

# ZyXEL Prestige P312 Standard Version 3.50(S.02) Release Note

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**Date:** December 27, 2001

## **Supported Platforms:**

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ZyXEL Prestige 312

## **Note:**

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1. Using FTP to upload firmware from V3.2x to V3.5x is not supported. It is because the V3.5x firmware size is bigger than memory allocation for firmware uploading in V3.2x. Instead firmware upload through TFTP or Console is suggested.
2. Using FTP or Web to upload firmware from V3.50(S.01) to V3.50(S.02) is not supported, either. It is also because the latter's firmware size is bigger. To avoid this problem happens again, from V3.50(S.02), we have modified the firmware upload procedure. When uploading firmware, we will not use "pre-defined memory allocation" any more. On the contrary, we will use whole available memory to do firmware upload. In this case, as long as there is enough free memory, user can upload firmware by FTP.
3. Using Web to configure VPN, the phase 1 algorithms have been fixed to DES + MD5. If other algorithms are preferred, please use SMT to configure them.
4. When firewall turns from "off" to "on", the firewall initialization procedure will disconnect all connections running through the P312.

## **Known Bugs:**

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1. Content Filter does not block cookies.

## **Features:**

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### **Modification in V3.50(S.02) | 12/27/2001**

1. [ENHANCEMENT] IKE process in phase 2 will check ID information between system and the peer. If they don't match, i.e. both sites have different local / remote Addr setting, system will reject the connection and log in the VPN LOG.
2. [ENHANCEMENT] VPN LOG is totally revised. Now it will show all IKE packets information. Besides, It will show error messages to identify the reason why connection cannot be built.
3. [ENHANCEMENT] Manual key SA will runtime creates when traffic matches SPD.
4. [ENHANCEMENT] SA monitor will show manual key SA, and command to delete it is available.
5. [ENHANCEMENT] Idle timer also applies on manual key SA. When no traffic transmits through the SA, system will delete it.

6. [FEATURE CHANGE] Multi-NAT "Many-to-many non overload" will use static mapping between IGA and ILA. In other words, it becomes "Many one-to-one".
7. [FEATURE CHANGE] SMT24.7 wording changed.
8. [FEATURE CHANGE] In SMT27.1, "EDIT" will jump to the selected rule automatically
9. [FEATURE CHANGE] Web status after saving configuration has changed to "Configuration updated successfully".
10. [FEATURE CHANGE] Web (SUA/NAT) default DMZ server changes to default server.
11. [FEATURE CHANGE] Simultaneous SA check: All VPN rules can be set to "ACTIVE", but only 10 runtime SA can be established at the same time.
12. [BUG FIX] After IKE re-keying procedure, some memory doesn't be freed. After a long term test, system will have no free memory section.
13. [BUG FIXED] POP3(TCP:110) didn't show on firewall pre-configured port.
14. [BUG FIXED] Wrong wording in content filter log.
15. [BUG FIXED] "Time initialized" won't show in the content filter and firewall logs.
16. [BUG FIXED] In firewall log mail, the header contained wrong date display.
17. [BUG FIXED] IP Alias didn't apply firewall LAN-to-WAN ACL rules.
18. [BUG FIXED] When VPN LOG recorded more than 64 entries, it will show incorrect format.
19. [BUG FIXED] Responder cannot find phase1 SA by address pair. This will cause sometimes phase 1 SA will remain after SA reconnection
20. [BUG FIXED] Web VPN LOG format corrected.
21. [BUG FIXED] When receiving deleting phase 1 packet, system will only delete phase 1 SA and let a useless phase2 SA alive. This will cause a long delay to reconnection.
22. [BUG FIXED] Firewall alert mail didn't have correct format.
23. [BUG FIXED] When there are two active IPSEC rules with the same secure gateway, packets which should match the latter rule will still use the former rule for IKE process. In some cases, this will cause system to establish many invalid tunnels for one rule. At last, system does not have enough memory.
24. [BUG FIXED] When encapsulation switches from Ethernet to PPPoE, IP Alias 2 will become "not available".
25. [BUG FIXED] IPSEC pass through didn't support multiple sessions.
26. [BUG FIXED] When primary DNS is not accessible, P312 would switch to secondary DNS. However, When the secondary DNS failed, P312 didn't check the primary DNS again.
27. [BUG FIXED] If there exist multiple custom ports and above 4 rules use these ports, the display format in rule summary was incorrect.
28. [BUG FIXED] NAT loopback server problem is solved. When a server in the LAN site and there exists a NAT server set directed to it, WAN site traffic can access the WAN IP, then be redirected to the server. But the LAN site cannot use the WAN IP to access the server. It only can access the server through LAN IP. A new CI command "ip nat loopback" is added to turn on the feature, "NAT server loopback". When it turns on, PC on LAN site can access the LAN site server through WAN IP. !!!<NOTE>!!! Turn on the feature will cause throughput decreased.
29. [BUG FIXED] WEB: When modifying a used custom port, it will not apply to the rule using this custom port. If trying to remove the custom port from that rule, P312 will crash.
30. [BUG FIXED] IP Alias address cannot fake MAC address in SMT2 and WEB.
31. [BUG FIXED] When firewall turned on, received a invalid AH packet (protocol 51) from LAN will cause P312 crashed
32. [BUG FIXED] Opera 6 cannot login WEB.
33. [BUG FIXED] In content filter, if the WEB site in trusted domain use "POST" instead of "GET", P312 will still treat it as un-trusted site.
34. [BUG FIXED] When there exist a telnet session on "VIEW LOG" page, such as error log, firewall log or VPN log, login from console will cause system rebooted.
35. [BUG FIXED] When SA time out and reconnect, sometimes system will not free corresponding memory correctly. After a long connection, system will be exhausted.
36. [BUG FIXED] When phase 2 SA life time out, sometimes there exists a phase 1 SA and no tunnel can be built.
37. [BUG FIXED] Using Web to upgrade firmware, system will reply "internal error".
38. [BUG FIXED] VPN timeout re-connection function is not robust.  
→When "SA Life time" is time out, sometimes the VPN tunnel cannot be re-established again.

39. [BUG FIXED] VPN tunnel cannot be established if WAN IP is static without default gateway configured.  
→When a ZyWALL 10 / P312 is configured as “static IP” but default gateway as “0.0.0.0”, and the other ZyWALL 10 / P312 is placed in the same subnet, the VPN tunnel cannot be established between them.
40. [BUG FIXED] VPN tunnel cannot work with multi-NAT.
41. [BUG FIXED] Use Web setup VPN for manual mode, it can not work until save in SMT again
42. [BUG FIXED] Web (Content filter→ EXEMPT ZONE) Apply button didn't work.
43. [BUG FIXED] VPN connection cannot be re-built after dynamic WAN IP being changed.  
→When one ZyWALL / P312 has “Secure Gateway IP Addr” to be "0.0.0.0" and the other one has “My IP Addr” to be "0.0.0.0", as below.

P312 - 1 (security gateway IP 0.0.0.0) <----- P312 - 2 (my IP 0.0.0.0)

If P312 - 2 has been configured as "dynamic WAN IP", the VPN tunnel between P312- 1 and P312 - 2 can be established at the first time. However, if P312 - 2 has its WAN ip changed, the VPN tunnel cannot be re-built again.

→Fix:

- 1) For the role of P312-2, it periodically checks WAN IP, as long as IP changes, system will auto-disconnect tunnel. This will be logs in VPN Logs.
- 2) For the role of P312-1, it periodically checks if any runtime SA has no traffic for a long time. If a SA has no traffic through it in 2 minutes, system will disconnect the tunnel.
- 3) There are two new CI commands to configure 1) and 2). They are “ipsec timer chk\_my\_ip” and “ipsec timer chk\_conn”
- 4) For the role of P312 -1, security gateway IP setting to be 0.0.0.0 can receive multiple requests at the same time. Appendix 1 is a simple configuration example.

#### **Modification in V3.50(S.01) | 11/07/2001**

1. [BUG FIXED] When firewall turns off and SUA only, PC in the WAN side can ping PCs in the LAN side.
2. [BUG FIXED] When the WAN side is using PPPoE connection and NAT turns off, firewall does not protect the LAN side.
3. [BUG FIXED] When the WAN side is using PPPoE connection, LAN-to-WAN ACL rule will not be applied. The Packet will transmit through firewall from LAN to WAN, even existing a firewall rule to block it.

#### **Modification in V3.50(S.00) | 10/11/2001**

1. [BUG FIXED] Fix multi-language support
2. [BUG FIXED] Fix web configuration delete firewall rule error
3. [BUG FIXED] Fix firewall crash problem under heavy ftp traffic
4. [BUG FIXED] Fix Download content filter cannot success
5. [BUG FIXED] Fix ip traceroute cannot work
6. [BUG FIXED] Fix web configuration cannot reset to factory default
7. [BUG FIXED] Fix web configuration cannot add more than one rule in firewall
8. [BUG FIXED] Fix static routing cannot work when firewall on
9. [BUG FIXED] Fix Firewall web configuration make buffer overflow
10. [BUG FIXED] Fix cannot upload firmware by web
11. [BUG FIXED] content filter register error
12. [BUG FIXED] content filter list download error
13. [BUG FIXED] ESP teardrop attack parser error
14. [BUG FIXED] DNS lookup fail when menu 3.2 "DHCP server == None"

15. [BUG FIXED] Fix SNMPv2 packet make router reboot
16. [BUG FIXED] Fix Router crash when doing reconfiguration
17. [NEW FEATURE] NAT multi-session IKE support
18. [NEW FEATURE] NAT multi-session IPSec-ESP-Tunnel support
19. [NEW FEATURE] NAT range port forwarding support
20. [NEW FEATURE] Supports IKE for automatic security negotiation and key management
21. [NEW FEATURE] Currently using pre-shared authentication keys for establishing trust between hosts.
22. [NEW FEATURE] Provides DES (56-bit key strength) and 3DES (168-bit key strength) encryption algorithms
23. [NEW FEATURE] SHA-1 and MD5 integrity algorithms for ESP.
24. [NEW FEATURE] SHA-1 and MD5 integrity algorithms for AH.
25. [NEW FEATURE] Provide ESP Tunnel mode, Transport Mode
26. [NEW FEATURE] Provide AH Tunnel mode, Transport Mode

**Modification in V3.20(S.01) | 12/11/2000**

1. [BUG FIXED] Fix menu 11.3 make system crash when choosing PPTP

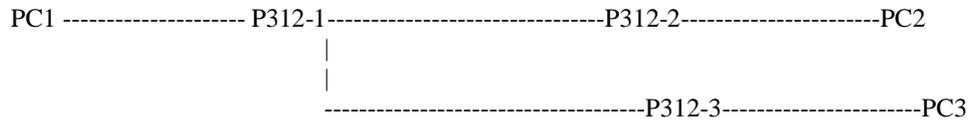
**Modification in V3.20(S.00) | 11/23/2000**

1. [NEW FEATURE] Add Content Filter
2. [NEW FEATURE] Add new web configuration for Content Filter
3. [NEW FEATURE] Add new web configuration for NAT
4. [NEW FEATURE] Add new web configuration for LAN
5. [NEW FEATURE] Add new web configuration for WAN
6. [NEW FEATURE] Add SMTP "AUTH" support
7. [NEW FEATURE] add Nail-Up in menu 11.2
8. [NEW FEATURE] performance enhancement
9. [NEW FEATURE] Add CI command to turn on/off RST ( default value: off , except port 113)
10. [NEW FEATURE] WEB URL Filter
11. [NEW FEATURE] Cookei Filter
12. [NEW FEATURE] Java Applet Filter
13. [NEW FEATURE] Proxy Filter
14. [NEW FEATURE] ActiveX Filter
15. [NEW FEATURE] Multimedia application support for Firewall. (Netmeeting, RealPlayer7, Quicktime ...)
16. [NEW FEATURE] PPTP, IGMP, IPSEC(ESP) support for Firewall
17. [NEW FEATURE] IPSEC SEC (Tunnel mode) support for NAT
18. [NEW FEATURE] Embedded Web Server for Firewall configuration.
19. [NEW FEATURE] PPTP Clinet
20. [NEW FEATURE] Dynamic DNS
21. [NEW FEATURE] Telnet client
22. [NEW FEATURE] Traceroute
23. [NEW FEATURE] Command line history
24. [NEW FEATURE] Sending firewall log by syslog
25. [NEW FEATURE] SNMP management
26. [NEW FEATURE] IP alias
27. [NEW FEATURE] IP Multicast
28. [NEW FEATURE] Call Scheduling

## Appendix:

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1. Example for configuring security gateway to be 0.0.0.0.



SMT27.1.1 of P312-1:

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Menu 27.1.1 - IPSec Setup

Index #= 10
Name= P312-1
Active= Yes

My IP Addr= 4.4.4.254
Secure Gateway IP Addr= 0.0.0.0
Protocol= 0
Local: IP Addr Start= 1.1.1.1           End= 1.1.1.50
        Port Start= 0                   End= N/A
Remote: IP Addr Start= N/A             End= N/A
        Port Start= N/A                 End= N/A
Enable Replay Detection= No
Key Management= IKE
Edit IKE Setup= No
Edit Manual Setup= N/A

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

SMT27.1 of P312-1 will show:

Menu 27.1 - IPSec Summary						
#	Name	A	Local Addr Start	- Local Addr End	Encap.	IPSec Algorithm
			Remote Addr Start	- Remote Addr End		Secure Gw Addr
001	P312-1	Y	1.1.1.1	1.1.1.50	Tunnel	ESP DES-SHA1
	IKE		dynamic	dynamic		dynamic
002						
003						
004						
005						

Select Command= None                      Select Rule= N/A

Press ENTER to Confirm or ESC to Cancel:

SMT27.1.1. of P312-2:

Menu 27.1.1 - IPSec Setup	
Index #= 1	
Name= P312-2	
Active= Yes	
My IP Addr= 4.4.4.1	
Secure Gateway IP Addr= 4.4.4.254	
Protocol= 0	
Local: IP Addr Start= 3.3.3.1	End= 3.3.3.100
Port Start= 0	End= N/A
Remote: IP Addr Start= 1.1.1.1	End= 1.1.1.50
Port Start= 0	End= N/A
Enable Replay Detection= No	
Key Management= IKE	
Edit IKE Setup= No	
Edit Manual Setup= N/A	

Press ENTER to Confirm or ESC to Cancel:

After connection built successfully, the SA Monitor in P312-1 will show:

Menu 27.2 - SA Monitor			
#	Name	Encap.	IPSec Algorithm
1	P312-1 : 3.3.3.1 - 3.3.3.100	Tunnel	ESP DES-SHA1
2			
3			
4			
5			
6			
7			
8			
9			
10			

Select Command= Refresh  
Select Connection= N/A

Press ENTER to Confirm or ESC to Cancel:

What follows the Name is the runtime “Remote IP Addr” linking with the dial-in user. Since there will be a lot of users match the rule named ‘P312-1’, we use “Remote IP Addr” to distinguish them and selecting one of them to delete will not affect others. However, for the rule whose security gateway is not 0.0.0.0, we can use names to distinguish them, so their Remote IP Addr will not be showed.

**NOTE:**

- 1) Only IKE supports security gateway to be 0.0.0.0. Manual key does not.
- 2) For P312- 2 and P312-3, their “Local IP Addr” will become the “Remote IP Addr“ in P312-1’s runtime SPD, so they should not overlap, or P312-1 will be confused which route is correct. If this IP conflict happens, IKE procedure will fail and will log in the VPN Logs.
- 3) Also for P312-2 and P312-3, their “Remote IP Addr” should match the “Local IP Addr”, or the runtime SPD check will fail.
- 4) For the rule whose security gateway is 0.0.0.0, it only can be “responder”. In other words, it can initiate a connection. It only can receive others’ IKE request to built the tunnel.
- 5) Only the last rule can apply security gateway 0.0.0.0.