

ZYXEL

Firmware Release Note

USG FLEX 50W (USG20W-VPN)

Release V5.36(ABAR.2)C0

Date: May 24 2023

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ZYXEL USG FLEX 50W (USG20W-VPN)

Release V5.36(ABAR.2)C0

Release Note

Date: May 24 2023

Supported Platforms:

ZYXEL USG FLEX 50W (USG20W-VPN)

Versions:

ZLD Version: V5.36(ABAR.2) | 2023-05-24 05:23:28

Files lists contains in the Release ZIP file

File name: 536ABAR2C0.bin

Purpose: This binary firmware image file is for normal system update.

Note: The firmware update may take five or more minutes depending on the scale of device configuration. The more complex the configuration, the longer the update time. Do not turn off or reset the ZyWALL/USG while the firmware update is in progress. The firmware might damage, if device loses power or you reset the device during the firmware upload. You might need to refer to Appendix 3 of this document to recover the firmware.

File name: 536ABAR2C0.conf

Purpose: This ASCII file contains default system configuration commands.

File name: 536ABAR2C0.pdf

Purpose: This release file.

File name: 536ABAR2C0.ri

Purpose: This binary firmware recovery image file is for emergent system firmware damage recovery only.

Note: The ZyWALL/USG firmware could be damaged, for example by the power going off or pressing Reset button during a firmware update.

File name: 536ABAR2C0-MIB.zip

Purpose: The MIBs are to collect information on device. The focus of the MIBs is to let administrators collect statistical data and monitor status and performance. The zip file includes several files: ZYXEL-ZW-SMI.MIB, ZYXEL-ZW-COMMON.MIB, ZYXEL-ES-SMI.MIB, ZYXEL-ES-CAPWAP.MIB, ZYXEL-ES-COMMON.MIB and ZYXEL-ES-ProWLAN.MIB. Please import ZYXEL-ES-SMI.MIB first.

File name: 536ABAR2C0-opensource-list.xls

Purpose: This file lists the open source packages.

File name: 3G dongle compatibility table v109.xlsx, 3G patch file v106.wwan

Purpose: Mobile broadband dongle support list.

Read Me First

1. The system default configuration is summarized as below:
 - The default device administration username is "admin", password is "1234".
 - The default LAN interface is lan1, which are P3 port on the front panel. The default IP address of ge4 is 192.168.1.1/24.-->1
 - By default, WWW/SSH/SNMP service can only be accessed from LAN subnet.
 - The default WAN interface is wan, the interfaces will automatically get IP address using DHCP by default.
 - For new model, requires connecting to myZyxel to complete device registration and Security Service activation.
2. It is recommended that user backs up "startup-config.conf" file first before upgrading firmware. The backup configuration file can be used if user wants to downgrade to a previous firmware version.
3. Please **DO NOT** turn off the power during the firmware upgrade. Please wait until the device reboots and the SYS light stays on
4. We recommended upgrade to ZLD5.30C0 or later version to **Standby partition** first before upgrading to ZLD5.35.

5. When getting troubles in configuring via GUI (popup java script error, etc.), it is recommended to clear browser's cache first and try to configure again.
6. To reset device to system default, user could press RESET button for 5 seconds and the device would reset itself to system default configuration and then reboot.
 - Note: After resetting, the original configuration would be removed. It is recommended to back up the configuration before this operation.
7. If ZyWALL Firewall can't reboot successfully after firmware upgrade, please refer to Appendix 3: Firmware Recovery.
8. For On-Premises mode with High Available (HA) feature enabled, please DO NOT use cloud firmware upgrade. You will need to follow a different procedure to complete the firmware upgrade, please [read the SOP](#). *
Applicable models and versions: USG FLEX 500/700, ATP500/700/800 with ZLD5.20 through ZLD5.21 Patch1.

Design Limitations:

Note: Design Limitations described the system behavior or limitations in current version. They will be created into knowledge base.

Build in Service

1. [SPR: 061208575]

[Symptom]

If users change port for built-in services (FTP/HTTP/SSH/TELNET) and the port conflicts with other service or internal service, the service might not be brought up successfully. The internal service ports include 53/179/953/1723/2158/2601-2605/10443/10444/11080/50001. Users should avoid using these internal ports for built-in services.

[Workaround]

Users should avoid using these internal ports for built-in services.

DNS

1. [SPR: 150122977]

[Symptom]

DNS security option will deny device local out DNS query

[Condition]

1. Edit the customize rule of DNS security option, and set the query recursion as deny.
2. If device's WAN IP address is in the customize address range, device local-out DNS query will be denying.

GUI

1. Following are the table list for supporting GUI browser:

Operating System	For Administrator Login Browsers	For User Login Browsers
Windows 7 (X64) (SP1)	Chrome 59.0.3071.115	Chrome 59.0.3071.115
	Firefox 54.0.1	Firefox 54.0.1
	Opera 46.0.2597.46	Opera 46.0.2597.46
	Safari 5.1.7(7534.57.2)	Safari 5.1.7(7534.57.2)
	Chrome 59.0.3071.115	Chrome 59.0.3071.115
Windows 8.1 (X64)	Firefox 54.0.1	Firefox 54.0.1
	Opera 46.0.2597.46	Opera 46.0.2597.46
	Safari 5.1.7(7534.57.2)	Safari 5.1.7(7534.57.2)
	Chrome 59.0.3071.115	Chrome 59.0.3071.115

	Firefox 54.0.1	Firefox 54.0.1
Windows 8.1 (X32)	Opera 46.0.2597.46	Opera 46.0.2597.46
	Safari 5.1.7(7534.57.2)	Safari 5.1.7(7534.57.2)
	Chrome 59.0.3071.115	Chrome 59.0.3071.115
	Firefox 54.0.1	Firefox 54.0.1
	Opera 46.0.2597.46	Opera 46.0.2597.46
Windows 10 (X64)	Safari 5.1.7(7534.57.2)	Safari 5.1.7(7534.57.2)
	Edge 20.10240.16384.0	Edge 20.10240.16384.0
	Firefox 50.0.2	Firefox 50.0.2
	Opera 47.0.2631.55	Opera 47.0.2631.55
	Chrome latest version 60.0.3112.101	Chrome latest version 60.0.3112.101
	Safari latest version 10.1.2(12603.3.8)	Safari latest version 10.1.2(12603.3.8)
Linux OS (Ubuntu)	Firefox latest version 50.0.2	Firefox latest version 50.0.2
	9 latest version 9.3.3 (Safari)	Safari 9 latest version 9.3.3
Apple MAC OS X	10 latest version 10.3.2 (Safari)	Safari10 latest version 10.3.2
	latest version 5.0 (Chrome)	latest version 5.0 (Chrome)
	Firefox latest version	Firefox latest version
Apple iOS (Tablet)	Latest Safari version 13.1.2/ 14.1/15.0	Latest Safari version 13.1.2/ 14.1/15.0
	latest version 5.0 (Chrome)	latest version 5.0 (Chrome)
Android (Tablet)	Chrome 59.0.3071.115	Chrome 59.0.3071.115

* Not support Opera browser 10.6x

* Not support Mobile OS

2. [SPR: 171030438]

[Symptom]

IE browser will download the privacy statement when accessing the related page, instead of reading on browser.

Interface

1. [SPR: 170628894]

[Symptom]

[LAG] The active slave may always switch to each other between ge1 and ge2 with active-backup mode and link-monitoring method is ARP.

[Workaround]

Suggest using MII monitoring method.

IPSec VPN

1. [SPR: 070814168]

[Symptom]

VPN tunnel could not be established when:

- a. a non ZyWALL/USG peer gateway reboot and
- b. ZyWALL/USG has a previous established Phase 1 with peer gateway, and the Phase 1 has not expired yet. Under those conditions, ZyWALL/USG will continue to use the previous phase 1 SA to negotiate the Phase 2 SA. It would result in phase 2 negotiation to fail.

[Workaround]

User could disable and re-enable phase 1 rule in ZyWALL/USG or turn on DPD function to resolve problem.

2. [SPR: 100429119]

[Symptom]

VPN tunnel might be established with incorrect VPN Gateway

[Condition]

- a. Prepare 2 ZyWALL/USG and reset to factory default configuration on both ZyWALL/USGs
- b. On ZyWALL/USG-A:
 - Create 2 WAN interfaces and configure WAN1 as DHCP Client
 - Create 2 VPN Gateways. The "My Address" is configured as Interface type and select WAN1 and WAN2 respectively
 - Create 2 VPN Connections named VPN-A and VPN-B accordingly which bind on the VPN Gateways we just created
- c. On ZyWALL/USG-B
 - Create one WAN interface
 - Create one VPN Gateway. The Primary Peer Gateway Address is configured as WAN1 IP address of ZyWALL/USG-A and the Secondary Peer Gateway Address is configured as WAN2 IP address of ZyWALL/USG-A
- d. Connect the VPN tunnel from ZyWALL/USG-B to ZyWALL/USG-A and we can see VPN-A is connected on ZyWALL/USG-A
- e. Unplug WAN1 cable on ZyWALL/USG-A
- f. After DPD triggered on ZyWALL/USG-B, the VPN Connection will be established again
- g. On ZyWALL/USG-A, VPN-A is connected. But actually ZyWALL/USG-B should connect to VPN-B after step 5.

[Workaround]

Change the WAN1 setting of ZyWALL/USG-A to Static IP

3. [SPR: 140304057]

[Symptom]

After inactivating GRE over IPSec, old connection may remain if the traffic flows continuously. This may cause by traffic bounded with old connection.

[Workaround]

Stop traffic for 180 seconds and the internal connection record will time out.

4. [SPR: 140416738]

[Symptom]

Ignore don't fragment setting cannot take effect immediately if there already existed the same connection.

[Workaround]

Stop traffic for 180 seconds and the internal connection record will time out.

5. The following VPN Gateway rules configured on the ZyWALL/USG cannot be provisioned to the IPSec VPN Client:
 - a. IPv4 rules with IKEv2 version
 - b. IPv4 rules with User-based PSK authentication
6. Not support site to site VPN behind NAT scenario both in On-Premises mode and On-Cloud mode

SSL VPN

1. Following are the list for SSL VPN supporting applications and operating systems:
 - SecuExtender SSL VPN Client support : Windows 7/8/10 and Mac OS 10.7 or later version.

L2TP VPN

1. Following are the table list for L2TP VPN supporting L2TP client and operating systems:

L2TP Client	OS type
Windows L2TP client	Windows 7 32/64 Windows 8 32/64 Windows 10 32/64
iPhone/iPad L2TP client	iOS 14
Android L2TP client	Google Phone
MacOS L2TP client	MacOS 10.15.5

2. [SPR: N/A]

[Symptom]

L2TP connection will break sometimes with Android device. This issue comes from the L2TP Hollow packet will not be replied by Android system.

User Aware

1. [SPR: 070813119]

[Symptom]

Device supports authenticating user remotely by creating AAA method which includes AAA servers (LDAP/AD/Radius). If a user uses an account which exists in 2 AAA server and supplies correct password for the latter AAA server in AAA method, the authentication result depends on what the former AAA server is. If the former server is Radius, the authentication would be granted, otherwise, it would be rejected.

[Workaround]

Avoid having the same account in AAA servers within a method.

IPv6

1. HTTP/HTTPS not support IPv6 link local address in IE7 and IE8.
2. Windows XP default MS-DOS FTP client cannot connection to device's FTP server via IPv6 link-local address.

3. [SPR: 110803280]

[Symptom]

Safari cannot log in web with HTTPS when using IPv6

4. [SPR: 110803293]

[Symptom]

Safari fails to redirect http to https when using IPv6

5. [SPR: 110803301]

[Symptom]

Safari with IPv6 http login when change web to System > WWW, it pops up a logout message. (HTTP redirect to HTTPS must enable)

Anti-Spam

1. Not support SMTPs , STARTTLS, POP3s, SMTP Extension command – BDAT

MAC Authentication

1. [SPR: 150127103]

[Symptom]

Client use Internal MAC-Auth. connection Auth. Server can't get IP successful.

[Workaround]

Set short ARP timeout value on monitored interface's switch and gateway side.

SecuExtender SSL VPN Client

1. Windows 7 users have not done Windows update before may have SecuExtender virtual Network interface card detection issue.

[Workaround]

Recommend installing all windows security patches before installing SecuExtender.

One of reference: <https://support.microsoft.com/en-us/kb/3033929>

Known Issues:

Note: These known issues represent current release so far unfixed issues. And we already plan to fix them on the future release.

[On Premises mode]

IPSec VPN

1. [SPR: 120110586]

[Symptom]

When set IPSec VPN with certificate and enable x.509 with LDAP, the VPN session must dial over two times and the session will connect successfully

2. [SPR: 140818615]

[Symptom]

After Enable and Disable NAT rule, IPSec VPN traffic cannot forward to LAN subnet immediately.

[Condition]

a. Topology:

PC1 ---LAN1 USG60W WAN1 ---- WAN1 USG60 LAN1 --- PC2 & PC3

b. USG60W

WAN1: 10.1.4.45/24

WAN2: 192.168.9.x/24 (Can reach to 172.23.x.x network through NAT router.)

LAN1: 192.168.181.x/24

PC1: 192.168.181.33

c. USG60

WAN1: 10.1.6.79/24

LAN1: 192.168.1.1/24

PC2: 192.168.1.33

PC3: 192.168.1.34

d. USG60 sets a policy route, src=192.168.1.0/24, dst=172.0.0.0/8, next-hop=VPN tunnel

USG60W sets

1. policy route, src= 172.0.0.0/8, dst=192.168.1.0/24, next-hop=VPN tunnel

2. policy route, src=192.168.1.0/24, dst=172.0.0.0/8, next-hop=WAN2

e. PC2 ping 172.23.x.x is OK

- f. Add a 1:1NAT rule which is from WAN1 10.1.6.79 mapping to 192.168.1.34 (PC3) on USG60.
 - g. PC2 ping 172.23.x.x will fail now.
 - h. Disable 1:1 NAT rule.
 - i. PC2 still cannot ping to 172.23.x.x.
- *Need to reboot device or wait several minutes, it works.

3. [SPR: 141209575]

[Symptom]

IPSec VPN tunnel sometimes can be built up while initiator and responder devices use CA with the same subject name in IKE authentication. This tunnel should not be allowed to build.

4. [SPR: 171108122]

[Symptom]

The number of VPN connected tunnels in VPN Dashboard may display incorrectly under stress with Zyxel VPN client

5. [SPR: 210917118]

[Symptom]

The VPN authentication failed with external user which is not in the first order of authentication method profile

[Workaround]

Move AAA server stores external user to the first order of authentication method profile.

IPv6

1. [SPR: 131226738]

[Symptom]

Only one prefix delegation can be added in IPv6 address assignment.

SSL VPN

1. [SPR: N/A]

[Symptom]

Windows 7 users cannot use SSL cipher suite selection as AES256.

[Workaround]

You can configure Windows cipher with following information

<http://support.microsoft.com/kb/980868/en-us>

2. [SPR: 160309776]

[Symptom]

GUI login can't auto connect/disconnect new SecuExtender tool in windows.

3. [SPR: 170517424]

[Symptom]

SecuExtender after ZLD4.30 will not support Windows XP due to strong cipher suite activated by default. Please upgrade client OS or allow ZLD with unsecure cipher suite via CLI, "no ip http secure-server strong-cipher".

System

1. [SPR: 160420343]

[Symptom]

USG310/1100/1900 and ZyWALL 310/1100 Interface up time counter will not reset after link down. For example, the ge1 port uptime shows 41 second and inactive ge1 port (link down). The next link up time should re-count from 00:00:00, but after link up, the uptime continues count from 41 second.

GUI

1. [SPR: 160411770]

[Symptom]

Go to Configuration > UTM Profile > IDP > Profile page, add a profile (e.g. name:2016USG) then back to the profile list select this rule and click "clone" you will find the background GUI profile name become the same as Clone Profile name before you apply.

2. [SPR: 160503266]

[Symptom]

It doesn't show logout IP after upgrade firmware to ZLD4.20.

3. [SPR: 170328262]

[Symptom]

Network risk warning information show null on ZyWALL series device

4. [SPR: 171016187]

[Symptom]

Easy mode > click Network Client list button may cause page always loading status

5. [eITS: 170300826]

[Symptom]

With feature "Link Aggregation Group", it no longer provide the field "none" on link-monitoring, balanced-alb and active-backup due to useless.

6. [SPR: 190329412]

[Symptom]

[GUI] When PC login admin then login user , admin user have some page always was loading.

7. [SPR: 190329413]

[Symptom]

[GUI] After remove policy route rule, routing table still has this rule.

8. [SPR: N/A]

[Symptom]

Sometimes GDPR dialog will be blocked by device dashboard loading mask. Please move the dialog to usable place for advanced operations or wait for the loading mask finished.

9. [SPR: N/A]

[Symptom]

GUI displays wrong firmware version, for example 4.35(VVVV.0)/4.35(WWWW.0)/4.35(ZZZZ.0)/4.35(YYYY.0), if uploaded ZLD4.35 or above firmware to standby partition without reboot.

It'll auto recover after reboot device.

10. [SPR: 220302038]

[Symptom]

The description field does not support "," symbol and a warning message will be displayed to notify the user to modify.

11. [Jira: ZLD-140]

[Symptom]

Can't loading Maintenance > Configuration File when using limit-admin login

3G Dongle

1. [SPR: 161215667]

[Symptom]

Budget set only download, action upload still has budget logs.

Remote Access VPN wizard

1. [Symptom]

When IP address pool subnet is not /24 it will conflicts with VLAN interface and will not auto change IP pool subnet.

[Workaround]

Manually change the IP pool in the Remote Access VPN Wizard.

Web Content Filter

1. [SPR: 210324205, 210324206]

[Symptom]

[VPN][L2TP] Remote access VPN_The html picture is broken on warning page (Content Filter/URL threat filter) for http website.

2. [SPR: 211103043]

[Symptom]

The picture at URL Threat Filter block page cannot be displayed when using Google Chrome (version 95 or above) or Microsoft Edge (version 95 or above) browser.

Features: V5.36(ABAR.2)C0

Modifications in V5.36(ABAR.2)C0 - 2023/05/24

[On Premises mode/On Cloud mode]

1. Common vulnerabilities and Exposures:

ZLD5.36 Patch2 is no longer vulnerable to the following CVE References:

- CVE-2023-33009
- CVE-2023-33010

Features: V5.36(ABAR.1)C0

Modifications in V5.36(ABAR.1)C0 - 2023/05/09

[On Premises mode]

1. [Bug Fix] eITS#230401495

Fix: If IKEv2 VPN with 2FA authentication is configured, it may cause device cease to function.

- a. Fix: IKEv2 initiator cause memory leak

2. [Bug Fix] eITS#230401438

- a. The device does not send 2FA by email for VPN connections when Two-factor Authentication > VPN Access > User/Group > Selected User/Group contains user object.

[On Cloud mode]

1. [Bug Fix] eITS# 230401284

- a. Fix: PPPoE failed to dial up if PPPoE account contains the character %.

Features: V5.36(ABAR.0)C0

Modifications in V5.36(ABAR.0)C0 - 2023/03/31

[On Premises mode]

1. [Feature Change] User Interface/Description change:
 - a. GUI remove "Note 1 register and get firmware notification" for firmware management page
 - b. GUI add "Note 2 try cloud-based Anti-Spam Cloud Email Security information" for service page
2. [Feature Change] Build-in WiFi APC initial wizard default radio profile change to 11ax
3. [Bug Fix] eITS#221000888
 - a. Fix: The device stops sending SMS via a SMS gateway after several days and also becomes unresponsive.
4. [Bug Fix] eITS#221201004
 - a. Fix: 2FA authorization mail receiver and mail content name are not identical.
5. [Bug Fix] eITS#221201009
 - a. Fix: SNMP get incorrect value after the interface is disconnected.
6. [Bug Fix] eITS#221201374
 - a. Fix: Customer can access port 8008 page even if 2FA for VPN access is not enabled.
7. [Bug Fix] eITS#230100962
 - a. Fix: Lots of message "An IP address conflict is detected at MAC 00:00:00:00:00:00" appear in the log.
8. [Bug Fix] eITS#230101199
 - a. Fix: The graph on dashboard and port statistics are not identical when the language is Russian.
9. [Bug Fix] eITS#230101534, 230101202
 - a. Fix: Unable to open default-group in Configuration > Wireless > AP Management > AP Group.
10. [Bug Fix] eITS#230200237
 - a. Fix: Nebula register QR code should be hidden when user uses limited-admin.
11. [Bug Fix] eITS#230201027
 - a. Fix: Unable to see Remote AP VPN status in General > VPN Status on dashboard.

12. [Bug Fix] eITS#230201090
 - a. Fix: Unable to replace any interface IP and subnet with 192.168.5.1/24 on USG FLEX 50.
13. [Bug Fix] eITS#230201128
 - a. Fix: License sync failed in device HA Pro configuration sync process.
14. [Bug Fix] eITS#230201388
 - a. Fix: The 'Enable Two-factor Authentication' checkbox in VPN gateway gets disabled upon every reboot.
15. [Bug Fix] eITS#230300352
 - a. Fix: Password is transmitted in clear text in the trace log when HA is syncing.
16. [Bug Fix] eITS#230300393
 - a. Fix: Unable to open the authentication page <https://lan IP:8008/2FA-access.cgi> when using 2FA with Google Authenticator.
17. [Bug Fix] eITS#230300453
 - a. Fix: If a backup configuration file is encrypted using special characters such as '%' or '+', the ZIP archive cannot be opened.
18. [Bug Fix] eITS#230300467
 - a. Fix: Getting error when trying to edit static DHCP table.
19. [Bug Fix] eITS#230300678
 - a. Fix: Abnormal amount of DHCP IP table.
20. [Bug Fix] eITS#230300846
 - a. Fix: Email security page displays red notification about license expired, but the email security service is already activated by bundle license.
21. Common vulnerabilities and Exposures:

ZLD5.36 is no longer vulnerable to the following CVE References:

 - CVE-2023-22913
 - CVE-2023-22914
 - CVE-2023-22915
 - CVE-2023-22916
 - CVE-2023-22917
 - CVE-2023-22918
 - CVE-2023-27990
 - CVE-2023-27991
 - CVE-2023-28771

[On Cloud mode]

1. [Bug Fix] eITS#230300025
 - a. Fix: SecuReporter stops working when the syslog server is set in NCC.
2. [Bug Fix] eITS#230300035
 - a. Fix: VPN disconnects unexpectedly. (sdwan_interface issue)

Features: V5.35(ABAR.0)C0

Modifications in V5.35(ABAR.0)C0 - 2023/01/03

[On Premises mode]

1. [ENHANCEMENT] Configuration files download with password protection
2. [ENHANCEMENT] Custom DDNS support auto update when public IP changed
3. [ENHANCEMENT] Automatically update DDNS IP address at DDNS monitor page
4. [ENHANCEMENT] System Log support DHCP IP conflict detection
5. [ENHANCEMENT] Support traffic log rotate on USB storage
6. [ENHANCEMENT] Support Sensitive Data Protection to protect management password
7. [Feature Change] [eITS#220600529] Response Message remove customization page layout change to default block page design.
8. [Feature Change] The default radio profile under AP controller in Wireless setup wizard change from 11ac to 11ax
9. [Feature Change] Modify the wording at 5G Radio page:
 - a. Change the wording "Enable 5 GHz DFS Aware" to "Avoid 5 GHz DFS Channel"
10. [Bug Fix] eITS#221000888 / 221200149
 - a. Fix: The device stops sending SMS via a SMS gateway after several days and also becomes unresponsive.
11. [Bug Fix] eITS#221001336
 - a. Fix: In the policy route rule, select interface/gateway as the next hop and enable connectivity check. After you change the next hop from interface/gateway to trunk, connectivity check becomes greyed out but the previous connectivity check settings are still applied to the policy route rule.
12. [Bug Fix] eITS#221100576
 - a. Fix: USG FLEX 50 virtual device in the dashboard is incorrect
13. [Bug Fix] eITS# 221100935
 - a. Fix: Support fast recovery
14. [Bug Fix] eITS# 221101130
 - a. Fix: the boot up console warning message and SYS red light issue.
15. [Bug Fix] eITS# 221101139
 - a. Fix: Security policy is not working when 2FA is enabled
16. [Bug Fix] eITS#221101280

- a. Fix: NAT port forwarding data transfer rate is unstable
- 17. [Bug Fix] eITS#221101428
 - a. Fix: Since the device is upgraded to firmware to V5.32, the warning message "Unverified Firmware Installed" pops up in the dashboard.
- 18. [Bug Fix] eITS#221101628 / 220301602
 - a. Fix: USG FLEX unexpected reboot
- 19. [Bug Fix] eITS#221201009
 - a. Fix: SNMP get incorrect value after the interface is disconnected.
- 20. Common vulnerabilities and Exposures:
 - ZLD5.35 is no longer vulnerable to the following CVE References:
 - CVE-2022-38547
 - CVE-2022-40603

[On Cloud mode]

- 1. [ENHANCEMENT] Support captive portal logout via 6.6.6.6
- 2. [ENHANCEMENT] SecuReporter traffic log support client MAC address
- 3. [ENHANCEMENT] Event Log support DHCP IP conflict detection
- 4. [Bug Fix] eITS#221000144
 - a. Fix: CPU and memory usage don't display in Monitor > Firewall > Status. Event log is also empty.
- 5. [Bug Fix] eITS#221000422
 - a. Fix: WiFi clients have no internet access due to IPS customized signatures that are created in the previous on-premises mode.
- 6. [Bug Fix] eITS#221100122
 - a. Fix: USG FLEX becomes offline on Nebula when the number of Firewall clients exceed 2048.
- 7. [Bug Fix] eITS#221200797
 - a. Fix: In the Monitor > Clients > Firewall page only the clients connected to lan1 will be displayed and the clients connected to other ports such as SFP port will not be displayed.

[AP Controller]

- 1. [ENHANCEMENT] Update AP images V6.45(.0)
- 2. [ENHANCEMENT] DCS Client Aware default setting changed to disable.
- 3. [ENHANCEMENT] DFS channel behavior enhance for better UX.

4. [ENHANCEMENT] APC changed multicast to unicast default setting.
5. [ENHANCEMENT] Refine default AMPDU size.
6. [ENHANCEMENT] Support WiFi6E settings on APC.
7. [ENHANCEMENT] Support WAX655E Ethernet setting.
8. [ENHANCEMENT] Hostname supported in wireless station info.
9. [ENHANCEMENT] CAPWAP online/offline does not kick STA.
10. [ENHANCEMENT] Top-N supports 6GHz radio information.
11. [ENHANCEMENT] ZLD 5.3x APC fully support WiFi6E AP.
12. [ENHANCEMENT] ZyMesh support WiFi 6E (6GHz).

Features: V5.32(ABAR.0)C0

Modifications in V5.32(ABAR.0)C0 - 2022/10/04

[On Premises mode]

1. [ENHANCEMENT] USG FLEX support DNS Threat Filter, IP Reputation and Sandboxing with Gold Security Pack
2. [ENHANCEMENT] Support System Protection and signature update
3. [ENHANCEMENT] ZLD firmware integrity
4. [ENHANCEMENT][eITS#200700296, 220700648] When DNS TTL of FQDN object for destination IP timeout, the video stream will lag
5. [ENHANCEMENT][eITS#220701026] 2FA window should pop up before password change window pops up
6. [ENHANCEMENT] User Interface/Description change:
 - a. Refine SecuReporter Premium to standard license for consistency
 - b. Adjust SecuReporter banner in device GUI more user friendly
 - c. Update Note information in the bottom at Configuration service page
7. [Feature Change] Change CDR Malware detected default occurrence value from 2 to 5
8. [Bug Fix] eITS#220101543
 - a. Fix: IKEv2 with pre-shared key on Samsung mobile phone (Android 12) cannot be connected.
9. [Bug Fix] eITS#220600781
 - a. Fix: NAT forward to DMZ not working
10. [Bug Fix] eITS#220601116
 - a. Fix: Multiple DH issue in IKEv2 connection
11. [Bug Fix] eITS#200601255 / 220700030
 - a. Fix: After Device HA failover, clients in vlan subnet have no interface access
12. [Bug Fix] eITS#220700735
 - a. Fix: Configuration in HTTPS Admin Service Control is not working.
13. [Bug Fix] eITS#220700760
 - a. Fix: Specific object name causes device to roll back to last good configuration file.
14. [Bug Fix] eITS#220700981
 - a. Fix: Second wan connection issue with wan trunk.
15. [Bug Fix] eITS#220700986
 - a. Fix: Renaming object name causes object name display issue on web GUI

16. [Bug Fix] eITS#220701020
 - a. Fix: SSL VPN client for macOS is not connected if HTTPS port and SSL VPN server port are not identical.
17. [Bug Fix] eITS#220701048
 - a. Fix: Duplicate host name display issue on DHCP table
18. [Bug Fix] eITS#220701078
 - a. Fix: URL threat filter signature is not updated to the latest version.
19. [Bug Fix] eITS#220701082
 - a. Fix: 2FA authentication via mail is not working on AD users.
20. [Bug Fix] eITS#220800169
 - a. Fix: DNS threat filter category query issue
21. [Bug Fix] eITS#220800428
 - a. Fix: Schedule Backup doesn't work with complex password
22. [Bug Fix] eITS#220800881
 - a. Fix: SSL VPN is not connected with LDAP authentication
23. [Bug Fix] eITS#220800994
 - a. Fix: Device doesn't follow the schedule in Auto Update to update signature version.
24. [Bug Fix] eITS#220801346
 - a. Fix: Unable to see Firewall's event log and topology on nebula
25. [Bug Fix] eITS#220900270
 - a. Fix: When invalid NAT rule is configured (port mapping type: ports, start port 1 and end port 65535), the browser pops up weird message.
26. [Bug Fix] eITS#220900336
 - a. Fix: The command "debug system show conntrack" is not allowed.
27. [Vulnerability Fix] Zyxel-SI-1430
Fix XSS (Cross Site Scripting) vulnerability

[On Cloud mode]

1. [ENHANCEMENT] USG FLEX support DNS Threat Filter, IP Reputation and Sandboxing with Gold Security Pack
2. [ENHANCEMENT] In Hub and spoke VPN topology, the Hub VPN gateway will be a responder role during IKE negotiation
3. [ENHANCEMENT] Support DDNS peer address for non-Nebula Site2site VPN
4. [ENHANCEMENT] Live tool ping check support "Auto" interface
5. [ENHANCEMENT] Support TIML signature update

6. [ENHANCEMENT] Support System Protection and signature update
7. [Bug Fix] eITS#220700128
 - b. Fix: The static route on nebula firewall to the peer site Microsoft Azure is not working anymore once the peer site Microsoft Azure VPN disconnects.

[AP Controller]

1. [ENHANCEMENT] Update AP images V6.40(.6)

Features: V5.31(ABAR.0)C0

Modifications in V5.31(ABAR.0)C0 - 2022/07/05

[On Premises mode]

1. [ENHANCEMENT] In the initial setup stage to detect LAN subnet if conflict with 192.168.1.1 then auto change to 192.168.10.1 redirect to myrouter.local
2. [ENHANCEMENT] Login Users table add Created Date column as same as User Object
3. [ENHANCEMENT] Device GUI add Astra cloud portal URL
4. [ENHANCEMENT] [eITS#211100981] Email Security Blocklist add i-note information
5. [ENHANCEMENT] [eITS#220101060, 220101420, 220200439] Enhanced the information in the CDR logs
6. [ENHANCEMENT] [eITS#220500069] Monitor > Log > View Log > "Email Log Now" error message is not clear to us
7. [Feature Change] USG FLEX100 and USG FLEX 100W max. VPN tunnels number upgrade to 50
8. [Feature Change] SSO feature enter maintenance mode and end of software service.
9. [Bug Fix] eITS#211200767
 - a. Fix: Incorrect SSL VPN dashboard statistics information
10. [Bug Fix] eITS#220100656
 - a. USG FLEX 200 / DNS Content filter functional Issue
11. [Bug Fix] eITS#220101259
 - a. Fix: IP malfunctioning when the VLAN wan interface is configured with specific subnet mask
12. [Bug Fix] eITS#220200044
 - a. Fix: Error message when visiting Sandboxing page.
13. [Bug Fix] eITS#220300054
 - a. Fix: Virtual Server LB disconnected issue
14. [Bug Fix] eITS#220400122
 - a. Fix: Address Object manipulation issue
15. [Bug Fix] eITS#220400688
 - a. Fix: Malfunctioning on IPSec Connectivity check button
16. [Bug Fix] eITS#220400957
 - a. Fix: Incorrect wireless monitoring data
17. [Bug Fix] eITS#220401137

- a. Fix: DNSBL malfunctioning issue
- 18. [Bug Fix] eITS#220401321
 - a. Fix: Wildcard FQDN object issue which may affect the system stability
- 19. [Bug Fix] eITS#220500188
 - a. Fix: Packet forwarding issue on Trunk interface
- 20. [Bug Fix] eITS#220500690
 - a. Fix: SSLVPN service port keeps using the original port after manually customized it
- 21. [Bug Fix] eITS#220500701
 - a. Fix: GUI information correction
- 22. [Bug Fix] eITS#220500751
 - a. Fix: SSLVPN connectivity issue
- 23. [Bug Fix] eITS#220500939
 - a. Fix: DHCP service stability issue
- 24. [Bug Fix] eITS#220501025
 - a. Fix: AAA radius COA will be turned on after firmware update to V5.30
- 25. [Bug Fix] eITS#220501052
 - a. Fix: VPN connectivity issue between Nebula and Non-Nebula VPN gateways
- 26. [Bug Fix] eITS#220501182
 - a. Fix: VPN wizard malfunctioning issue
- 27. [Bug Fix] eITS#220501267
 - a. Fix: Incorrect dashboard Virtual device Rear Panel wlan led status
- 28. [Bug Fix] eITS#220501309
 - a. Fix: Static DHCP table importing issue
- 29. [Bug Fix] eITS#220600336
 - a. Fix: Device stability enhancement
- 30. [Bug Fix] eITS#220600447
 - a. Fix: What's new notification in the GUI malfunctioning.
- 31. [Bug Fix] eITS#220600465
 - a. Fix: DHCP service stability issue
- 32. Common vulnerabilities and Exposures:
 - a. Local privilege escalation vulnerability fix (CVE-2022-30526)
 - b. Authenticated directory traversal vulnerability fix (CVE-2022-2030)
 - c. Security update of OpenSSL package (CVE-2022-0778)

[On Cloud mode]

1. [ENHANCEMENT] In the initial setup stage to detect LAN subnet if conflict with 192.168.1.1 then auto change to 192.168.10.1 redirect to myrouter.local
2. [ENHANCEMENT] Support access SNMP service from WAN interface
3. [Bug Fix] eITS#220200349
 - a. Fix: Microsoft AD authentication not work
4. [Bug Fix] eITS#220301020
 - a. Fix: BWM functional issue on USG FLEX 50(W) when the device is managed by NCC
5. [Bug Fix] eITS#220500277
 - a. Fix: Google Authentication Bypass
6. [Bug Fix] eITS#220600408
 - a. Fix: Nebula bwm cannot work on ftp active mode.

[AP Controller]

1. [ENHANCEMENT] Update AP images V6.30(.4)
2. [ENHANCEMENT] AP can connect to passive APC immediately

Features: V5.30(ABAR.0)C0

Modifications in V5.30(ABAR.0)C0 - 2022/04/20

[On Premises mode]

1. [ENHANCEMENT] Support DNS Threat Filter DoH and DoT blocking for ATP series.
2. [ENHANCEMENT] eITS#211101424
Extends the maximum blocking periods of rate based IPS signatures.
3. [ENHANCEMENT] Remote Access VPN Wizard for SecuExtender IPsec VPN supports Multiple DH Group.
4. [ENHANCEMENT] Support Multi-Language update mechanism
5. [ENHANCEMENT] User Interface/Description enhancements:
 - a. Fine tune reboot message at firmware upgrade page
 - b. Add License transfer notification for Device HA scenario
 - c. eITS#220101135: Fine tune Remote Access VPN Wizard descriptions
6. [ENHANCEMENT] eITS#211100100
Prevent misconfiguration when enable mode configure in L2TP VPN rules.
7. [Bug Fix] eITS#211000711
 - a. Fix: Abnormal memory usage issue
8. [Bug Fix] eITS#211101507
 - a. Fix: Log information adjustment
9. [Bug Fix] eITS#211200301
 - a. Fix: WeChat file transfer may be affected by Content Filter
10. [Bug Fix] eITS#211200520
 - a. Fix: LAN interface subnet mask settings cannot be modified
11. [Bug Fix] eITS#211200767
 - a. Fix: VPN dashboard statistics displaying issue
12. [Bug Fix] eITS#211201047
 - a. Abnormal memory usage leads to firewall stability issue
13. [Bug Fix] eITS#211227250
 - a. Fix: Throughput enhancement when URL Threat filter is enabled
14. [Bug Fix] eITS#220100445
 - a. Fix: Logs to USB storage malfunctioning after device rebooting
15. [Bug Fix] eITS#220100448
 - a. Fix: Device stability issue due to Wildcard FQDN group implementation
16. [Bug Fix] eITS#220100565
 - a. Fix: Stability issue caused by device insight operations
17. [Bug Fix] eITS#220100644

- a. Fix: Abnormal CPU usage
- 18. [Bug Fix] eITS#220101039
 - a. Fix: Wording modification
- 19. [Bug Fix] eITS#220101098
 - a. Fix: USG20(W)-VPN/USG FLEX 50(W) configuration backward compatibility issue
- 20. [Bug Fix] eITS#220200348
 - a. Fix: 2FA mechanism
- 21. [Bug Fix] eITS#220200412
 - a. Fix: Russian GUI issue
- 22. [Bug Fix] eITS#220200468
 - a. Fix: In GUI displaying issue on VPN monitoring page
- 23. [Bug Fix] eITS#220200487
 - a. Fix: When the admin limit was set to "1", the password can't be changed when it was expired
- 24. [Bug Fix] eITS#220200501
 - a. Fix: Log category adjustment
- 25. [Bug Fix] eITS#220200553
 - a. Fix: Can not ping via LAG IPv6 interface
- 26. [Bug Fix] eITS#220201162
 - a. Fix: Wifi client layer 2 packets forwarding issue when deploying LAG+VLAN interface with managed AP running on tunnel mode
- 27. [Bug Fix] eITS#220301001
 - a. Fix: Cloud Firmware update issue in device HA scenario
- 28. [Bug Fix] eITS#220301252
 - a. Event log wording correction
- 29. [Bug Fix] eITS#220400118
 - a. Fix: Device HA Pro synchronization issue with specific setting conditions.
- 30. [Bug Fix] eITS#220400247
 - a. Fix: Incomplete 2FA SMS message issue
- 31. [Bug Fix] eITS#220201115
 - a. Fix: Windows IKEv2 VPN connection issue.
- 32. [Bug Fix] eITS#211100603
 - a. Fix: CNC reboot command can't trigger the device rebooting.
- 33. Common vulnerabilities and Exposures:
 - ZLD5.21 is no longer vulnerable to the following CVE References:
 - CVE-2022-0342

[On Cloud mode]

1. [Bug Fix] eITS#211101707
 - a. Fix: turn of unnecessary NCC query when the device is running in “on-premises” mode
2. [Bug Fix] eITS#220100087
 - a. Fix: The diaginfo file cannot be opened from nebula debug local gui
3. [Bug Fix] eITS#220100357
 - a. Fix: Incorrect WAN setting detection mechanism
4. [Bug Fix] eITS#220100368
 - a. Fix: Device overload when users log into debug local gui.
5. [Bug Fix] eITS#220100519
 - a. Fix: Captive Portal may overloading and delay when multiple users trying to login concurrently
6. [Bug Fix] eITS#220100817
 - a. Fix: Some VPN tunnels may not be established automatically in large Hub-and-Spoke scale topology
7. [Bug Fix] eITS#220101549
 - a. Fix: Traffic can't passthrough the established VPN tunnel occasionally due to applied incomplete VTI settings
8. [Bug Fix] eITS#220300971
 - a. Fix: 1:1 NAT functional issue

[AP Controller]

N/A

Features: V5.21(ABAR.1)E1

Modifications in V5.21(ABAR.1)E1 - 2022/03/22

[On Premises mode]

N/A

[On Cloud mode]

1. [Bug Fix]

- a. Fix: USG20-VPN/USG20W-VPN Firmware upgrade issue.

[AP Controller]

N/A

Features: V5.21(ABAR.1)C0

Modifications in V5.21(ABAR.1)C0 - 2022/03/15

[On Premises mode]

N/A

[On Cloud mode]

1. [Bug Fix] eITS#220100368
 - a. Fix CPU abnormal loading issue
2. [Bug Fix]
 - a. Fix: A parsing error in Application signature v1.0.0.20220310.0 that may drive an error condition led to connective disruption.

[AP Controller]

N/A

Features: V5.21(ABAR.0)C0

Modifications in V5.21(ABAR.0)C0 - 2022/02/27

[On Premises mode]

1. [Vulnerability Fix]
Fix an authentication bypass vulnerability in the CGI program
2. [Vulnerability Fix]
Fix XSS (Cross Site Scripting) vulnerability

[On Cloud mode]

N/A

[AP Controller]

N/A

Features: V5.20(ABAR.0)C0

Modifications in V5.20(ABAR.0)C0 - 2022/01/05

[On Premises mode]

1. [ENHANCEMENT] eITS#201201325
 - a. Adjust the Content Filter Log Level of Blocked/Warned web sites.
2. [ENHANCEMENT] Device Insight enhancement:
 - a. Allows user remove selected device client in the table.
 - b. Check and display SecuExtender IPSec VPN Client online status.
 - c. Change "Download" button to "Feedback" and support online feedback the client device information.
3. [ENHANCEMENT] eITS#210101201
 - a. IKEv2 and Active Directory Users setting update.
4. [ENHANCEMENT] eITS#180900304, 180801037
 - a. Support VPN multiple Diffie Hellman groups.
5. [ENHANCEMENT] Support 2FA VPN access using Google Authenticator.
6. [ENHANCEMENT] Remote Access VPN Wizard of Zyxel SecuExtender VPN Client (IPSec VPN) supports configure provisioning of:
 - a. Native iOS / MacOS IKEv2 client.
 - b. Windows IKEv2 client.
 - c. Android IKEv2 client. (StrongSwan)
7. [ENHANCEMENT] Support One-click change to Nebula Mode
 - a. Configuration menu tree: Change "Cloud CNM" to "Mgmt. & Analytics"
 - b. Add "Nebula" User Interface
8. [ENHANCEMENT] SNMP MIB support:
 - a. Shutdown device and turn off SYS LED. (eITS#210200993)
 - b. License Service remaining days read by SNMP. (eITS#190200257)
9. [ENHANCEMENT] USG20(W)-VPN rename to USG FLEX 50(W).
10. [Bug Fix] eITS#210701694
 - a. Fix: Anti-Malware functional issue when scanning specific file format.
11. [Bug Fix] eITS#200900300
 - a. Fix: System stability issue
12. [Bug Fix] eITS#201101282
 - a. Fix: BWM rules malfunction after device rebooting
13. [Bug Fix] eITS#201211231
 - a. Fix: System stability issue
14. [Bug Fix] eITS#210700119

- a. Fix: IPv6 routing issue
- 15. [Bug Fix] eITS#210800257
 - a. Fix: L2TP VPN connecting issue
- 16. [Bug Fix] eITS#210800467
 - a. Fix: BWM functional issue
- 17. [Bug Fix] eITS#210900158
 - a. Fix: Device HA synchronization issue in specific condition
- 18. [Bug Fix] eITS#210900208
 - a. Fix: VPN may have connection issue after WAN trunk failover
- 19. [Bug Fix] eITS#210900589
 - a. Fix: Routing trace functional issue
- 20. [Bug Fix] eITS#210800467
 - a. Fix: BWM functional issue
- 21. [Bug Fix] eITS#210900805
 - a. Fix: The ReadMe.txt included in the certificate package should be ignored when calculating the certificate.
- 22. [Bug Fix] eITS#210901135
 - a. Fix: VApp Patrol display error message
- 23. [Bug Fix] eITS#210901142
 - a. Fix: Config backup sends mail every day, but no configuration change
- 24. [Bug Fix] eITS#210901150
 - a. Fix: SecuReporter connecting issue
- 25. [Bug Fix] eITS#210901248
 - a. Fix: WAN interface will not restart process after receiving DHCP-NAK.
- 26. [Bug Fix] eITS#210901260
 - a. Fix: Secure wifi feature may affect LAN users' network access
- 27. [Bug Fix] eITS#211000225
 - a. Fix: Resetted device GUI won't go through the initial wizard when the it is located in specific regions
- 28. [Bug Fix] eITS#211000428
 - a. Fix: ADP blocked specific traffic incorrectly
- 29. [Bug Fix] eITS#211000613
 - a. Fix: Enhancement: Improved the security mechanism in token handling
- 30. [Bug Fix] eITS#211000656
 - a. Fix: DDNS functional issue when multiple WAN are configured in specific way
- 31. [Bug Fix] eITS#211000763

- a. Fix: Device stability issue when IPS is enabled
- 32. [Bug Fix] eITS#211000798
 - a. Fix: IDP static GUI displaying issue
- 33. [Bug Fix] eITS#211001019
 - a. Fix: SSL VPN authentication issue when using numbers as username
- 34. [Bug Fix] eITS#211001461
 - a. Fix: Reset button may malfunction occasionally
- 35. [Bug Fix] eITS#211100195
 - a. Fix: Enhance: IP Reputation detection mechanism enhancement
- 36. [Bug Fix] eITS#211100198
 - a. Fix: Device Insight table displaying issue
- 37. [Bug Fix] eITS#211000455 / 211000666
 - a. Fix: When there's an account named "support", the config will rollback to default after upgrading the firmware to 5.10
- 38. [Bug Fix] eITS#211101344
 - a. Fix: Improvement: CPU optimization
- 39. [Bug Fix] eITS#211100613
 - a. Fix: L2TP VPN authentication issue
- 40. [Bug Fix] eITS#211100799
 - a. Fix: App Patrol application name sorting issue
- 41. [Bug Fix] eITS#211000701
 - a. Fix: MAC filter profile operation issue
- 42. [Bug Fix] eITS#211100512
 - a. Fix: Device Insight incorrect license information issue
- 43. [Bug Fix] eITS#211100870
 - a. Fix: Billing quota traffic displaying issue
- 44. [Bug Fix] eITS#211000455
 - a. Fix: Configuration file applying issue when upgrading the firmware
- 45. [Bug Fix] eITS#211101148
 - a. Fix: "IP/MAC Binding"
- 46. [Bug Fix] eITS#211100916
 - a. Fix: L2TP VPN authentication issue
- 47. [Bug Fix] eITS#211101070
 - a. Fix: Static DHCP table import issue

[On Cloud mode]

1. [ENHANCEMENT] Support MSChapv2 authentication for external Active Director Server.
2. [ENHANCEMENT] Nebula Portal and local GUI support to configure PPPoE Authentication Type, static IP, and MTU settings.
3. [ENHANCEMENT] Support Campus AP.
4. [ENHANCEMENT] Support "User group" in the Security Policy.
5. [ENHANCEMENT] Support sending traffic log to SecuReporter with Nebula Pro Pack License.
6. [ENHANCEMENT] Local GUI support QR code to register device to Nebula by Nebula Mobile app.
7. [ENHANCEMENT] Local GUI Device Information page enhance.
8. [ENHANCEMENT] Nebula Ticket#211000318
 - a. Add the signature etag to detect signature version.
9. [Feature Change] Remove periodically system information log.
10. [Feature Change] Disable "Redirect HTTP to HTTPS" by default.
11. [Bug Fix] eITS#210900194
 - a. Fix: A record malfunction when device running on cloud mode
12. [Bug Fix] eITS#211000191
 - a. Fix: L2TP VPN connecting issue
13. [Bug Fix] eITS#211100218
 - a. Fix: Device stability issue
14. [Bug Fix] eITS#211100628
 - a. Fix: PPPoE connection issue when username has special character
15. [Bug Fix] eITS#211100502
 - a. Fix: Captive Portal authentication issue

Features: V5.10(ABAR.0)C0

Modifications in V5.10(ABAR.0)C0 - 2021/09/28

[On Premises mode]

1. [ENHANCEMENT] DNS Content Filter support.
2. [ENHANCEMENT] Support BWM setting in Remote Access IPsec VPN Configuration Provisioning with SecuExtender IPsec VPN Client.
3. [ENHANCEMENT] Remote Access VPN Wizard add bandwidth limit configuration.
4. [ENHANCEMENT] Support 2FA on IPsec per IKE rule.
5. [ENHANCEMENT] Remote Access VPN Log add user login/logout information.
6. [ENHANCEMENT] Add "user info" at IPsec Monitoring page.
7. [ENHANCEMENT] Add one more check address for VPN connectivity check.
8. [ENHANCEMENT] Initial Setup Wizard support Nebula mode choice.
9. [ENHANCEMENT] Device Insight support.
 - a. Role-based Access Policy by user/device contextual.
 - b. Device Insight monitoring.
10. [ENHANCEMENT] Black/White list rename to Block/Allow list.
11. [ENHANCEMENT] Add security policy name in Content Filter log.
12. [ENHANCEMENT] Content Filter command line support TTL configuration.
13. [ENHANCEMENT] Support CLI to disable weak cipher for SSH/HTTP service.
14. [ENHANCEMENT] Support advance option to prevent SNMP 'GETBULK' Reflection DDoS.
15. [ENHANCEMENT] eITS#210600320, 210701277
 - a. FTP upgrade to TLSv1.2.
 - b. Add option for Strict-Transport-Security http header.
 - c. Add option for X-XSS-Protection http header.
16. [ENHANCEMENT] eITS#210100688 Strength password in web form mechanism.
17. [ENHANCEMENT] New DHCP table import and export.
18. [ENHANCEMENT] SSH support RADIUS with admin privilege login.
19. [ENHANCEMENT] SNMP management enhancement
 - a. eITS#191000637
CPU average core usage and loading.
20. [ENHANCEMENT] Traffic log add NAT translated IP & Port information
21. [ENHANCEMENT] Web UI enhancement/ changes:
 - a. System default initial wizard change to Expert Mode.
 - b. USG20(W)-VPN support built-in AP.

- c. Login page support multi-language selection.
 - d. New intuitive UI style.
 - e. Add Cloud Email Security (CES) entry link at Anti-Spam page.
 - f. Captive portal mobile view add renew lease time button (eITS#210600516)
22. [ENHANCEMENT] eITS#210200687, 140101485
- a. Support special characters (+ symbol) in the E-mail field.
23. [Bug Fix] eITS#201000214
- a. Fix: IPv6 gateway may miss incidently.
24. [Bug Fix] eITS#201200826
- a. Fix: Configuration applying failed occasionally.
25. [Bug Fix] eITS# 210200627
- a. Fix: MSTP packet will be blocked incorrectly.
26. [Bug Fix] eITS# 210200863
- a. Enhance: HA Pro fail-over mechanism enhancement.
27. [Bug Fix] eITS# 210300954
- a. Enhance: Support "=" special character in the Anti-Spam tag header.
28. [Bug Fix] eITS# 210301092
- a. Fix: L2TP may not be able to connect in rarely case.
29. [Bug Fix] eITS#210301178
- a. Fix: When the Connectivity Check remote host was down, the Connectivity Check will keep probing on it and consumes the limited session.
30. [Bug Fix] eITS#210301272
- a. Fix: Can not add new interface into the bridge interface when there is a virtual interface in it.
31. [Bug Fix] eITS#210301305
- a. Fix: Wording correction.
32. [Bug Fix] eITS#210301528
- a. Fix: Facebook Wifi malfunctioning.
33. [Bug Fix] eITS#210301549
- a. Fix: Session Monitor some field cannot sorting.
34. [Bug Fix] eITS#210400219
- a. Fix: Can not change from EZ mode to Expert mode when some attributes are included in the external RADIUS server.
35. [Bug Fix] eITS#210400228
- a. Fix: When adding the VLAN setting on LAG port, user needs to reboot the Devices to let this setting take effect

36. [Bug Fix] eITS#210400817
 - a. Fix: Wrong file extension name on the exported certificate.
37. [Bug Fix] eITS#210400868
 - a. Fix: Stability enhancement.
38. [Bug Fix] eITS#210401330
 - a. Fix: IKE issue when using 3rd party authorized certificate.
39. [Bug Fix] eITS#210501373
 - a. Fix: NAT mapping issue.
40. [Bug Fix] eITS#210600462
 - a. Fix: Routing issue when interface goes down and recovered.
41. [Bug Fix] eITS# 210601917
 - a. Fix: Windows built-in IKEv2 VPN connection issue.
42. [Bug Fix] eITS# 210700565
 - a. Fix: 2FA page did not change to the user assigned certificate.
43. [Bug Fix] eITS#210700587
 - a. Change: Removed web ssl application to reduce the external surfing risk.
44. [Bug Fix] eITS#210700589
 - a. Fix: HTTPS /SSLVPN service port changing issue.
45. [Bug Fix] eITS#210700708
 - a. Fix: GUI display issue.
46. [Bug Fix] eITS#210700957
 - a. Fix: SSH service malfunctioning.
47. [Bug Fix] eITS#210701634
 - a. Fix: The direct traffic will be affected by policy route.
48. [Bug Fix] eITS#210701916
 - a. Fix: Admin Service Control mechanism improvement.
49. [Bug Fix] eITS#210701928
 - a. Fix: Limited Administrator Users Cannot Open Online Help by Clicking Help Button at Top of Web GUI Windows.
50. [Bug Fix] eITS#210800069
 - a. Fix: GUI display issue in Russian.
51. [Bug Fix] eITS#210800203
 - a. Fix: Login password complexity issue
52. [Bug Fix] eITS#210800397
 - a. Fix: 2FA VPN Authentication page vulnerability
53. [Bug Fix] eITS#210800854
 - a. Fix: Support Username with "DOT" character in security policy filter

- 54. [Bug Fix] eITS#210801237
 - a. Fix: USG FLEX series GUI display issue
- 55. [Bug Fix] eITS#190200518, 210200133
 - a. Fix: LAN packets leaks to WAN interface and leads to SIP registration issue.
- 56. [Bug Fix] eITS#210200573, 210200579
 - a. Fix: Video streaming packet dropping issue.
- 57. [Bug Fix] eITS#210500498, 210500611
 - a. Fix: Stability issue.
- 58. [Bug Fix] eITS#210600320, 210701277
 - a. Enhancement:
 - 1. Change TLSv1.0 to TLSv1.2 on FTP service
 - 2. X-Content-Type-Options supported
 - 3. DNS service enhancement to improve the security protection
 - 4. Support X-XSS-Protection.

[On Cloud mode]

- 1. [ENHANCEMENT] USG20(W)-VPN Support Nebula management.

Features: V4.65(ABAR.1)C0

Modifications in V4.65(ABAR.1)C0 - 2021/08/11

1. [ENHANCEMENT] User page enhancement.
 - a. Separate Local Administrator and User in different tables.
 - b. Local Administrator account table add Create Date, Password Last change and Password Expired Date information.
2. [ENHANCEMENT] Security Check enhancement.
 - a. Security Policy page add warning message and button to Security Check configuration page when security risk detected.
3. [ENHANCEMENT] USG and ZyWALL series remove SSLVPN proxy mode and limit SSLVPN port access.
4. [ENHANCEMENT] Isolate the service port of Zyxel SecuExtender IPSec VPN Client provisioning service.
5. [Vulnerability Fix] eITS#210800397
 - a. Fix: 2FA VPN Authorization email link is vulnerable to XSS injection.
6. [Bug Fix] eITS#210700565
 - a. Fix: 2FA page did not change to the customized certificate issue.
7. [Bug Fix] eITS#210700589
 - a. Fix: SSLVPN Port changing malfunctioning.

Features: V4.65(ABAR.0)C0

Modifications in V4.65(ABAR.0)C0 - 2021/07/04

1. [Vulnerblilty Fix] Authentication bypass vulnerability (CVE-2021-35029).
2. [ENHANCEMENT] Privileged accounts password change reminder.
3. [ENHANCEMENT] Support configurable 2FA service port.
4. [ENHANCEMENT] Disable HTTP port automatically while allowing WAN management in security check wizard.
5. [ENHANCEMENT] Enhance admin-type user change logs to alert level.
6. [Bug Fix]
 - c. Fix: Refine service port warning message in security check wizard.

Features: V4.64(ABAR.0)C0

Modifications in V4.64(ABAR.0)C0 - 2021/06/26

1. [ENHANCEMENT] The new Initial Setup Wizard will facilitate user to enforce security policies against access to the web management interface and SSL VPN service (from the Internet).
2. [ENHANCEMENT] Add Security Policy Check to spot out misconfiguration of security policies via pop-up window.
3. [ENHANCEMENT] Add configuration change log of user object.
4. [ENHANCEMENT] To strengthen security access under Covid19 pandemic, given GeoIP feature by default on all devices.
5. [ENHANCEMENT] Support SSL VPN service port configurable.

Features: V4.63(ABAR.0)C0

Modifications in V4.63(ABAR.0)C0 - 2021/05/21

1. [ENHANCEMENT] eITS#210300954
 - a. Anti-Spam email header support character "=".
2. [Vulnerability Fix] [CVE-2020-1971]
 - a. Fix: OpenSSL Vulnerability.
3. [Vulnerability Fix] [CVE-2016-2776]
 - a. Fix: Assertion Failure in buffer.c While Building Responses to a Specifically Constructed Request.
4. [Vulnerability Fix] Add sanity check on CRLF to prevent cross-site scripting attack. (Acknowledgement Soter IT Security)
5. [BUG FIX] eITS#200801449
 - a. Fix: Content Filter malfunctioning occasionally.
6. [BUG FIX] eITS#201001362
 - a. Fix: Policy route malfunctioning in specific conditions.
7. [BUG FIX] eITS#210100807
 - a. Fix: When add new MAC address profile, the GUI will pop-up error.
8. [BUG FIX] eITS#210101017
 - a. Fix: UTM Cloud Query function may lead to abnormal memory usage
9. [BUG FIX] eITS#210101673
 - a. Fix: Cannot set the lifetime value to 1 year on the certificates.
10. [BUG FIX] eITS#210200733
 - a. Fix: Email security functional issue.
11. [BUG FIX] eITS#210300997
 - a. Enhancement: Renewed the DNS server database in the system.

Features: V4.62(ABAR.0)C0

Modifications in V4.62(ABAR.0)C0 - 2021/01/19

1. [Vulnerability Fix] Potential Remote Code Execution vulnerability.
2. [Vulnerability Fix] Buffer Overflow vulnerability

Features: V4.60(ABAR.1)C0

Modifications in V4.60(ABAR.1)C0 - 2020/12/02

1. [ENHANCEMENT] Enhanced HA Pro reliability.
2. [BUG FIX][CVE-2020-29583]
 - a. Vulnerability fix for undocumented user account.
3. [BUG FIX] eITS#201000455
 - a. Fixed Port Zone Assignment issue.
4. [BUG FIX] eITS#201100284, 201100639, 201100647
 - a. Fixed GUI show up issue when editing interfaces.
5. [BUG FIX] eITS#201100338
 - a. Mouseover popup information adjustment.
6. [BUG FIX] eITS#201100416, 201100564
 - a. Stability improvement.
7. [BUG FIX] eITS#201100511, 201100661, 201100730, 201101210, 201101248
 - a. Fixed the issue that DNS packets cannot passthrough VPN tunnel.

Features: V4.60(ABAR.0)C0

Modifications in V4.60(ABAR.0)C0 - 2020/10/21

1. [ENHANCEMENT] SSL Inspection enhancement
 - a. Support TLS1.3
 - b. Support ECDSA certificate generation
 - c. Performance enhancement
2. [ENHANCEMENT] Support customized block page of Content Filtering and URL Threat Filter at Notification > Response Message.
3. [ENHANCEMENT] Move Content Filtering HTTPs Domain Filter port setting for Block/Warning page from System/WWW to Content Filtering/General settings.
4. [ENHANCEMENT] Support IDP and Application Patrol signature information query at OneSecurity Threat Intelligence web site.
5. [ENHANCEMENT] Cloud CNM SecuReporter new add Application Statistic category.
6. [ENHANCEMENT] [Secure Policy] CLI command support update firewall rule by rule name.
7. [ENHANCEMENT] System GUI HTTPs service security enhancement
 - a. Support TLS 1.3
 - b. TLS 1.0/1.1 disabled by default
 - c. Weak chipper DES is deprecated
8. [ENHANCEMENT] System FTPs service security enhancement
 - a. Weak cipher RC4/3DES disabled by default
 - b. Support CLI to enable 3DES/RC4 cipher
9. [ENHANCEMENT] System SNMP service security enhancement
 - a. SNMP service disable by default
 - b. Remove default Get/Set Community string
 - c. Support CLI to disable SNMPv1 (eITS#190800258)

Note:

If you never change the default value of Get/Set Community string. After upgrade to 4.60, the value will be reset (as 4.60 default). You need to configure the Community string if you want to enable SNMP.
10. [ENHANCEMENT] Support Google Authenticator two-factor authentication for administrator access.
11. [ENHANCEMENT] Support send configuration by Email
12. [ENHANCEMENT] Support Scheduling Auto configuration backup and send via Email.

13. [ENHANCEMENT] Support Scheduling Reboot function.
14. [ENHANCEMENT] Support LAG feature for USG2200
15. [ENHANCEMENT] [USG60W / USG60 / USG40W / USG40 / USG20W-VPN / USG20-VPN] Support Fast Forwarding
16. [ENHANCEMENT] Support Remote Access VPN Wizard for easy VPN client configuration.
17. [ENHANCEMENT] [IPsec VPN] Support Diffie-Hellman Groups 19/20/21.
18. [ENHANCEMENT] APC upgrade to V3.60 support new features and 11ax AP.
 - a. WPA3 enhancement.
 - b. AP Log message enhance for Kick station enhancement of sticky clients
 - c. Diagnostic enhancement for technical support.
 - d. WAX510D and WAX650S AP support.
 - e. Support wireless interface packet at Packet Capture on AP.
 - f. Fully compatible configuration support for compatible AP
 - g. Enhance Top N Stations traffic statistics from 24hour to 7days.
 - h. Support Load-Balancing in AP Management.
 - i. 802.11ax support.
 - j. Tunnel SSID can chose Internal Ethernet interface not only VLAN support.
 - k. Support Unicode SSID.
19. [ENHANCEMENT] GUI enhancement
 - a. Support GUI grid tip content of objects
 - b. Align the terms of Networking traffic indication
20. [Feature Change] [SMS] End of ViaNett support.
21. [Feature Change] [SSH] The GUI modification remove SSH Version 1.
22. [Feature Change] [Web Authentication] Default uncheck SSO when add new Web Auth. Policy.
23. [Feature Change] [USG40W / USG60W / USG20W-VPN] Default disable built-in Wi-Fi for Security purpose.
24. [BUG FIX][CVE-2015-5477] System DNS service vulnerability fix.
25. [BUG FIX][CVE-2020-3702] Cryptographic issues in WiFi driver(Kr00k) on USG40W, USG60W
26. [BUG FIX] eITS#200100755
Fix: HA syncing issue when using FTPs to sync up the settings.
27. [BUG FIX] eITS#200301052
Fix: Site to site VPN routing issue.
28. [BUG FIX] eITS#200301256
Add L2TP VPN user login information on SecuReporter.

- 29. [BUG FIX] eITS#200400280
Fix: ATP800 / FQDN cache full issue.
- 30. [BUG FIX] eITS#200401028
Debug log adjustment.
- 31. [BUG FIX] eITS#200401102
Load-Balancing on VTI-Trunk enhancement.
- 32. [BUG FIX] eITS#200401499
IP MAC binding malfunction issue.
- 33. [BUG FIX] eITS#200500114
Fix: The syslog does not send out device HA role changed log.
- 34. [BUG FIX] eITS#200500789
Enhancement: Disable TLS v1.0 for ddns service.
- 35. [BUG FIX] eITS#200525649
SSL VPN connection issue.
- 36. [BUG FIX] eITS#200602927
Fix: Direct router table isn't appearing at once in packet flow explore page.
- 37. [BUG FIX] eITS#200603050, 200603439
Malfunction in user group when authenticating by 802.1x with external RADIUS server.
- 38. [BUG FIX] eITS#200603107
Incorrect SSL VPN status information in dashboard.
- 39. [BUG FIX] eITS#200603276
GUI time display issue.
- 40. [BUG FIX] eITS#200603297
Object reference table display issue.
- 41. [BUG FIX] eITS#200603364
Incorrect 3G/LTE dongle warning message
- 42. [BUG FIX] eITS#200603806
MAC address table display issue
- 43. [BUG FIX] eITS#200603855
Anti-Spam functional issue.
- 44. [BUG FIX] eITS#200700662
Hyperlink redirect to incorrect page.
- 45. [BUG FIX] eITS#200603433
Fix: Accounting packet issue for L2TP.
- 46. [BUG FIX] eITS#200700596
Fix: Connectivity Check functional issue.

- 47. [BUG FIX] eITS#200700772
Fix: Mail notification with invalid header error.
- 48. [BUG FIX] eITS#200701095
Fix: Deactivated Interface IP address reply ICMP ping.
- 49. [BUG FIX] eITS#200701207
Fix: L2TP User Group Issue.
- 50. [BUG FIX] eITS#200701291
Device stability enhancement.
- 51. [BUG FIX] eITS#200800125
Fix: OSPF routes will be reset after clicking "apply" on interfaces
- 52. [BUG FIX] eITS#201000593
GUI wording fine-tuned

Features: V4.39(ABAR.0)C0

Modifications in V4.39(ABAR.0)C0 - 2020/07/30

1. [ENHANCEMENT] Adopt new Technology from Security Partner: McAfee for Content Filter, and Anti-Spam.
2. [BUGFIX] eITS#200300829, 200301264, 200301372
Fix: 2FA functional issue
3. [BUGFIX] eITS#200603107
Fix: Correct SSL VPN status information at Dashboard by update the SSL VPN Policy.
(Update SSL VPN Policy, only allow remote user in "User" type to access the internal network.)
4. [BUGFIX] eITS#200603170, 200603855
Fix: Anti-Spam function may damage the mails in some circumstance
5. [BUGFIX] eITS#200700662
Fix: Hyperlink redirected pages correction

Features: V4.38(ABAR.0)C0

Modifications in V4.38(ABAR.0)C0 - 2020/04/13

1. [ENHANCEMENT][Anti-Virus] Support Cloud Query
2. [ENHANCEMENT][INTERFACE] Support LAG on USG2200
 - a. LACP only (not support Active-backup and balance-alb)
3. [ENHANCEMENT][MAINTENENCE] Performance tuning on Speedtest tool
4. [ENHANCEMENT][BWM] Let TCP ack packets can be managed by BWM function. Add CLI command to enable/disable this enhancement.
(eITS#180700033, 200200602)

5. [ENHANCEMENT] Enlarge SSL VPN Users number

Concurrent SSL VPN users		
	WAS (default/max.)	IS(default/max.)
USG40/40W	5 / 15	20 / 30
USG60/60W	5 / 20	20 / 60
USG110	25 / 150	50 / 150
USG210	35 / 150	50 / 150
ZyWALL 110	25 / 150	50 / 150

6. [BUGFIX] eITS#190200518
Fix: Streamer Connection issue since v4.33 upgrade
7. [BUGFIX] eITS#190300697
Fix: Proxy by controller directly not working.
8. [BUGFIX] eITS#190500795
Fix: The USG log indicated that the mail was drop by DNSBL (server to server SMTP), but client outlook still can receive the mail.
9. [BUGFIX] eITS#190500997, 191100683
Fix: After edited static DHCP in IP/MAC binding, the DNS service cannot works.
10. [BUGFIX] eITS#190700250
Fix: The CPU usage growing even without huge traffic.
11. [BUGFIX] eITS#190700606
Fix: Specific mail server unreachable when use POP3.
12. [BUGFIX] eITS#190900282
Fix: When add a new VLAN interface, ZySH daemon will busy for a while.
13. [BUGFIX] eITS#190900410
Fix: USG2200 unstable issue by usb xhci debug function.
14. [BUGFIX] eITS#190900659

Fix: IPsec VPN Client has connection not working after disconnected.

15. [BUGFIX] eITS#190900684

Fix: Fail to authenticate the ext-group-user type which group identifier string has '(' ') ' character for L2TP over IPsec function.

16. [BUGFIX] eITS#191000574

Fix: USG60W local AP drops.

17. [BUGFIX] eITS#191001243

Fix: Log filter function not working properly sometimes.

18. [BUGFIX] eITS#191100135

Fix: No Web GUI display after change to "easy mode".

19. [BUGFIX] eITS#191100321

Fix: 2FA Auth. with AD User on SSL VPN does not work

20. [BUGFIX] eITS#191100475

Fix: After IPsec tunnel rekey, the SN and system name becomes "N/A".

21. [BUGFIX] eITS#191100955

Fix: OSPF/RIP dynamic routing protocol does not work on 4.35.

22. [BUGFIX] eITS#191200137

Fix: The page at Ethernet > edit page cannot be edited.

23. [BUGFIX] eITS#191200741

Fix: IPv6 firewall rules behave abnormally.

After restarting the device, the DHCP v6 address cannot notify the firewall to update the ipv6 rules.

24. [BUGFIX] eITS#191200748

Fix: Cannot save Guest network setting in Easy mode.

25. [BUGFIX] eITS#191200908

Fix: Wrong spelling of white list

26. [BUGFIX] eITS#200100539

Fix: IGMP snooping issue causes abnormal reboot.

27. [BUGFIX] eITS#200107098

Fix: L2TP/IPsec VPN cannot get group information from external AD

28. [BUGFIX] eITS#200107102

Fix: Cannot edit guest interface in the Expert mode.

29. [BUGFIX] eITS#200201144

Fix: No duration time at "Monitor > System status > session monitor".

30. [BUGFIX] eITS#200300672

Fix: GUI display error for default SSL VPN numbers.

31. [BUGFIX] eITS#200300829, 200301264, 200301372

Fix: The program stocked in SMS daemon and user cannot receive the 2FA email.

Features: V4.35(ABAR.3)C0

Modifications in V4.35(ABAR.3)C0 - 2020/02/26

1. [BUGFIX][CVE-2020-9054] Web login CGI RCE vulnerability fix
2. [BUGFIX][CVE-2020-8597] Buffer overflow risk in pppd vulnerability fix

Features: V4.35(ABAR.2)C0

Modifications in V4.35(ABAR.2)C0 - 2019/12/04

1. [BUGFIX] eITS#191000712
Associated AP info not showing well on the GUI of Station info.
2. [BUGFIX] eITS#191000719
No file will be generated after collecting the AP diagnostic
3. [BUGFIX] eITS#191000612, 191000726, 191001071, 191001116
After upgrading the firmware from 4.33 to 4.35, the device may failed to apply the configuration and roll back to system default configuration in some circumstances.
4. [BUGFIX] eITS#191001080
AP Group Profile changing from GUI may lead to configuration applying failure during the rebooting.
5. [BUGFIX] eITS#191001056
Enhance DHCP request format between broadcast and unicast mode, based on ISP's deploying.
6. [BUGFIX] eITS#191000966
L2TP authentication issue when using Windows login name and password as the L2TP username/password.
7. [BUGFIX] eITS#191000274
IPsec VPN tunnel cannot built up successfully when "My IP" was set as FQDN.
8. [BUGFIX][CVE-2019-12581, CVE-2019-12583] Related to the Free Time feature Cross-Site-Scripting vulnerability fix.

Features: V4.35(ABAR.0)C0

Modifications in V4.35(ABAR.0)C0 - 2019/09/25

1. [ENHANCEMENT] Support SecuReporter log categories selection: Security Categories and Network categories.
2. [ENHANCEMENT] Support SecuReporter quick activation banner on Dashboard page
3. [ENHANCEMENT] Support Two-Factor Authentication via SMS/Email for administrator login from GUI/SSH/Telnet.
4. [ENHANCEMENT] Support APC 3.40 adds Managed APs: NWA5123-AC HD, WAC6303D-S, and WAC6552D-S.
5. [ENHANCEMENT] Customized http redirect parameters for Hotspot management.
6. [ENHANCEMENT] Hotspot Management enhance: Extend RADIUS account name length to 128
7. [ENHANCEMENT] Support Hotspot Features on USG60(W)

Model	Default Concurrent Login	
	WAS	IS
USG60(W)	128	200
8. [ENHANCEMENT][VPN] Support Microsoft Azure route-based IPsec Site-to-site VPN:
 - b. VTI over IKEv2/IPsec
 - c. BGP over IKEv2/IPsec
9. [ENHANCEMENT][VPN] Extend IPsec VPN PSK to 128 characters
10. [ENHANCEMENT][VPN] IPsec VPN support Diffie-Hellman Groups: DH15 to DH18
11. [ENHANCEMENT][Geo-IP] Support Region(Continent) object
12. [ENHANCEMENT] Support Email to SMS
13. [ENHANCEMENT] Support EZ Mode on USG110 and ZyWALL 110
14. [ENHANCEMENT] Support NAT policy matching by source IP address
15. [ENHANCEMENT] Interface connectivity check enhancement, support 2 target IPs healthy check
16. [ENHANCEMENT] Support Web Console
17. [ENHANCEMENT] Support ZON v2.1.0 Dual image firmware update
18. [ENHANCEMENT] User can sort by source IP in Session Monitor page
19. [ENHANCEMENT] Usability enhancement for certificate export
 - a. Add download and Email action on My Certificates page

b. Add file extension for certificate export and download

20. [ENHANCEMENT] GUI enhancements:

- a. Ports speed change on GUI
- b. Syslog server port setting on GUI
- c. Add Description column at Interface GUI page
- d. Extend mail server password length to 63 characters
- e. Change Tool Bar icon sequence

21. [ENHANCEMENT] Device HA Pro Enhancements

- a. Bridge interface monitor enhance, either uplink or downlink port fail will trigger failover
- b. Failover flapping mitigation

22. [ENHANCEMENT] extend the following max. number

- a. Extend max. number of Zone from to 32

Model	Max. number of Zone	
	WAS	IS
ZyWALL 310/ USG310	16	32

- b. Extend max. of SSID profiles

Model	Max. of SSID profiles	
	Was	Is
USG1900	256	1024
USG1100	256	1024
USG310	64	1024
USG210	64	128
USG110	64	128
ZyWALL 1100	256	1024
ZyWALL 310	64	1024
ZyWALL 110	64	128
ATP200	32	128
ATP500	64	128
ATP800	128	1024

- c. Extend max. of Security profiles

Model	Max. of Security profiles	
	Was	Is
USG2200-VPN	64	1024
USG2200	64	1024
USG1900	32	1024
USG1100	32	1024
USG310	32	1024
USG210	32	128
USG110	32	128
ZyWALL 1100	32	1024
ZyWALL 310	32	1024
ZyWALL 110	32	128
ATP200	32	128
ATP500	32	128
ATP800	32	1024

23. [ENHANCEMENT]eITS#180900416
Remove the limitation that virtual server port mapping cannot conflict with device's WWW service port, if user set a different External IP address from External interface IP address.
24. [ENHANCEMENT]eITS#181000571
"Policy Route" page GUI loading time enhance.
25. [ENHANCEMENT]eITS#181100386
Further explanation in the error message.
26. [ENHANCEMENT]eITS#181201167
System default to enable easy mode Wi-Fi have low download speed on LAN1 subnet. Causing by default bridge with LAN1. Change default bridge with LAN2.
27. [ENHANCEMENT]eITS#190500018
Add a log to address the SSLv3 dropping reason.
28. [ENHANCEMENT]eITS#181000730
Remove unsafe SSH cipher list (CVE-2016-2183)
29. [Bug Fix] CVE- 2019-11477, CVE-2019-11478, CVE-2019-11479 vulnerability fix for Linux kernel

- 30. [Bug Fix] Web authentication CGI vulnerability fix
- 31. [Bug Fix] CVE-2019-9955 Cross-site scripting vulnerability fix
- 32. [Bug Fix] CVE-2019-12581 Cross-site scripting vulnerability fix
- 33. [Bug Fix] CVE-2019-12583 vulnerability fix for Hotspot management free time feature
- 34. [Bug Fix] eITS#180100124
IPv6 gateway information lost after ISP reconnect.
- 35. [Bug Fix] eITS#180200790, 180300059
After upgraded to 4.30 ITS WK06, IP MAC Binding causes client traffic packets dropped.
- 36. [Bug Fix] eITS#180300552
Antispam shows wrong session threshold message in the log.
- 37. [Bug Fix] eITS#180400078
Issue that users cannot modify static dhcp pool object on GUI.
- 38. [Bug Fix] eITS#180400129
DSCP marking function doesn't work.
- 39. [Bug Fix] eITS#180500500
LAN host IPv6 routing will disconnect after 6 days later on windows OS.
- 40. [Bug Fix] eITS#180600574, 181100570
Fixed FQDN object DNS querying issue.
- 41. [Bug Fix] eITS#180600692
Device only allow 1 admin user to create L2TP VPN tunnel, 2nd connection with the same account will be failed.
- 42. [Bug Fix] eITS#180600810, 180600970
It is unable to connect SSL VPN on 4.31 WK23 firmware.
- 43. [Bug Fix] eITS#180700420
Login to device with easy mode. It always pops out "Guest WiFi Time Expired".
- 44. [Bug Fix] eITS#180700430
Remove obsolete command in diagnostic info file.
- 45. [Bug Fix] eITS#180800036
Disable ALG FTP will cause sync drop by firewall.
- 46. [Bug Fix] eITS#180800486
Wrong message with empty database of Geo IP.
- 47. [Bug Fix] eITS#180800847
remove the log which caused by non-support function in sandbox
- 48. [Bug Fix] eITS#180900110
Device access deny causing by high disk usage.

49. [Bug Fix] eITS#180900237
Fix incorrect CEF log format of IDP
50. [Bug Fix] eITS#180900649
AP List "Recent On-line time" sorting issue
51. [Bug Fix] eITS#180900707
In GUI, when adding application rule via Configuration > Object > Application > Add > Add (for Application Rule), the users will be logged out.
52. [Bug Fix] eITS# 18100084
2FA function will not send the SMS after the device reboots
53. [Bug Fix] eITS#181000251
SSLVPN User cannot be logged out if SSL VPN tunnel was disconnected by SecuExtender.
54. [Bug Fix] eITS#181000401, 181100651
PPPoE connection stability issue.
55. [Bug Fix] eITS#181000671
In NAT setting, users can't select the virtual interface as the incoming interface.
56. [Bug Fix] eITS#181000675
SecuManager campaign for rebooting cli script cannot get device response.
57. [Bug Fix] eITS#181000724
GUI port role page displaying issue.
58. [Bug Fix] eITS#181000753
Device shows incorrect log when enable HTTP/HTTPS service.
59. [Bug Fix] eITS#181100020
"web-auth exceptional-service "XXXX"" CLI command should not be saved in configuration.
60. [Bug Fix] eITS#181100586
The DHCP table will keep the entries even though the DHCP lease time is expired.
61. [Bug Fix] eITS#181100758
IDP data in the daily report is incorrect.
62. [Bug Fix] eITS#181101172
Daily report will carry wrong source IP address.
63. [Bug Fix] eITS#181100886
Enabling the BWM feature will lead to session dropping.
64. [Bug Fix] eITS#181100980
After changing the configuration in expert mode, the dashboard of easy

mode will not display correctly.

65. [Bug Fix] eITS#181100991

Address group object members is gone after firmware updating to wk45.

66. [Bug Fix] eITS#181101269

The sort function in security policy GUI page.

67. [Bug Fix] eITS#181200058

VLAN creation failure.

68. [Bug Fix] eITS#181200072

Special character "-" in FQDN.

69. [Bug Fix] eITS#181200273

Passing broadcast packets at boot up time.

70. [Bug Fix] eITS#181200437

802.11r automatically enabled after reboot.

71. [Bug Fix] eITS#190100106

The duration setting in the WiFi wizard can't be saved to the device.

72. [Bug Fix] eITS#190100341

When using the VPN wizard to create VPN profile, if the "DPD" is unticked, the VPN phase 2 profile will not be created.

73. [Bug Fix] eITS#190100402

When user changes the FQDN object name, it will pop up error message.

74. [Bug Fix] eITS#190100839, 190300398

When creating a PPPoE WAN with VLAN based, the default DUID is not filled.

75. [Bug Fix] eITS#190200778

Changing user password by using copy/past hotkey on the keyboard, will not working if using IE11.

76. [Bug Fix] eITS#190201159

Issue when using L2TP VPN authentication function via external RADIUS server.

77. [Bug Fix] eITS#190300736

L2TP VPN with Domain Name cannot be established.

78. [Bug Fix] eITS#190300744

Device reboot unexpected.

79. [Bug Fix] eITS#190300993

When the interface IP address of the address object is changed, the related policy rule which refer the address object will not apply the new IP address.

80. [Bug Fix] eITS#190300999

When creating a PPPoE WAN with VLAN6 as base, the default DUID is not filled.

81. [Bug Fix] eITS#190400069
After upgraded firmware from 4.25 to 4.33, PPPoE unable get IPv6 address successfully.
82. [Bug Fix] eITS#190400071
When the VPN client utilities disabled Mode config feature, device 2FA function will not work.
83. [Bug Fix] eITS#190400434
Need to reboot the device when applying the rules that implemented the GEO-IP objects.
84. [Bug Fix] eITS#190400684
Cannot change the type of address object.
85. [Bug Fix] eITS#190400765
Device keep sending password expire notification to user even though the function was disabled.
86. [Bug Fix] eITS#190400948
Cannot see "Policy Enforcement" option when selecting "'Site-to-Site with Dynamic Peer' scenario".
87. [Bug Fix] eITS#190500084
ARP proxy malfunction after the device reboots.
88. [Bug Fix] eITS#190500095
Unable to force logout an external user.
89. [Bug Fix] eITS#190500256
BWM functional issue when the BWM rule applies a null address group.
90. [Bug Fix] eITS#190500604
Can't enable OSPF for specific VLAN IDs.
91. [Bug Fix] eITS#190500841
After modifying the Radius server settings. The Radius configuration still keeps the original domain name.
92. [Bug Fix] eITS#190501051
Routing table displaying issue.
93. [Bug Fix] eITS#190501057
The static route will disappear after rebooting the device.
94. [Bug Fix] eITS#190600182
The policy control name will disappear when redirected from the dashboard.
95. [Bug Fix] eITS#190600505
Unable to connect the other devices that use non-standard SSH port (Port 22) in CLI mode

- 96. [Bug Fix] eITS#190600563
Special character "&" is not supported by group ID when login SSL VPN via AD ext-group-user.
- 97. [Bug Fix] eITS#190700068
VPN tunnel stability issue.
- 98. [Bug Fix] eITS#190700198
The new created address object cannot be selected in BWM rule configuration.
- 99. [Bug Fix] eITS#190700831
Error message pops up when using packet capture function.
- 100. [Bug Fix] eITS#190700964
In interface GUI page, set Metric will clear DHCP unicast settings.

Features: V4.33(ABAR.0)C0

Modifications in V4.33(ABAR.0)C0 - 2019/01/10

1. [Enhancement][GUI] Add a download icon at My certificate page and only Admin can download
2. [Enhancement] Enlarge dynamic account numbers of ZyWALL310/USG310/ZyWALL1100/USG1100
 - (1) ZyWALL310/USG310: From 2000 to 4000
 - (2) ZyWALL1100/USG1100: From 3000 to 4000
3. [Bug Fix] eITS# 180100106, 180900565
Some SSL VPN network mask setting methods may lead to SSL VPN connection problem.
4. [Bug Fix] eITS# 180300552
When antispam is activated, there is a message in log "Mail sessions have reached the maximum threshold of 200".
5. [Bug Fix] eITS# 180500318
In some circumstances, rebooting the device from the Web GUI or CLI may be failed. Users need to power on/off the device.
6. [Bug Fix] eITS# 180500506
Interface name changing will not be synchronized to the Device HA pro passive device.
7. [Bug Fix] eITS# 180500963
When rebooting the Device HA pro active device by WebGUI, the passive device will reboot, too.
8. [Bug Fix] eITS# 180501192
Fixed device stability issue.
9. [Bug Fix] eITS# 180600668
CNA100 remote access HTTPs issue.
10. [Bug Fix] eITS# 180700145
Changed username of SMTP authentication cannot be saved.
11. [Bug Fix] eITS# 180700348
BWM config caused device booting up failure rolled back back to "lastgood.conf".
12. [Bug Fix] eITS# 180701378
Renewed password can't be saved if the new password start by "\$\$" character.
13. [Bug Fix] eITS# 180800824

TCP behavior improvement.

14. [Bug Fix] eITS# 180800840

Configuration change of "Active Directory" feature cannot be saved.

15. [Bug Fix] eITS# 180900203

SSL VPN authenticated by using external AD server cannot work.

16. [Bug Fix] eITS# 180900228

Facebook wifi connection period is not working as defined.

17. [Bug Fix] eITS# 180900755

Facebook WIFI malfunction.

18. [Bug Fix] eITS# 181000655

SecuManager makes a backup of a managed device automatically,
when the device reboots even the configuration isn't changed.

19. [Bug Fix] eITS# 181001141

RDP session drop in SSL VPN tunnel.

20. [Bug Fix] eITS# 181001198

Routing trace malfunction.

21. [Bug Fix] eITS# 181100177

The capwap daemon keeps generating configuration file and consumes
the memory.

22. [Bug Fix] eITS# 181100380

SSO function malfunction.

Features: V4.31(ABAR.1)C0

Modifications in V4.31(ABAR.1)C0 - 2018/04/17

No update in this version.

Features: V4.31(ABAR.0)C0

Modifications in V4.31(ABAR.0)C0 - 2018/04/03

1. [Enhancement] Add Zyxel Biz Forum icon link at Top Tool Bar
2. [Bug Fix] SPR#140425458
DNS supports *.com A-record PTR.
3. [Bug Fix] SPR#100415854
The GUI's initial help page's behavior was wrong by pop up Site Map instead of Help.
4. [Bug Fix] SPR#100914249
IE7/8 sometimes shows "Stop running this script? A script on this page is causing Internet Explorer to run slowly. If it continues to run, your computer may become unresponsive." when configuring device.
Please update IE patch: <http://support.microsoft.com/kb/175500> for the fix.
5. [Bug Fix] SPR#100105242, 100105292
PPTP might not be able to connect successfully if it is configured via Installation Wizard/Quick Setup.
6. [Bug Fix] SPR#100419034
SSLVPN of VNC cannot work if user connects VNC application by FQDN.
7. [Bug Fix] SPR#121203072
Ext-group name and any password can login SSL VPN.
8. [Bug Fix] SPR#160307230
If you use SecuExtender or Web GUI (SSL VPN) to login at same PC/Laptop, the pervious one will disconnect, i.e. SecuExtender will disconnect after Web GUI (SSLVPN) account login, vice versa.
9. [Bug Fix] SPR#150529308
Console sometimes display "XXX daemon dead" message during reboot.
10. [Bug Fix] SPR#160329256
In custom UTM Profile > IDP > Custom Signatures > Payload option, if content have "[" word, GUI will show incorrect.
11. [Bug Fix] SPR#151125943
After changing source address object name, LAN PC will not redirect to correct web portal.
12. [Bug Fix] SPR#160113511
If Printer is a DHCP Client and IP changed may cause Printer sync fail.
13. [Bug Fix] SPR#151127016

The check box is overlapping with content text at Initial Wizard > Wireless setting page when using IE browser.

14. [Bug Fix] SPR#151208533

“Object Reference” cannot work at Configuration >Network> Interface > Ethernet > Edit IPv6 Configuration page.

15. [Bug Fix] SPR#151208561

GUI will not redirect to login page automatically after firmware upgrade by using Chrome browser.

16. [Bug Fix] SPR#151214778

After the IPv4 address object created by “Create New Object” there's no updated IPv4 address object in IP address Pool list in Configuration > VPN >IPSec VPN >VPN connection >IPv4 Configuration > Add page.

17. [Bug Fix] SPR#151217001

GUI always shows “Loading...” message after applying IPSec VPN >edit IKE1 rule.

18. [Bug Fix] SPR#151223305

The changes of “E-mail Server 2”column will not applied after reboot device at Configuration > Log & Report > Log settings > System Log > Active Log and Alert (AP) page.

19. [Bug Fix] SPR#161219973

By using copy and paste to set PPPoE/PPTP IP address on Installation Setup Wizard. "Next" button can't be pressed.

20. [Bug Fix] eITS#161100279

Fix the issue that 'Disconnect Connections Before Falling Back' cannot work.

21. [Bug Fix] eITS#160900224, 170500103

The NAT rules don't work after upgrading the firmware.

22. [Bug Fix] eITS#170600924

SSL inspection reach the maximum number of sessions.

23. [Bug Fix] eITS#171001162

SSL VPN is not working. After clicking on “connect”, there is no response.

24. [Bug Fix] eITS#171200383, 171200810

Httpd will be terminated after firmware upgrade to V4.30.

25. [Bug Fix] eITS#171200317

The bandwidth is not correctly allocated.

26. [Bug Fix] eITS#171200429

Fixed GUI layout issue.

27. [Bug Fix] eITS#171200450

Login GUI and SSH show zysh daemon is terminated. The traffic forwarding is fine, but zyshd is malfunctioned.

28. [Bug Fix] eITS#171200806

The 4.2x firmware configuration file may have backward compatible issue on 4.3x in some circumstance

29. [Bug Fix] eITS#171200181

With syslog "CAPWAP" category enabled and controller apply configuration to AP, then caused AP very unstable.

30. [Bug Fix] eITS#171200710

Built-in access point (local AP) sometimes stops working for 1-2 minutes randomly

31. [Bug Fix] eITS#171200805

Unable to add a new created Geography type of address object to an existing Geography type of address group object.

32. [Bug Fix] eITS#180100224

Change all wrong wording "diasble" become "disable".

33. [Bug Fix] eITS#180100308

Proxy arp setting cannot be saved by GUI

34. [Bug Fix] eITS#180100787

In 4.30 diag-info sometime unable to decompress, it show "file corrupted"

35. [Bug Fix] eITS#180100790

Device receives SIGPIPE and close daemon without core file.

36. [Bug Fix] eITS#180100943

There is a mistake on welcome page in French. It is téléphone, not téléphoner

37. [Bug Fix] eITS#180200109

IDP signature update failed. (Cannot get IDP signature URL form Server.)

38. [Bug Fix] eITS#180200286

Error in debug log after 4.30WK6 update.

Features: V4.30(ABAR.0)C0

Modifications in V4.30(ABAR.0)C0 - 2017/11/24

1. [ENHANCEMENT] GDPR(Privacy statement)
 - a. General Privacy Statement
 - b. SecuReporter(available in Q3, 2018)
2. [ENHANCEMENT] Key management vulnerabilities of WPA2 protocol: CVE-2017-13077 through CVE-2017-13082, CVE-2017-13084, and CVE-2017-13086 through CVE-2017-13088
Note: USG40W, USG60W and USG20W-VPN do not support 802.11r.
3. [ENHANCEMENT] Support Facebook Wi-Fi.
4. [ENHANCEMENT] Support Session Clear
5. [ENHANCEMENT] Support Proxy Arp on external and general interface
6. [ENHANCEMENT][GUI] Log Enhancement: Log category grouping
7. [ENHANCEMENT][GUI] Diagnostic tool: Support NSLOOKUP
8. [ENHANCEMENT][GUI] Active sessions on Dashboard and Session Monitor
 - a. Dashboard > Active Session, the screen is the same as day one.
 - b. Dashboard > Active Session, remove the link to the page of Session Monitor
9. [ENHANCEMENT][GUI] Packet Flow Explore:
1-1 SNAT with the extra fields of 'protocol' and 'source port'
10. [ENHANCEMENT][GUI] Initial wizard: New add Step 6: Remote management
11. [ENHANCEMENT][GUI][Registration] Refine service with the links of "Activate" and "Buy" at the page of Network Risk Warning.
12. [ENHANCEMENT] GeoIP Address Object
 - a. Support sorting by country of Traffic Statistics, Session Monitor, and user login.
 - b. Support Geo IP setting of Policy Route, DNS Inbound LB, BWM, Web Authentication, and Session Control.
13. [ENHANCEMENT][Address Object] Support FQDN Address Object
 - a. FQDN pattern support wildcard
 - b. Support FQDN object apply as source(except Wildcard FQDN) or Destination of Security Policy
 - c. Support FQDN object apply as source (except Wildcard FQDN) or Destination of Policy Route /BWM /Web Auth.
14. [ENHANCEMENT] [User Object] Notification of account expiry (support Admin type account only).

15. [ENHANCEMENT] [User Object] Strength of account password
16. [ENHANCEMENT] [Security Policy] Auto backup configuration when rules changed
17. [ENHANCEMENT] [Log] Logged information of account and its IP address when configuration changed
18. [ENHANCEMENT] [Log] Logged the details of firewall rules changed
19. [ENHANCEMENT] [Device-HA Pro]
 - a. If Passive device updates firmware failed, it will not trigger Active device firmware update.
 - b. Support DHCP table synchronize and IP MAC binding table.
 - c. Auto reset the maximum failover counter
 - d. Show Passive device information on Active device GUI.
20. [ENHANCEMENT] [Routing Protocol] Support IPv4 eBGP
21. [ENHANCEMENT] [VPN] Support IPv4 eBGP over IPsec VTI tunnel
22. [ENHANCEMENT] [VPN] Support IPv4 OSPF over IPsec VTI tunnel
23. [ENHANCEMENT] [VPN] Support Multicast over IPsec VTI tunnel
24. [ENHANCEMENT] [VPN] Support iOS provision

Mobile configuration contain three types of VPN: IKEv2, IKEv1/IPSec, L2TP
25. [ENHANCEMENT] [Interface] DHCP options for PXE client.
26. [ENHANCEMENT] [Traffic Statistics] Support web site hits with HTTPS
27. [ENHANCEMENT] [System] System default enable the HTTPs strong cipher
28. [ENHANCEMENT] [Stability] Support Auto recovery- when upgrade firmware fail will auto rollback to previous status.
29. [ENHANCEMENT] [SNMP] OID Support: boot between dual images
30. [ENHANCEMENT] [EZMode] Change internal interface IP and network automatically when WAN IP conflict with internal IP.
31. [ENHANCEMENT] Support APC3.0
 - a. AP forward compatibility support
 - b. Zymesh
 - c. AP NVGRE data tunnel
 - d. 802.11r
32. [ENHANCEMENT] Hotspot Management enhancement
 - a. Billing Replenish
 - b. Change time period range
 - c. [Billing] Number at the beginning is allowed
 - d. [Freetime] Warning message modification
 - e. [Payment] Add new currency BRL

- f. [Payment] Add new currency RUB
 - g. [Printer] Redefine the printer information on GUI
 - h. [Printer] Empty the description
 - i. [Printer] Discovered printers divide into different group
33. [ENHANCEMENT] [UA] Enforce data collection
34. [ENHANCEMENT] [WebAuth] Support Session page on/off switch
35. [ENHANCEMENT] Support captive portal redirect with FQDN
36. [ENHANCEMENT] eITS#170400413
- Support user sets the DHCP6 preferred prefix size for delegation in Solicit message in DHCP6 request object by CLI command.
- CLI cmd:
Router(config)# dhcp6-request-object < profile name> prefix-delegation
prefix-length <1...64>
37. [ENHANCEMENT] eITS#170700287,170700325
- a. Customer would like to using following username format with AD server by 802.1X:
 - sAMAccountName= usg\user1
 - userPrincipalName= user1@usg.com
 - b. 802.1X auto login
38. [ENHANCEMENT] eITS#170901066
- Remove unwanted error log in the case that when User trusted certificates folder is empty.
39. [ENHANCEMENT] eITS#171000150
- GUI to allow setting schedule object stop Time 00:00 same as 24:00 for overnight schedule usage (e.q. 22:00 - 08:00), user can use a schedule group object to include two schedule object (e.g. 22:00 - 0:00 and 0:00 - 08:00)
40. [ENHANCEMENT] [Device-HA Pro] Support spec. changed
- Default life time given after Device registered:
USG1100, USG1900, USG2200-VPN, ZyWALL 1100
41. [FEATURE CHANGE] [GUI] Re-sort Interface menu list:
Sequence: External >General >Internal >Others
42. [FEATURE CHANGE] [GUI] Dialogue window popup for new firmware notification now is for ADMIN type only
43. [FEATURE CHANGE] eITS#170300826

[GUI] With feature "Link Aggregation Group", it no longer provides the field "none" on link-monitoring, balanced-alb and active-backup due to useless.

44. [FEATURE CHANGE] eITS#170500243

WAS:

UTM Profile>IDP add profile ""all"" default signature 1051723 action ""VIRUS Eicar test string"" is Reject-BOTH.

IS:

To set default create profile for signature 1051723 action NONE

45. [FEATURE CHANGE] eITS#170900224

Change "Session Limit" log severity level from notice (5) to warning (4) for better troubleshooting.

46. [Bug Fix] eITS#160401060

After few days, the mail sessions reach the maximum threshold and Anti-Spam stop working.

47. [Bug Fix] eITS#160800459

AD ext-group-user test fail

48. [Bug Fix] eITS#160900786

Syslog didn't send out traffic category

49. [Bug Fix] eITS#161000148

StartSSL Certificate not valid

50. [Bug Fix] eITS#161000226

BMW does not work with SSO authentication.

51. [Bug Fix] eITS#161000644

After the launch of the anti-spam (usually after two hours), sometimes any letter does not pass through ZyWALL. They come after 20-30 minutes collectively, then they don't pass through ZyWALL again, and so each time.

52. [Bug Fix] eITS#161100279

Open RDP by using IE10, need to add IP address to IE "Compatibility view settings" issue.

53. [Bug Fix] eITS#161100604

Configuration error when enable SLAAC.

54. [Bug Fix] eITS#161100649, 170100235

Sometimes user cannot synchronize with myzyxel.com server successfully.

55. [Bug Fix] eITS#161200347, 161200799

After upgrading to 4.20, change the port speed manually does not work.

56. [Bug Fix] eITS#161200446, 170200683

Device will constantly rebooting by out of memory issue.

57. [Bug Fix] eITS#161200483

Use network PING tool and found that no matter how they switch the interface, the outgoing IP do not get the correct match IP with interface.

58. [Bug Fix] eITS#161200541

AP management VLAN configuration have limitation on Name field, we cannot create VLAN more than 4.

59. [Bug Fix] eITS#161200618

The black list now detected before white list.

60. [Bug Fix] eITS#161200797

VPN policy object not been changed after renaming object

61. [Bug Fix] eITS#161200798

Default DHCP server not been removed after changed interface type

62. [Bug Fix] eITS#170100012

The 802.1P Marking functions not work. (In BWM function)

63. [Bug Fix] eITS#170100106

USG60w reboots when Mac book Wi-Fi try to associate to USG60w's Local AP.

64. [Bug Fix] eITS#170100259,170200190

Issue with L2TP and security policy user-based

65. [Bug Fix] eITS#170100317

The SNMP after remove and add VLAN interface, active & passive query mib ifTable .1.3.6.1.2.2.1.x are not the same

66. [Bug Fix] eITS#170100339

User Agreement Users in Hotspot are registered 3 or 4 times at a single login

67. [Bug Fix] eITS#170100441

Policy route does not work when configure a service group object as source port match criteria

68. [Bug Fix] eITS#170100457

Device displays ZySH daemon is busy, and it not accessible via Web GUI

69. [Bug Fix] eITS#170100500

Email Subjects being truncated with anti-spam enabled.

70. [Bug Fix] eITS#170100679

Anti-spam tag the dlog in automatic reply emails content

71. [Bug Fix] eITS#170100898

User log in web authentication page by Firefox browser, it doesn't pop-up windows to tips user "You have been logout" when user close user aware browser.

72. [Bug Fix] eITS#170100903

When the anti-spam activate, the large size (around 1~3mb) mail will delivery to internal mail server for a long time

73. [Bug Fix] eITS#170200027

When the USG Wan interface connected gateway router reboots, the USG cannot aware SLACC renew. It leads to IPv6 DHCP client Internet access issue.

74. [Bug Fix] eITS#170200028

The IPv6 of Prefix Delegation address on interface will no longer get value on it.

75. [Bug Fix] eITS#170200095

Sometimes the Web GUI shows error "File not found" and does not work after booting the USG.

76. [Bug Fix] eITS#170200139

Firewall rule block SSO user traffic time to time

77. [Bug Fix] eITS#170200161

AP firmware v4.22 show station issue

78. [Bug Fix] eITS#170200382

DHCP pool size is incorrect

79. [Bug Fix] eITS#170200530

HA-Pro does not apply virtual MAC address.

80. [Bug Fix] eITS#170200531

HA-Pro not sending Gratuitous ARP for virtual 1:1 NAT IP

81. [Bug Fix] eITS#170300098

Unable to update GeolP database

82. [Bug Fix] eITS#170300215,170300955,170400039,170400704

Wrong routing entry for VPN

83. [Bug Fix] eITS#170300611

Device changes host's source IP address in bridge mode

84. [Bug Fix] eITS#170300783

Static Route not working after reboot of the USG

85. [Bug Fix] eITS#170300822

Customer have an issue about USB LED behavior, even the USB stick dose not plug to device port, USB LED is still on.

- 86. [Bug Fix] eITS#170300826
In LAG interface, set 802.3ad mode and choosing "none" and "ARP" as link monitoring mode. It will not work.
- 87. [Bug Fix] eITS#170301030
High memory usage with HA-Pro
- 88. [Bug Fix] eITS#170400322
Security Policy rule modification didn't take effect when we modify address object, we must disable and enable the rule again to make it take effect.
- 89. [Bug Fix] eITS#170400331
The ISP extended VOIP as HD voice
- 90. [Bug Fix] eITS#170400558
Vulnerability Fix (CVE-2016-10229)
- 91. [Bug Fix] eITS#170407062
IPSecVPN no any connection but log had R_U_THERE message
- 92. [Bug Fix] eITS#170500088,170500089
After upgrade to ZLD4.25 firmware, GUI login device will stuck at genie.html page.
- 93. [Bug Fix] eITS#170500193
Failed to apply startup-config.conf after modify guest interface name.
- 94. [Bug Fix] eITS#170500202
RDP via SSLVPN fail
- 95. [Bug Fix] eITS#170500260
Move the mouse cursor to the SIP default port 5060, change nothing and click on Apply. The error message pops up.
- 96. [Bug Fix] eITS#170500542,170500632
Login web GUI then pop out a warning message "CLI number 39"
- 97. [Bug Fix] eITS#170500555
Cloud-Helper Firmware Auto Update cannot disable
- 98. [Bug Fix] eITS#170500757
Device High Memory and Auto Reboot several times / week
- 99. [Bug Fix] eITS#170500774
Even if device is registered, the Setup Wizard show up again and finish with unreadable short popup "ERROR".
- 100. [Bug Fix] eITS#170500826
Dashboard loading is very slow.
- 101. [Bug Fix] eITS#170500968
The HTTPS Domain Filter is sending the wrong Certificate for blocked HTTPS

Pages based on "Enable Content Filter HTTPS Domain Filter Block/Warn Page" under certain condition.

- 102. [Bug Fix] eITS#170600091
Device HA backup sync error when disable Anti-Virus Black list
- 103. [Bug Fix] eITS#170600481
"custom web portal files" are not sync to other partition
- 104. [Bug Fix] eITS#170600635
Device HA backup sync error caused by Content Filter profile CLI ordering is different in some conditions.
- 105. [Bug Fix] eITS#170600780
When load some kind of customized configuration file, the device will restore to default setting after rebooting.
- 106. [Bug Fix] eITS#170600954
Unable negotiated PPP connection in IPv6CP phase with BT ISP
- 107. [Bug Fix] eITS#170700239
[Policy Route] Next-hop set with the interface but not containing gateway, and then the warning message now is given.
- 108. [Bug Fix] eITS#170700652
Schedule run display wrong info
- 109. [Bug Fix] eITS#161200163
Add source port(s)/service setting in 1-to-1 NAT zymark iptables rule.
- 110. [Bug Fix] eITS#170400180, 170400330, 170400796, 170500308, 170600919
Anti-spam session full issue and device daily system hang issue.
- 111. [Bug Fix] eITS#170500347
Content filter slow, no Warning displayed
- 112. [Bug Fix] eITS#170500975, 170600470
Anti-spam daemon and ctipd hang issue.
- 113. [Bug Fix] eITS#170700761
Anti-spam session full issue
- 114. [Bug Fix] eITS#170721720
The first four packets cannot go to remote DUT then VPN connection will auto-reconnect. After that, traffic was normal.
- 115. [Bug Fix] eITS#170800053
After changed VLAN priority in VLAN interface, the interface stops response. (Except inactivate and active it again)
- 116. [Bug Fix] eITS#170800190
Cloud firmware update function will always display Sunday even already

Monday changed.

- 117. [Bug Fix] eITS#170800299
Update-fw.log file cause high flash usage
- 118. [Bug Fix] eITS#170800684
PDF corrupted by Anti-Spam
- 119. [Bug Fix] eITS#170800820
The UDP traffic unable pass to remote access if device already keep the session on WAN1.
- 120. [Bug Fix] eITS#170803091
VPN dial fail but log had R_U_THERE message
- 121. [Bug Fix] eITS#170800267, 170800513, 170800565
Warning message pops up when creating a policy route rule
- 122. [Bug Fix] eITS#170300904
[GUI] The wording "expire" changed from "Ausgelaufen" to "Ablaufdatum" in German.
- 123. [Bug Fix] eITS#170600081
The graph of CPU usage is different in the USG daily report and CNC.
- 124. [Bug Fix] eITS#170800408
RIP stops working
- 125. [Bug Fix] eITS#170900052
Device soft-lockup when apply customer's configuration
- 126. [Bug Fix] eITS#170900254
Customer cannot import root certificate at "Configuration > Object > Certificate > "Trusted Certificates", it will pop up error message.
- 127. [Bug Fix] eITS#170900406
Frontline state that IP 212.52.194.228/255.255.255.224 cannot be saved on ge3 interface, the "OK" button is grey out/not clickable.
- 128. [Bug Fix] eITS#170900762
Content filter profile specifically rename on Web GUI will cause the configuration file saving problem. Web GUI and start-up configure mismatch.
- 129. [Bug Fix] eITS#170900923
The object items cannot be selected if we filtered in other page. (GUI bug)
- 130. [Bug Fix] eITS#170600298
Budget reset mechanism after over budget will cause incorrect budget

interval data and budget statistics in the next connection.

- 131. [Bug Fix] eITS#170800560
Won't keep logging settings for SSL inspection
- 132. [Bug Fix] eITS#170800684
PDF corrupted by Anti-Spam
- 133. [Bug Fix] eITS#170900820
Customer concerning the VPN VTI interface in trunk interface cannot failover and fallback.

Features: V4.25(ABAR.1)C0

Modifications in V4.25(ABAR.1)C0 - 2017/07/13

1. [ENHANCEMENT] System default settings change:
Doesn't allow access device GUI via HTTPs or SSL VPN connect from WAN in system default.
Note: This will not change the settings for upgrade from previous firmware version.
2. [ENHANCEMENT] GUI change:
 - a. all Service license Status change from "Licensed" "Not Licensed" to "Activated", "Not Activated"
 - b. if the license are transferred, then status will show "Not Licensed"
 - c. update layout change wording : Firmware Upgrade License to Firmware Upgrade Service
 - d. remove License Type and Expiration date from Firmware Management page
 - e. Add OneSecurity link (Troubleshooting icon): add icon at Firmware Management GUI page and redirect to OneSecurity Firmware Upgrade SOP
3. [ENHANCEMENT] Support for PayPal Brazilian Real (BRL)/Russian Ruble (RUB) currency
4. [ENHANCEMENT] Initial Wizard add Remote Management on/off switch
5. [BUG FIX] eITS#170500228
"Email daily report" is missing on web GUI setup page (Configuration > Log & Report > Email daily report).
6. [BUG FIX] eITS#170500089
After logging into the Web GUI, it will redirect to https://x.x.x.x/ext-js/app/view/pagestore/genie.html instead of the device dashboard
7. [BUG FIX] eITS#161200145
The authentication will fail when establishing L2TP VPN with MS-CHAPv2
8. [BUG FIX] eITS#170100259, 170200190
Sometimes user-based security policy rule doesn't work properly.
9. [BUG FIX] eITS#170100903
Fixed the anti-spam may delay the mail occasionally
10. [BUG FIX] eITS#170100505
Security Policies does not working properly in some circumstances
11. [BUG FIX] eITS#161200446

When CF and App Patrol are enabled and there are peak abnormal "ACK" packets in the environment sent to the device. The device may reboot

12. [BUG FIX] eITS#170200139

Firewall rule sometimes will block SSO client's traffic

13. [BUG FIX] eITS#170300098

Fix: unable to update GeolP database

14. [BUG FIX] eITS#170400322

Fix: Security Policy rule modification doesn't take effect immediately after modifying the address objects.

15. [BUG FIX] eITS#170400243

Fixed the device reboot accidentally issue

16. [BUG FIX] eITS#170300955, 170300215 , 170400039, 170400704

Fixed the VPN tunnel routing issue

17. [BUG FIX] eITS#170300561

Fixed AP connection lost issue.

18. [BUG FIX] eITS#170100742

Fixed USG310 Device HA Pro with https port different than 443 issue.

Features: V4.25(ABAR.0)C0

Modifications in V4.25(ABAR.0)C0 - 2017/04/21

1. [ENHANCEMENT] Openssl package upgrade to 1.0.2j
2. [ENHANCEMENT] UTM engine upgrade to 2.3.012
3. [ENHANCEMENT] Default IDP signature upgrade to 3.2.4.040(Base on 3.1.4 and add 518 app-behavior)
4. [ENHANCEMENT] AS and CF engine upgrade to 8.00.0125.1
5. [ENHANCEMENT] Support quick activation wizard to help user register device and activate UTM services in a short time.
6. [ENHANCEMENT] Support Grace Period for subscription license.
7. [ENHANCEMENT] add "Buy"/ "Renew" and "Activate" link at:
 - a. Dashboard Security Service List
 - b. Configuration > Licensing > Service Status List
 - c. Each Service function page
 - d. Security Service Warning page
8. [ENHANCEMENT] Support Country code GUI for USG/ZyWALL
 - a. Except for USG40W/USG60W/USG20-VPN/USG20W-VPN
9. [ENHANCEMENT] APC built-in FW replacement
 - a. Remove NWA5KN & 3KN series AP firmware
 - b. Add NWA5123-AC AP firmware
 - c. Keep NWA512x series AP firmware
10. [ENHANCEMENT] Support Hotspot Management License for USG110, USG210 and ZyWALL 110 with 30days trial.

Support models	Hotspot Management Service
USG110	Default 30days trial
USG210	LIC-HSM, Hotspot Management 1 year Subscription License
ZyWALL 110	LIC-HSM, Hotspot Management One-Time License

11. [ENHANCEMENT] Default value of VLAN DHCP lease time change from infinite to 2 days
12. [ENHANCEMENT] Extend max. number of Address Object for following models:

Models	Address Object Value	
	WAS	IS
USG20(W)-VPN	100	300
USG40(W)	100	300
USG60(W)	200	300

13. [ENHANCEMENT] Support SecuReporter (available in Q3, 2017)
14. [ENHANCEMENT] Support failure recoveries of configuration apply.
15. [ENHANCEMENT] Automatic Firmware update from USB storage
 - a. Default action is disable
 - b. Do not support Device HA/ Device HA pro scenario

Note: When using USB firmware upgrade in HA Pro devices, you need to insert USB at Passive device to upgrade Firmware first, and then do USB firmware upgrade at Active device.
16. [ENHANCEMENT] Support DHCP option 60 on External type Ethernet and VLAN interface
17. [ENHANCEMENT] Support SSH Client
18. [ENHANCEMENT] Support GeolP database auto-check & auto-update
19. [ENHANCEMENT] eITS#160200311

The log "Open /tmp/ext_group_info.conf_1 configuration file has failed."
Change the log description easy to understand as: Cannot open /tmp/ext_group_info.conf_1 configuration file. Please check the settings of Auth. method and Ext-Group-User Accounts by AAA Server.
20. [ENHANCEMENT] eITS#160300976

To adjust "DHCP table / User Login" GUI display behavior.
21. [ENHANCEMENT] eITS#160800448

Manual control of firewall rule "Only FIN bit is set" for abnormal TCP flag packets transmission.
22. [FEATURE CHANGE] eITS#160600471

Bandwidth management cannot apply accurately by App Patrol
23. [BUG FIX] eITS#161100240

802.1P marking in BWM is disappeared in ZLD 4.20.
24. [BUG FIX] eITS#161100700

Fix ALG SIP Settings GUI disappear issue:

 - a. Restrict Peer to Peer Signaling Connection
 - b. Restrict Peer to Peer Media Connection
25. [BUG FIX] eITS#151200061

Support LTE E3276 dongle
26. [BUG FIX] eITS#160200024

No supporting for Huawei E3276 dongle.
27. [BUG FIX] eITS#160200048

Port statistics shows wrong information on GUI
28. [BUG FIX] eITS#160200540

An over length object name ruins the security policy function, also stop the device boot from start-up config.

29. [BUG FIX] eITS#160200591

After AP schedule applied, the device cannot boot normally and failover to last good config.

30. [BUG FIX] eITS#160300622

A standby HA device do download AP firmware. This should not happen if the active role is taken by another device.

31. [BUG FIX] eITS#160300733

Receiving a "Unicast" DHCP offer on WAN port because customer's ISP did so. (DHCP offer bootp flag: unicast)

32. [BUG FIX] eITS#160300990

NAT rule didn't work for the specific object.

33. [BUG FIX] eITS#160400211

Unable to apply NAT policy if a virtual interface has different subnet from its' physical. This works fine in 4.13 but not in 4.15 (Error message: Original IP address is not comprised in Incoming interface subnet.)

34. [BUG FIX] eITS#160400995

Cannot use full screen mode on IE11 RDP access. The SSL VPN tunnel works fine. Use RDP access but unable to use full screen mode (on IE11).

35. [BUG FIX] eITS#160500052

If user shows VLAN 10 in IP/MAC Binding monitor page, both VLAN 10 and VLAN 100 will display.

36. [BUG FIX] eITS#160500699

NAT rule doesn't work on general type interface.

37. [BUG FIX] eITS#160600575

Fix: In ZLD V3.30, customer set a "ppp" interface and name "eth1" and then users apply the configuration file (startup-config). It will show the error message "% System fatal error: 3005105." on the console.

38. [BUG FIX] eITS#160601251

A dead Zylogd triggers connectivity check and makes policy route on and off frequently, reboot is a temporarily solution.

39. [BUG FIX] eITS#160700403

Fix: VPN after rekeying no Traffic in Tunnel

40. [BUG FIX] eITS#160700500, 160101189

Site-to-site IPSec VPN Tunnel (IKEv1) and AES256/SHA256 encryption in Phase2 burst CPU usage.

- 41. [BUG FIX] eITS#160800459
Fix: USG 50. AD ext-group-user test fail
- 42. [BUG FIX] eITS#160800706
USG20-VPN will not send out "Forwarded website" to CF report server.
- 43. [BUG FIX] eITS#160800830
Modify address object setting didn't apply to configure file.
- 44. [BUG FIX] eITS#160800939
While move to other pages, the sorting by object IP address behavior abnormal.
- 45. [BUG FIX] eITS#160800995, 160800977
Unable to upload an overlong file name firmware via GUI.
- 46. [BUG FIX] eITS#160801122
The source IP address shows incorrect on Web GUI, (different model support for different pool addresses)
- 47. [BUG FIX] eITS#160900125
Fix: OneSecurity Anti-Spam PDF file corrupts.
- 48. [BUG FIX] eITS#160900128
Anti-Spam mail scan timeout rate is high.
- 49. [BUG FIX] eITS#160900147, 160900359
While DHCP function is disabled on all interfaces, the DNS proxy stop working.
- 50. [BUG FIX] eITS#160900449
The VPN throughput of USG1900 is low.
- 51. [BUG FIX] eITS#160900525
After SafeSearch enabled, the device did randomly unwanted reboot.
- 52. [BUG FIX] eITS#160900560
When editing exist BWM rule, try to enable or disable "Maximize Bandwidth Usage" function. It can't write into configuration.
- 53. [BUG FIX] eITS#160900579
After upgraded to ZLD4.20 firmware, there are additional AP image symbolic link in device, it will cause Device-HA Pro sync fail.
- 54. [BUG FIX] eITS#160900582
When add Anti-Virus, tick or untick white list, it always saves as enabled.
- 55. [BUG FIX] eITS#160900603
The customer creates a new application profile then adds some applications. The GUI meets loading nonstop when he wants to add other object into this application profile by Service searching.

56. [BUG FIX] eITS#160900614

Error message shows on trying to create Object > Service by just fill in starting port.

57. [BUG FIX] eITS#160900619

Some settings disappear from the configuration after a power fail.

58. [BUG FIX] eITS#160900702

Update Anti-Virus crashes Zyshd daemon if there is no connection to myZyXEL.com.

59. [BUG FIX] eITS#160900704

When the customer creates the new Radio profile, set Channel Selection to DCS, the A-MPDU and A-MSDU are enabled by default. However, after click OK button, then edit this profile again found A-MPDU and A-MSDU was not enabled.

60. [BUG FIX] eITS#160900708

DHCPv6 Request can't be added to DHCPv6 Request Options in PPPoE.

61. [BUG FIX] eITS#160900760

After upgraded from 4.15 to 4.20, they need to configure default policy rule as "Allow" instead of "Deny" otherwise they cannot surfing the Internet.

62. [BUG FIX] eITS#160900840

Fix: After build Device-HA, on backup device linkup and link-down Ge4 port. The Backup device status is standby but GE4 IP address exists. It affects the traffic pass through to Backup device but not master one

63. [BUG FIX] eITS#160901009

The tunnel interface is on the drop-down list of Public DNS Server setting.

64. [BUG FIX] eITS#160912324

Fix: [VPN] [info] Send check packet won't send on IKEv2 VPN rule (6in4, 4in6, 6in6)

65. [BUG FIX] eITS#161000053

If SafeSearch enabled, the Google log will be removed if accessing <https://www.google.at> or <https://www.google.com> (google family).

66. [BUG FIX] eITS#161000057

Remove service object from service-group will be failed.

67. [BUG FIX] eITS#161000062

Files with long names on Cyrillic (Russian) cannot be downloaded through SSL VPN / File Sharing. Files with short names will work.

68. [BUG FIX] eITS#161000092

The Interface egress setting will be affected after added virtual interface

69. [BUG FIX] eITS#161000311
Sorting by priority doesn't work correctly on all pages.
70. [BUG FIX] eITS#161000336
Fix SNMP location issue.
71. [BUG FIX] eITS#161000353
It is the VPN between ShrewClient and USG. It works fine under ZLD 4.15; however, after upgrading to ZLD 4.20, USG will send out DEL information to the client after establishing connection.
72. [BUG FIX] eITS#161000562
If you choose View: all session in Session Monitor, then the first page is displayed normally, but an error occurred on second page.
73. [BUG FIX] eITS#161000654
Firewall rule of user aware didn't work appropriate with GeoIP address object.
74. [BUG FIX] eITS#161000823
Fix GUI shows wrong information on NAT setting. (Select 1:1 mode, shows 1: Multiple)
75. [BUG FIX] eITS#161000908
Special characters are allowed on GUI but invalid in certification "+", ")" or ".".
76. [BUG FIX] eITS#161000911
Cannot create VLAN100 after VLAN10 on GUI.
77. [BUG FIX] eITS#161000912
There is no limitation of the DHCP pool range.
78. [BUG FIX] eITS#161017510
Fix: [VTI]disable VTI interface will be enable after open this disable (VTI)profile and click "OK"
79. [BUG FIX] eITS#161100136
Device will reboot only when CF is enabled on IPv6 and access some websites.
80. [BUG FIX] eITS#161100230
Supporting for longer LDAP/AD password length to 63 characters.
81. [BUG FIX] eITS#161100298
1:1 NAT Port Mapping Type can be select after change type to Virtual server and switch back to 1:1 NAT.
82. [BUG FIX] eITS#161100619
SSL Inspection not works if set in firewall rule on ZLD4.20

- 83. [BUG FIX] eITS#161100649
Fix myzyxel.com SSL time sync issue.
- 84. [BUG FIX] eITS#161200541
AP management VLAN configuration have limit on Name field, we cannot create VLAN more than 4.
- 85. [BUG FIX] eITS#161200689
Add more than 8 interface into a Trunk is allowed, but this setting got error and is automatically removed after reboot.
- 86. [BUG FIX] eITS#161200797
VPN policy object doesn't change after renaming an object.
- 87. [BUG FIX] eITS#170100010
"Host Name" and "Description" are missing under IP/MAC Binding
- 88. [BUG FIX] eITS#170100106
While just started up, any connection from MAC OS will reboot USG60W.
(Android, Windows platform don't have this issue.)
- 89. [BUG FIX] eITS#170100118
The FTP function which in packet capture does not work. (Can't upload to external FTP server)
- 90. [BUG FIX] eITS#170200061
When added PPP interface in to monitoring interface (Device-HA Pro), it will shows "The interface name is not accepted"
- 91. [BUG FIX] eITS#170200530
When Device-HA Pro switching status, the MAC address of secondary is not synced.
- 92. [BUG FIX] eITS#170200161
Fix: ZyWALL 310 (WLAN controller) - Some station info will be kept in station info list on the controller even the stations have been dissociated from the AP.
- 93. [BUG FIX] eITS#161000876
Unable to turn off Policy Control or Allow Asymmetrical Route via GUI.
- 94. [BUG FIX] eITS#160301606
USG310: error code2 drops ICMP Type3 packet
- 95. [BUG FIX] eITS#160400542
USG210 Fatal Error Cause System Reboot
- 96. [BUG FIX] eITS#161100313
USG110 IKEv2 dynamic tunnel suddenly stopped working
- 97. [BUG FIX] eITS#161100931

USG20-VPN - SIP Signaling Port not working

98.[BUG FIX] eITS#161100008

Fix: Cannot access some https website after enable domain filtering in CF.

Features: V4.20(ABAR.2)C0

Modifications in V4.20(ABAR.2)C0 - 2016/11/25

1. [ENHANCEMENT] Add enhancement against ICMP type3 code3 DoS attack.

Features: V4.20(ABAR.1)C0

Modifications in V4.20(ABAR.1)C0 - 2016/09/29

1. [BUG FIX] eITS#160800705
Guest wizard in easy mode gets wrong.
 1. enable the Guest network via wizard
 2. No IP address and DHCP server but port role is correct.
2. [BUG FIX] eITS#160800624
The GeoIP can't update successfully, and shows 124014 error.
3. [BUG FIX] eITS#160800733
When collecting diag-info by GUI and also in console, the device will reboot.
4. [BUG FIX] eITS#160800621
USG will keep send out "R_U_THERE" even though the DPD is not checked.
5. [BUG FIX] eITS#160800900
Unable to create a new VLAN.
[Condition]
When clicking the add button, loading screen hangs.
6. [BUG FIX] eITS#160800995, 160800977
Upload firmware with a long filename, it will fail.
[Condition]
 1. Go to file manager>firmware management
 2. Update a firmware with a filename more than length 31
 3. Update will fail.
7. [BUG FIX] eITS#160401060
After few days, the mail sessions reach the maximum threshold and Anti-Spam stop working.
[Condition]
User select drop action of spam SMTP mail in Anti-Spam profile setting.
8. [BUG FIX] eITS#160800622
IDP signature Link has wrong destination.
[Condition]
On the dashboard, you can click the signature ID on the GUI. The URL is wrong.
Click GUI will pop-out
https://onesecurity.com/pages/threat_info.php?virusid=1051723&type=policy
But should be:

https://onesecurity.zyxel.com/pages/threat_info.php?virusid=1051723&type=policy

9. [BUG FIX] eITS#160900521
Firmware 4.20 - Every logged user is able to download "startup-config.conf"
10. [BUG FIX] eITS#160900525
USG110 with CF and Safesearch random reboots
11. [BUG FIX] eITS#160900582
When edit Anti-Virus rule, configuration change not writes correctly.
12. [BUG FIX] eITS#160900560
When edit exist BWM rule, and disable "Maximize Bandwidth Usage" function.
It not writes into configuration.
13. [BUG FIX] SPR#160801023
Click "Configuration walk through" and "Troubleshooting" at NAT page, the link will display "Policy Route" information..

Features: V4.20(ABAR.0)C0

Modifications in V4.20(ABAR.0)C0 - 2016/07/20

1. [ENHANCEMENT]

Easy Mode Support:

(1) Only for USG40/40W/60/60W, USG20-VPN/20W-VPN

Supported Models
USG20-VPN, USG20W-VPN
USG40, USG40W
USG60, USG60W

(2) Initial wizard pop-up when user first login in device under Easy Mode

* Please be aware that Easy Mode is another user interface for different user market, it is not light version of Expert Mode. The changes made in Expert Mode may not be visualized correctly in Easy Mode.

If you made changes in Expert Mode, we suggest staying in Expert Mode to ensure reliable configuration.

2. [ENHANCEMENT]

Content Filter 2.0Support, more features add-on with the current Content Filter license.

(1) HTTPS Domain Filter

To block HTTPs web sites without deep inspection. Support on all models.

(2) SafeSearch Enforcement

To enforce safe search for the following search provides: Google, Bing, Yahoo, Yandex

*Support on models with SSL inspection, USG110/ZyWALL110 or above.

(3) Geo IP blocking

Support IPv4/IPv6 geography type address object as the source or destination address of security policy.

(4) Content Filter log enhancement; log all web access action with category information.

3. [ENHANCEMENT]

Cloud Helper Support:

(1) Auto check and show up the firmware download icon on dashboard and the release note

information on firmware management page, if a new version is available.

(2) Support pause/resume/stop action while running the online firmware download from cloud

* Please note that you have to go to myZyXEL.com to register your device and activate firmware upgrade license and then to proceed the cloud firmware upgrade.

4. [ENHANCEMENT]

IPSec VPN enhancement:

(1) Route-based IPSec VPN - Static virtual tunnel interface for IPSec site-to-site VPN

(2) Mode-config to assign IP address/DNS server/WINS server settings for IPSec client

(3) IKEv2 VPN wizard

(4) IKEv2 configuration provisioning to ZyXEL IPSec Client

(5) IKEv2 support for Windows10

5. [ENHANCEMENT]

SSL VPN enhancement:

(1) Standalone SecuExtender client software for Windows

Please download the new SecuExtender client software from <http://vpnclient.zyxel.com>

(2) SSL VPN login page URL, <https://<ip address>/ssl>

(3) SSL VPN user portal behavior change,

- After login SSL VPN user portal, will not force logout even browser doesn't install Java Runtime
- After login SSL VPN user portal, will not auto download and install the SecuExtender client from device.

Please download the new SecuExtender client software from <http://vpnclient.zyxel.com>

- After login SSL VPN user portal, will not bring up the SecuExtender. Please install and launch the new SecuExtender client on desktop.

6. [ENHANCEMENT]

Captive Portal authentication enhancement:

(1) Support Multiple Portal (max. 4 portals)

(2) Friendly captive portal page for mobile devices

(3) User agreement type authentication

(4) Support upload user customized captive portal page to USG/ZyWALL

- Max. 4 customized portal package (.zip) file can be upload

- Max. portal package (.zip) file size is 2MB (max. 5MB after unzip)

7. [ENHANCEMENT]

Hotspot enhancement:

(1) Hotspot license for USG/ZyWALL advance/extreme series

Support Hotspot Management Models
ZyWALL 310/1100
USG310/1100/1900

(2) Features support with Hotspot license

- Dynamic guest account
- Billing profiles (Time usage, Traffic usage, Bandwidth limitation)
- SP350E printer ticketing
- SMS ticketing with ViaNett
- Online tickets payment via PayPal
- Walled Garden
- IPnP

*Not support SP350E printer to connect on network of wan side.

*After add SP350E into the management list. The dynamic IP address of printer will auto add into the DHCP reserve IP table.

8. [ENHANCEMENT]

Device HA Pro:

(1) Licensed feature

(2) Only support on ZW110/310/1100, USG110/210/310/1100/1900

Support Device HA Pro Models
ZyWALL 110/310/1100
USG110/210/310/1100/1900

(3) Dedicated port for heartbeat/synchronization between active and passive device

*The latest copper Ethernet port is the heartbeat port, if enable Device HA pro function

(4) Auto negotiation the device role (active or passive)

(5) Synchronization information

- Configuration
- License status
- AV/IDP/App signatures, GeolP database
- Certificates
- Customized Captive portal pages
- zysh script files

- Login users information
- IPv4/IPv6 TCP sessions
- Static site-to-site IPSec SAs

*To avoid configuration conflicts, always make configuration changes on the active device

(6)Support firmware auto upgrade to passive device via GUI, FTP, Cloud Helper

* To avoid firmware inconsistent, always upgrade firmware from the active device

Limitation:

- Not support with IP/MAC binding feature
If enable MAC Binding interface. After device failover, all the traffic of DHCP clients will be blocked by the active device until renew DHCP IP address.
- To change from HA Pro mode back to HA mode. Both devices need to reconfigure the HA settings.

9. [ENHANCEMENT]

Link Aggregation Group (LAG) interface

(1) Only support on the following models

Support Link Aggregation Group interface Models
ZyWALL 310/1100
USG310/1100/1900

(2) Max. LAG interface: 4; Max. ports in one LAG interface: 4

(3) Link Aggregation Mode support

- Active-Backup
- LACP 802.3ad (hash policy support: layer 2, layer 2+3)
- Balance-ALB (active-active path)

10. [ENHANCEMENT]

Web GUI and SSL VPN login support TLS1.2

11. [ENHANCEMENT]

SSL Inspection enhancement :(*Support models USG110/ZyWALL110 or above)

(1) Support inspect TLS-1.1/TLS-1.2 connection with the following cipher

- TLS_RSA_WITH_AES_128_CBC_SHA256
- TLS_RSA_WITH_AES_256_CBC_SHA256
- TLS_ECDHE_RSA_WITH_AES_128_CBC_SHA256
- TLS_ECDHE_RSA_WITH_AES_256_CBC_SHA384

(2)Support server downgrade TLS version while negotiation and implementation

12. [ENHANCEMENT]

ADP enhancement:

- (1) Teardrop Attack detection and block
- (2) TCP Fragment detection and block
- (3) ICMP Fragment detection and block
- (4) IP Address Spoof detection and block

13. [ENHANCEMENT]

Auto sync Time-Zone and Daylight-Saving from ZyXEL cloud server

14. [ENHANCEMENT]

Support L2TP WAN connection type

15. [ENHANCEMENT]

Support send RADIUS accounting data to external server

16. [ENHANCEMENT]

Service redirect for HTTP and SMTP traffic

17. [ENHANCEMENT]

DHCP clients table add leasing expiration time information

18. [ENHANCEMENT]

Add DHCP clients table in daily report

19. [ENHANCEMENT]

ZON utility support update location and system name

20. [ENHANCEMENT]

Extend max. Concurrent SIP calls number

Model	Value
USG20-VPN/20W-VPN USG40/40W USG60/60W	50
USG110 /ZyWALL 110 USG210 USG310 / ZyWALL 310	100
USG1100/ZyWALL 1100 USG1900	200

21. [ENHANCEMENT] Extend the Max. number of user create PPPoE interface

Model	Value
USG210	4 → 8
USG310 / ZyWALL 310	8 → 16
USG1100/ USG1900 / ZyWALL 1100	16 → 32

22. [ENHANCEMENT]

New license: "Concurrent Device Upgrade" for extending the concurrent login devices.

Model	Value
USG110/210/ZyWALL 110	200→300 (extend by license)
USG310/ZyWALL 310	500→800 (extend by license)
USG1100/ZyWALL 1100	800→1500 (extend by license)
USG1900	1500→2000 (extend by license)

23. [ENHANCEMENT]

Feature behavior change: 1:1 NAT port settings is hidden on GUI

24. [ENHANCEMENT] "Use Static-Dynamic Route to Control 1-1 NAT Route" is enabled on system default setting.

25. [ENHANCEMENT] BEAST vulnerability mitigation

Support new CLI to disable TLS 1.0,

```
Router(config)# no ip http secure-server tlsv10
```

```
Router(config)# write
```

26. [BUG FIX] eITS#150700745

The customer is configured the Email Daily Report to send reports on a mail server that is located behind the IPSec-tunnel. Ping from the device to the mail server 192.168.5.15 successfully, but reports are not sent.

27. [BUG FIX] eITS#150801051

Top 5 viruses cannot be queried.

[Condition]

1. If clicking the Top 5 virus via dashboard, the URL cannot be downloaded successfully. It is because the URL is HTTPs. If changing it to HTTP, the explanation will show up.

28. [BUG FIX] eITS#150300296, 150900099

For eITS#150300296 and 150900099, enlarge the maximum number of the time period of connectivity check.

Was: The maximum number of the time period of connectivity check is 600 seconds

Is: The maximum number of the time period of connectivity check is 3600 seconds

29. [BUG FIX] eITS#150701032

Unable to build L2TP VPN. Connect hangs on checking account and is broken.

30. [BUG FIX] eITS#150900420

Edit the actions of some IDP rules from none to reject-both and save it, the actions become no instead of reject-both.

[Condition]

The issue can be easily reproduced with the following steps.

1. Create new IDP profile. Ex: Use wan base profile
2. Change the actions of some rules from none to reject-both and save it. Check these modified rules and user will find the actions are no instead of reject-both.
3. User needs to change the actions from no to reject-both again and save it.

31. [BUG FIX] eITS#150900398

After editing BWM rule, the error message pops up. Error Number: -37004 Error Message: 'System internal error. Internal application error.'

32. [BUG FIX] eITS#150600517

The Web GUI will be slow if edit VPN rule when device has configured 300 VPN connection rules.

[Condition]

There are 300 VPN tunnels. If Enable/Disable with 10 rules in the same time, the web GUI will hang. (VPN tunnel is not established yet)

33. [BUG FIX] eITS#150800872

ZySH daemon will dead when collect the diag-info file.

[Condition]

When issue happen GUI and console will not feasible to access and customer can only do power cycle to regain.

34. [BUG FIX] eITS#150901026

USG110 / L2TP fails user login

[Condition]

For the old accounts which were created before upgrading to WK37 firmware, L2TP tunnel can be established successfully; however, created some accounts after upgrading, L2TP will be failed due to incorrect username or password.

35. [BUG FIX] eITS#150600519

Solved "tunnel leak" issue when using a DDNS address in peer address.

36. [BUG FIX] eITS#150900987

USG1900 doesn't detect LTE dongle WLTUBA-107

37. [BUG FIX] eITS#150800739, 160400735

USG60W CPU random issue

[Condition]

The customer reported the CPU rate will be high, and the only recovery way is rebooting the USG. When the issue occurs, LAN users cannot

access internet; however, the LAN users can communicate with each other.

38. [BUG FIX] eITS#151001056

Moscow, Kazan, Volgograd is using GMT+3 (without daylight savings), but in settings of USG it is GMT+4.

39. [BUG FIX] eITS#150901015

After rebooting the USG does not raise PPPoE automatically. The PPPoE could be connected if dial manually, but not automatically.

40. [BUG FIX] eITS#151000924

The error message is wrong when adding wrong format URL in field.

[Condition]

Enter the complete URL of the site including "http://" on Trusted Web Site column in Content Filter. The pop out message shows "IPv6 subnet in CIDR format error". The URL seems not related to IPv6.

41. [BUG FIX] eITS#150701192

ZyWALL series have IPSec VPN problem

[Condition]

Cannot establish VPN tunnel with Wlink device; however can connect successfully with downgrade firmware 3.2 on ZyWALL series.

42. [BUG FIX] eITS#150901170

The L2TP tunnel will frequent disconnects.

43. [BUG FIX] eITS#151001230, 151100428

Device reboot time to time

44. [BUG FIX] eITS#150800878

Error IP format still saved into configuration by CLI command

45. [BUG FIX] eITS#150900889

Solved IOP issue with Sophos UTM 9 Release 9.211-3.

46. [BUG FIX] eITS#151100824

PPPoE Dial In issue with Nailed-Up

[Condition]

To enable nail-up in the PPPoE interface, and pressed disconnect button. Repeating the action around 8-20 times, nail-up will not work. The connection only can be established by press connect manually or reboot the device.

47. [BUG FIX] eITS#151101099

Unable to access the console from web by using Java 8 update 51 or above (any browser). There is no problem with Java 8 update 45 and previous versions.

48. [BUG FIX] eITS#151200212

The DNS query will pass through by local NIC's DNS address.(only happens on Win10)

49. [BUG FIX] eITS#151201300

USG210: Statefull Firewall does not work correctly for DNS over VPN

[Condition]

PC-----USG110===== [VPN] =====USG200

(1) PC's DNS IP is USG110's LAN1 interface.

(2) USG110 is establish VPN tunnel with USG200.

a. Add a domain zone forward: darkzone.local, IP: USG200's LAN1 interface

b. Disable default rule: From: IPsec VPN, To: ZyWALL, Action: allow. ->it means the traffic initiated from USG200 LAN site, the packets will hit default rule and drop.

(3) Add A record on USG200: ap.darkzone.local, IP: LAN subnet.

(4) Send DNS query for ap.darkzone.local from PC and cannot get IP for it.

50. [BUG FIX] eITS#151100310

Not possible delete VPN rules created by L2TP wizard

51. [BUG FIX] eITS#141001045

It shows incorrect expiration date of licenses on the GUI.

52. [BUG FIX] eITS#160100921

USG1100: SSL Inspection signs with SHA1

[Condition]

(1) Access https://www.google.ch without SSL Inspection activated and check the Google certificate == sha256 signed

(2) Activate SSL Inspection on USG1100 Firewall, use self-signed sha256 certificate on USG1100 for SSL Inspection configuration

(3) Access https://www.google.ch with SSL Inspection enabled ... no the Google certificate == sha1 signed

53. [BUG FIX] eITS#160100981

One wrong Russian translation

54. [BUG FIX] eITS#150800874

ZyWALL1100 DHCP relay offer is dropped.

[Condition]

The DHCP relay for unicast DHCP offer and ack (for apple's device) will be dropped.

55. [BUG FIX] eITS#151100489, 151000326, 151100898

USG Anti-Spam module Threshold flush not possible

[Condition]

Mails lost. (Mail session reached maximum 200/200 and never going down unless the device reboot)user has to modify the anti-spam behavior to let mail 'Forward' when mail scan reaches maximum in order to avoid mail lost.

56. [BUG FIX] eITS#160101287

The mail server can't receive mail from internet.

[Condition]

Device response "reached the maximum threshold of 200."

57. [BUG FIX] eITS#160200401, 160200399

SNMP port traffic does not work correctly

[Condition]

The customer use the network management software named PRTG (based on SNMP) and the port traffic doesn't work correctly.

The software will query SNMP to device every 60 seconds; however device will responds there is no traffic but will show the correct value after 5 minutes.

58. [BUG FIX] eITS#160300528

Auto Discovery from Office 365 doesn't work

[Condition]

When creating a new account in outlook, the auto-discover will fail when any UTM service has enabled.

59. [BUG FIX] eITS#160200111

Route Policy entry in packet flow is wrong

[Condition]

When creating policy route and set the specific service port in rule. In packet flow will shows incorrect and it will affect the site to site VPN routing.

60. [BUG FIX] eITS#160400165

USG310: ZySH daemon no response

[Condition]

After upgrade to the firmware to 4.15 patch 2, the ZySH daemon no response after 12.24hr.

61. [BUG FIX] eITS#150800388, 150800459

Proxy Cap SSH connection through USG

[Condition]

SSH daemon TCP forwarding does not work.

62. [BUG FIX] eITS#160101023

Traffic drop during the Device-HA synchronization

[Condition]

The RDP and cloud AP will disconnect during the Device-HA synchronization.

63. [BUG FIX] eITS#160200257

Remove the "DONT FRAGMENT BIT" from IP header of IKE packet for the MTU issue.

64. [BUG FIX] eITS#160400549

Device-HA sync failed

65. [BUG FIX] eITS#160500683

Enhance DPD timer in IPSec PM and fix DPD handshaking twice issue.

66. [BUG FIX] eITS#160601226

Memory leakage

67. [BUG FIX] eITS#160200037

iOS client logout when trigger rekey.

[Condition]

(1) Setup a ikev2 VPN rule.

IKE: AES256, SHA256, DH14

IPSec: AES256, SHA256

(2) Use iOS 9.3 to connect to DUT.

(3) After 480 seconds, iOS rekey and then user logout.

68. [BUG FIX] eITS#160300715

When CF is active no http/https traffic possible

Features: V4.15(ABAR.3)C0

Modifications in V4.15(ABAR.3)C0 - 2016/07/06

1. [BUG FIX] eITS#160601199
Device can't update license successfully

Features: V4.15(ABAR.2)C0

Modifications in V4.15(ABAR.2)C0 - 2016/03/17

1. [ENHANCEMENT] APC 1.97

Support new AP model
WAC6103D-I
NWA5123-AC

2. [BUG FIX] eITS#160101036

The AP images update incomplete randomly

Features: V4.15(ABAR.1)C0

Modifications in V4.15(ABAR.1)C0 - 2016/02/24

1. [ENHANCEMENT] Patch for Vulnerability CVE-2015-7547.

Features: V4.15(ABAR.0)C0

Modifications in V4.15(ABAR.0)C0 - 2015/12/31

1. [ENHANCEMENT] AP Firmware Cloud Update
2. [ENHANCEMENT] Force users to change password
3. [ENHANCEMENT] APC 1.95

Support new AP model
WAC6502D-E
WAC6502D-S
WAC6503D-S
WAC6553D-E
NWA5301-NJ

4. [ENHANCEMENT] Support generating SHA2 Certificate
5. [ENHANCEMENT] One Security Icon
6. [ENHANCEMENT] IPSec VPN Rule Number Parameters Change

Model	IPSec VPN Rule Number
USG40/40W	20
USG60/60W	40

7. [ENHANCEMENT] Max number of control AP Change

Model	Max number of control AP
USG40/40W/60/60W	18
USG110/ZW110/USG210/ZW310/USG310	34
ZW1100/USG1100/USG1900	66

8. [BUG FIX] eITS#150701258

The customer configured wan1_ppp. In Ethernet > wan1, he configured static IP with 0.0.0.0. (The modem issues IP 192.168.1.0/24, so he configures static IP as 0.0.0.0.) However, it shows 192.168.4.1 on the dashboard.

9. [BUG FIX] eITS#150701098

When added external group user(RADIUS), and using space in group identifier, it will caused RADIUS daemon dead per 3 mins,

10. [BUG FIX] eITS#150700521

The customer found out that the PPPoE is not able to connect while there's specific combination of characters in username (\$ and @)

11. [BUG FIX] eITS#150700453

Incorrect sorting in MONITOR > UTM Statistics > IDP > Occurrence.

12. [BUG FIX] eITS#150700327

If the DNS server of LAN PC is pointed to USG, the URL cannot be resolved. Via the console, the named is not existed.

13. [BUG FIX] eITS#150601043, 150701260

Device HA status will keep Active-Fault-Active-Fault.

[Condition]

After enabling Device-HA, the VLAN client cannot ping to USG, and the Device-HA status is not stable.

14. [BUG FIX] eITS# 150600669, 150601080

Internal server error after attempts to log in to device web GUI.

15. [BUG FIX] eITS# 150600524

When Device HA activated. The Backup device syncs with Master device, the backup device will establishing VPN tunnel with remote site by management IP address.

16. [BUG FIX] eITS# 150600517

There are over 300 VPN rule in configuration. When configuring rule, the device will hanging.

17. [BUG FIX] eITS# 150600437

Deactivate VLAN interface before activate Device HA function. Then enable Device HA function. the PC still get IP address from VLAN interface again.

18. [BUG FIX] eITS# 150600368

The daily-report can't send success to specific ISP. Our SMTP TLS by default will use STARTTLS but Swisscom does not support STARTTLS.

19. [BUG FIX] eITS# 150600248

USG100: DHCP Daemon crash. Configure virtual service IP address on wrong Incoming interface let dhcp dead. To check IP address are Incoming interface subnet.

20. [BUG FIX] eITS# 150600243

Enhance the speed when switching the page between Application object and Application group. (this has been enhanced with DF 411AAKZ2ITS-WK28-2015-08-04-150600243.rar)

21. [BUG FIX] eITS# 150600067

USG100 dhcp server size > 254 When configure DHCP server, to check each Interface to alert overlap Error.

22. [BUG FIX] eITS# 150501127

USG110 interface status while using trunk is wrong even though the connection is down, the wan1_ppp interface still shows alive.

23. [BUG FIX] eITS# 150500830, 150701013

When user login/logout from GUI, device will deletes exist TCP session.

24. [BUG FIX] eITS# 150500671

The device work fine for few days, but when symptom happening the device can't access to internet any more.(needs reboot device to recover it)

25. [BUG FIX] eITS#150500646

Enabled SSL inspection function on the device, and work perfect with few days. When symptom happening, the HTTPs page will became very slower until can't open any more. The symptom needs boot to resolve this situation.

26. [BUG FIX] eITS#150300227

When authentication with WPA2-Enterprise to authentication with 802.1X, the client can't authentication success.

27. [BUG FIX] eITS#150200529

DHCPv6 DUID length is too short compare to RFC definition.

28. [BUG FIX] eITS#150200167

Ping virtual interface successfully even if the virtual interface is deleted.

29. [BUG FIX] eITS#150200142

USG110 WPA2-enterprise for controlled ap not working when using ad as aaa-server.

30. [BUG FIX] eITS#150100917

SNMP MIBs ifOperStatus and ifSpeed incorrect for port-grouping interface.

31. [BUG FIX] eITS#140900194

When enable Anti-spam, client can't receive the mail.

[Condition]

Disable zypktorder duplicated ACK send when AS mail inspection stage.
(USG60 - Cannot get mails from external Mail server through USG)

Features: V4.13(ABAR.1)C0

Modifications in V4.13(ABAR.1)C0 - 2015/08/30

1. [BUGFIX]

Some objects cannot be correctly added or removed by CloudCNM.

Features: V4.13(ABAR.0)C0

Modifications in V4.13(ABAR.0)C0 - 2015/08/15

1. [ENHANCEMENT]

Management Feature Enhancement:

1. Support CloudCNM, a cloud-based network management system.

4.13 CloudCNM feature support includes:

- Batch import of managed devices at one time using one CSV file
- See an overview of all managed devices and system information in one place
- Monitor and manage devices
- Install firmware to multiple devices of the same model at one time
- Backup and restore device configuration
- View the location of managed devices on a map
- Receive notification for events and alarms, such as when a device goes down
- Graphically monitor individual devices and see related statistics
- Directly access a device for remote configuration
- Create four types of administrators with different privileges
- Perform Site-to-Site, Hub & Spoke, Fully-meshed and Remote Access VPN provisioning.

2. Support Russian Language

3. VPN MIB Support: eITS#150317956

SNMP VPN status MIBs.

The VPN status MIB is a MIB table containing the following information:

- Connection name
- VPN gateway
- IP version
- Active status
- Connected status.

Followings are the example of snmpwalk for the added MIBs;

VPN status MIB table:

- 1.3.6.1.4.1.890.1.6.22.2.4.1.1.1 = INTEGER: 1 --> table index
- 1.3.6.1.4.1.890.1.6.22.2.4.1.1.2 = INTEGER: 2
- 1.3.6.1.4.1.890.1.6.22.2.4.1.1.3 = INTEGER: 3
- 1.3.6.1.4.1.890.1.6.22.2.4.1.2.1 = STRING: "vpnconn1" --> name

- 1.3.6.1.4.1.890.1.6.22.2.4.1.2.2 = STRING: "vpnconn2"
- 1.3.6.1.4.1.890.1.6.22.2.4.1.2.3 = STRING: "vpn6conn1"
- 1.3.6.1.4.1.890.1.6.22.2.4.1.3.1 = STRING: "usg110_1" --> gateway
- 1.3.6.1.4.1.890.1.6.22.2.4.1.3.2 = STRING: "usg110_1"
- 1.3.6.1.4.1.890.1.6.22.2.4.1.3.3 = STRING: "vpn6_1"
- 1.3.6.1.4.1.890.1.6.22.2.4.1.4.1 = STRING: "IPv4" --> IP version
- 1.3.6.1.4.1.890.1.6.22.2.4.1.4.2 = STRING: "IPv4"
- 1.3.6.1.4.1.890.1.6.22.2.4.1.4.3 = STRING: "IPv6"
- 1.3.6.1.4.1.890.1.6.22.2.4.1.5.1 = INTEGER: 0 --> active status
- 1.3.6.1.4.1.890.1.6.22.2.4.1.5.2 = INTEGER: 1
- 1.3.6.1.4.1.890.1.6.22.2.4.1.5.3 = INTEGER: 1
- 1.3.6.1.4.1.890.1.6.22.2.4.1.6.1 = INTEGER: 0 --> connected status
- 1.3.6.1.4.1.890.1.6.22.2.4.1.6.2 = INTEGER: 0
- 1.3.6.1.4.1.890.1.6.22.2.4.1.6.3 = INTEGER: 0

VPN connection counter MIBs.

The VPN connection counter MIB is a MIB group containing:

- Total VPN connection configured
- Number of activated connection
- Number of connected connection
- Number of disconnected connection

Followings are the example of snmpwalk for the added MIBs;

VPN connection counters:

- 1.3.6.1.4.1.890.1.6.22.2.5.1.0 = Counter32: 3 --> Total connection configured
- 1.3.6.1.4.1.890.1.6.22.2.5.2.0 = Counter32: 2 --> Number of active connection
- 1.3.6.1.4.1.890.1.6.22.2.5.3.0 = Counter32: 0 --> Number of connected connection
- 1.3.6.1.4.1.890.1.6.22.2.5.4.0 = Counter32: 2 --> Number of disconnected connection

MIB table for VPN SA monitor

The new OID is 1.3.6.1.4.1.890.1.6.22.2.6.

The MIB table contains the following columns:

- 1.3.6.1.4.1.890.1.6.22.2.6.1.1 --> VPN connection index
- 1.3.6.1.4.1.890.1.6.22.2.6.1.2 --> VPN connection name
- 1.3.6.1.4.1.890.1.6.22.2.6.1.3 --> VPN connection policy
- 1.3.6.1.4.1.890.1.6.22.2.6.1.4 --> VPN connection uptime

- 1.3.6.1.4.1.890.1.6.22.2.6.1.5 --> VPN connection timeout
 - 1.3.6.1.4.1.890.1.6.22.2.6.1.6 --> Number of in-bound packets for the connection
 - 1.3.6.1.4.1.890.1.6.22.2.6.1.7 --> Number of in-bound octets for the connection
 - 1.3.6.1.4.1.890.1.6.22.2.6.1.8 --> Number of out-bound packets for the connection
 - 1.3.6.1.4.1.890.1.6.22.2.6.1.9 --> Number of out-bound octets for the connection
4. Support license refresh immediately while device-ha backup device become active.
 5. Add pre-defined configuration (or pre-defined UTM profile) by default.
 6. Offering DHCP option 138 has been disabled by default.

2. [ENHANCEMENT]

Connectivity Feature Enhancement:

1. Support RPS(Receive Packet Steering) to ensure that packets for the same stream of data are sent to the same CPU, which could help to increase performance in a congest(low bandwidth or high latency) network environment, eITS#150200442, 150200636.
2. We enlarge static DHCP host pool from 512 to 1024 for ZyWALL 1100, USG1100, and USG1900, eITS#150100773
3. Adjust Spec for SSLVPN Connections

Model	Default SSLVPN Connections	Maximum SSLVPN Connections
USG40/40W	5	15
USG60/60W	5	20
USG110	25	150
USG210	35	150
USG310	50	150
USG1100	250	500
USG1900	250	750
ZyWALL 110	25	150
ZyWALL 310	50	150
ZyWALL 1100	250	500

3. [ENHANCEMENT]

Security Feature Enhancement:

1. ADP engine and IDP engine upgrade to support more social networking application behavior, such as FACEBOOK like, FACEBOOK share...etc.

4. [ENHANCEMENT] eITS#150200756
UDP session timeout value can be configured up to 28800 seconds.
5. [ENHANCEMENT]
Patches for CVE-2015-0204, FREAK: OpenSSL vulnerability.
6. [ENHANCEMENT]
Patches for CVE-2015-4000, Logjam: TLS vulnerabilities (CVE-2015-4000).
7. [ENHANCEMENT]
Patches for vulnerability of HTTP authentication module which may cause USG behave as an open proxy to proxy HTTP request from external clients to internal servers.
8. [ENHANCEMENT]
Add CLI "no ipicmp-redirecets" command to disable ICMP redirects manually.
9. [BUG FIX] eITS#150317956
[OID]OID formats are different between USG40W and USG1900.
[Condition]
MIBs...1.3.6.1.4.1.890.1.15.3.1.6.0.....
USG40W: V4.11(AALB.0)/1.01 | Aug 28 2013 14:19:07/2015-03-13 06:53:46
USG1900: V4.11(AAPL.0)/1.10/2015-03-13 01:27:44
- 10.[BUG FIX] eITS#150301008, 150701094
DNS Security configuration can't change.
[Condition]
 1. Go to Configuration > System > DNS > Click Show Advanced Settings > Security Option Control > Edit default profile e.g. Query Recursion deny > Click OK button
 2. You will find the OK button no function.
- 11.[BUG FIX] eITS#150300062
If adding radius server into auth. method, L2TP cannot be established successfully. [Condition]
 1. Go to Configuration > Object > AAA Server > RADIUS.
 2. Set Server address: R1.domain.tw
 3. Set Backup Server address: R2.domain.tw (PS. R1.domain.tw and R2.domain.tw need result same ip address)
 4. Radiusd daemon couldn't bring on fail.
- 12.[BUG FIX] eITS#150300789
Combo-box show field is in wrong location.
[Condition]

1. In the settings of WLAN-interface, the input fields "802.11 band" and "Channel" are incorrectly positioned.
 2. The problem occurs only in the browser IE 11
13. [BUG FIX] eITS#150300851
Limited admin user fails to view click diagnostic page
[Condition]
1. Add a limited admin account
2. Login by limited admin
3. Go to Maintenance > Diagnostic
4. You will find USG GUI no response
14. [BUG FIX] eITS#150300910, 150400430
DHCP Relay may not work in Device HA environment.
[Condition]
When master device change status from fault state to active state, the DHCP relay function may not work.
15. [BUG FIX] eITS#150400012, 150200484, 150500302, 150600123, 150301005, 150501020, 150301061
In some cases, apply configuration will fail and cause zyshd dead. This may occur during the firmware upgrade progress or manually apply configuration.
16. [BUG FIX] eITS#150400115
[SSO][Authentication] Without SSO enabled, user can be correctly authenticated and associated with the AD-group "Internet Users". However, with SSO enabled, the user from the AD-group "Internet Users" always appears only in the group of "ext-user (ad-users)".
17. [BUG FIX] eITS#150301062
VLAN Packets can still be sent out even the base interface is disabled.
18. [BUG FIX] eITS#150300850
Configure many static DHCP address up to maximum, the CLI command may not correctly be configured and cause "incomplete entry" error each time DUT reboot.
19. [BUG FIX] eITS#150401185
In USG310, 1100, 1900, ZyWALL 310, 1100, it will show error message when configuring the port negotiation type on port 8.
20. [BUG FIX] eITS#150400882
When trying to sort the table (Hits) of "Top 5 Viruses" and "Top 5 Intrusions" in Dashboard by descending/ascending, sorting is only by the first digit.
21. [BUG FIX] eITS#150500769

Unable to edit application object page if it contains “,” character.

22.[BUG FIX] eITS#150300799, 150400336, 150401001, 150401067, 150401143, 150200666

SSO does not work correctly sometimes.

23.[BUG FIX] eITS#150300240

Unable to open IDP signature name to see the description in MONITOR > UTM Statistics > IDP

24.[BUG FIX] eITS#150200331

Fix unexpected reboot related to packet processing.

25.[BUG FIX] eITS#140900194, 150600194, 150600840

In some cases, user cannot get mails from external mail server through USG.

26.[BUG FIX] eITS#150200355

When we set speed on port1, the traffic doesn't work and show some abnormal message.

27.[BUG FIX] eITS#150600082

The CF report in monitoring page and report server record not match.

28.[BUG FIX] eITS#150600688

In some cases, DUT will crash when trying to establish L2TP.

29.[BUG FIX] eITS#150501015

In some cases, enable connectivity check in policy route rules may cause zyshd daemon dead.

30.[BUG FIX] eITS#150600137

In some cases, AV signature cannot be successfully updated.

31.[BUG FIX] eITS#150700094

Self-Signed DSA certificate can be created but cannot show on the GUI.

32.[BUG FIX] eITS#150300324

In USG110, USG210 and ZyWALL 110, DUT will become pure switch in a short period during booting process. When external AP and USG reboot at the same time, there might have possibility that AP will acquire IP address from outer DHCP server instead of DUT LAN DHCP server.

33.[BUG FIX] eITS#150600585

Wrong German translation, “Intra-BSS-Verkehraktivieren” should be corrected to “Intra-BSS-Verkehrblockieren”

34.[BUG FIX] eITS#150200663, 150500327

Some mails with attached files transferred from WAN to LAN cannot be received while Anti-Spam enabled.

35.[BUG FIX] eITS#150100252, 150200029, 150200072, 150300445

TFTP over IPSec cannot work well in the following topology.

TFTP Server-----USG40/60=====VPNtunnel=====USG20-----TFTP
Client

36. [BUG FIX] eITS#150100898

After Device HA fallback to Master, IP on VLAN interface become 0.0.0.0.

37. [BUG FIX] eITS#150500371

3G dongle E372 cannot work well in ZLD 4.11 Firmware.

38. [BUG FIX] eITS#150200205

Some session will hit wrong BWM rules with application service type and application object is not any.

39. [BUG FIX] eITS#150200080

ZyXEL VPN Client cannot establish VPN tunnel when using DUT default certificate to do IKE authentication.

40. [BUG FIX] eITS#141200576

Fix the issue that 'Disconnect Connections Before Falling Back' cannot work.

41. [BUG FIX] eITS#140800138

When setting Email Daily Report, strange log "msg="/USR/SBIN/CRON: (root) MAIL (mailed 369 bytes of output but got status 0x0001)" will dump in system log.

Features: V4.11(ABAR.2)C0

Modifications in V4.11(ABAR.2)C0 - 2015/04/28

1. [BUG FIX] eITS#150400012

Apply configuration which has SSID "VLAN Support" may causes zyshd daemon dead and device cannot be managed any more. User must reset device to default for recovery.

Features: V4.11(ABAR.1)C0

Modifications in V4.11(ABAR.1)C0 - 2015/04/21

1. [BUG FIX] eITS#150301160
Content Filter doesn't work at all after 4.11 upgrade.
2. [BUG FIX] eITS#150200801
Radius daemon will fail to launch if the radius server (in AAA server) is configured with domain name and DNS is not ready during device boot-up.
3. [BUG FIX] eITS#150301005
When SSID "VLAN Support" has been enabled, device will fail to load start-up config after reboot. User must reset device to default for recovery.

Features: V4.11(ABAR.0)C0

Modifications in V4.11(ABAR.0)C0 - 2015/03/12

1. [ENHANCEMENT]

Management feature enhancement:

1. ZON Utility Support (Device Discovery, Change Admin Password, Firmware Upgrade, Reboot Device, Web GUI Link)
2. Smart Connect Support (Device Discovery, Web GUI Link)

2. [ENHANCEMENT]

Connectivity feature enhancement:

1. AP Controller Technology 1.9
2. LTE dongle support
3. VLAN 802.1P marking support

3. [ENHANCEMENT]

Security feature enhancement:

1. Antivirus white/black list
2. Support ADP scan IPv6 traffic
3. ADP block time period
4. DNS security option control
5. SNMPv3
6. Add Reject Option in Security Policy
7. Add AV EICAR Detect Option
8. Add Action for untrusted cert chain of SSL Inspection
9. SSL Inspection certificate support cloud update.
10. UTM Performance Tuning #eITS141100375, 150100136, 150100251, 150200495

4. [ENHANCEMENT]

Usability enhancement

1. Wireless Initial Installation Wizard
2. Network Diagnostic tools on GUI
3. Security Policy Rules Filter & Clone
4. UTM Profile Viewer
5. Policy Route Rule Filter
6. NAT rule support service group
7. Dual image enhancement
8. Multi-Lingual GUI

5. [ENHANCEMENT]

VPN Feature Enhancement:

1. L2TP/IPSec behind NAT.
6. [ENHANCEMENT] eITS#141100032
Certificate support space character in the following field: Organizational Unit, Organization, Town, State (Province), Country.
7. [ENHANCEMENT] eITS#141000153
Support GUI check box "Use Static-Dynamic Route to Control 1-1 NAT Route" to change routing order. Static-Dynamic Route has higher priority to 1-1 NAT Route when it is enabled.
8. [ENHANCEMENT]
Patches for CVE-2015-0235, GHOST Vulnerability of glibc.
9. [FEATURE CHANGE] SPR#141007503
AP Controller default configuration changed from "Always Accept" to "Manual" setting.
10. [FEATURE CHANGE]
WAS:
AV, CF, AS black and white list and IDP custom signature **DO NOT** work without license.
IS:
AV, CF, AS black and white list and IDP custom signature **DO** work even without license.
11. [FEATURE CHANGE]
Enlarge Log Entry Size by each model
WAS:
For USG110/210/310/ and ZyWALL110/310: 512
For USG1100/1900 and ZyWALL 1100: 512
IS:
For USG110/210/310/ and ZyWALL110/310: 1024
For USG1100/1900 and ZyWALL 1100: 2048
USG40/40W/60/60W keep log entry size as 512.
12. [BUG FIX] eITS#150200052
Dynu DDNS cannot work
13. [BUG FIX] eITS#150100468, 140900136
Not connected to zyshd daemon due to deadlock by sshipsecpm connectivity check.
14. [BUG FIX] eITS#141200823
DUT cannot connect to SSO agent and output CLI command as below:

```
Router# show sso agent status
% connect failed
% SSO: domain socket fial!
ZySSO Primary Agent: offline
ZySSO Secondary Agent: offline
```

15. [BUG FIX] eITS#150100588

Apply configuration failed in the following steps:

1. reset the device back to default
2. Modify the WWW HTTPs port from 443 to 447, and some NAT and policy route rules.
3. Download the startup.conf which with HTTPs port as 447.
4. Change the startup.conf name as test_www and upload it.
5. Apply test_wwwconfig.
6. After device boot up, the device will fall back to default.

16. [BUG FIX] eITS#141100503

Strange behavior when ZyWALL is in DNS proxy role.

[Condition]

1. Add zone forwarder 8.8.8.8 for zone * via WAN interface
2. Add A-record for domain ftp.zanolari.net, IP 192.168.200.3
3. On PC, ping www.zanolari.net
4. Run CLI 'show ipdns server cache' and check www.zanolari.net is in DNS cache
5. Capture packets on device for WAN interface and port 53 (DNS)
6. On PC, run command 'ipconfig /flushdns' to flush DNS cache on PC, and then ping www.zanolari.net again
7. From captured packets you will find device sends DNS query for www.zanolari.net even if it is found in device's DNS cache.

17. [BUG FIX] eITS#141200186, 150100084

After enabling AS, the throughput is low.

18. [BUG FIX] eITS#141200341, 141200033

Move the log "App ID has been changed from 83886594 to 83886855" to debug log.

19. [BUG FIX] eITS#141001029

User cannot be configured in security policy rule with zone to zone rule from WAN to ZyWALL.

20. [BUG FIX] eITS#141100574

After rebooting, WAN gateway will disappear.

21. [BUG FIX] eITS#141100745

Device's management IP cannot be reachable while Device HA status changed.

22. [BUG FIX] eITS#141000415

The tunnel shows to be up in VPN Connections in both sides. However, no traffic can pass the tunnel and the log shows IPSec error with "no rule found, Dropping ESP packet".

23. [BUG FIX] eITS#141100945

Device HA failed to synchronize backup device with master device.

24. [BUG FIX] eITS#141200132

The IP pool size cannot be varied with the changing of IP pool start address on GUI.

[Condition]

1. Default "IP Address" is 192.168.1.1 and "IP Pool Start Address" is 192.168.1.33. The maximum pool size value is 223.
2. Change the "IP Pool Start Address" to 192.168.1.60, the pool size should be 196 but it is still 223.

25. [BUG FIX] eITS#141100753

Signature release date didn't display based on different time zone.

26. [BUG FIX] eITS#141100849

Changing the firewall rule to deny traffic to ZyWALL but not take effect immediately.

27. [BUG FIX] eITS#141100177

Building IPSec VPN tunnel with FortiGate, VPN tunnel cannot build after rekeying.

28. [BUG FIX] eITS#140800319

Download files may get stuck when UTM is activated.

29. [BUG FIX] eITS#141100097

Validation result of my certificate is failed.

30. [BUG FIX] eITS#141100402

Packets are sending out in the wrong interface.

31. [BUG FIX] eITS#141001052

Device has wrong or missing DNS cache record.

32. [BUG FIX] eITS#141000951

When using for SHA256 as intermediate certificate, the certificate path will shows "incomplete path".

33. [BUG FIX] eITS#141000870, 141100240

Rename a zone which has been used in Policy Control Rules will cause the zone field of these policy control rules cannot be changed or modified to other zones.

34. [BUG FIX] eITS#140900955

[RIP] When setting RIP redistribute OSPF as metric=3, reboot DUT will show error message and cause applying startup configuration failed.

35. [BUG FIX] eITS#140926122

[DHCPv6] When LAN interface set DHCPv6 client, it cannot send NS Packet.

36. [BUG FIX] eITS#140900251, SPR#140922847

[File Manager] Rename configuration file to 64 characters will fail with wrong CLI command.

37. [BUG FIX] eITS#141000516

[File Manager] Trying to download a file from download.microsoft.com or using the windows update service, in USG logs, IDP blocks the access

38. [BUG FIX] eITS#140900051

Route packets from a bridge interface according to the NAT result.

39. [BUG FIX] eITS#140900272

Ge3 is configured as IP/MAC binding enabled. Disable interface any one of ge4 ~ ge8. The DHCP client of ge3 is unable to ping the default gateway anymore.

40. [BUG FIX] eITS#141100569

[Interface] Routing didn't change even connective check failed.

41. [BUG FIX] eITS#150100603

IPSec VPN daemon causes high memory usage(99%).

Features: V4.10(ABAR.2)C0

Modifications in V4.10(ABAR.2)C0 - 2014/12/03

1. [ENHANCEMENT] eITS#140600094
Update driver to fix IOP issue with GenexisFiberXport device.
2. [ENHANCEMENT]
Add CLI to show the mapping for internal and external interface. CLI: "debug interface show mapping"
3. [ENHANCEMENT] eITS#141000162
Change log format as following:
Before:
category="ipsec" level="error" src="" dst="" msg="Failed to send packet, err=N"N: 1 or 2
After:
category="ipsec" level="debug" src="<source and port of packet>" dst="<destination and port of packet>" msg="Packet(PROTOCOL) cannot be sent, reason: REASON"
PROTOCOL: ESP/AH/TCP/UDP/Unknown(protocol number)
REASON: System dropped/Network congestion/Traffic control dropped
4. [ENHANCEMENT]
Update bash binary for shellshock bash vulnerability issue
5. [ENHANCEMENT] eITS#140900846
Support Huawei E303 USB 3G dongle with version 22.318.27.00.00
6. [ENHANCEMENT]
Add SNMP VPN status and connection counter MIBs.
The VPN status MIB is a MIB table containing the following information:
Connection name, VPN gateway, IP version, active status, and connected status.
The VPN connection counter is a MIB group containing:
Total VPN connection configured, number of activated connection, number of connected connection, and number disconnected connection.
Followings are the example of snmpwalk for the added MIBs;
VPN status MIB table:
1.3.6.1.4.1.890.1.6.22.2.4.1.1.1 = INTEGER: 1 --> table index
1.3.6.1.4.1.890.1.6.22.2.4.1.1.2 = INTEGER: 2
1.3.6.1.4.1.890.1.6.22.2.4.1.1.3 = INTEGER: 3
1.3.6.1.4.1.890.1.6.22.2.4.1.2.1 = STRING: "vpnconn1" --> name

1.3.6.1.4.1.890.1.6.22.2.4.1.2.2 = STRING: ""vpnconn2""
 1.3.6.1.4.1.890.1.6.22.2.4.1.2.3 = STRING: ""vpn6conn1""
 1.3.6.1.4.1.890.1.6.22.2.4.1.3.1 = STRING: ""usg110_1"" --> gateway
 1.3.6.1.4.1.890.1.6.22.2.4.1.3.2 = STRING: ""usg110_1""
 1.3.6.1.4.1.890.1.6.22.2.4.1.3.3 = STRING: ""vpn6_1""
 1.3.6.1.4.1.890.1.6.22.2.4.1.4.1 = STRING: ""IPv4"" --> IP version
 1.3.6.1.4.1.890.1.6.22.2.4.1.4.2 = STRING: ""IPv4""
 1.3.6.1.4.1.890.1.6.22.2.4.1.4.3 = STRING: ""IPv6""
 1.3.6.1.4.1.890.1.6.22.2.4.1.5.1 = INTEGER: 0 --> active status
 1.3.6.1.4.1.890.1.6.22.2.4.1.5.2 = INTEGER: 1
 1.3.6.1.4.1.890.1.6.22.2.4.1.5.3 = INTEGER: 1
 1.3.6.1.4.1.890.1.6.22.2.4.1.6.1 = INTEGER: 0 --> connected status
 1.3.6.1.4.1.890.1.6.22.2.4.1.6.2 = INTEGER: 0
 1.3.6.1.4.1.890.1.6.22.2.4.1.6.3 = INTEGER: 0

VPN connection counters:

1.3.6.1.4.1.890.1.6.22.2.5.1.0 = Counter32: 3 --> total connection configured
 1.3.6.1.4.1.890.1.6.22.2.5.2.0 = Counter32: 2 --> number of active connection
 1.3.6.1.4.1.890.1.6.22.2.5.3.0 = Counter32: 0 --> number of connected connection
 1.3.6.1.4.1.890.1.6.22.2.5.4.0 = Counter32: 2 --> number of disconnected connection

The number of disconnected connection is equal to the number of active connection minus the number of connected connection"

7. [ENHANCEMENT] eITS#140800801, 141000157

Improve SMB performance

8. [ENHANCEMENT] eITS#141000576

PPTP ALG support server in LAN scenario

9. [ENHANCEMENT]

Add an interface at GUI to setting SSL Inspection policy for untrusted certificate chain

10. [ENHANCEMENT]

Single Sign-on support authentication failover to web authentication. Note: With SSO Agent 1.0.4 or above.

[Condition]

When enable both Single Sign-on and Force User Authentication in web authentication policy. Once the Single Sign-On authentication fail, user will be redirect to web authentication login page as second authentication method.

11. [FEATURE CHANGE] eITS#141000788

Turn off SSLV3 support in build-in service(HTTPs) by default due to Poodle vulnerability issue

12. [FEATURE CHANGE] eITS#141000154

WAS: The columns "IKE Name" and "Cookies" showed on VPN Monitor

IS: The columns "IKE Name" and "Cookies" are hidden on VPN Monitor by default.

13. [FEATURE CHANGE]

WAS: WLAN bind with lan1 by default

IS: WLAN bind with lan2 by default

14. [FEATURE CHANGE]

WAS:

Log entry is 256

IS:

Log entry is 512

PS: For ZyWALL 310 and USG310 only

15. [FEATURE CHANGE]

WAS:

IKE packet can be sent from any interface by routing even the packet's source IP doesn't match to the outgoing interface.

IS:

The IKE packet can only be sent from the interface bound the same IP with the packet's source IP. The above feature may cause some scenario of VPN establishment not work.

Please refer to KB:

<http://kb.zyxel.com/KB/searchArticle!viewDetail.action?articleOid=014363&lang=EN>

16. [BUG FIX] eITS#140900194

User cannot get mail from external mail server through USG due to duplicate ACK packet.

17. [BUG FIX] eITS#140800834

USG with wrong CEF syslog format

18. [BUG FIX] eITS#140800642

Device HA status not changed when monitored interface IP changed

19. [BUG FIX] eITS#141000158
SSLVPN reverse proxy RDP cannot work
20. [BUG FIX] eITS#140900380
USG1100 / L2TP can't login user and with crazy log message
21. [BUG FIX] eITS#141000460, 141000461, 141000462
Static ARP entry will gone if enabling device HA
22. [BUG FIX] eITS#141000171
USG bootup makes switch function("Loop Guard") blocking port
23. [BUG FIX] eITS#141000157
False alarm in CAPWAP protocol in ADP engine
24. [BUG FIX] eITS#141000155
IKE packet sent at wrong interface and wrong IP
25. [BUG FIX] eITS#141000458
DHCP will clear static ARP entry after send DHCP ACK
26. [BUG FIX] eITS#141001108
USG110 cannot load Firmware if USB memory stick connected
27. [BUG FIX] eITS#140800642, SPR#140714684, 140804120, 141103007
ZyWALL 1100 - VPN connect fail and hang
28. [BUG FIX] eITS#140700610, 141000163, SPR#140909287
After device boot up, the log will show that the DHCP packets have been dropped by default firewall rule. However, WAN interface still gets the IP address from DHCP server.

Features: V4.10(ABAR.1)C0

Modifications in V4.10(ABAR.1)C0 - 2014/10/01

Release for manufacturing

Features: V4.10(ABAR.0)C0

Modifications in V4.10(ABAR.0)C0 - 2014/08/22

First release

Appendix 1. Firmware upgrade / downgrade procedure

The following is the firmware **upgrade** procedure:

1. If user did not backup the configuration file before firmware upgrade, please follow the procedures below:
 - Use Browser to login into ZyWALL/USG as administrator.
 - Click Maintenance > File Manager > Configuration File to open the Configuration File Screen. Use the Configuration File screen to backup current configuration file.
 - Find firmware at www.zyxel.com in a file that (usually) uses the system model name with a .bin extension, for example, "536ABAR2C0.bin".
 - Click Maintenance > File Manager > Firmware Package to open the Firmware Package Screen. Browser to the location of firmware package and then click Upload. The ZyWALL/USG automatically reboots after a successful upload.
 - After several minutes, the system is successfully upgraded to newest version.

The following is the firmware **downgrade** procedure:

1. If user has already backup the configuration file before firmware upgrade, please follow the procedures below:
 - Use Console/Telnet/SSH to login into ZyWALL/USG.
 - Router>**enable**\
 - Router#**configure terminal**
 - Router(config)#**setenv-startup stop-on-error off**
 - Router(config)#**write**
 - Load the older firmware to ZyWALL/USG using standard firmware upload procedure.
 - After system uploads and boot-up successfully, login into ZyWALL/USG via GUI.
 - Go to GUI → "File Manager" menu, select the backup configuration filename, for example, statup-config-backup.conf and press "Apply" button.
 - After several minutes, the system is successfully downgraded to older version.
2. If user did not backup the configuration file before firmware upgrade, please follow the procedures below:
 - Use Console/Telnet/SSH to login into ZyWALL/USG.
 - Router>**enable**
 - Router#**configure terminal**
 - Router(config)#**setenv-startup stop-on-error off**
 - Router(config)#**write**
 - Load the older firmware to ZyWALL/USG using standard firmware upload procedure.

- After system upload and boot-up successfully, login into ZyWALL/USG via Console/Telnet/SSH.
- Router>**enable**
- Router#**write**

Now the system is successfully downgraded to older version.

Note: ZyWALL/USG might lose some configuration settings during this downgrade procedure. It is caused by configuration conflict between older and newer firmware version. If this situation happens, user needs to configure these settings again.

Appendix 2. SNMPv2 private MIBS support

SNMPv2 private MIBs provides user to monitor ZyWALL/USG platform status. If user wants to use this feature, you must prepare the following step:

1. Have ZyWALL/USG mib files(**536ABAR2C0-enterprise.mib** and **536ABAR2C0-private.mib**) and install to your MIBs application (like MIB-browser).You can see 410AAPJ2C0-private.mib (OLD is 1.3.6.1.4.1.890.1.6.22).
2. ZyWALL/USG SNMP is enabled.
3. Using your MIBs application connects to ZyWALL/USG.
4. SNMPv2 private MIBs support three kinds of status in ZyWALL/USG:
 1. CPU usage: Device CPU loading (%)
 2. Memory usage: Device RAM usage (%)
 3. VPN IPsec Total Throughput: The VPN total throughput (Bytes/s), Total means all packets(Tx + Rx) through VPN.

Appendix 3. Firmware Recovery

In some rare situation (symptom as following), ZyWALL/USG might not boot up successfully after firmware upgrade. The following procedures are the steps to recover firmware to normal condition. Please connect console cable to ZyWALL/USG.

1. Symptom:

- Booting success but device show error message “can’t get kernel image” while device boot.

```
U-Boot 2011.03 (Development build, svnversion: u-boot:422M, exec:exported)
  (Build time: Feb 21 2013 - 10:15:57)

BootModule Version: V1.07 | 02/21/2013 10:45:46
DRAM: Size = 2048 Mbytes

Press any key to enter debug mode within 3 seconds.
.....
Wrong Image Format for bootm command
ERROR: can't get kernel image!
Start to check file system...
```

- Device reboot infinitely.

```
U-Boot 2011.03 (Development build, svnversion: u-boot:422M, exec:exported)
  (Build time: Feb 21 2013 - 10:15:57)

BootModule Version: V1.07 | 02/21/2013 10:45:46
DRAM: Size = 2048 Mbytes

Press any key to enter debug mode within 3 seconds.
.....
U-Boot 2011.03 (Development build, svnversion: u-boot:422M, exec:exported)
  (Build time: Feb 21 2013 - 10:15:57)

BootModule Version: V1.07 | 02/21/2013 10:45:46
DRAM: Size = 2048 Mbytes

Press any key to enter debug mode within 3 seconds.
.....
```

- Nothing displays after “Press any key to enter debug mode within 3 seconds.” for more than 1 minute.

```
U-Boot 2011.03 (Development build, svnversion: u-boot:422M, exec:exported)
  (Build time: Feb 21 2013 - 10:15:57)

BootModule Version: V1.07 | 02/21/2013 10:45:46
DRAM: Size = 2048 Mbytes

Press any key to enter debug mode within 3 seconds.
.....
█
```

- Startup message displays "Invalid Recovery Image".

```
U-Boot 2011.03 (Development build, svnversion: u-boot:422M, exec:exported)
(Build time: Feb 21 2013 - 10:15:57)

BootModule Version: V1.07 | 02/21/2013 10:45:46
DRAM: Size = 2048 Mbytes

Press any key to enter debug mode within 3 seconds.
.....

Invalid Recovery Image

ERROR

EnterDebug Mode

ZW1100>
```

- The message here could be "Invalid Firmware". However, it is equivalent to "Invalid Recovery Image".

```
Invalid Firmware!!!

ERROR
```

2. Recover steps

- Press any key to enter debug mode

```
U-Boot 2011.03 (Development build, svnversion: u-boot:422M, exec:exported)
(Build time: Feb 21 2013 - 10:15:57)

BootModule Version: V1.07 | 02/21/2013 10:45:46
DRAM: Size = 2048 Mbytes

Press any key to enter debug mode within 3 seconds.
.....

EnterDebug Mode

ZW1100>
```

- Enter `atkz -f -l 192.168.1.1` to configure FTP server IP address

```
>
>
>
> atkz -f -l 192.168.1.1
```

- Enter `atgof` to bring up the FTP server on port 1

```
ZyWALL 1100> atgof

Booting...
```

- The following information shows the FTP service is up and ready to receive FW

Building ...

Connect a computer to port 1 and FTP to 192.168.1.1 to upload the new file.

- You will use FTP to upload the firmware package. Keep the console session open in order to see when the firmware update finishes.
- Set your computer to use a static IP address from 192.168.1.2 ~ 192.168.1.254. No matter how you have configured the ZyWALL/USG's IP addresses, your computer must use a static IP address in this range to recover the firmware.
- Connect your computer to the ZyWALL/USG's port 1 (the only port that you can use for recovering the firmware).
- Use an FTP client on your computer to connect to the ZyWALL/USG. This example uses the ftp command in the Windows command prompt. The ZyWALL/USG's FTP server IP address for firmware recovery is 192.168.1.1
- Log in without user name (just press enter).
- Set the transfer mode to binary. Use "bin" (or just "bi" in the Windows command prompt).
- Transfer the firmware file from your computer to the ZyWALL/USG (the command is "put 310AAAC0C0.bin" in the Windows command prompt).

```
C:\>ftp 192.168.1.1
Connected to 192.168.1.1.
220==((<*>))=-.:. (<< Welcome to PureFTPd 1.0.11 >> )..-=((<*>))=-
220-You are user number 1 of 50 allowed
220-Local time is now 00:00 and the load is 0.00. Server port: 21.
220-Only anonymous FTP is allowed here
220 You will be disconnected after 15 minutes of inactivity.
User (192.168.1.1:(none)):
230 Anonymous user logged in
ftp> bin
200 TYPE is now 8-bit binary
ftp> put C:\ZLD_FW\310AAAC0C0.bin
```

- Wait for the file transfer to complete.

```
200 PORT command successful
150 Connecting to port 5001
226-944.6 Mbytes free disk space
226-File successfully transferred
226 5.540 seconds (measured here), 9.32 Mbytes per second
ftp: 54141580 bytes sent in 5.55Seconds 9760.52Kbytes/sec.
ftp>
```

- The console session displays "Firmware received" after the FTP file transfer is complete. Then you need to wait while the ZyWALL/USG recovers the firmware (this may take up to 4 minutes).

Firmware received ...

```
[Update Filesystem]
  Updating Code
..
```

- The message here might be "ZLD-current received". Actually, it is equivalent to "Firmware received".

```
ZLD-current received ...
```

```
[Update Filesystem]  
  Updating Code  
  ..
```

- The console session displays “done” when the firmware recovery is complete. Then the ZyWALL/USG automatically restarts.

```
.....  
.....  
.....  
.....  
.....  
.....  
.....  
done  
  
[Update Kernel]  
  Extracting Kernel Image  
  ..  
  done  
  Writing Kernel Image ... done  
Restarting system.
```

- The username prompt displays after the ZyWALL/USG starts up successfully. The firmware recovery process is now complete and the ZyWALL/USG is ready to use.

```

U-Boot 2011.03 (Development build, svnversion: u-boot:422M, exec:exported)
  (Build time: Feb 21 2013 - 10:15:57)

BootModule Version: V1.07 | 02/21/2013 10:45:46
DRAM: Size = 2048 Mbytes

Press any key to enter debug mode within 3 seconds.
.....
Start to check file system...
/dev/sda3: 33/20480 files (0.0% non-contiguous), 57481/81920 blocks
/dev/sda4: 97/23040 files (1.0% non-contiguous), 7623/92160 blocks
Done

INIT: version 2.86 booting
Initializing Debug Account Authentication Seed (DAAS)... done.
Setting the System Clock using the Hardware Clock as reference...System Cl
ock set. Local time: Tue May 28 08:54:07 GMT 2013

INIT: Entering runlevel: 3
Starting zylog daemon: zylogd zylog starts.
Starting syslog-ng.
Starting ZLD Wrapper Daemon....
Starting uam daemon.
Starting periodic command scheduler: cron.
Start ZyWALL system daemon....
.....
Got LINK_CHANGE
.....
Got LINK_CHANGE
Port [1] Copper is up --> Group [1] is up
.....Applying system configuration file, please
wait...
no startup-config.conf file, Applying system-default.conf
Use system default configuration file (system-default.conf)
ZyWALL system is configured successfully with system-default.conf

Welcome to ZyWALL 1100

Username:

```

- If one of the following cases occurs, you need to do the “firmware recovery process” again. Note that if the process is done several time but the problem remains, please collect all the console logs and send to ZyXEL/USG for further analysis.
 - ◆ One of the following messages appears on console, the process must be performed again ./bin/sh: /etc/zyxel/conf/ZLDconfig: No such file
Error: no system default configuration file, system configuration stop!!