Release Notes - Rev. A

OmniAccess Stellar AP

AWOS Release 4.0.4 – MR2 Release

These release notes accompany the OmniAccess Stellar Operating System (AWOS) Release 4.0.4 software for the Stellar APs. This document provides important information on individual software and hardware features. Since much of the information in the release notes is not included in the hardware and software user manuals, it is important to read all sections of this document before installing new hardware or loading new software.

Table of Contents

Related Documentation

The release notes should be used in conjunction with the associated manuals as listed below.

User manuals can be downloaded at: https://myportal.al-enterprise.com/.

Stellar AP Quick Start Guide

The Quick Start Guide assists you in quickly connecting to and configuring the Stellar AP.

Stellar AP Installation Guide

Provides technical specifications and installation procedures for the Stellar AP.

Stellar AP Configuration Guide

Includes procedures for managing and configuring all aspects of the Stellar AP using the built-in web interface.

Technical Tips, Field Notices, Upgrade Instructions

Contracted customers can visit our customer service website at: https://myportal.al-enterprise.com/.

Hardware Supported

- AP1101, AP1201, AP1220 series, AP1230 series, AP1251, AP1251-RW-B, AP1261-RW-B, AP1201H, AP1201L, AP1201HL, AP1320 series, AP1360 series, AP1201BG, AP1301, AP1301H, AP1311, AP1331, AP1351

New Software Features and Enhancements

The following software features are new with this release, subject to the feature exceptions and problem reports described later in these release notes:

Feature	Platform Support
AP1331 Management (OVE&OVC)	
AP Support HTTPS CP Redirection over Proxy (OVE&OVC)	Except AP1101, AP1201H, AP1201HL, AP1201L, AP1261-RW-B
802.11 Frame Aggregation and Fragmentation Vulnerabilities	All

Notes:

- OmniAccess Stellar AP reserves two SSIDs (One on 2.4G band, and one on 5G band). They perform background scanning for WIPs/WIDs services to alert and take preventive actions on any security threat. It is secure and NO clients can connect to these SSIDs.

Fixed Problem Reports Between Build 4.0.4.2046 and 4.0.4.1029

Notes: All the customer issues fixed in AWOS 4.0.3 MR5 are contained in this build.

PR	Description
Case: N/A ALEISSUE-1210	**Summary:** Configured AP-name not sent in the LLDP Packets. **Explanation:** Current AP LLDP program use AP model name as System Name of LLDP packets. Modify the LLDP program parameter to make the AP name as System Name of LLDP packets. Click for additional information
Case: N/A ALEISSUE-1205	**Summary:** Stellar AP does not switch channel after rf profile has been applied. **Explanation:** The current working channel is not inside the channel list in the new RF profile, meanwhile according to the automatic channel selection algorithm it cannot switch to the selected channel list because of the selected channel list and the bandwidth setting. To fix this issue, when applying a new RF profile, if the currently working channel is not in the list of newly selected channels, one of the new channels is randomly selected to apply. Click for additional information

Case: N/A ALEISSUE-1203	**Summary:** Command ssudo ME_5G enable | disable to be supported on AP1360-ME. **Explanation**: WLAND module set country code incorrectly when setting ME_5G enable, fix that by setting country code to IL. Click for additional information
Case: N/A ALEISSUE-1206	**Summary:** Packet dropped by AP stellar in root mesh mode. **Explanation**: In the case of several modules operating iptables rules at the same time, those rules created by EAG before client authentication are still not deleted after authentication, so after client re-connect these rules for the client still exist, causing the client traffic to be discarded. We add lock in the internal iptables library and iptables instance to protect race access and to ensure that iptables rules are created and deleted correctly. Click for additional information
Case: N/A ALEISSUE-1130 ALEISSUE-1194	**Summary:** SR# 00592179: Wifi user did not get the portal page. **Explanation**: Because of clients concurrent association of APs, this leads to race between WAM and EAG, and individual instances of iptables, resulting in incorrect processing of iptables rules. Added lock in the internal iptables library and iptables instance to protect race access. Click for additional information
Case: N/A ALEISSUE-1106	**Summary:** Nessus scan discovered a few vulnerabilities for stellar APs. **Explanation**: Remove cipher suites ECDHE-RSA-RC4-SHA RC4-SHA RC4-MD5 ECDHE-RSA-DES-CBC3-SHA DES-CBC3-SHA of MQTT broker service due to those with MD5 and DES are not secure. Click for additional information
Case: N/A ALEISSUE-1204	**Summary:** Bridge between 2 AP is randomly disconnected / connected many times in a few minutes. **Explanation**: The issue is fixed by ignoring the beacon miss event by Client AP and then it will not deauth from Root AP. On 4.0.4 MR2, the ignoring beacon miss event needs to be enabled manually through support account if needed. Click for additional information
Case: N/A ALEISSUE-1198	**Summary:** SR# 00596479: AP 1101 rebooted due to "Watchdog starve".

	Explanation: Added feeding watchdog on kernal space layer and broadcast multicast speed limit function, which can solve the watchdog starve restart caused by not feeding watchdog in time or huge burst traffic happen in some specific network. Click for additional information
Case: N/A ALEISSUE-1028	**Summary:** 802.11 Frame Aggregation and Fragmentation Vulnerabilities. **Explanation**: Add vendor-specific patches for addressing Frame Aggregation and Fragmentation Vulnerabilities. Click for additional information

Fixed Problem Reports Between Build 4.0.4.1029 and 4.0.4.9

Notes: No customer issues reported on 4.0.4.9 (GA release dedicated to new model OAW-AP1301H), All the customer issues fixed in AWOS 4.0.3 MR4 are contained in this build.

PR	Description
Case: 00590006 ALEISSUE-1190	**Summary:** AP can't work at 802.11ax mode in Russia country code. **Explanation**: Modify AP board data to support 802.11ax mode in Russia country code. Click for additional information
Case: 00592179 ALEISSUE-1194	**Summary:** WiFi user can't get portal page at sometimes. **Explanation**: Sometimes when the client does not interact with the AP by sending 802.11 messages, AP cannot obtain information about the client and cannot delete the relevant access policy resulting of issue when redirecting to Captive Portal page. Click for additional information
Case: 00588845 ALEISSUE-1169	**Summary:** AP send deauth to clients with reason 2 when clients disassociated with AP. **Explanation**: When AP received clients offline event, it wrongly didn't clear relevant resource, and after the client's resource timer expired AP send deauth reason 2 to this client. Click for additional information
Case: N/A ALEISSUE-1158	**Summary:** Record Syslog message after AP crashed.

	Explanation: Generate a Syslog message "`[sysreboot]: =Power Off`" after rebooting and detecting AP crash. This kind of reboot is usually observed when a LANPOWER defect is observed on switch, for OmniSwitch please ensure the capacitor-detection is disabled.
Case: 00586612 ALEISSUE-1175	**Summary:** AP-1201BG management SSID not able to disable. **Explanation**: The front-end page is missing the relevant configuration, as a workaround we can add any Stellar AP model supporting Wi-Fi within the cluster, once this AP will be elected as PVM administrator can disable the Management SSID. As of AWOS 4.0.4 MR-1 if all APs models are AP1201BG we expose on the Cluster management page the possibility for deactivating the Management SSSID. Click for additional information
Case: 00582383 ALEISSUE-1192	**Summary:** WiFi clients traffic are forwarded to Management VLAN. **Explanation**: IP forward function is turned on in the AP, the use's broadcast traffic will be the AP's management vlan, discard such traffic on the management bridge. Click for additional information
Case: N/A ALEISSUE-1159	**Summary:** No Syslog message generated when client is added to blocklist. **Explanation**: Adding following syslog message when client's MAC Address is added in the blocklist: `<NOTICE> [AP <AP_MAC_Address>@<AP_IP_Address>] : [tid:xx] [ Add blacklist mac is <device_mac_addresss> ]`
Case: 00574007 ALEISSUE-1138	**Summary:** Vulnerability check. **Explanation**: The vulnerability exists in DHCP Server service, in this release DHCP Server service is running only when this is enabled, by default, AP does not run this service. Click for additional information
Case: 00573237 ALEISSUE-1136	**Summary:** callhome_hash.json file is empty. **Explanation**: Call home configuration file is found empty, it is enhanced by adding backup mechanism when previous configuration is empty, backup file will recover. Click for additional information
Case: 00571709 ALEISSUE-1131	**Summary:** Radius Shared Secret with special characters doesn't work after AP reboot.

	Explanation: It is due to character '\' and ':' are not supported on AWOS 4.0.3 builds, it is solved by adding support for those characters. Click for additional information
Case: 00570454 ALEISSUE-1126	**Summary:** OmniVista does not allow backslash as PSK/Passphrase. **Explanation**: It is due to character '\' and ':' are not supported on AWOS 4.0.3 builds, it is solved by adding support for those characters. Click for additional information
Case: 00564932 ALEISSUE-1106	**Summary:** Nessus scan discovered a few vulnerabilities for stellar APs. **Explanation**: Remove TLS1.0 and TLS1.1 support of MQTT broker service due to TLS1.0 and TLS1.1 is not secured. Click for additional information
Case: 00544344 ALEISSUE-1017	**Summary:** RADIUS Authentication Requests are not redirected to OV/UPAM HA Active Node when back into service. **Explanation**: Adding the support of RADIUS Server preemption, AP is checking every 5 minutes (introduced Radius Authentication Server Down timer) the status of the Radius Primary Server. Once active back, Primary Radius Server will preempt over Backup. Click for additional information

Open/Known Problems

The problems listed here include problems known at the time of the product's release. Any problems not discussed in this section should be brought to the attention of the Service and Support organization as soon as possible. Please contact customer support for updates on problem reports (PRs) where no known workaround was available at the time of release.

PR	Description	Workaround
ALEISSUE-1201	Clients are getting IP address from different VLAN than configured.	Will be fixed in later release.
ALEISSUE-990	Deauthentication reason 34(Disassociated because excessive number of frames need to be acknowledged, but are not acknowledged due to AP transmissions and/or poor channel conditions).	Will be fixed in later release.

WCF	WCF Feature is not supported when WLAN Client is running behind an HTTP Proxy	No workaround
WCF	WCF Feature is not supported when WLAN Client is using mobile applications, there is no restrictions (packets are not dropped by AP, no redirection to Restricted Web page)	No workaround
802.1x_wpa3 client connection	On OV mode, when configured enterprise with WPA3_AES, client configured with 1x_wpa3 only can't connect to this WLAN. For now, WPA3_AES is intended to satisfy WPA2 and WPA3 transition mode.	In AWOS 4.0.5, Will add one more WPA2 and WPA3 transition mode, and WPA3_AES changes to WPA3 connection only.
DSCP	DSCP downlink direction does not take effect on 11AX products.	Will be fixed on AWOS 4.0.5.
Management VLAN	When the management VLAN is enabled, setting the static IP may fail	The static IP must be set first, and then enable the management VLAN.
DPI	[reflexive] configure link tracking. DPI_DROP does not take effect.	After modifying the reflexive, the client needs to go online and offline again, which can return to normal.
AP stateful ipv6 address	The ipv6 address of the dual-stack AP, AP is a stateful address. After configuring the open type of WLAN, to associate the WLAN, with the wireless network card of win 7 11n set to single-stack V6, check the network on-off condition of the V6 address.	When you manually configure a V6 address of the same network segment on the client as the gateway address, you can communicate with the same network address.
DPI FTP policy	Create one policy list binding and two policies, results that the user cannot access the ftp	There is no known workaround at this time.

Limitations and/or Dependencies

Feature	AP Model	Limitations and/or Dependencies
Tagged VLAN	AP1301H	It's not supported in this release, will be supported in next AWOS 4.0.5
Bypass VLAN	AP1301H	It's not supported in this release, will be supported in next AWOS 4.0.5
Guest Tunnel/RAP	AP1311/AP1301	Wireless client can not use Guest Tunnel or RAP on AP1301/AP1311 for L2GRE tunnel forwarding problem, this issue will be fixed on AWOS 404-MR3.
DPI	AP1311/AP1301/AP1301H	DPI is not supported on AP1301 & AP1311 products, it will be supported in future release.
WCF	All	1. WCF does not support http over proxy scenario.

		2. WCF does not support blocking mobile applications access. Client's packets are not restricted (packet not dropped by AP, no redirection to Restricted Web Page) 3. WCF does not support RAP scenario. 4. When using IPhone roaming between APs, reject page can't be redirected when using Safari, but it works ok for other browser such as Chrome
RAP	All	RAP does not support tagged VLAN on the Downlink ports
HTTPs CP over proxy	All	For iOS does not support to configure URL to bypass the proxy, this function does not work on iOS devices.
AP 802.1x client	All	Wireless clients can't connect to internet on untag VLAN with AOS switch due to AOS switch treat all untag devices as 802.1x client.
Wired Port	AP1201HL	AP1201HL switches to a Group with downlink configuration, wired client cannot access it.
DRM	All	In some cases, when the channel utilization reaches more than 90%, the channel does not switch automatically, which seriously affects the user experience.
IGMP Snooping	All Stellar Wi-Fi 6 AP Models	For 11AX devices, if there is no multicast querier in the environment, the conversion from multicast to unicast may fail. We recommend that the switch of IGMP Snooping feature be turned on by default.
Mesh	All	Multicast to unicast is not supported in Mesh mode. Because root AP to non-root AP does not implement the function of multicast to unicast in mesh mode, even if the client on non-root AP implements multicast to unicast, the efficiency is still not high.
DPI	AP1201/ AP1220 series/ AP1251	When DPI function is enabled, it is recommended to have an initial free memory size of about 30MB after AP booting up for system stable running. If the booting up free memory size is far less than 30MB, suggest removing unnecessary WLAN/VLAN/Policy/DPI rule on AP1201/AP1220/AP1251.
Bypass VLAN	AP1201H/ AP1201HL /AP1301H	If the bypass VLAN function is enabled, setting VLAN id A, and setting the management VLAN to tag VLAN id is also A, which will cause the AP itself to be inaccessible and affect the operation of AP. Therefore, there is a restriction here that the tag for managing VLAN cannot be the same as bypass.
mDNS	AP1201H/ AP1201HL /AP1261-RW-B	AP1201H/1201HL/AP1261-RW-B Downlink Terminal does not support mDNS message forwarding.
Show device name	All	When some clients connect to wlan, there is no option12 field in the dhcp message, so its hostname cannot be displayed.
Management VLAN Static IP LACP	AP1351	When configure LACP + Management VLAN + Static IP for AP1351, the network will not be reachable after AP reboot if LACP aggregated link is formed, the workaround of this issue should be disable LACP on switch side.

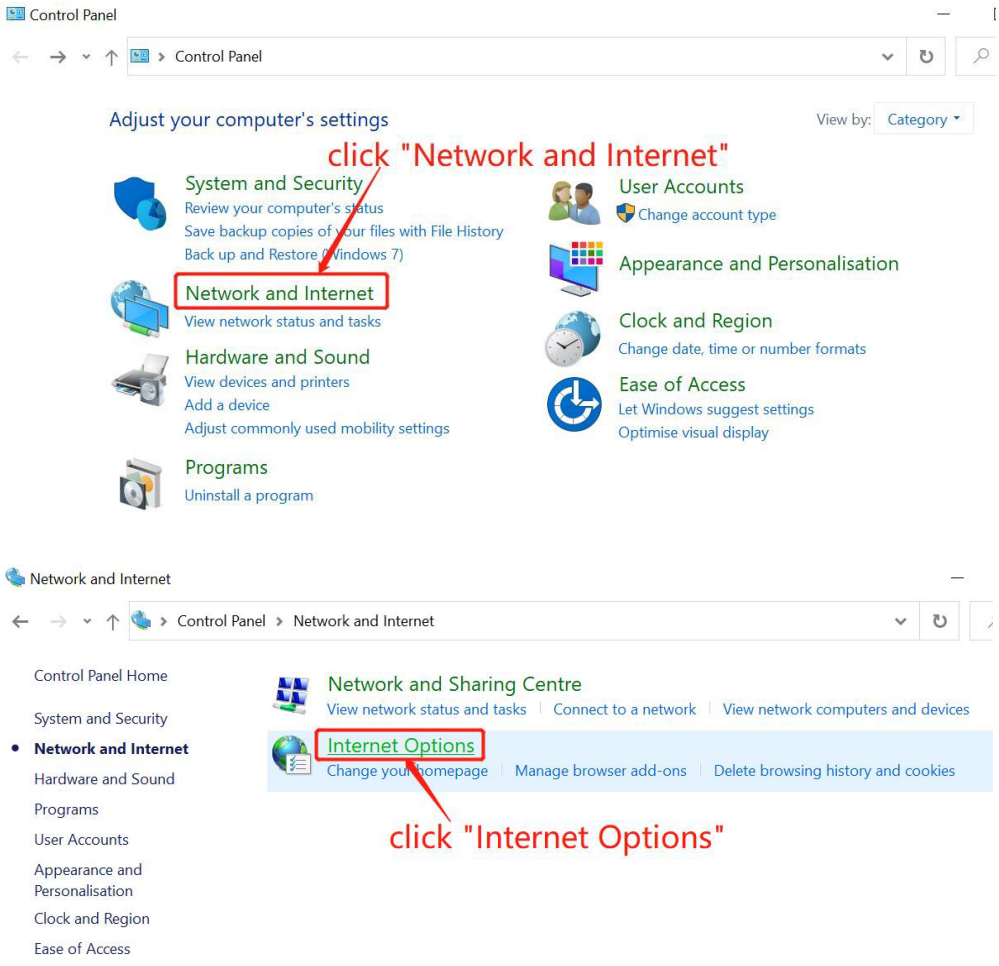
Link aggregation	All	Link aggregation with management VLANs has a certain probability of failure

New Software Feature Descriptions

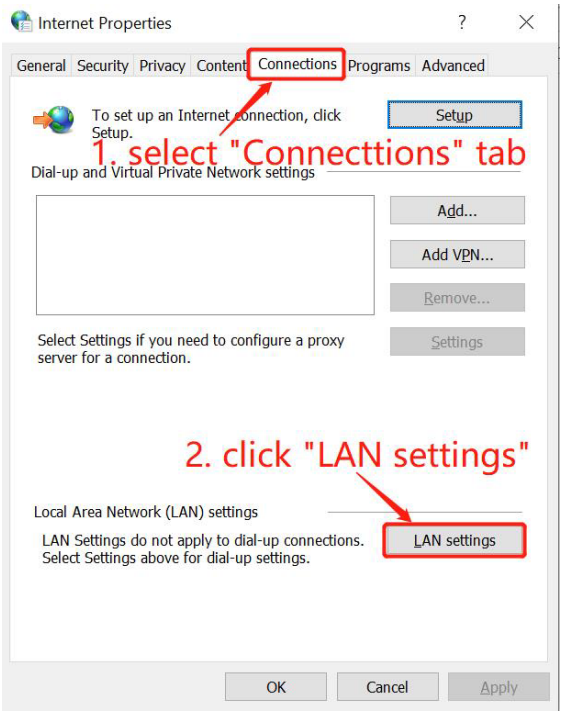
AP Support HTTPS CP Redirection over Proxy

1. Configure http/https proxy on the wireless client (Windows OS for example).

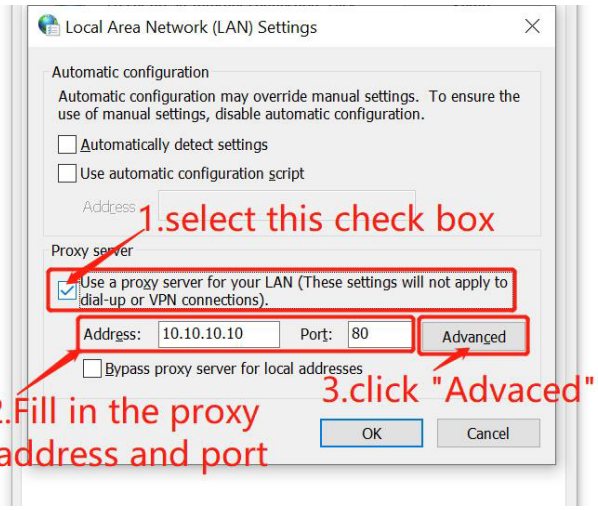
1.1 Open "Control Panel"> "Network and Internet"> "Internet Options"



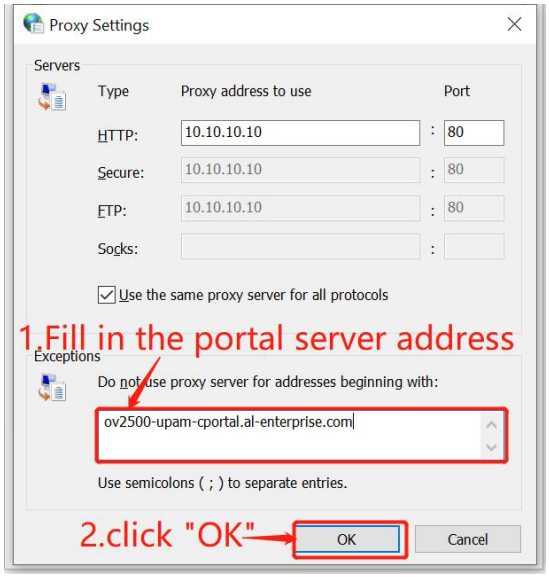
1.2 The "Internet Properties" window pops up, select the "Connections" tab, and click "LAN Settings"



1.3 The "Local Area Network (LAN) Settings" window pops up, check "Use a proxy server for your LAN", fill in the proxy server address and port, and click the "Advanced" button



1.4 The "Proxy Settings" window pops up, fill in the portal server address in "Exceptions", and click "OK"

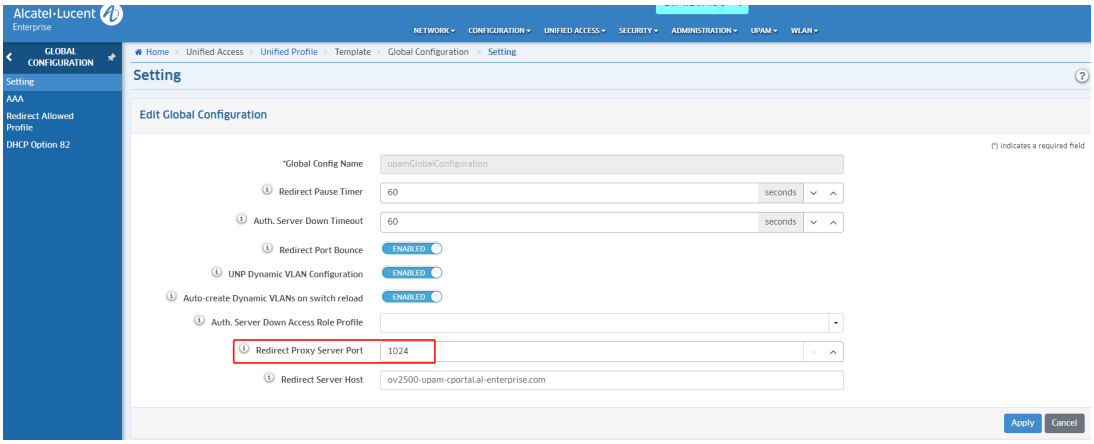


The client http/https proxy setting is complete.

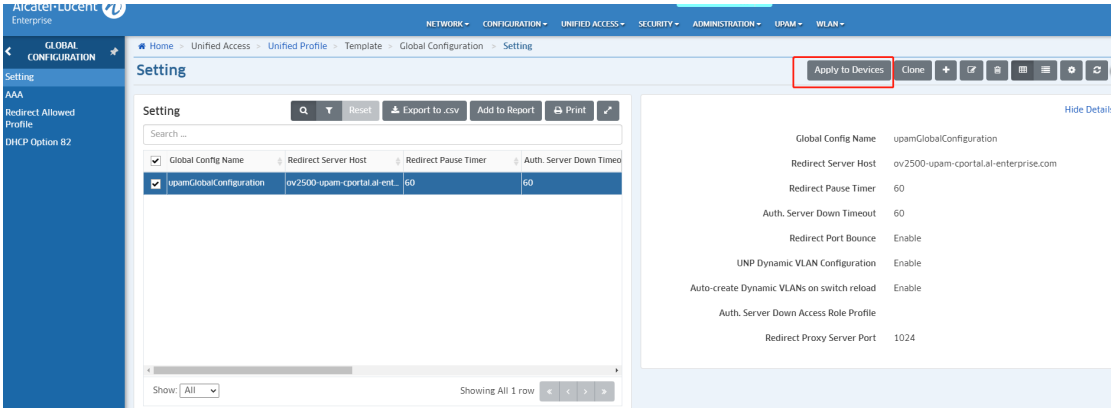
2. Set the proxy port on the AP.

2.1 Log in to the OV management page and go to Home > Unified Access > Unified Profile > Template > Global Configuration > Setting。

Modify or create Global Configuration and fill in the proxy port used by the client in "Redirect Proxy Server Port".



After the modification is completed, click "apply", and then click "Apply to Devices", select the AP's group, and send it to the AP.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NETWORK
CONFIGURATION
UNIFIED ACCESS
SECURITY
ADMINISTRATION
UPAM
WLAN
GLOBAL CONFIGURATION
Setting
AAA
Redirect Allowed Profile
DHCP Option 82
Home > Unified Access > Unified Profile > Template > Global Configuration > Setting
Setting
Apply to Devices
Clone
Setting
Reset
Export to .csv
Add to Report
Print
Search ...
Global Config Name
Redirect Server Host
Redirect Pause Timer
Auth. Server Down Timeo
upamGlobalConfiguration
ov2500-upam-cportal.al-ent...
60
60
Show: All
Showing All 1 row
Hide Detail
Global Config Name upamGlobalConfiguration
Redirect Server Host ov2500-upam-cportal.al-enterprise.com
Redirect Pause Timer 60
Auth. Server Down Timeout 60
Redirect Port Bounce Enable
UNP Dynamic VLAN Configuration Enable
Auto-create Dynamic VLANs on switch reload Enable
Auth. Server Down Access Role Profile
Redirect Proxy Server Port 1024

Technical Support

Alcatel-Lucent Enterprise technical support is committed to resolving our customer's technical issues in a timely manner. Customers with inquiries should contact us at:

Region	Phone Number
North America	1-800-995-2696
Latin America	1-877-919-9526
Europe Union	+800 00200100 (Toll Free) or +1(650)385-2193
Asia Pacific	+65 6240 8484

Email: ebg_global_supportcenter@al-enterprise.com

Internet: Customers with Alcatel-Lucent service agreements may open cases 24 hours a day via Alcatel-Lucent's support web page at: https://myportal.al-enterprise.com/.

Upon opening a case, customers will receive a case number and may review, update, or escalate support cases on-line. Please specify the severity level of the issue per the definitions below. For fastest resolution, please have telnet or dial-in access, hardware configuration—module type and revision by slot, software revision, and configuration file available for each switch.

Severity 1 - Production network is down resulting in critical impact on business—no workaround available.

Severity 2 - Segment or Ring is down or intermittent loss of connectivity across network.

Severity 3 - Network performance is slow or impaired—no loss of connectivity or data.

Severity 4 - Information or assistance on product feature, functionality, configuration, or installation.