



Firmware Release Note

Prestige 652R-13

Standard version

Release 3.40(FW.7)C0

Date: June 18, 2003
Author: Brian Chung

ZyXEL Prestige 652R-13 Standard Version release 3.40(FW.7)C0 Release Note

Date: June 18, 2003

Supported Platforms:

ZyXEL Prestige 652R-13

Versions:

ZyNOS F/W Version: V3.40(FW.7) | 6/18/2003 16:37:40

Bootbase Version: V1.06 | 9/3/2002 11:07:17

Notes:

1. The Prestige 652R-I, is an ADSL over ISDN security router with built-in powerful firewall capabilities and secure Virtual Private Network (VPN), which are designed for small and medium-sized businesses (SMBs), and enterprises' branch offices. The high-performance firewall capabilities and VPN secure data transmission over the public Internet and protect Internal network resources from unauthorized access.
2. Alcatel modem code version is 4.9.10

Known Issues:

1. Currently, UPNP not support MSN 5.0
2. Update firmware issue :
 - 1) Update firmware from 3.40(FW.5) to 3.40(FW.7) :
 - a. Update firmware by FTP : have to update to 3.40(FW.6) first, then update to 3.40(FW.7).
 - b. Update firmware by console : just update firmware from 3.40(FW.5) to 3.40(FW.7)
 - 2) Update firmware from 3.40(FW.6) to 3.40(FW.7)
 - a. Update firmware by FTP : just update firmware from 3.40(FW.6) to 3.40(FW.7)
 - b. Update firmware by console : Can't update firmware from 3.40(FW.6) to 3.40(FW.7) by console.

CI Command List:

Features:

Modification in 3.40(FW.7) | 06/18/2003

1. Change to FCS version.

Modification in 3.40(FW.7)b1 | 05/30/2003

1. [FEATURE CHANGED]
Integrate Errlog, Firewall log, VPN log and Content filter log into Centralized log.
SMT menu : Remove firewall log (menu 21.3), VPN log (menu 27.3); Modify Unix syslog (menu 24.3.2).
WEB page : Remove log of Content filter ,Firewall page and VPN page. Add new page of Centralized log.
CI command : Add “logs” to replace “log”. Please refer to CI command list.
2. [FEATURE EHHANCED]
Symptom: Extend to 5 IPSec sessions.
3. [FEATURE CHANGED]
Symptom: Change modem code version to 4.9.10
4. [FEATURE EHHANCED]
Symptom: Add NetBIOS passthrough for IPSec.
Usage: Using ci-command “sys filter netbios config <6:IPSec pass through><on|off>” or eWC.
5. [FEATURE ENHANCED]
Add FQDN feature for IPSec. See [Appendix 3](#).
6. [FEATURE ENHANCED]
Add KeepAlive feature for IPSec.
7. [NEW FEATURE]
Symptom: Support Goalie CNM (Centralized Network Management) feature.
CI command “cnm active 1” could be used to active this feature. The default is inactive. CI command “cnm managerIp xxx.xxx.xxx.xxx” is used to specify the IP address of the ZyXEL’s CNM management station. For details for CNM, please reference to the User Guide for CNM.
8. [FEATURE CHANGED]
Add firewall rule BOOTP_CLIENT(UDP:68) for default ROM file setting.
Disable multicast option in SMT menu 3.2 for default ROM file setting.
9. [FEATURE ENHANCED]
Add WAN eWC page to config WAN setting.
10. [FEATURE ENHANCED]
Symptom: Enhance traffic redirect and dial backup feature. Add WAN backup eWC.
11. [FEATURE CHANGED]
Symptom: Minimum of IPSec phase 1 and phase 2 SA lifetime enlarge from 60 seconds to 180 seconds.
12. [FEATURE ENHANCED]
Symptom: SPTGEN feature enhancement.
Condition:
 - 1) Add RIP direction and version for SMT menu4.
 - 2) Add active and protocol option for SMT menu15 (NAT).
 - 3) Extend filter set from 1 to 2 set.Support ADSL opencmd function.
13. [FEATURE ENHANCED]
Symptom: When the remote address range and local address range overlap in a IPSec rule, packets from local to local can skip this rule for checking. For example, a rule: local=> start= 192.168.1.0 mask= 255.255.255.0; remote=> start= 192.168.0.0 mask= 255.255.0.0. Then user can define if a packet from 192.168.1.2 to 192.168.1.3 matches this rule.
Note: 1. Please use "ipsec swSkipOverlapIp <on|off>" to control this behavior. When it's "on",

then the packet "192.168.1.2 to 192.168.1.3" will skip this rule.

2. The default setting of swSkipOverlapIp is "off"

14. [FEATURE CHANGED]

Symptom: Add back the inbound idle timer. When a tunnel has no inbound traffic for a certain period, the tunnel will be dropped.

Note: 1. Please use "ipsec timer chk_input <minute> to configure this timer. 2. A value "0" means disable this timer. 3. The default value is "disabled". 4. The inbound idle timer can work with existed "idle timer". The latter monitors if a tunnel with "only outound traffic but no inbound traffic" for a certain period, and then delete that tunnel.

15. [BUG FIXED]

Symptom: Sometimes IPSec rekey procedure failed.

Condition: Under heavy traffic, sometimes IPSec rekey failed.

16. [BUG FIXED]

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

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

17. [BUG FIXED]

Symptom: In LAN setup page, the IP address can not be xxx.xxx.255.xxx

18. [BUG FIXED]

Symptom: Nailed-up function can't work for Dial backup node.

Condition: Dial backup node can set nailed-up option but this feature can't really work.

19. [BUG FIXED]

Symptom: System reboot when user disconnect established PPTP session.

Condition: 1). Setup PPTP session through P652, 2) do some ping test then disconnect PPTP session will cause device reboot.

20. [BUG FIXED]

Symptom: If the traffic for Polycom camera pass our router, the router would be reboot.

Condition: Polycom camera is implemented by H.323. So our router would do nat for this device.

21. [BUG FIXED]

Symptom: Can't set nailed-up and budget at the same at eWC for wan backup feature.

Condition: For wan backup feature at eWC, can't set nailed-up and budget at the same time.

Modification in 3.40(FW.6)C0 | 03/07/2003

1. Change to FCS version.

Modification in 3.40(FW.6)b2 | 12/27/2002

1. [FEATURE ENHANCED]

Sympton: Add Initial Contact for IPSec.

Condition: Add Initial Contact to differentiate it's first contact or reboot contact.

2. [BUG FIXED]

Sympton: Remote management can't work over IPSec tunnel.

Condition: Remote management can't work over IPSec tunnel. It must set access = ALL in SMT menu 24.11.

3. [BUG FIXED]

Sympton: Unix syslog can't work.

Condition: Unix syslog can't work on LAN side or WAN side.

4. [FEATURE ENHANCED]

Sympton: Support VPN and Firewall log into Unix syslog.

Modification in 3.40(FW.6)b1 | 12/19/2002

1. [FEATURE CHANGED]
Change Rom file setting at SMT menu 3.2 (Multicast = None).
Menu 11.3 for dial backup node (NAT = SUA Only).
2. [FEATURE CHANGED]
Change modem code version to 4.9.8
3. [FEATURE ENHANCED]
Add Traffic Redirection Feature. See [Appendix 2](#).
4. [BUG FIXED]
Sympton: Alcatel DSP code hang problem
Condition: Sometimes Alcatel DSP will hang up and loss communication with Host.
5. [BUG FIXED]
Sympton: The system will allow the packet with DF=1 and packet length > MTU to pass through the router without any error message returned to the sender.
Condition: When the packet with it's length > MTU and don't fragment bit is set, the packet is allowed to pass through the router.
6. [BUG FIXED]
Sympton: Memory leakage occurred when ADSL dropped and plug-in.
Condition: When ADSL line link down/link up, the bridge remoteNode would allocate Local Cache Table. But the memory free had not done.
7. [BUG FIXED]
Sympton: Heavy OAM packets would let our system exception.
8. [BUG FIXED]
Sympton: Nailed-up don't work sometimes.
Condition: Sometimes PPPoA / PPPoE couldn't connect with DSLAM.

Modification in 3.40(FW.5)b6 | 10/1/2002

1. [BUG FIXED]
Sympton: NAT server and Firewall cause 4-byte boundary problem.
Condition: While enable NAT server and Fireall, sometimes access NAT server from wan side will cause router reboot.

Modification in 3.40(FW.5)b5 | 9/26/2002

1. [BUG FIXED]
Sympton: Snmp cause system reboot.
Condition: While testing SNMP with MIB Browser will cause system reboot.
2. [FEATURE EHHANCED] WEB: Modify the Firmware upload successful message page.

Modification in 3.40(FW.5)b4 | 9/24/2002

1. [FEATURE EHHANCED] WEB: Modify the restore factory configuration file page.

Modification in 3.40(FW.5)b3 | 9/20/2002

1. [BUG FIXED]
Sympton: Dial-backup doesn't redirect to SUA-Server.
Condition: While traffic redirect to dial backup port, user can't access SUA-Server at P652's Lan side.
2. [FEATURE EHHANCED] Add subnet mask field in WEB GUI wizard of ENET ENCAP

Modification in 3.40(FW.5)b2 | 9/13/2002

1. [BUG FIXED]

Symptom: NAT server set in WEB can't work if we set the Rule 1.

Condition: In WEB, while we set the NAT Server set at rule 1, it can save but can't work fine.

2. [BUG FIXED]

Symptom: VPN log in WEB is unreadable.

Condition: In web VPN log, the display is unreadable. It should be in order by topic index.

3. [BUG FIXED]

Symptom: Web page display will be out of order.

Condition: In Web configuration, the column will out of order while we set firewall rule set then enable Upnp.

4. [BUG FIXED]

Symptom: UPNP and Dial backup without Web help page

5. [BUG FIXED]

Symptom: Under VPN channel, when sending large ICMP packet size more times, the NAT session table will full.

Condition: While Prestige be a VPN passthrough device. When continuously sending large ICMP packet size, the NAT session table will full, then the Prestige can't forward any packet.

6. [FEATURE ENHANCED] Add ESP protocol display information in CLI command "ip nat if wanif0". Originally, the device display the protocol as unknown protocol.

Modification in 3.40(FW.5)b1 | 9/5/2002

1. [FEATURE CHANGED] Change the default value of resolving IPsec peer's DNS. The value is changed from 30 min to 15 min.

2. [FEATURE ENHANCED] Support IEEE 802.1q VLAN-tagging bridging.

3. [NEW FEATURE] Support Dial backup. Add dial backup item in WEB and menu 2 in SMT. The remote node no.8 is reserved for Dial-backup use. See [Appendix 1](#)

4. [NEW FEATURE] Support UPNP. Add UPNP item in WEB.

5. [BUG FIXED]

Symptom: length of PPPoE/PPPoA idle timeout is different between SMT menu and WEB wizard setup.

Condition: Length of idle timeout in SMT menu is 5, but in WEB wizard is only 3.

6. [BUG FIXED]

Symptom: console kick out telnet session cause router reboot.

Condition: While access router by telnet and view firewall log in menu 21.3, disconnect telnet by console cause router reboot.

Modification in 3.40(FW.4)b1 | 8/26/2002

1. [BUG FIXED]

Symptom: Router power on will get the information "Decompressed image checksum Error".

Condition: While reboot router will get the information "Decompressed image checksum Error" and enter debug mode

Modification in 3.40(FW.3)b5 | 8/1/2002

1. [BUG FIXED]

Symptom: console kick out telnet session cause router reboot.

Condition: While access router by telnet and view firewall log in menu 21.3, disconnect telnet by console cause router reboot.

2. [BUG FIXED]

Symptom: Web help does not update PPP to PPPoA

Condition: Web help does not update PPP to PPPoA

3. [BUG FIXED]

Symptom: In WizardSetup, user name of PPPoE/PPPoA have problem if user name length more than 70 characters.

Condition: While set User name of PPPoE/PPPoA is more than 70 characters then save, then check again. User name will be 70 characters+password.

4. [BUG FIXED]

Symptom: IPSEC Phase 2 PFS can't work.

Condition: When P652 build up VPN tunnel to ZW-10 or ZW-50, no matter what settings in phase 1 or in phase 2 are used, VPN tunnel does not work when PFS in phase 2 is enabled. But when PFS is disabled, the VPN connection works just fine.

Modification in 3.40(FW.3)b4 | 7/30/2002

1. [EHHANCEMENT] Change "PPP" to "PPPoA" in SMT menu and WEB
2. [EHHANCEMENT] Update bootbase to 1.05 to differentiate model name in SMT Main Menu.
3. [EHHANCEMENT] Extend PPPoE/PPPoA login User Name to 70 characters.

Modification in 3.40(FW.3)b3 | 7/24/2002

1. [BUG FIXED]

Symptom: Set ISP UserID by SPTGen fail

Condition: While UserID > 32 characters, set ISP UserID by SPTGEN will fail.

2. [BUG FIXED]

Symptom: atm RX ISR doesn't judge the RX_BAD_BIT

Condition: While a error packet into router, atm RX ISR doesn't judge the RX_BAD_BIT, so we receive the error packet. Exactly, we should discard the error packet.

3. [BUG FIXED]

Symptom: Write DyingGasp isr message into flash will destroy debug area.

Condition: Write DyingGasp isr message into flash will destroy debug area.

4. [EHHANCEMENT] Enhance SPTGEN to support Nailed-up Connection item.
5. [EHHANCEMENT] Add a CI command "'wan adsl rsploss 0/1" to response signal loss immediately or not.

Bug fixes in 3.40(FW.3)b2 | 7/9/2002

1. [BUG FIXED] Fix the bug that can't save 2nd VPN tunnel while have same local ip address with 1st tunnel.
2. [BUG FIXED] Fix the bug that press return key in SMT menu continuously cause router hang-up.
3. [BUG FIXED] Fix the bug that while firewall is enable, change PPPoE to RFC-1483 (or PPP) then PC on LAN can ping out but FTP and WEB can't work.

Modification in 3.40(FW.3)b1 | 7/5/2002

1. [FEATURE EHHANCED] Add attention note in SMT menu 27.1 and VPN web page.
2. [FEATURE EHHANCED] Modify SPTGEN to support SMT menu 23.
3. [BUG FIXED] Fix the bug of TCP attack packet.
4. [BUG FIXED] Fix the mbuf leakage problem.
5. [BUG FIXED] Fix the plug and unplug problem.
6. [BUG FIXED] Fix the bug that IE 5.0.3315 can't upload F/W.
7. [BUG FIXED] Fix the bug that IPSec rule conflict check error.

Modification in 3.40(FW.1)b2 | 6/11/2002

1. [BUG FIXED] Fix the SPTGEN problem : after put rom-t to router, name of ISP node in SMT11 will change to BACKUP_ISP.
2. [BUG FIXED] Some incorrect operation in SMT will cause router hang-up.

3. [BUG FIXED] Configure NAT server set in port range 1~2000, first ping packet cause router hang-up.

Modification in 3.40(FW.1)b1 | 6/6/2002

1. [FEATURE EHHANCED] Web timer server support domain type.
2. [BUG FIXED] Fix the bug that upgrade to old version firmware have problem.
3. [BUG FIXED] Fix the SPTGEN problem : pppoe can't work.
4. [BUG FIXED] Fix the bug that configure NAT server set will save to wrong index.
5. [BUG FIXED] Fix the checksum error bug in IGMP packet.
6. [BUG FIXED] Fix the pt field error bug in OAM packet.

Bug fixes in 3.40(FW.0)b11 | 5/23/2002

1. [BUG FIXED] Fix the bug that Web atm loopback test can't work if set boot module debug flag=0x00.

Modification in 3.40(FW.0)b10 | 5/22/2002

1. [BUG FIXED] Fix the bug that config NAT in WEB (not save yet) will disconnect all connection.

Modification in 3.40(FW.0)b9 | 5/22/2002

1. [FEATURE CHANGED] Don't log timer server initialized message into FW and CF log.
2. [BUG FIXED] Fix the bug that enter SMT11 submenu cause dialout username = ?.
3. [BUG FIXED] Fix the bug that while set customized service port > 8 will cause firewall rule dest. "ANY" address invisible.
4. [BUG FIXED] Fix the bug that WEB LAN subnetmask setting can't work.
5. [BUG FIXED] Fix the firewall ACL set services as none bug.
6. [BUG FIXED] Fix the bug that WEB timer server can't work well in NTP server mode.
7. [BUG FIXED] Fix the bug that set WEB time zone option will disable server ip field.

Modification in 3.40(FW.0)b8 | 5/17/2002

1. [FEATURE EHHANCED] Support smartbit TERA VPN testing.
2. [BUG FIXED] Fix the bug that VPN phase2 KB can't work.

Modification in 3.40(FW.0)b7 | 5/15/2002

1. [BUG FIXED] Fix the bug that web can't upgrade firmware.
2. [BUG FIXED] Fix the bug that SMT24.10 ENTER key will delete the timer server value.
3. [BUG FIXED] Fix the bug that E-net default gateway is set, when wan is up cause system hang.
4. [BUG FIXED] Fix the bug that SMT delete ISP node, web wizard config at first time can't save VPI/VCI.
5. [BUG FIXED] Fix the bug that firewall log loss some information.
6. [BUG FIXED] Fix the bug that firewall customer service rule no.4 show the wrong value.

Modification in 3.40(FW.0)b6 | 5/10/2002

1. [BUG FIXED] Fix the bug that can't del firewall wan to lan dest. adds.
2. [BUG FIXED] Fix the bug that when PPP is conneting , change to RFC-1483 or E-net cause exception.
3. [BUG FIXED] Fix the bug that SMT delete default remote node, Web wizard config., then SMT11 shows set = 1,1,1,1

Appendix 1 : Dial-Backup

Introduction

The features are used to keep Internet connectivity of the Prestige. The Connectivity Monitor is running at interval to detect the ADSL line status. Once the Prestige has detected the ADSL line is broken, it tries to forward the traffic to dial backup port.

Menu 2 - Dial-Backup Setup

Menu 2 - Dial Backup Setup

Dial-Backup:
Active= No
Port Speed= 115200

AT Command String:
Init= at&fs0=0

Edit Advanced Setup= No

Press ENTER to Confirm or ESC to Cancel:

Menu 2.1 - Advanced Dial Backup Setup

AT Command Strings:
Dial= atd
Drop= ~~~~~~ath
Answer= ata

Drop DTR When Hang Up= Yes

AT Response Strings:
CLID= NMBR =
Called Id=
Speed= CONNECT

Call Control:
Dial Timeout(sec)= 60
Retry Count= 0
Retry Interval(sec)= N/A
Drop Timeout(sec)= 20
Call Back Delay(sec)= 15

Press ENTER to Confirm or ESC to Cancel:

This menu setup the dial device, which is typically an analog modem or ISDN TA. To activate the dial device, please toggle "Active" to "YES".

Menu 11.1 - Backup ISP Setup

```
Menu 11.1 - Remote Node Profile (Backup ISP)

Rem Node Name= ?
Active= Yes

Outgoing:
  My Login=
  My Password= *****
  Authen= CHAP/PAP
  Pri Phone #= ?
  Sec Phone #=

Edit PPP Options= No
Rem IP Addr= ?
Edit IP= Yes
Edit Script Options= No

Telco Option:
  Allocated Budget(min)= 0
  Period(hr)= 0
  Nailed-Up Connection= No

Session Options:
  Edit Filter Sets= No
  Idle Timeout(sec)= 100

Press ENTER to Confirm or ESC to Cancel:
```

A valid pair of login username and password is required. And the phone number of ISP is required. Leave "Rem IP Addr" to 0.0.0.0 makes Prestige try to get its IP address from ISP.

```
Menu 11.3 - Remote Node Network Layer Options

IP Options:
  IP Address Assignment= Static
  Rem IP Addr= 0.0.0.0
  Rem Subnet Mask= 0.0.0.0
  My WAN Addr= 0.0.0.0

Bridge Options:
  Ethernet Addr Timeout(min)= N/A

NAT= SUA Only
  Address Mapping Set= N/A
  Metric= 2
  Private= No
  RIP Direction= None
  Version= RIP-1
  Multicast= None
  IP Policies=

Enter here to CONFIRM or ESC to CANCEL:
```

Typically, "NAT" should be "SUA Only".

Appendix 2 : Traffic Redirect

Introduction

The features are used to keep Internet connectivity of the Prestige. The Connectivity Monitor is running at interval to detect the ADSL line status. Once the Prestige has detected the ADSL line is broken, it tries to forward the traffic to another gateway that user has specified.

Menu 11.1 – Traffic Redirect Setup

```
Menu 11.1 - Remote Node Profile

Rem Node Name= ISP                      Route= IP
Active= Yes                             Bridge= No

Encapsulation= ENET ENCAP              Edit IP/Bridge= No
Multiplexing= LLC-based                 Edit ATM Options= No
Service Name= N/A

Incoming:                               Telco Option:
  Rem Login= N/A                       Allocated Budget(min)= N/A
  Rem Password= N/A                   Period(hr)= N/A
Outgoing:                               Schedule Sets= N/A
  My Login= N/A                       Nailed-Up Connection= N/A
  My Password= N/A                   Session Options:
  Authen= N/A                       Edit Filter Sets= No
                                      Idle Timeout(sec)= N/A
                                      Edit Traffic Redirect= Yes

Press ENTER to Confirm or ESC to Cancel:
```

```
Menu 11.7 - Traffic Redirect Setup

Active= No
Configuration:
  Backup Gateway IP Address= 0.0.0.0
  Metric= 15

Press ENTER to Confirm or ESC to Cancel:
```

- (1) Configure "Active" to "YES" if you want this feature work.
- (2) "Backup Gateway". When the ADSL line is broken, traffic will be handed over to this backup gateway. [In IP address format]
- (3) "Metric". The default value is 15.

Note :

Currently, Dial backup and Traffic redirect check the ADSL Line status. So user can't enable these two feature at the same time.

Appendix 3 IPsec FQDN support

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

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

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

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 or 0.0.0.0	My WAN IP	My WAN IP
0.0.0.0	a.b.c.d (NOT 0.0.0.0)	My WAN IP	a.b.c.d
a.b.c.d (not 0.0.0.0)	*blank or 0.0.0.0	a.b.c.d	a.b.c.d
a.b.c.d (not 0.0.0.0)	e.f.g.h (NOT 0.0.0.0)	a.b.c.d	e.f.g.h

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

**Runtime status: During IKE negotiation, Prestige 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 or 0.0.0.0	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 (NOT 0.0.0.0)	System checks both type and content
a.b.c.d	Blank	1. System will check the ID type and the content. 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. 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 or 0.0.0.0, 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 or 0.0.0.0, 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 or 0.0.0.0, 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 such a kind of rule in top of rule list, it may be matched first. To avoid this problem, we will enhance it in the future.

CI Command List

Command Class List Table		
System Related Command	Exit Command	Ethernet Related Command
AUX Related Command	IP Related Command	IPSec Related Command
Bridge Related Command	Firewall Related Command	CNM Related Command

System Related Command

[home](#)

Command				Description
sys				
	adjtime			retrive date and time from Internet
	atsh			display MRD field
	callhist			
		display		display call history
		remove	<index>	remove entry from call history
	countrycode		[countrycode]	set country code
	date		[year month date]	set/display date
	domainname			display domain name
	edit		<filename>	edit a text file
	extraphnum			maintain extra phone numbers for outcalls
		add	<set 1-3> <1st phone num> [2nd phone num]	add extra phone numbers
		display		display extra phone numbers
		node	<num>	set all extend phone number to remote node <num>
		remove	<set 1-3>	remove extra phone numbers
		reset		reset flag and mask
	feature			display feature bit
	hostname		[hostname]	display system hostname
	logs			
		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
	stdio		[second]	change terminal timeout value
	time		[hour [min [sec]]]	display/set system time
	trcdisp	parse, brief, disp		monitor packets
	syslog			
		server	[destIP]	set syslog server IP address
		facility	<FacilityNo>	set syslog facility

		type	[type]	set/display syslog type flag
		mode	[on off]	set syslog mode
	version			display RAS code and driver version
	view		<filename>	view a text file
	wdog			
		switch	[on off]	set on/off wdog
		cnt	[value]	display watchdog counts value: 0-34463
	romreset			restore default romfile
	socket			display system socket information
	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
	xmodemmode	[crc checksum]		select xmodem mode

Exit Command

[home](#)

Command				Description
exit				exit smt menu

Ethernet Related Command

[home](#)

Command				Description
ether				
	config			display LAN configuration information
	driver			
		cnt		
			disp <name>	display ether driver counters
		status	<ch_name>	see LAN status
	version			see ethernet device type

AUX Related Command

[home](#)

Command				Description
---------	--	--	--	-------------

aux				
	atring		<device name> (device name = aux0)	Command the AT command to the device.
	cnt			
		disp	<device name>	display aux counter information
		clear	<device name>	clear aux counter information
	drop		<device name>	disconnect
	init		<device name>	initialize aux channel
	mstatus		<device name>	display modem last call status
	mtype		<device name>	display modem type
	netstat		<device name>	prints upper layer packet information
	rate		<device name>	show tx rx rate
	redirect		<device name>	invalid
	signal		<device name>	show aux signal

IP Related Command

[home](#)

Command				Description
ip				
	address		[addr]	display host ip address
	alias		<iface>	alias iface
	aliasdis		<0 1>	disable alias
	arp			
		status	<iface>	display ip arp status
	dhcp		<iface>	
		client		
			release	release DHCP client IP
			renew	renew DHCP client IP
		status	[option]	show dhcp status
	dns			
		query		
		stats		
			clear	clear dns statistics
			disp	display dns statistics
	icmp			
		status		display icmp statistic counter
		discovery	<iface> [on off]	set icmp router discovery flag
	ifconfig		[iface] [ipaddr] [broadcast <addr>	configure network interface

			mtu <value> dynamic]	
	ping		<hostid>	ping remote host
	route			
		status	[if]	display routing table
		add	<dest_addr default>[/<bits>] <gateway> [<metric>]	add route
		addiface	<dest_addr default>[/<bits>] <gateway> [<metric>]	add an entry to the routing table to iface
		addprivate	<dest_addr default>[/<bits>] <gateway> [<metric>]	add private route
		drop	<host addr> [/<bits>]	drop a route
	status			display ip statistic counters
	udp			
		status		display udp status
	tcp			
		status	[tcb] [<interval>]	display TCP statistic counters
	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
	urlfilter			
		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
			clearAll	clear exemptzone information
		customize		
			display	display customize action flags
			actionFlags [act(1-6)][enable/disable]	set action flags
			logFlags [type(1-3)][enable/disable]	set log flags
			add [string] [trust/untrust/keyword]	add url string
			delete [string] [trust/untrust/keyword]	delete url string
			clearAll	clear all information
	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> group tm <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> v1 compat [on off]	turn on/off v1 compat on iface
		robustness	<num>	set igmp robustness variable
		status		dump igmp status

IPSec Related Command

[home](#)

Command				Description
ipsec				
	debug	<1 0>		turn on/off trace for IPsec debug information
	ipsec_log_di sp			show IPSec log, same as menu 27.3
	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.
		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.
	show_runti me	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 15 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 value is "disabled"
				- 0 means means disable this timer
	updatePeerIp			Force system to update IPSec rules which use domain name as the secure gateway IP right away.
	dial	<rule #>		Initiate IPSec rule <#>
	display	<rule #>		Display IPSec rule #
	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

		keyAlive	<Yes No>	Set keep alive or not
		lcIdType	<0:IP 1:DNS 2:Email>	Set local ID type
		lcIdContent	<string>	Set local ID content
		myIpAddr	<IP address>	Set my IP address
		peerIdType	<0:IP 1:DNS 2:Email>	Set peer ID type
		peerIdContent	<string>	Set peer ID content
		secureGwAddr	<IP address Domain name>	Set secure gateway address or domain name
		protocol	<1:ICMP 6:TCP 17:UDP>	Set protocol
		lcAddrType	<0:single 1:range 2:subnet>	Set local address type
		lcAddrStart	<IP>	Set local start address
		lcAddrEndMask	<IP>	Set local end address or mask
		lcPortStart	<port>	Set local start port
		lcPortEnd	<port>	Set local end port
		rmAddrType	<0:single 1:range 2:subnet>	Set remote address type
		rmAddrStart	<IP>	Set remote start address
		rmAddrEndMask	<IP>	Set remote end address or mask
		rmPortStart	<port>	Set remote start port
		rmPortEnd	<port>	Set remote end port
		antiReplay	<Yes No>	Set anitreplay or not
		keyManage	<0:IKE 1:Manual>	Set key manage
		ike	negotiationMode <0:Main 1:Aggressive>	Set negotiation mode in phase 1 in IKE
			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	Set encryption algorithm in phase 2 in IKE

			2:3DES>	
			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
	swSkipOver lapIp		<on/off>	<ul style="list-style-type: none"> - When a VPN rule with remote range overlaps with local range, the switch decides if a local to local packet should apply this rule. - Default value is “off” which means “no skip”.
	adjTcpMss		<off auto user defined value>	<ul style="list-style-type: none"> - After a tunnel is established, system will automatically adjust TCP MSS. - After all tunnels are drops, the MSS will adjust to the original value. - The default value is auto.

Bridge Related Command

[home](#)

Command				Description
bridge				
	cnt			related to bridge routing statistic table
		disp		display bridge route counter
		clear		clear bridge route counter
	stat			related to bridge packet statistic table

		disp		display bridge route packet counter
		clear		clear bridge route packet counter

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
		clear		Clear firewall log
		cnt		
			disp	Display firewall log type and count.
			clear	Clear firewall log count.
		disp		Display firewall log
		online		Set firewall log online.
		pktdump		Dump the 64 bytes of dropped packet by firewall
		update		Update firewall
		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

CNM Related Command

[Home](#)

Command				Description
cnm				
	active		[1/0] (enable/disable)	display/set CNM features enable/disable

	sgid			display an identifier(sgid) to associate device and security policies residing in ZyCNM
	managerIp		[ZyCNM server IP]	set/display ZyCNM server IP
	debug		[1/0] (enable/disable)	display/set CNM features enable/disable debug mode
	reset			disconnect and re-register to ZyCNM server
	simulate		<1/0> (enable/disable)	set simulating devices features enable/disable
	encrykey		[ZyCNM Encryption Key]	Set/display ZyCNM encryption key
	encrymode		<0 1 2>(none des 3des)	Set/display ZyCNM encryption mode