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Firmware Release Note

**Prestige 2302R**  
**Standard Version**

Release 3.60(MM.4)c0

Date: December 19.2005  
Author: Blue Lan

# ZyXEL Prestige 2302R Standard Version Release 3.60(MM.4)c0 Release Note

**Date:** December 19, 2005

## **Supported Platforms:**

ZyXEL Prestige 2302R

## **Versions:**

ZyNOS Version: V3.60(MM.4) | 12/19/2005 18:58:07

Bootbase Version: V1.08 | 04/15/2005 17:12:54

## **Notes:**

### **Features:**

#### **Modification in V 3.60(MM.4)c0 | 12/19/2005**

- 1 [change to FCS version]

#### **Modification in V 3.60(MM.4)b4 | 12/13/2005**

- 1 [Bug fixed][SPR No: 051209683]

After get ROM-t file from DUT, the rom-t file contain corrupt SIP setting in file.

[Enhancement]

1. Remove new country code mechanism for hanging up problem.

#### **Modification in V 3.60(MM.4)b3 | 12/7/2005**

- 1 [Bug fixed][SPR No: 051116110]

Call Forward on No answer failed when ring back and music on hold are on

Step1: DUT-A, DUT-B and DUT-C register to LAB SIP server , and

DUT-A and DUT-B enable ring back and music on hold, and use G.729>G.711

Step2: DUT-B enable No answer forward to number , and waiting 5 second to forward to DUT-C

Step3: DUT-A dials DUT-B, DUT-B rings, waiting 5 second , DUT-C rings

Step4: DUT-A goes offhook, DUT-A and DUT-C converse

Step5: DUT-C don't hear any voice from DUT-A , but DUT-A can hear DUT-C 's voice .

Step6: DUT-A and DUT-C goes onhook.

Step7: DUT-A dials DUT-B, DUT-B rings, DUT-A has ringback

Step8:DUT-B goes offhook, DUT-A and DUT-B converse , but DUT-A

print "bad seq packet" message , DUT-A don't hear any voice from DUT-B.

- 2 [Bug fixed][SPR No: none]

DUT occur hang up when test Continuous VoIP call with G.711 codec by using SIP1 account with data traffic

Step1: DUT-A, DUT-B register to LAB SIP server , and use G.711>G.729

Step2: DUT-A and DUT-B do continuous VoIP call with RADCOM

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Step3: FTP client link to DUT-A 's Lan site , and do FTP stress test .

Step4: After 5~10 minutes , the DUT-A occur hang up .

3 [Bug fixed][SPR No: none]

Fix the bug that device cant registry on Engin server.

**[Enhancement]**

- 1 Support Multi-Boot V2.3.
- 2 Change the web help for many places.
- 3 Add STUN setting in SPTGEN.

**Modification in V 3.60(MM.4)b2 | 11/14/2005**

2 [Bug fixed][SPR No: none]

Fix the bug that only remove PPTP feature on SMT , GUI don't remove it.

**Modification in V 3.60(MM.4)b1 | 11/9/2005**

**[Enhancement]**

1. Add IVR Selections (Early Media and Music On Hold) into Web GUI VoIP – Advance Settings
2. Add IVR Remaining Time to Web GUI Maintenance – Status
3. Add IVR Default for Early Media and Music On Hold.
4. Modify the ringing signal of Australia and Norway.
5. Add Fax T.38
6. Change DSP version to Rel 9.1.500.12, Build g26 for T.38 support
7. Modification in Country Code Mechanism
8. Support Multi-Boot V2.2.
9. Remove PPTP feature.

**Modification in V 3.60(MM.3)c0 | 09/22/2005**

2 [Change to FCS Version]

**Modification in V 3.60(MM.3)b7 | 09/14/2005**

1 [Bug fixed]

- 1.1 [SPR: 050613577]DUT will occur exception or crash while LAN clients are doing FTP and making several calls at the same time without setup bandwidth management rule.
- 1.2 [SPR: 050801037]Wizard setup function doesn't work properly. The parameters of step1,2,3 CANNOT be saved.
- 1.3 [SPR: 050801039]Symptom: DUT crash while send alert log FAIL.  
Condition:
  1. Restore default Rom.
  2. eWC/Advanced/LOGS/Log Settings-> Setup Mail Server= 168.95.4.10, Send log to= mary@zyxel.com.tw & enable send " Attacks" alert.
  3. Ping DUT WAN or LAN IP with packet length 2000
  4. DUT crash.
- 1.4 [SPR: 050801043]DUT will occur exception when fill max character in SIP number , SIP server address, register server address, SIP service domain , and authentication user-ID , and DUT sent register packet to SIP server
- 1.5 [SPR: 050801044]In web Voice -> Speed Dial page, if SIP number and

Name and Type field fill in max characters, when dial out, device will occur exception.

- 1.6 [SPR: 050801047]DUT will exception with CERT conformance test
  - 1. the PC behind DUT to download and upload file over night .
  - 2. Do conformance test with CERT tool ,DUT will exception
- 1.7 [SPR: 050729384]Symptom: Traffic can't go out after use packet generator tool ( TfGen ) to send UDP packets to WAN site.

Condition:

- 1. Restore default romfile.
  - 2. Wan get IP from ISP.
  - 3. Lan PC use TfGen tool to send UDP packets/ port 5000 to WAN site.
  - 4. Waiting a preiod of time, packets can't out through DUT.
- 1.8 [SPR: 050801040]DUT cannot send the log to mail server.
  - 1.9 [SPR: 050801046]Make conference call fail on below procedure , codec is G7.11u

Test Procedure :

Step1: Make DUT-A, DUT-B and DUT-C register to LAB SIP server  
(Reference to test case: 4.1.1.1.3)

Step2: DUT-A goes offhook, DUT-A receives dialtone

Step3: DUT-A dials DUT-B, DUT-B rings, DUT-A has ringback

Step4: DUT-B goes offhook, DUT-A and DUT-B converse

Step5: DUT-A FLASHES, DUT-A Receives Secondary DT, DUT-B receives MOH

Step6: DUT-A dials DUT-C, DUT-C rings, DUT-A has ringback

Step7: DUT-C goes offhook, DUT-A and DUT-C converse

Step8: DUT-A FLASHES+3, navigates to conference call

Step9: DUT-A FLASHES+2, navigates to DUT-B's call, DUT-A and DUT-B converse, DUT-C MOH

Step10: DUT-A FLASHES+2, navigates to DUT-C's call, DUT-A and DUT-C converse, DUT-B MOH

Step11: DUT-A FLASHES+3, navigates to conference call

Step12: DUT-C goes onhook, DUT-A and DUT-B don't converse

Step13: DUT-A and DUT-B onhook

Step14: DUT-A call DUT-B or DUT-C , then DUT-A and DUT-B don't converse

Step15:DUT-A have reboot , then DUT-A call DUT-B , DUT-A and DUT-B can converse

- 1.10 Setup VoIP -> settings, if RTP Port Range set From: 5000 To: 20000, Web will display "RTP start port cannot be larger than end port."

**Modification in V 3.60(MM.3)b6 | 09/08/2005**

- 1. [Bug Fixed][SPR: 050907323]  
Symptom: DUT will occur exception When dial wrong number to update SPTGEN file via provisioning
  - 1. on menu 24.8 to Configure autoprovision function provision server : asterisk.zyxel.com.tw , protocol :HTTP , phone : 32284 , PIN code : 1234

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2. Offhook phone 1 to dial \*99\*\*322841234 (wrong number)
3. DUT will occur exception

**Modification in V 3.60(MM.3)b5 | 09/07/2005**

2. Change Default Rom File to Verizon's Settings

**Modification in V 3.60(MM.3)b4 | 09/06/2005**

[Enhancement]

1. New STUN Solution
2. Add HTTP\_PIN mode for provisioning
3. Rom-D via FTP solution
4. ATWZ support in at command and sys command
5. Support MultiBoot Version 2.1

**Modification in V 3.60(MM.3)b3 | 08/08/2005**

1. [Bug Fixed][SPR: 050613577]  
Symptom: DUT will occur exception or crash while LAN clients are doing FTP and making several calls at the same time without setup bandwidth management rule.
2. [Bug Fixed][ SPR: 050801037]  
Symptom: Wizard setup function doesn't work properly. The parameters of step1,2,3 CANNOT be saved.
3. [Bug Fixed][ SPR: 050801039]  
Symptom: DUT crash while send alert log FAIL.
4. [Bug Fixed][ SPR: 050801044]  
Symptom: In web Voice -> Speed Dial page, if SIP number and Name and Type field fill in max characters, when dial out, device will occur exception.
5. [Bug Fixed][ SPR: 050801040]  
Symptom: DUT cannot send the log to mail server.
6. [Bug Fixed] [SPR: 050801041]  
Symptom: Bandwidth Management GUI.
  1. Enable WAN and LAN BW.
  2. Add sub-class to LAN and WAN.
  3. Go back to summary page, the WAN and LAN BW cannot be disabled.  
[Expect] It should be able to disable no matter add sub-class or not.
7. [Bug Fixed] [SPR: 050801045]  
Symptom: FTP stress test fail

**Modification in V 3.60(MM.3)b2 | 07/28/2005**

1. [Bug Fixed][SPR No:050728314]  
Symptom: WAN IP address Assignment's type is disappear, after rom-t file upload to device

**Modification in V 3.60(MM.3)b1 | 07/27/2005**

2. Add STUN setting in rom-t and autoprovision.

**Modification in V 3.60(MM.2)C0 | 06/07/2005**

1. Add bandwidth management setting in default rom file, WAN is 10MB, LAN is 30MB.

**Modification in V 3.60(MM.2)b8 | 06/07/2005**

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1. add TRAFFIC\_REDIRECT in switch.h

**Modification in V 3.60(MM.2)b7 | 06/07/2005**

1. [Bug Fixed] [SPR No: 050606232]

Symptom: FTP Client behind in DUT fail to upload file to FTP server (Windows base)

2. [Bug Fixed] [SPR No: 050606303]

Symptom: When register SIP server and enable syslog Logging and enable SIP log , DUT will occur exception

**Modifications in V 3.60(MM.2)b6 | 06/03/2005**

[Enhancement]

1. add new country code [Others]

[Bug Fixed]

1. (050602114) New parameter of country code : Others don't work .

When country code is Others , phone1 goes offhook , Phone1 don't receive dialtone , and receive

error message : "You passed me a invalid struct !"

2. (050602116) New parameter of country code : Others don't work .

When country code is Others , phone1 goes offhook , Phone1 don't receive dialtone , and receive error message : "You passed me a invalid struct !"

**Modifications in V 3.60(MM.2)b5 | 06/02/2005**

[Bug Fixed]

1. (050421110) Phone A still ring back tone , when cut A side WAN cable

2. (050421113 ) The help page of LAN IP don't item to describe it

3. (050531940) GUI of time settings

4. (050531943) On the BW MGMT/Class Setup/Edit Class help page, the DUT's name is shown as ZyWALL

5. (050531944 ) There is no description about "allow upnp to pass through the firewall" on the UPNP help page

**Modifications in V 3.60(MM.2)b4 | May 23, 2005**

3 [Bug Fixed]

- 3.1 (050419954) on all help page , it call the DUT name is ZyAIR , please change ZyAIR to Presite .

- 3.2 (050422164) Don't select SIP log item of Log Settings

- 3.3 (050518178) When disable STUN server , DUT still sent STUN packets to default STUN server(69.0.208.27)

- 3.4 (050513773) Restrict web features of content filter 's behavior is wrong

- 3.5 (050513774) Trusted Computer IP address of Firewall don't work

- 3.6 (050518181) On MSN 7.0 , Start video conference from WAN to LAN and LAN to WAN are fail

**Modifications in V 3.60(MM.2)b3 | May 13, 2005**

4 [Enhancement]

- 4.1 **Support Auto Provision**

- 4.2 **Support Dial Plan**

5 [Bug Fixed]

- 5.1 (041125183) DUT should check if DHCP server is changed when disconnect WAN then connect again .

- 5.2 (050419949) Min-SE parameter doesn't work

- 5.3 (050419877) Domain name of eWC and Domain name of SMT don't match

- 5.4 (050419879) Press reset button about 1 sec that the system don't reboot

- 5.5 (050419882) [Call Forward on Block and Accept]don't request user to set up the parameter , then the activate itme can be configure

- 5.6 (050419883) occur exception on [Record sound of IVR system]

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- 5.7 (050419884) Click Restart button and check if DUT restart and boot up correctly, but don't return login authentication page
- 5.8 (050419950) On SMT 1 , don't set up first , second ,and third DNS server in the same time.
- 5.9 (050419951) Don't help page of this item , when click help button , it will display "Speed Dial help page"
- 5.10 (050419952) The title is error , it show "Firewall filter" , it should be show "content filter"
- 5.11 (050419953) Summary , class setup , and moniter don't have help page , when help button , it will display "the page can't be found"
- 5.12 (050419954) on all help page , it call the DUT name is ZyAIR , please change ZyAIR to Presite
- 5.13 (050419955) When disable STUN server , DUT still sent STUN packets to STUN server
- 5.14 (050421106) Click Restart to factory button via LANand check if DUT restart and boot up correctly, but don't return login authentication page
- 5.15 (050421107) Click Firmware Upload button to upload F/W via LAN and check if the F/W upload successful , but don't return login authentication page
- 5.16 (050421112) on SMT 4 and 11 , the item of Encapsulation type don't match eWc
- 5.17 (050421114) DUT occur exception ,when configure PPTP
- 5.18 (050421115) When setup RIP version to RIP-1 /RIP-2B/RIP-2M in WAN IP setting , WAN host can get RIP broadcast
- 5.19 (050421117) PESQ listening quality and MOS scale with heavy data traffic - G.711 u-law MOS > 3.6
- 5.20 (050421118) PESQ listening quality and MOS scale with heavy data traffic - G.729a MOS > 3.3
- 5.21 (050421119) In Voice Volume Measurement, when "Speaking Volume"=1 and "Listening Volume"=1, then voice quality will not be good
- 5.22 (050422158) Don't show route name "Defaule Route" on item 1
- 5.23 (050422161) Enable/Disable dial on demand of schedule setup fail .
- 5.24 (050422164) Don't select SIP log item of Log Settings
- 5.25 (050425243) Don't save H.323 and SIP of BW MANAGER's application type .
- 5.26 (050426248) The icon is wrong , when XP delect DUT
- 5.27 (050426261) The BW MGMT function don't work overnight

**Modifications in V 3.60(MM.2)b2 | April 14, 2005**

**1 [Enhancement]**

- 1.1 **Support DTMF Relay: RFC2833 / SIP INFO / SIP-INFO / SIP-INFO-Link\_RFC2833**
- 1.2 **Support FAX Relay**
- 1.3 **Support VLAN Tag / DiffServ**
- 1.4 **Support Point to Point Call**
- 1.5 **Support STUN**
- 1.6 **Support Fake IP**
- 1.7 **Support Speed Dial phonebook**
- 1.8 **Support On-hold & Un-hold**
- 1.9 **Support Second-Call**
- 1.10 **Support Call-Waiting**
- 1.11 **Support Call-Transfer (Blind Transfer / Consultative Transfer)**
- 1.12 **Support MWI**
- 1.13 **Support congestion tone**
- 1.14 **Support IVR**
- 1.15 **Support Music on-hold (the primary codec should be G.729)**
- 1.16 **Support Call Conference**
- 1.17 **Support Call Forward**
- 1.18 **Support Internal Call**
- 1.19 **Support Sptgen**

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- 1.20 Support Firewall
- 1.21 Support Content Filter
- 1.22 Support BW MGNT
- 2 [Bug Fixed]
  - 2.1 (SPRID:50413519) Don't entry into SMT 4 to configure it
  - 2.2 (SPRID:50413520) BW MGMT function don't work. On Web configuration, we don't entry into the page to configure it

**Modifications in V 3.60(MM.2)b1 | April 12, 2005**

- 1 [Enhancement]
  - 1.1 Support DTMF Relay: RFC2833 / SIP INFO / SIP-INFO / SIP-INFO-Link\_RFC2833
  - 1.2 Support FAX Relay
  - 1.3 Support VLAN Tag / DiffServ
  - 1.4 Support Point to Point Call
  - 1.5 Support STUN
  - 1.6 Support Fake IP
  - 1.7 Support Speed Dial phonebook
  - 1.8 Support On-hold & Un-hold
  - 1.9 Support Second-Call
  - 1.10 Support Call-Waiting
  - 1.11 Support Call-Transfer (Blind Transfer / Consultative Transfer)
  - 1.12 Support MWI
  - 1.13 Support congestion tone
  - 1.14 Support IVR
  - 1.15 Support Music on-hold (the primary codec should be G.729)
  - 1.16 Support Call Conference

**Modifications in V 3.60(MM.1)c0 | January 24, 2005**

- 2 Change to FCS version

**Modifications in V 3.60(MM.1)b4 | January 21, 2005**

- 1 [ENHANCEMENT]
  - 1.1 Support ZyXEL New Mac OUI (Long Term)  
(Disable "atdc" and "atfe" in AT Command)

**Modifications in V 3.60(MM.1)b3 | January 21, 2005**

- 1 [Bug Fixed]
  - 1.1 Peer-to-Peer call failed when setup WAN as fixed IP

**Modifications in V 3.60(MM.1)b2 | January 19, 2005**

- 1 [Bug Fixed]
  - 1.1 Device will enter debug mode during Power On/Off
  - 1.2 Voice compression.
    - 1.DUT1 sets G.711 only, DUT2 sets G.729 only.
    - 2.DUT1 calls DUT2 -->successful and uses G.711.
    - 3.DUT1sets G.711>G.729,
    - 4.DUT1 calls DUT2 -->successful and uses G.711.
- 2 [ENHANCEMENT]
  - 2.1 Support ZyXEL New Mac OUI (Long Term)  
(AT Command - "atwz" and CI Command - "sys atwz")

**Modifications in V 3.60(MM.1)b1 | January 6, 2005**

- 1 [Bug Fixed]
  - 1.1 Enable/Disable STUN server setting over 500 times, the voip page will not be displayed. It will show an error message: "Status:ERROR:Fail to update due to internal error (-6104)!".

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- 2 [ENHANCEMENT]
  - 2.1 Change SIP server port and register server port start range from 1024 to 1
  - 2.2 Change local SIP port and RTP port start range from 1024 to 1025

**Modifications in V 3.60(MM.0)b5 | December 30, 2004**

- 1 [Bug Fixed]
  - 1.1 The upnp device description is shown Prestige 334.

**Modifications in V 3.60(MM.0)b4 | December 24, 2004**

- 1 [Bug Fixed]
  - 1.1 STUN binding request continuous sent even inactive from eWC
  - 1.2 STUN server address can not be saved in next procedure
    - 1. Do not touch SIP1 STUN setting
    - 2. Config SIP2 STUN server as 192.168.9.2 and active itResult: DUT sends STUN binding request to 69.0.208.27 not 192.168.9.2
- 2 Enable/Disable STUN server setting over 500 times, the voip page will not be displayed. It will show an error message: "Status:ERROR:Fail to update due to internal error (-6104)!". (Unable to reproduce)
- 3 [ENHANCEMENT]
  - 3.1 Adding UPnP Feature
  - 3.2 Activate Quick Route Feature

**Modifications in V 3.60(MM.0)b3 | December 13, 2004**

- 1 [Bug Fixed]
  - 1.1 ATA can not hear RBT in next procedure:
    - 1. Call own number first => hear busy tone => It is OK
    - 2. Make a call second => can not hear RBT tone
  - 1.2 Set PPtP as dynamic IP but can not dial up to PPtP server. Static IP is OK
  - 1.3 GUI: WAN IP => PPTP configuration show dynamic IP as default, however static IP would be selected first when first time configure
  - 1.4 Exception occurs when disable multicast (IGMP-v2).
    - 1. Link Cisco IP/TV server to WAN port.
    - 2. Start DUT up and then it will occur exception.
    - 3. Link Cisco IP/TV server to LAN port.
    - 4. Start DUT up and then it will occur exception, too.
  - 1.5 Autopro can upgrade configuration file from TFTP server but fail to save in DUT
  - 1.6 STUN server address can not be saved in next procedure
    - 1. Do not touch SIP1 STUN setting
    - 2. Config SIP2 STUN server as 192.168.9.2 and active itResult: DUT sends STUN binding request to 69.0.208.27 not 192.168.9.2
  - 1.7 Autopro default retry timer and timeout value should not be 0. P2602HW-61 is retry 180 sec, timeout 3600.
  - 1.8 In CI command, restore to default romfile will cause system hang on.
    - 1. In SMT 24.8, input "sys rom" and click enter button, and then input "y".
    - 2. The system will show "y..." and then hang on

**Modifications in V 3.60(MM.0)b2 | November 26, 2004**

- 1 [Bug Fixed]
  - 1.1 (13)Run CI command ip nat hashTable enif0 would cause exception
  - 1.2 (17)NAT none and full feature does not work
  - 1.3 (23)Firmware update failed. It will show error message: Disk full.
  - 1.4 (35)ATA will hang on when running stress test
    - 1. FTP upload/download file continuous from LAN to WAN
    - 3. Make VoIP to VoIP conversation several timeResult: ATA hang on and can not access
  - 1.5 (41)Exception occurs sometimes when enable LAN IP alias function.

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- 1.6 (1)Software restore to default value will show error message: Your browser can't handle this script, it can't cause any side effect. You can feel easy in mind.
    - 1. Launch IE 6.0 SP1 (Chinese edition).
    - 2. At the maintenance/configuration page, click reset button.
    - 3. Click ok button to allow to restore and then the error message will pop up.
    - 4. Click ok button, but DUT will still restore to factory default value.
  - 1.7 (2)Software restart DUT will show error message: Your browser can't handle this script, it can't cause any side effect. You can feel easy in mind.
    - 1. Launch IE 6.0 SP1 (Chinese edition).
    - 2. At the maintenance/restart page, click restart button.
    - 3. The error message will pop up.
    - 4. Click ok button, but DUT will still restart.
  - 1.8 (3)In System/General help page, the description of system DNS servers is missing.
  - 1.9 (9)1. MAINTENANCE => LAN port IP address always show 0.0.0.0
    - 2. DHCP status is not correct.
  - 1.10 (16)GUI: WAN =>WAN IP: the warning message for NetBios "(You also need to create a firewall rule!)" should be removed
  - 1.11 (29)Wrong spelling in phone => commmon. It should be "common"
  - 1.12 (6)DUT name in WAN/WAN ISP help page is shown ZyAIR.
  - 1.13 (7)DUT name in WAN/WAN IP help page is shown ZyAIR.
  - 1.14 (11)DUT name in Static route help page is shown ZyAIR.
  - 1.15 (14)GUI: SUA=>trigger Port => port rule should be deletable
  - 1.16 (24)DUT name in SUA/SUA server help page is shown ZyAIR.
  - 1.17 (25)DUT name in SUA/Addr Mapping help page is shown ZyAIR.
  - 1.18 (26)DUT name in all the remote MGNT help page is shown ZyAIR.
  - 1.19 (27)Phone 2 LED should be lighted when call is coming. Now only phone 1 LED is lighted
  - 1.20 (36)DUT name in General/DDNS help page is shown ZyAIR.
  - 1.21 (37)DUT name in LAN/IP Alias help page is shown Prestige.
  - 1.22 (39)DUT name in WAN/Traffic redirct help page is shown Prestige.
  - 1.23 (10)The http hyperlink in login page should not be [www.zyxel.com.tw](http://www.zyxel.com.tw)
- 2 [ENHANCEMENT]  
Adding SIP page into Wizard Setup

## Annex A CI Command List

Command Class List Table		
<a href="#">System Related Command</a>	<a href="#">Exit Command</a>	<a href="#">Ethernet Related Command</a>
<a href="#">WAN Related Command</a>		<a href="#">IP Related Command</a>
	<a href="#">PPP Related Command</a>	
		<a href="#">Firewall Related Command</a>
<a href="#">Configuration Related Command</a>	<a href="#">SMT Related Command</a>	<a href="#">Voice Related Command</a>

### System Related Command

[Home](#)

Command			Description
sys			
	adjtime		retrive date and time from Internet
	cbuf		
	display	[a f u]	display cbuf a: all f: free u: used
	cnt		cbuf static
		display	display cbuf static
		clear	clear cbuf static
	baud	<1..5>	change console speed
	callhist		
	display		display call history
	remove	<index>	remove entry from call history
	clear		clear the counters in GUI status menu
	countrycode	[countrycode]	set country code
	date	[year month date]	set/display date
	domainname		display domain name
	edit	<filename>	edit a text file
	enhanced		return OK if commands are supported for PWC purposes
	errctl	[level]	set the error control level 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		

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

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	memwrite		<address> <len> [data list ...]	write some data to memory at <address>
	memwl		<address>	write long word to memory at <address>
	memrl		<address>	read long word at <address>
	memutil			
		usage		display memory allocate and heap status
		mqueue	<address> <len>	display memory queues
		mcell	mid [f u]	display memory cells by given ID
		msecs	[a f u]	display memory sections
		mtstart	<n-mcell>	start memory test
		mtstop		stop memory test
		mtalloc	<size> [n-mcell]	allocate memory for testing
		mtfree	<start-idx> [end-idx]	free the test memory
	model			display server model name
	proc			
		display		display all process information
		stack	[tag]	display process's stack by a give TAG
		pstatus		display process's status by a give TAG
	queue			
		display	[a f u] [start#] [end#]	display queue by given status and range numbers
		ndisp	[qid]	display a queue by a given number
	quit			quit CI command mode
	reboot		[code]	reboot system 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,sds100, 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

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

Exit Command

[Home](#)

Command				Description
exit				exit smt menu

Voice Related Command

[Home](#)

Command				Description
voice				
config				
	signal			
		t38Protocol	<index><0:UDPTL1:RTP>	select T.38 data transport protocol
		t38RateMgmt	<index><0:localTCF1:transferredTCF>	select T.38 data rate management method
		t38HsPktRate	<index><10~80>ms	setup T.38 high speed packet rate
		t38HsRedun	<index><0~3>	setup T.38 high speed redundancy
		t38LsRedun	<index><0~8>	setup T.38 low speed redundancy
		t38T30Ecm	<index><0:disable1:enable>	enable/disable T.39 ECM
		t38MaxRate	<index><rate>	set T.38 data transmission rate

Ethernet Related Command

[Home](#)

Command				Description
ether				
	config			display LAN configuration information
	driver			
		cnt		
			disp <name>	display ether driver counters
			clear <name>	clear ether driver counters
		iface	<ch_name> <num>	send driver iface
		ioctl	<ch_name>	Useless in this stage.
		mac	<ch_name> <mac_addr>	Set LAN Mac address
		reg	<ch_name>	display LAN hardware related registers
		rxmod	<ch_name> <mode>	set LAN receive mode. 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

[Home](#)

Command			Description
wan	adsl	bert	ADSL ber
		chandata	ADSL channel data, line rate
		close	Close ADSL line
		coding	ADSL standard current
		ctrlint	ADSL CTRLLE 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
			far
		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]
		reset	Reset ADSL modem, and must reload the modem code again
		selftest	
			long
			short
		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
			rateup
		rateadap	[on off]
		dumpcondition	[on off]
		sampletime	[mins]
		noisegt	[dB]
		noisemargin	[dB]
		persisttime	[time]
		timeinterval	[mins]

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				time is "timeinterval" before starting again. The time-based default is 2 hrs
		defectcheck	[on off]	Turn on/off detect table checking, default is on
		txgain	[value]	Set the CTRL register (0xc3), the value is from 0xfa to 0x06
		targetnoise	[value]	Set the CTRL register (0xc4), the value is from 0xfa to 0x06
		maxtonelimit	[value]	Set the CTRL register (0xc5), the value is from 0xfa to 0x06
		rxgain	[value]	Set the CTRL register (0xc6), the value is from 0xfa to 0x06
		txoutputpwr	[value]	Set the CTRL register (0xc7), the value is from 0xfa to 0x06
		rxoutputpwr	[value]	Set the CTRL register (0xc8), the value is from 0xfa to 0x06
		maxoutputpwr	[value]	Set the CTRL register (0xc9), the value is from 0xfa to 0x06
		errorsecond		
			sendes	Send current error second information immediately
		dygasprecover		
		dygasprecover	level [value]	By default is 100, after receiving 100 dying gasp system will reboot
		dygasprecover	active [on off]	Turn on/off this mechanism
		rsploss	[1 0]	Turn on means to response signal loss of CTRL 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

IP Related Command

[Home](#)

Command			Description
ip			
	address	[addr]	display host ip address
	loopbackaddr	<IP1> [IP2]	Set loopback address.
	alias	<iface>	alias iface
	aliasdis	<0 1>	disable alias
	arp		
	status	<iface>	display ip arp status
	add	<hostid> ether <ether addr>	add arp information
	resolve	<hostid>	resolve ip-addr
	drop	<hostid> [hardware]	drop arp
	flush		flush arp table
	publish		add proxy arp
	dhcp	<iface>	
	client		
		release	release DHCP client IP
		renew	renew DHCP client IP
	mode	<server relay none client>	set dhcp mode
	relay	server <serverIP>	set dhcp relay server ip-addr
	reset		reset dhcp table

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		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>	check 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

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	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		pritr if tftp is support
	stats		display tftp status
xparent			
	join	<iface1> [<iface2>]	join iface2 to iface1 group
	break	<iface>	break iface to leave ipxparent group
antiprobe		<0 1> 1:yes 0:no	set ip anti-probe flag
igmp			
	debug	[level]	set igmp debug level
	forwardall	[on/off]	turn on/off igmp forward to all interfaces flag
	querier	[on/off]	turn on/off igmp stop query flag
	iface		
		<iface> group tm <timeout>	set igmp group timeout
		<iface> interval <interval>	set igmp query interval

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		<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

PPP Related Command

[Home](#)

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 retrieval interval

Configuration Related Command

[Home](#)

Command				Description
Config				The parameters of config are listed below.
edit	firewall	active <yes no>		Activate or deactivate the saved firewall settings
retrieve	firewall			Retrieve current saved firewall settings
save	firewall			Save the current firewall settings
display	firewall			Displays all the firewall settings
		set <set#>		Display current entries of a set configuration; including timeout values, name, default-permit, and number of rules in the set.
		set <set#>	rule <rule#>	Display current entries of a rule in a set.
		attack		Display all the attack alert settings in PNC
		e-mail		Display all the e-mail settings in PNC
		?		Display all the available sub commands
		e-mail	mail-server <mail server IP>	Edit the mail server IP to send the alert
			return-addr <e-mail address>	Edit the mail address for returning an email alert
			e-mail-to <e-mail address>	Edit the mail address to send the alert
			policy <full   hourly   daily   weekly>	Edit email schedule when log is full or per hour, day, week.
			day <sunday   monday   tuesday   wednesday   thursday   friday   saturday>	Edit the day to send the log when the email policy is set to Weekly
			hour <0~23>	Edit the hour to send the log when the email policy is set to daily or weekly
			minute <0~59>	Edit the minute to send to log when the email policy is set to daily or weekly
			Subject <mail subject>	Edit the email subject
		attack	send-alert <yes no>	Activate or deactivate the firewall DoS attacks notification emails
			block <yes no>	Yes: Block the traffic when exceeds the tcp-max-incomplete threshold No: Delete the oldest half-open session when exceeds the tcp-max-incomplete threshold
			block-minute <0~255>	Only valid when sets 'Block' to yes. The unit is minute
			minute-high <0~255>	The threshold to start to delete the old half-opened sessions to minute-low
			minute-low <0~255>	The threshold to stop deleting the old half-opened session
			max-incomplete-high <0~255>	The threshold to start to delete the old half-opened sessions to max-incomplete-low

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			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.

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				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 renewalttime [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

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	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 pppoe 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

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	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, 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	Menu 15.1
	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 srport [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



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