdrop		<iface>	chaek if iface is available.
	ping		<hostid>	ping remote host
	pong		<hostid> [<size> <time-interval>]	pong remote host
	route			
		status	[if]	display routing table
		add	<dest_addr|default>[/<bits>] <gateway> [<metric>]	add route
		addiface	<dest_addr|default>[/<bits>] <gateway> [<metric>]	add an entry to the routing table to iface
		addprivate	<dest_addr|default>[/<bits>] <gateway> [<metric>]	add private route
		drop	<host addr> [/<bits>]	drop a route
		flush		flush route table
		lookup	<addr>	find a route to the destination
		errcnt		
			disp	display routing statistic counters
			clear	clear routing statistic counters
	status			display ip statistic counters
	adjTcp		<iface> [<mss>]	adjust the TCP mss of iface
	udp			
		status		display udp status
	rip			
		accept	<gateway>	drop an entry from the RIP refuse list
		activate		enable rip
		merge	[on|off]	set RIP merge flag
		refuse	<gateway>	add an entry to the rip refuse list
		request	<addr> [port]	send rip request to some address and port
		reverse	[on|off]	RIP Poisoned Reverse
		status		display rip statistic counters
		trace		enable debug rip trace
		mode		
			<iface> in [mode]	set rip in mode
			<iface> out [mode]	set rip out mode
		dialin_user	[show|in|out|both|none]	show dialin user rip direction
	tcp			
		ceiling	[value]	TCP maximum round trip time
		floor	[value]	TCP minimum rtt
		irtt	[value]	TCP default init rtt
		kick	<tcb>	kick tcb
		limit	[value]	set tcp output window limit
		max-incomplete	[number]	Set the maximum number of TCP incomplete connection.
		mss	[value]	TCP input MSS
		reset	<tcb>	reset tcb
		rtt	<tcb> <value>	set round trip time for tcb
		status	[tcb] [<interval>]	display TCP statistic counters
		syndata	[on|off]	TCP syndata piggyback
		trace	[on|off]	turn on/off trace for debugging
		window	[tcb]	TCP input window size
	samenet		<iface1> [<iface2>]	display the ifaces that in the same net
	uninet		<iface>	set the iface to uninet

tftp				
	support			pritn if tfpt is support
	stats			display tftp status
xparent				
	join	<iface1> [<iface2>]		join iface2 to iface1 group
	break	<iface>		break iface to leave ipxparent group
antiprobe		<0|1> 1:yes 0:no		set ip anti-probe flag
igmp				
	debug	[level]		set igmp debug level
	forwardall	[on|off]		turn on/off igmp forward to all interfaces flag
	querier	[on|off]		turn on/off igmp stop query flag
	iface			
		<iface> grouptm <timeout>		set igmp group timeout
		<iface> interval <interval>		set igmp query interval
		<iface> join <group>		join a group on iface
		<iface> leave <group>		leave a group on iface
		<iface> query		send query on iface
		<iface> rsptime [time]		set igmp response time
		<iface> start		turn on of igmp on iface
		<iface> stop		turn off of igmp on iface
		<iface> ttl <threshold>		set ttl threshold
		<iface> v1compat [on|off]		turn on/off v1compat on iface
	robustness	<num>		set igmp robustness variable
	status			dump igmp status
pr				
	clear			clear ip pr table counter information
	disp			dump ip pr table counter information
	switch			turn on/off ip pr table counter flag
nat				
	timeout			
		gre [timeout]		set nat gre timeout value
		iamt [timeout]		set nat iamt timeout value
		generic [timeout]		set nat generic timeout value
		reset [timeout]		set nat reset timeout value
		tcp [timeout]		set nat tcp timeout value
		tcpother [timeout]		set nat tcp other timeout value
	update			create nat system information from spSysParam
	iamt			display nat iamt information
	iface	<iface>		show nat status of an interface
	lookup	<rule set>		display nat lookup rule
	new-lookup	<rule set>		display new nat lookup rule
	loopback	[on|off]		turn on/off nat loopback flag
	reset	<iface>		reset nat table of an iface
	server			
		disp		display nat server table
		load <set id>		load nat server information from ROM
		save		save nat server information to ROM
		clear <set id>		clear nat server information
		edit active <yes|no>		set nat server edit active flag
		edit svrport <start port> [end port]		set nat server server port
		edit intport <start port> [end port]		set nat server forward port
		edit remotehost <start ip> [end ip]		set nat server remote host ip
		edit leasetime [time]		set nat server lease time
		edit rulename [name]		set nat server rule name

				edit forwardip [ip]	set nat server server ip
				edit protocol [protocol id]	set nat server protocol
			service		
				irc [on|off]	turn on/off irc flag
			resetport		reset all nat server table entries
			incikeport	[on|off]	turn on/off increase ike port flag

IPSec Related Command

Command				Description
ipsec				
	debug	<1|0>		turn on|off trace for IPsec debug information
	route	lan	<on|off>	After a packet is IPSec processed and will be sent to LAN side, this switch is to control if this packet can be applied IPSec again.
				Remark: Command available since 3.50(WA.3)
		wan	<on|off>	After a packet is IPSec processed and will be sent to WAN side, this switch is to control if this packet can be applied IPSec again.
				Remark: Command available since 3.50(WA.3)
	show_runtime	sa		display runtime phase 1 and phase 2 SA information
		spd		When a dynamic rule accepts a request and a tunnel is established, a runtime SPD is created according to peer local IP address. This command is to show these runtime SPD.
	switch	<on|off>		As long as there exists one active IPSec rule, all packets will run into IPSec process to check SPD. This switch is to control if a packet should do this. If it is turned on, even there exists active IPSec rules, packets will not run IPSec process.
	timer	chk_my_ip	<1~3600>	- Adjust timer to check if WAN IP in menu is changed
				- Interval is in seconds
				- Default is 10 seconds
				- 0 is not a valid value
		chk_conn.	<0~255>	- Adjust auto-timer to check if any IPsec connection has no traffic for certain period. If yes, system will disconnect it.
				- Interval is in minutes
				- Default is 2 minuets
				- 0 means never timeout
		update_peer	<0~255>	- Adjust auto-timer to update IPSec rules which use domain name as the secure gateway IP.
				- Interval is in minutes
				- Default is 30 minutes
				- 0 means never update
				Remark: Command available since 3.50(WA.3)
	updatePeerIp			Force system to update IPSec rules which use domain name as the secure gateway IP right away.
				Remark: Command available since 3.50(WA.3)
	dial	<rule #>		Initiate IPSec rule <#> from ZyWALL box
				Remark: Command available since 3.50(WA.3)

	display	<rule #>		Display IPSec rule #
	config	netbios	active <on|off>	Set netbios active flag
			group <group index1, group index2…>	Set netbios group
		name	<string>	Set rule name
		active	<Yes | No>	Set active or not
		keeyAlive	<Yes| No>	Set keep alive or not
		lcIdType	<0:IP | 1:DNS | 2:Email>	Set local ID type
		lcIdContent	<string>	Set local ID content
		myIpAddr	<IP address>	Set my IP address
		peerIdType	<0:IP | 1:DNS | 2:Email>	Set peer ID type
		peerIdContent	<string>	Set peer ID content
		secureGwAddr	<IP address | Domain name>	Set secure gateway address or domain name
		protocol	<1:ICMP | 6:TCP | 17:UDP>	Set protocol
		lcAddrType	<0:single | 1:range | 2:subnet>	Set local address type
		lcAddrStart	<IP>	Set local start address
		lcAddrEndMask	<IP>	Set local end address or mask
		lcPortStart	<port>	Set local start port
		lcPortEnd	<port>	Set local end port
		rmAddrType	<0:single | 1:range | 2:subnet>	Set remote address type
		rmAddrStart	<IP>	Set remote start address
		rmAddrEndMask	<IP>	Set remote end address or mask
		rmPortStart	<port>	Set remote start port
		rmPortEnd	<port>	Set remote end port
		antiReplay	<Yes | No>	Set anitreplay or not
		keyManage	<0:IKE | 1:Manual>	Set key manage
		ike	negotiationMode <0:Main | 1:Aggressive>	Set negotiation mode in phase 1 in IKE
			preShareKey <string>	Set pre shared key in phase 1 in IKE
			p1EncryAlgo <0:DES | 1:3DES>	Set encryption algorithm in phase 1 in IKE
			p1AuthAlgo <0:MD5 | 1:SHA1>	Set authentication algorithm in phase 1 in IKE
			p1SaLifeTime <seconds>	Set sa life time in phase 1 in IKE
			p1KeyGroup <0:DH1 | 1:DH2>	Set key group in phase 1 in IKE
			activeProtocol <0:AH | 1:ESP>	Set active protocol in phase 2 in IKE
			p2EncryAlgo <0:Null | 1:DES | 2:3DES>	Set encryption algorithm in phase 2 in IKE
			p2AuthAlgo <0:MD5 | 1:SHA1>	Set authentication algorithm in phase 2 in IKE
			p2SaLifeTime <seconds>	Set sa life time in phase 2 in IKE
			encap <0:Tunnel | 1:Transport>	set encapsulation in phase 2 in IKE
			pfs <0:None | 1:DH1 | 2:DH2>	set pfs in phase 2 in IKE
		manual	activeProtocol <0:AH | 1:ESP>	Set active protocol in manual
		manual ah	encap <0:Tunnel | 1:Transport>	Set encapsulation in ah in manual
			spi <decimal>	Set spi in ah in manual
			authAlgo <0:MD5 | 1:SHA1>	Set authentication algorithm in ah in manual
			authKey <string>	Set authentication key in ah in manual
		manual esp	encap <0:Tunnel | 1:Transport>	Set encapsulation in esp in manual
			spi <decimal>	Set spi in esp in manual
			encryAlgo <0:Null | 1:DES | 2:3DES>	Set encryption algorithm in esp in manual
			encryKey <string>	Set encryption key in esp in manual
			authAlgo <0:MD5 | 1:SHA1>	Set authentication algorithm in esp in manual
			authKey < string>	Set authentication key in esp in manual

PPP Related Command

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

Bridge Related Command

Command				Description
bridge				
	mode		<1/0> (enable/disable)	turn on/off (1/0) LAN promiscious mode
	blt			related to bridge local table
		disp	<channel>	display blt data
		reset	<channel>	reset blt data
		traffic		display local LAN traffic table
		monitor	[on|off]	turn on/off traffice monotor. Default is off.
		time	<sec>	set blt re-init interval
	brt			related to bridge route table
		disp	[id]	display brt data
		reset	[id]	reset brt data
	cnt			related to bridge routing statistic table
		disp		display bridge route counter
		clear		clear bridge route counter
	stat			related to bridge packet statistic table
		disp		display bridge route packet counter
		clear		clear bridge route packet counter
	disp			display bridge source table

Radius Related Command

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

8021x Related Command

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

Configuration Related Command

Command					Description
config					The parameters of config are listed below.
edit	firewall	active			Activate or deactivate the saved firewall settings

			<yes|no>		
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-low <0~255>		The threshold to stop deleting the half-opened session
			tcp-max-incomplete <0~255>		The threshold to start executing the block field
		set <set#>	name <desired name>		Edit the name for a set
			default-permit <forward|block>		Edit whether a packet is dropped or allowed when it does not match the default set
			icmp-timeout <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
				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.

Firewall Related Command   Home

Command					Description
sys					
	firewall				
		acl			
			disp		Display specific ACL set # rule #, or all ACLs.
		active	<yes|no>		Active firewall or deactivate firewall
		cnt			
			disp		Display firewall log type and count.
			clear		Clear firewall log count.
		pktdump			Dump the 64 bytes of dropped packet by firewall
		update			Update firewall
		dynamicrule			
		tcprst			
			rst		Set TCP reset sending on/off.
			rst113		Set TCP reset sending for port 113 on/off.
			display		Display TCP reset sending setting.
		icmp			
		dos			
			smtp		Set SMTP DoS defender on/off
			display		Display SMTP DoS defender setting.
			ignore		Set if firewall ignore DoS in lan/wan/dmz/wlan
		ignore			
			triangle		Set if firewall ignore triangle route in lan/wan/dmz/wlan

SMT Related command   Home

No	Command	Description	Comment
	sys bridge [on|off]	Set system bridge on/off	Menu 1
	sys routeip [on|off]	Set system IP routing on/off	Menu 1
	sys hostname [hostname]	Set system name	Menu 1
	sys display	Display hostname, routing/bridge mode information in menu 1	Display Menu 1
	sys default	Load All Default Settings Except LAN and DHCP.	

	sys save	Save all the parameters which will include menu1, menu 3.2 LAN, menu 4 or menu 11 WAN, menu 12 static route, menu 15 NAT server set, menu 21 filter sets, menu 22 SNMP, menu 24.11 remote management and 3.5 Wireless LAN	
	wan backup mechanism [dsl	icmp]	Set wan backup mechanism to DSL link or ICMP	Menu 2
	wan backup addr [index] [IP addr]	Set wan ip address <index>	Menu 2
	wan backup tolerance [number]	Set keepalive fail tolerance	Menu 2
	wan backup recovery [interval(sec)]	Set recovery interval	Menu 2
	wan backup timeout [number]	Set ICMP timeout	Menu 2
	wan backup save	Save wan backup related parameters	Menu 2
	wan backup display	Display wan backup configurations	Menu 2
	wan tredir active [on|off]	Set traffic redirect on/off	Menu 2.1
	wan tredir ip [IP addr]	Set traffic redirect gateway IP address	Menu 2.1
	wan tredir metric [number]	Set traffic redirect metric	Menu 2.1
	wan tredir save	Save traffic redirect related parameters ** Have to apply "wan backup save" command thereafter	Menu 2.1
	wan tredir display	Display traffic redirect configurations	Menu 2.1
	lan index [1|2|3] 1: Select main LAN Interface 2: Select IP Alias 1 3: Select IP Alias 2	Select a LAN interface to edit	Menu 3.2
	lan active [on|off]	Turn on or off on IP Alias Interface	Menu 3.2.1
	lan ipaddr [address] [subnet mask]	Set LAN IP address and subnet mask Example: > lan ipaddr 192.168.1.1 255.255.255.0	Menu 3.2
	lan rip [none|in|out|both] [rip1|rip2b|rip2m]	Set LAN IP RIP mode and RIP version, if you choose none in the first parameter, the second parameter is also necessary	Menu 3.2
	lan multicast [none|igmpv1|igmpv2]	Set LAN IP multicast mode	Menu 3.2
	lan filter [incoming|outgoing] [tcpip|generic] [set#1] [set#2] [set#3] [set#4]	Set LAN filter to be incoming/outgoing or protocol /device and the filter set could be 1-12, 0 means empty Example: Lan filter incoming tcpip 1 0 0 0	Menu 3.1
	lan dhcp mode [server|relay|none]	Set DHCP mode to be"server", "relay", "none"	Menu 3.2
	lan dhcp server dnsserver [pri dns] [sec dns]	Set primary and secondary LAN DNS server	Menu 3.2
	lan dhcp server pool [start-address] [num]	Set DHCP start address and pool size	Menu 3.2
	lan dhcp server gateway [IP address]	Set DHCP gateway	Menu 3.2
	lan dhcp server netmask [subnet mask]	Set DHCP subnet mask	Menu 3.2
	lan dhcp server leasetime [second]	Set DHCP lease time	Menu 3.2
	lan dhcp server renewaltime [second]	Set DHCP renew time	Menu 3.2
	lan dhcp server rebindtime [second]	Set DHCP rebind time	Menu 3.2
	lan dhcp relay server [IP address]	Set IP address of DHCP relay server	Menu 3.2
	lan display	Display LAN or IP alias parameters	Display Menu 3
	lan clear	Clear the Working Buffer	
	lan save	Save LAN related parameters	
	wan node index [1-8]	Set the node pointer to specific wan profile. If you want to set WAN profile, please use this command first, system will use the index number for pointing to specific PVC (remote node), and for consequent commands reference, if index = 1 means it's ISP node	Menu 11.1
	wan node clear	Clear the parameters of the temporary WAN profile	Menu 11.1
	wan node ispname [ISP name]	Enable the name of wan node	Menu 11.1

	wan node enable	Enable the wan profile	Menu 11.1
	wan node disable	Disable the wan profile	Menu 11.1
	wan node encap [1483|pppoa|pppoe|enet]	Set the wan protocol	Menu 11.1
	wan node mux [vc|llc]	Set the wan multiplex	Menu 11.1
	wan node ppp authen [chap|pap|both]	Set PPP authentication type	Menu 11.1
	wan node ppp username [name]	Set PPP username	Menu 11.1
	wan node ppp password [password]	Set PPP password	Menu 11.1
	wan node service [name]	Set PPPoE service name	Menu 11.1
	wan node bridge [on|off]	Set the wan bridge mode	Menu 11.1
	wan node routeip [on|off]	Set the wan IP routing mode	Menu 11.1
	wan node callsch [set1#][set2#][set3#][set4#]	Set call schedule set, set number 0 means empty	Menu 11.1
	wan node nailedup [on|off]	Set nailed up connection on/off	Menu 11.1
	wan node vpi [num]	Set the wan vpi. Range : 0~255	Menu 11.6
	wan node vci [num]	Set the wan vci. Range : 32~65535	Menu 11.6
	wan node qos[ubr|cbr]	Set the wan QOS type to be UBR or CBR	Menu 11.6
	wan node pcr [num]	Set the wan PCR value	Menu 11.6
	wan node scr [num]	Set the wan SCR value	Menu 11.6
	wan node mbs [num]	Set the wan MBS value	Menu 11.6
	wan node wanip [static|dynamic] [address]	Set the wan IP address	Menu 11.3
	wan node remoteip [address] [subnet mask]	Set the remote gateway IP address and subnet mask	Menu 11.3
	wan node nat [off | sua | full] [address mapping #]	Set type wan NAT mode to be off or SUA or Full feature	Menu 11.3
	wan node rip [none|in|out|both] [rip1|rip2b|rip2m]	Set the wan RIP mode and RIP version	Menu 11.3
	wan node multicast [none|igmpv1|igmpv2]	Set the wan IP multicast mode	Menu 11.3
	wan node filter [incoming|outgoing] [tcpip|generic] [set #1] [set #2] [set #3] [set #4]	Set WAN filter, incoming or outgoing can be specified, and filter set can be 1-12, value 0 means empty	Menu 11.5
	wan node save	Save the related parameters of WAN node	
	wan node display	Display WAN profile configuration in buffer	Display Menu 11
	ip route addrom index [Rule #]	Select a Static Route index 1-16 to edit	Menu 12.1
	ip route addrom name [Name]	Set Rule Name	Menu 12.1
	ip route addrom active [on|off]	Set Active or Inactive Flag	Menu 12.1
	ip route addrom set [dest address/ mask bits] [gateway] [metric]	Set IP static route Example: > ip ro addrom set 192.168.1.33/24 192.168.1.1 2	Menu 12.1
	ip route addrom private [yes|no]	Set Private Flag	Menu 12.1
	ip route addrom disp	Display both working buffer and Editing Entry	Menu 12.1
	ip route addrom freememory	Discard all changes	Menu 12.1
	ip route addrom save	Save edited settings	Menu 12.1
	ip route addrom clear [Index #]	Clear Static Route Index	Menu 12.1
	ip nat addrmap map [map#] [set name]	Select NAT address mapping set and set mapping set name, but set name is optional Example: > ip nat addrmap map 1 myset	Menu 15.1
	ip nat addrmap rule [rule#] [insert | edit] [type] [local start IP] [local end IP] [global start IP] [global end IP] [server set #]	Set NAT address mapping rule. If the "type" is not "inside-server" then the "type" field will still need a dummy value like "0". Type is 0 - 4 = one-to-one, many-to-one, many-to-many-overload, many-to-many-non overload,	Menu 15.1

		inside-server Example: > ip nat addrmap rule 1 edit 3 192.168.1.10 192.168.1.20 192.168.10.56 192.168.1.56 0	
	ip nat addrmap clear [map#] [rule#]	Clear the selected rule of the set	Menu 15.1
	ip nat addrmap freememory	Discard Changes	Menu 15.1
	ip nat addrmap disp	Display nat set information	Menu 15.1
	ip nat addrmap save	Save settings	Menu 15.1
	ip nat server load [set#]	Load the server sets of NAT into buffer	Menu 15.2
	ip nat server disp [1]	"disp 1" means to display the NAT server set in buffer, if parameter "1" is omitted, then it will display all the server sets	Menu 15.2
	ip nat server save	Save the NAT server set buffer into flash	Menu 15.2
	ip nat server clear [set#]	Clear the server set [set#], must use "save" command to let it save into flash	Menu 15.2
	ip nat server edit [rule#] active	Activate the rule [rule#], rule number is 1 to 24, the number 25-36 is for UPNP application	Menu 15.2
	ip nat server edit [rule#] svrport <start port> <end port>	Configure the port range from <start port > to <end port>	Menu 15.2
	ip nat server edit [rule#] remotehost <start IP> <end IP>	Configure the IP address range of remote host (Leave it to be default value if you don't need this command)	Menu 15.2
	ip nat server edit [rule#] leasetime <seconds>	Configure the lease time (Leave it to be default value if you don't want this command)	Menu 15.2
	ip nat server edit [rule#] rulename <string>	Configure the name of the rule (Leave it to be default value if you don't want this command)	Menu 15.2
	ip nat server edit [rule#] forwardip <IP address>	Configure the LAN IP address to be forwarded	Menu 15.2
	ip nat server edit [rule#] protocol <TCP|UDP|ALL>	Configure the protocol to be used TCP , UDP or ALL (it must be capital)	Menu 15.2
	sys filter set index [set#] [rule#]	Set the index of filter set rule, you may apply this command first before you begin to configure the filter rules	Menu 21 filter sets
	sys filter set name [set name]	Set the name of filter set	Menu 21 filter sets
	sys filter set type [tcpip | generic]	Set the type of filter rule	Menu 21 filter sets
	sys filter set enable	Enable the rule	Menu 21 filter sets
	sys filter set disable	Disable the rule	Menu 21 filter sets
	sys filter set protocol [protocol #]	Set the protocol ID of the rule	Menu 21 filter sets
	sys filter set sourceroute [yes|no]	Set the sourceroute yes/no	Menu 21 filter sets
	sys filter set destip [address] [subnet mask]	Set the destination IP address and subnet mask of the rule	Menu 21 filter sets
	sys filter set destport [port#] [compare type = none|equal|notequal|less|greater]	Set the destination port and compare type (compare type could be 0(none)|1(equal)|2(not equal)|3(less)|4(greater))	Menu 21 filter sets
	sys filter set srcip [address] [subnet mask]	Set the source IP address and subnet mask	Menu 21 filter sets
	sys filter set srcport [port#] [compare type = none|equal|not equal|less|greater]	Set the source port and compare type (compare type could be 0(none)|1(equal)|2(not equal)|3(less)|4(greater))	Menu 21 filter sets
	sys filter set tcpEstab [yes|no]	Set TCP establish option	
	sys filter set more [yes|no]	Set the more option to yes/no	Menu 21 filter sets
	sys filter set log [type 0-3= none | match| notmatch | both]	Set the log type (it could be 0-3 =none, match, not match, both)	Menu 21 filter sets
	sys filter set actmatch[type 0-2 = checknext | forward | drop]	Set the action for match	Menu 21 filter sets
	sys filter set actnomatch [type 0-2 = checknext | forward | drop]	Set the action for not match	Menu 21 filter sets
	sys filter set offset [#]	Set offset for the generic rule	Menu 21, it's for generic filter
	sys filter set length [#]	Set the length for generic rule	Menu 21, it's for

			generic filter
	sys filter set mask [#]	Set the mask for generic rule	Menu 21, it's for generic filter
	sys filter set value [(depend on length in hex)]	Set the value for generic rule	Menu 21, it's for generic filter
	sys filter set clear	Clear the current filter set	Menu 21
	sys filter set save	Save the filter set parameters	
	sys filter set display [set#][rule#]	Display Filter set information. W/o parameter, it will display buffer information.	
	sys filter set freememory	Discard Changes	
	sys snmp disp	Display SNMP parameters	Menu 22
	sys snmp get [community]	Set the community string of get	Menu 22 SNMP
	sys snmp set [community]	Set the community string of set	Menu 22 SNMP
	sys snmp trusthost [IP address]	Set the IP address of trusted host	Menu 22 SNMP
	sys snmp trap community [community]	Set the community string of trap	Menu 22 SNMP
	sys snmp trap destination [IP address]	Set the destination address of trap	Menu 22 SNMP
	sys snmp discard	Discard changes	
	sys snmp clear	Clear Working Buffer	
	sys snmp save	Set the SNMP parameters	Menu 22 SNMP
	sys password [new password]	Set system password [save immediately]	Menu 23 system password
	sys baud [1-5]	Index 12,3 will be 38400,19200, 9600, 57600, 115200 bps [save immediately]	Menu 24.2.2 console speed
	sys server load	Load setting before editing	
	sys server access [ftp|telnet|web] [access type]	Set the server access type to be 0: ALL, 1: None, 2:LAN only, 3:WAN only	Menu 24.11 remote management
	sys server port [ftp|telnet|web] [port]	Set the server port number	Menu 24.11 remote management
	sys server secureip[ftp|telnet|web] [address]	Set the server security IP address	Menu 24.11 remote management
	sys server disp [1]	Display server settings, [1] means display buffer	
	sys server save	Save the embedded server (remote management) parameters	
	wlan load	Load system parameters into working buffer	Menu 3.5 for Wireless LAN
	wlan disp	Display the working buffer	Menu 3.5 for Wireless LAN
	wlan essid [name]	Set the wireless ESSID	Menu 3.5 for wireless LAN
	wlan hideessid [on|off]	Set to hide ESSID or not	Menu 3.5 for wireless LAN
	wlan chid [#=1~13]	Set channel ID 1-13	Menu 3.5 for wireless LAN
	wlan threshold rts [value]	Set the RTS threshold value	Menu 3.5 for wireless LAN
	wlan threshold fragment [value]	Set fragment threshold	Menu 3.5 for wireless LAN
	wlan wep type [none|64|128]	Set the wep type to be none, 64bit or 128bits	Menu 3.5 for wireless LAN
	wlan wep key set [key set#1-4] [key value]	Set wep key value	Menu 3.5 for wireless

			LAN
	wlan wep key default [key set # 1-4]	Set default key set value	Menu 3.5 for wireless LAN
	wlan macfilter enable	Enable mac filter	Menu 3.5.1 for wireless LAN
	wlan macfilter disable	Disable mac filter	Menu 3.5.1 for wireless LAN
	wlan macfilter action [allow|deny]	Set the action type of filter	Menu 3.5.1 for wireless LAN
	wlan macfilter set [set# 1-12] [mac address]	Set the mac address of filter	Menu 3.5.1 for wireless LAN
	wlan clear	Clear Working Buffer	
	wlan save	Save wireless MAC filter parameters	