

Release Notes - Rev. B

OmniAccess Stellar AP

AWOS Release 3.0.7 - GA Release

These release notes accompany the OmniAccess Stellar Operating System (AWOS) Release 3.0.7 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	3
Hardware Supported	4
New Software Features and Enhancements	4
Fixed field problems in build 3.0.7.26	4
Note: All fixes from prior releases are included (refer Appendix A).....	5
Open/Known Problems	5
Limitations and/or Dependencies.....	6
New Software Feature Descriptions.....	7
Appendix A: Problem fixed from 3.0.0.57 to 3.0.6.2056.....	10
Fixed Problem Reports Between Builds 3.0.6.28 and 3.0.6.2056.....	10
Fixed Problem Reports Between Builds 3.0.5.30 and 3.0.5.2060.....	12
Fixed Problem Reports Between Builds 3.0.3.32 and 3.0.4.2050.....	13
Fixed Problem Reports Between Builds 3.0.2.2078 and 3.0.3.32.....	14
Fixed Problem Reports Between Builds 3.0.2.2076 and 3.0.2.2078.....	15
Fixed Problem Reports Between Builds 3.0.2.1065 and 3.0.2.2076.....	15
Fixed Problem Reports Between Builds 3.0.2.40 and 3.0.2.1065.....	15
Fixed Problem Reports Between Builds 3.0.2.38 and 3.0.2.40	16
Fixed Problem Reports Between Builds 3.0.0.63 and 3.0.2.38	16
Fixed Problem Reports Between Builds 3.0.0.61 and 3.0.0.63	17
Fixed Problem Reports Between Builds 3.0.0.57 and 3.0.0.61	18
Appendix B - Upgrade Instructions	19
Technical Support	21

Related Documentation

The release notes should be used in conjunction with the associated manuals as listed below. User manuals can be downloaded at: <https://businessportal2.alcatel-lucent.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://businessportal2.alcatel-lucent.com>.

Hardware Supported

- AP1101, AP1220 series, AP1230 series, AP1251, AP1201H, AP1201, AP1201L, AP1201HL

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
	OmniAccess Stellar AP1101/AP1220/AP1230/AP1251/AP1201H/AP1201/AP1201L/AP1201HL
IoT Device Profiling (OVE&OVC)	All
Support Static WEP in HANLET (Express)	All
VLAN Pooling (OVE&OVC)	All
Supporting Disable/Enable AP Radio (Express)	All
Security Issues for AP Software (Express)	All
PERWIFI-46 : Hotspot 2.0 (OVE&OVC)	All
PERWIFI-41 : Multi Lingual Guest Captive Portal (Express)	All
PERWIFI-67 : WMM Voice/Video awareness logging (Express&OV)	All
PERWIFI-37 : 802.11v enhancement (Express&OV)	All
PERWIFI-40 : Show client username for 802.1x clients (Express)	All
PERWIFI-49 : For 5GHz band add support for 12, 24Mbps as part of minimum management rate control (Express&OV)	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 field problems in build 3.0.7.26

PR	Description
Case: 00395229 ALEISSUE-431	Summary: SSID not broadcasted by PVC and SVC Explanation: When SSID name contains special character like a single quote ' AP will not broadcast the SSID. If we check the iwconfig output on the AP it will show Access Point: Not-Associated. Click for additional information
Case: 00398518 ALEISSUE-432	Summary: User got disconnected from WiFi Explanation: Device getting disconnected from the WiFi and not automatically reconnect to the WiFi After 4 consecutive EAPOL - Key timeout, it will not use same AP will send death to the station. So instead of 4 way handshake, client has to perform complete whole 802.1x process Click for additional information
Case: 00419315 ALEISSUE-443	Summary: Randomly the linkagg for AP1231 fails. Explanation: In the case when AP uses eth0 (1000M) and eth1 (2.5G port under the 2.5G port group) to form aggregate, will set eth1 speed to 1000M Click for additional information
Case:N/A ALEISSUE-469	Summary: Stellar Neighbor APs are doing channel and power calculation based on APs down information Explanation: Stellar AP retains the neighbor AP's information all the time even if the AP was powered off for a day. Neighbor APs make their power decision based on an AP that is down. Click for additional information
Case: 00416370 ALEISSUE-474	Summary: Client is not able to connect if there is mix version of 3.0.5 and 3.0.6

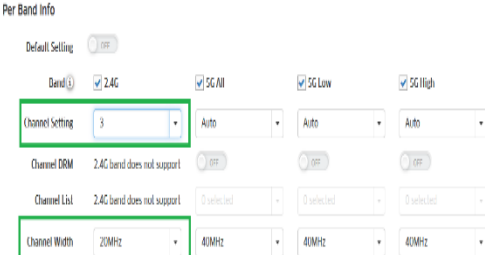
	<p>Explanation: if APs are running in a mix version environment, client are not able to associate with Wifi SSID, we notice error “Failed to connect to wam - wpa_ctrl_open: Connection refused” when we enter CLI command sta_list. Click for additional information</p>
ALEISSUE-478	<p>Summary: 802.1x authentication is failing after the AP reboot Explanation: Issue is related to “shared secret” change after the AP reboot if the “shared secret” contains a special character, e.g. “\” character Click for additional information</p>
Case: 00429321 ALEISSUE-527 ALEISSUE-529 ALEISSUE-495	<p>Summary: AP reboots due to IPv6 kernel panic. Explanation: IPv6 client authentication service is being disabled. This service is prone to certain vulnerabilities pertaining to malformed/jumbo packet handling. Once AWOS build is stable with IPv6 client handling, will provide an option to enable it in future release. Click for additional information</p>
Case: 00431289 ALEISSUE-536	<p>Summary: AP rebooted with reason "Detect abnormal parameter idle in wlanconfig". Explanation: Idle time exception in wireless driver found on AP1101/AP1201H/AP1201HL; Driver with correction patch has been applied. Wrong behavior of kickoff users when idle time threshold reaches on all APs. Fixed the idle timer kickoff mechanism for other wireless clients while maintaining MIPT phone communication. Click for additional information</p>
Case: 00431064 ALEISSUE-539	<p>Summary: AP up/down notification noticed in OV 2500 for some APs. Explanation: AP get Bluetooth information incorrect error handling, leads to MQTT keep alive timeout between AP and OV. Error handling logic corrected. MQTT keep alive timeout setting is too short comparing to U-Bus system call timeout on AP. It could lead to MQTT keep alive timeout if the request triggered from OV late in the keep alive cycle and AP not able to respond in a timely manner. Increased MQTT keep alive time from 30s to 60s in AP to guarantee AP can complete the U-Bus call and respond to OV before timeout cycle. Click for additional information</p>

Note: All fixes from prior releases are included (refer Appendix A)

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-425	<p>Summary: Glitches in IPTV when connected to the AP1201H wired port (00395302).</p>	<p>Glitches is seen randomly on AP1201H with multicast traffic from ISP. There is no workaround yet.</p> <p>The issue will be fixed in AWOS307-MR1.</p>
OVE-6900/JUP-931	<p>Summary: When the radio0 (2.4G) has voice client, the radio1 (5G) will skip the channel selection. There are two cases in detail:</p> <ul style="list-style-type: none"> - The wireless clients connecting to an AP with heavy influence 5G channel could be impacted on the accessing quality until the voice call 	<p>AP will check periodically every 30min for presence of voice call. When there are none, and if there is a better channel to select, it will continue with the process.</p> <p>The issue will be fixed in AWOS307-MR1.</p>

	<p>is terminated and auto channel selection is triggered.</p> <ul style="list-style-type: none"> - The channel distribution on 5G band among AP neighbor area may be not so good until the voice call is terminated and auto channel selection is triggered. 	
<p>OVE-6901/JUP-1001</p>	<p>Summary: Sometimes the neighbor AP list is not complete during AP1230 series boot up causing good channel distribution to take a little longer.</p>	<p>AP1230 series booting up time is longer than other AP models, there is possibility for it to not be detected by nearby APs, which could result in suboptimal channel. In next DRM cycle when AP neighboring list is complete it will account for optimal channel assignment.</p>
<p>OVE-6902</p>	<p>Summary: The factory reset AP may be in the same channel as neighboring AP after moving the AP into managed status. If there is wireless client connected before DRM achievement after becoming managed, the channel selection will be skipped until the channel goes bad (utilization: 2.4G-85%, 5G-75%).</p>	<p>Once the AP is in managed status, the DRM process will check for optimal channel every 30min. If there is no client connected, choose the channel to realize best distribution. If there is wireless client connected the channel selection will be skipped until the channel goes bad (utilization: 2.4G-85%, 5G-75%).</p>
<p>OVE-6903/JUP-981</p>	<p>Summary: After AP is in running status, the new channel width setting will not take effect for auto channel selection if the AP not rebooting.</p> <p>There are three cases in detail:</p> <ul style="list-style-type: none"> - Prior to upgrade to OV 4.4R2 / OV Cirrus 3.1, if Channel Width was customized, after the upgrade the channel width setting takes effect, there is no issue. - Prior to upgrade to OV 4.4R2 / OV Cirrus 3.1, if Channel Width was in auto mode, after the upgrade if admin modifies the width channel settings, new settings will not take effect. - Installation from scratch in OV 4.4R2 or new deployment on OV Cirrus 3.1, channel width is set in auto mode by default, if admin modifies the width channel settings, new settings will not take effect. <p>Click for additional information</p>	<p>Workaround:</p> <ol style="list-style-type: none"> 1. Change to a static channel: modify in WLAN -> RF -> RF Profile the Channel Setting, see below screenshot:  <ol style="list-style-type: none"> 2. Reboot the AP then it will utilize the configured channel width to select the optimal channel with new width setting. <p>The issue will be fixed in AWOS307-MR1.</p>

Limitations and/or Dependencies

When an AP MAC is configured as "Friendly AP", the network will ensure to not classify it as interfering/rogue AP. Please ensure to not delete the default Stellar MAC OUIs in OV mode (34:e7:0b and dc:08:56). Note that you can have a maximum of 32 Friendly MAC OUIs/MAC addresses configured. With Rogue AP containment enabled, for any AP classified as rogue, clients attempting to connect to Rogue AP will get disconnected.

New Software Feature Descriptions

Static WEP Encryption Support

We add Static WEP encryption on Person security level, it can be configured either by editing or creating WLAN, please refer to the screenshot below.

WLAN Name:

Security Level:

Key Management:

Wep Key Index:

Password:

Confirm:

Advanced

Supporting Disable/Enable AP Radio

In 3.0.7 Scope, you can disable the radio you want, simply unfold wireless banner, and open up RF Configuration page, then refer to the screenshot below to disable specific radio.

AP	2.4GHz Channel	2.4GHz Power(dBm)	5GHz Channel	5GHz Power(dBm)	
AP-F4:E0	auto(6)	auto(18)	auto(36)	auto(20)	

Global: 5G Channel Width(MHz) Save

Edit RF Information

Power

APC ON OFF

Power: (3-40)dBm

Auto Power Range: - (3-40)dBm

Others

Radio: on

Short GI: on

5GHz

Channel

Security Issues for AP Software

In 3.0.7 Scope, to address customer concerns on security of AP remote access, we add support/root customization on Express website, it is configured by unfolding System banner, click General to open up General Configuration page, then roll down to the bottom of the page, you can see Support/Root account in the screenshot below:

Note: For security reasons, only half of Root account password is held by customer and modified here.

General Configuration

Group Info Management Account Management Certificate Management

Tip: In order to ensure user security, please set the different password.

Cancel Save **Change password of support account**

Support Account

Password: (4-16 chars)

Confirm:

Cancel Save **Change password of root account**

Root Account

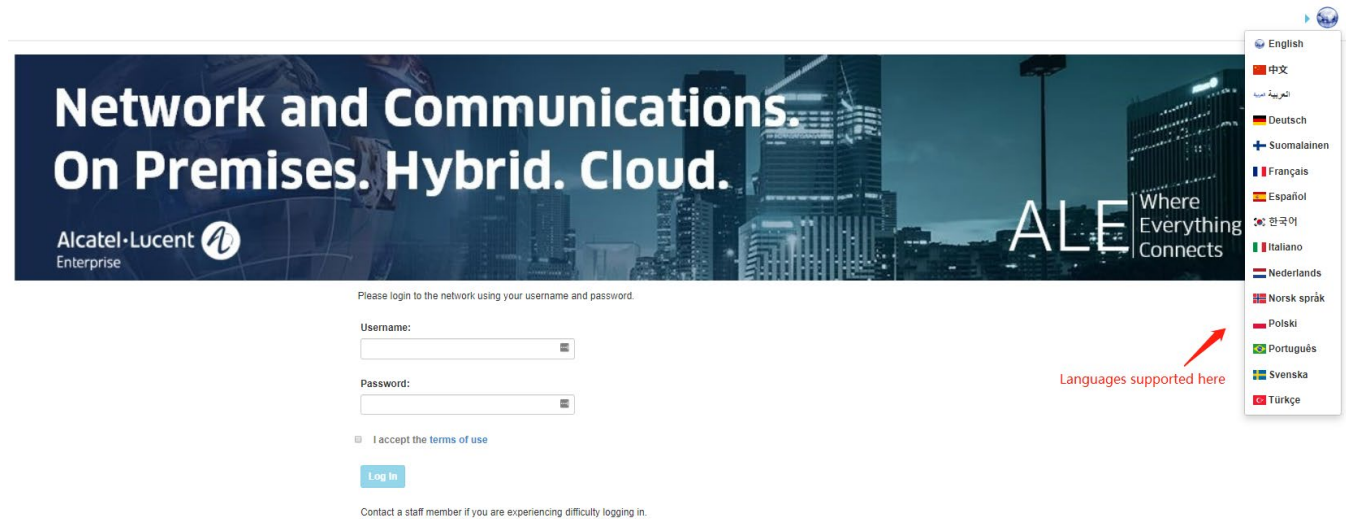
Password: (4-16 chars)

Confirm:

Cancel Save

Multi Language Guest Captive Portal

In 3.0.7 Scope, we support up to 15 languages of Guest Captive Portal in Express mode as screenshot below:



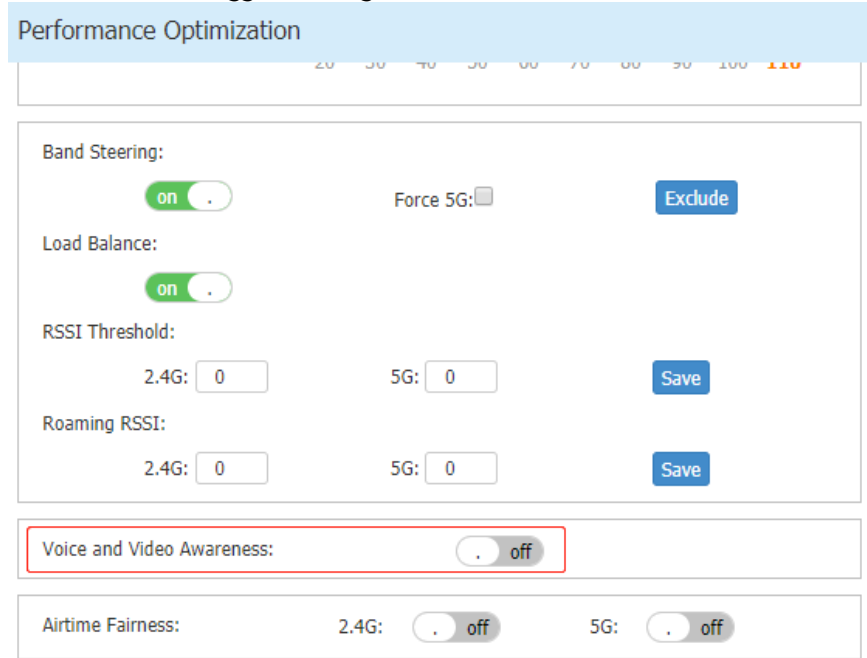
PERWIFI-37: 802.11v enhancement

In AWOS 3.0.7 we are adding enhancement that prior to informing roaming clients about the best APs to roam to, the subject Stellar AP should inform the corresponding AP list with client context information.

When roaming between APs, through client beacon reports (Radio Resource Measurement) AP stores one VAP info that has maximum RCPI (Received Channel Power Indicator), and its RCPI is must greater than current serving AP's meanwhile. Before sending the client BSS Transition Request, we check whether the BSSID is in the neighbor's VAP list (if two APs have same cluster ID or OV IP, we consider they are neighbor each other), if it exists BTM will be sent, if not direct interruption of processing.

PERWIFI-67: WMM Voice/Video awareness logging

When WMM Voice or Video is enabled and it detects voice/video traffic, the background scanning of Stellar APs in Express or Enterprise mode delays background scanning to provide best quality for real-time traffic. Such event should be logged stating detected Voice/Video traffic and hence background scanning backed-off.



- a. when detecting voice traffic, and the voice and video awareness is enabled, AP will not stop the bgs, there syslog output is like below:
l7check timer user: [%s] and the bgs status is open, run the command `bg-s -x pause_scanning=1`
- b. when the voice and video awareness is disabled, AP will not detect the voice traffic.

PERWIFI-40: Show client username for 802.1x clients

In previous release, AP has already supported show the client authenticating portal username in Express UI. However, for 802.1x clients authenticating using EAP-PEAP, the client username is empty. In 3.0.7 scope, we support display Radius username attribute in all Radius authentication modes, please refer to the screenshot below.

Clients				
For Group: AP-Group		Total:3		
User Name	IP	MAC	WLAN	Auth
sun	172.16.102.41	64:5a:ed:24:8e:aa	test8021x	<u>802.1X</u>
abcd	172.16.102.105	a0:3b:e3:86:59:6c	portal	<u>PORTAL</u>
	172.16.102.68/2...	30:b4:9e:49:fc:73	qqq	OPEN

PERWIFI-49: For 5GHz band add support for 12, 24Mbps as part of minimum management rate control

The minimum management on 5Ghz band is supported in AWOS 3.0.7 as below, the default management rate is 12Mbps.

Create New WLAN
✕

2.4G Client Rate: Mbit/s

5G Client Rate Control: off

5G Client Rate: Mbit/s

2.4G MGMT Rate control: on

2.4G MGMT Rate: Mbit/s

5G MGMT Rate control: on

5G MGMT Rate: Mbit/s

Hide

12


6

12

24

Cancel
Save

MGMT Rate supported



Appendix A: Problem fixed from 3.0.0.57 to 3.0.6.2056

Fixed Problem Reports Between Builds 3.0.6.28 and 3.0.6.2056

PR	Description
Case: N/A ALEISSUE-409	<p>Summary: /tmp/power_manage.conf missing read permissions for support user.</p> <p>Explanation: The root cause is that the /tmp/power_manage.conf read privilege for support user is disabled in the code. The issue is fixed by enabling the read privilege for support user. Click for additional information</p>
Case: N/A ALEISSUE-417	<p>Summary: SNMPv2-MIB::sysLocation.0 doesn't have correct "AP Location" set.</p> <p>Explanation: It happens when the "AP Location" is provided by lldp location. The issue is fixed by adding the fetch lldp location code logic. Click for additional information</p>
Case: 00392054 ALEISSUE-418	<p>Summary: AP-1231 random reboot needs analysis.</p> <p>Explanation: Root cause is that sometimes for processing specific IPv6 packet, a NULL pointer de-references over flow-based vxlan device in kernel. The issue is fixed by adding NULL check for ipv6_rcv in kernel. Click for additional information</p>
Case: 00412369 ALEISSUE-438	<p>Summary: Stellar AP 1101 is reloading automatically and it is shown as down in OV.</p> <p>Explanation: For shown as down in OV issue, root cause is that the ethernet driver state machine is abnormal and update the ethernet driver to address the issue; for watchdog reboot issue, root cause is that huge unknown unicast packets transferred in AP increase the SIRQ and leads to watchdog starve, dropping the unknown unicast packet addresses the problem. Click for additional information</p>
Case: 00401285 ALEISSUE-439	<p>Summary: OV Cirrus Stellar AP 3.0.6 no IP connectivity with Activation Server.</p>

	<p>Explanation: Root cause is that when the gateway IP is 192.168.1.254, and DHCP module processes DHCPACK packet, the default DHCP state machine is abnormal. Fixing the DHCP state machine during processing of the DHCPACK packet addresses this issue.</p> <p>Click for additional information</p>
Case: 00407781 ALEISSUE-446	<p>Summary: Minimum MGMT Rate is not working as expected.</p> <p>Explanation: Root cause is that the beacon rate in driver does not support the transmit rate of 9Mbps and 18Mbps. There is a limitation: when configuring MGMT to 9Mbps (or 18Mbps), the rate of beacon management frame will be set to be the nearest value which is larger than 9Mbps (or 18Mbps).</p> <p>Click for additional information</p>
Case: 00412761 ALEISSUE-465	<p>Summary: 2 SSIDs with same name are broadcasted.</p> <p>Explanation: Root cause is that Wi-Fi driver assembles and sends an error beacon frame, the error beacon frame will cause the client connecting to fail. This issue is fixed by correcting the beacon frame offset.</p> <p>Click for additional information</p>
Case: N/A ALEISSUE-466	<p>Summary: AP1231 is not getting classified as per LLDP classification after reboot.</p> <p>Explanation: Root cause is that in AP1231 the LLDP packet will be sent after the link aggregation, but during the link aggregation time the ICMPv6 MLDv2 packet is sent. Solution is to filter the ICMPv6 packet during this period and release it after LLDP packet sent.</p> <p>Click for additional information</p>
Case: 00364854 ALEISSUE-344	<p>Summary: AP1231's 2.5G interface goes down and clients cannot connect to AP.</p> <p>Explanation: Sometimes, AP1231 2.5G interface goes down randomly and it must be recovered by a manual reboot. Fix is, this 2.5G interface is being monitored continuously in software and will be recovered automatically in case of abnormal behavior.</p> <p>Click for additional information</p>
Case: 00371594 ALEISSUE-371	<p>Summary: All AP-1101s working in same channel when cluster size is more than 10.</p> <p>Explanation: Root cause is that there exists a disorder between channel selection and channel scanning, it's fixed by syncing channel selection and channel scanning modules.</p> <p>Click for additional information</p>
Case: 00387788 ALEISSUE-393	<p>Summary: High Memory usage noticed on AP1221.</p> <p>Explanation: The lbd module had a memory leak due to wrong resource free API used, it's fixed by using the right API for lbd.</p> <p>Click for additional information</p>
Case: 00394333 ALEISSUE-414	<p>Summary: DSCP mapping issue: DSCP 46 changed by Stellar AP from 46 to 48.</p> <p>Explanation: Root cause is the code inherited customized mapping rules for some special device. It's fixed by using the right mapping logic for DSCP value.</p> <p>Click for additional information</p>
Case: 00392689 ALEISSUE-421	<p>Summary: Policies are not working when configured with service group.</p> <p>Explanation: Root cause is when two rules match to the same service group, the first rule is ignored. It's fixed that all rules should not be ignored.</p> <p>Click for additional information</p>
Case: 00402663 ALEISSUE-437	<p>Summary: AP-1231 sending wrong Source MAC in the LLDP packet.</p> <p>Explanation: Root cause is there are duplicate MAC address on different physical interfaces in AP1231, it's fixed by unifying the mac address for different interfaces in bond/LACP.</p> <p>Click for additional information</p>
Case: 00398468 ALEISSUE-441	<p>Summary: Role mapping does not with machine authentication followed by user authentication.</p> <p>Explanation: Root cause is AP didn't properly store the new ARP name from the 2nd 802.1x authentication if the length of the new ARP name is longer than the old one. It's fixed by updating ARP storage mechanism.</p> <p>Click for additional information</p>

Fixed Problem Reports Between Builds 3.0.5.30 and 3.0.5.2060

PR	Description
ALEISSUE-316	<p>Summary: OV 4.3 R02 Stellar AP1231 / OS6560 LLDP link not displayed in Topology maps when interface speed is 2.5Gb/s.</p> <p>Explanation: The MAC for AP1231 2.5GE port is different from 1GE port, which makes OV treat AP-1231/1232 as two separate devices while switching ports. The issue is fixed by keeping 2.5GE port MAC address same with GE port.</p>
ALEISSUE-340	<p>Summary: Clients IPs are not displayed when connecting to Mesh point.</p> <p>Explanation: It happens when a client roams to a new AP without changing IP address. The issue is fixed by client information module can also obtain IP address from roaming module while client roaming happens.</p>
ALEISSUE-344	<p>Summary: AP-1231/1232's 2.5G interface goes down</p> <p>Explanation: Internal link status of 2.5G ethernet interface sometimes goes down on some of the APs. Fault detection and recovery mechanism is added in this build to avoid this kind of issue.</p>
ALEISSUE-348	<p>Summary: AP shows high CPU without any clients connected.</p> <p>Explanation: The problem occurs with low probability and is only related to DPI module. The issue is fixed by optimizing uploading mechanism of DPI information to OV.</p>
ALEISSUE-353	<p>Summary: Client authentication fails with on-premise LDAP with OV Cirrus</p> <p>Explanation: When AD server creates a user account, user name and user login name can be different. In this case the LDAP server fails to find the current user according to the CN attribute of the AD. The issue is fixed by adding consideration of the AD sAMAccountName attribute when looking up the user.</p>
ALEISSUE-355 ALEISSUE-362 ALEISSUE-363 ALEISSUE-366	<p>Summary: OV shows client count 0 but AP has clients connected with internet access</p> <p>Explanation: Client information report module in AP responds to OV with long delay when more users are connected to AP. The issue is fixed by optimizing design of the module.</p>
ALEISSUE-357	<p>Summary: Random AP reboot by panic.</p> <p>Explanation: The root cause is related to networking services acceleration module in AP's wifi driver. The issue is fixed by optimizing the design of the module.</p>
ALEISSUE-369	<p>Summary: Clients are getting frequently disconnected from wireless network after AP OS upgrade.</p> <p>Explanation: For fast transition in roaming process, client roaming module is set with high priority to be scheduled to make roaming process highly responsive, but the solution proves that it has little effect, it is fixed by adjust priority to the reasonable level.</p>
ALEISSUE-371	<p>Summary: All AP-1101 AP's working in same channel when cluster size is more than 10.</p> <p>Explanation: The issue randomly happens on 2.4Ghz band only. The issue is fixed by correcting logic error for 2.4G channel selection.</p>
ALEISSUE-283	<p>Summary: Background scanning duration is not respected correctly.</p> <p>Explanation: One of the parameters was not setting properly causes this issue. Configure correct value to make it work properly.</p>
ALEISSUE-290	<p>Summary: Abnormal count of Interfering AP count on OV Dashboard SR# 00331509.</p> <p>Explanation: There is malformation data of interfering APs with empty SSIDs, which is invalid. It's fixed by filtering invalid SSIDs data.</p>
ALEISSUE-318	<p>Summary: Channel width on 3.0.5.30.</p>

	Explanation: Failure to set bandwidth 20Mhz/40Mhz when ACS is enabled, it is caused by wrong data format of channel width info sent to ACS. Wrong data format is fixed.
ALEISSUE-326	Summary: SR# 00357799: APs were showing down on OV-Cirrus and users were unable to authenticate. Explanation: It happened when ethernet status changed in OV Cloud environment. Connection status change is not check in software process which caused this error.
ALEISSUE-329	Summary: The AP is not coming up in OV 2500, if the ICMP is blocked between the AP and the OV 2500. Explanation: Connection to OV is detected based on ICMP in AP software, it is fixed by removing the dependency to simplify the detection.
ALEISSUE-330	Summary: Unable to set a space in the AP name in Express mode (SR 00358760). Explanation: Space characters is not supported in AP name but there is no input limitation. Space characters is restricted in AP name filed in WEB GUI.

Fixed Problem Reports Between Builds 3.0.3.32 and 3.0.4.2050

PR	Description
ALEISSUE-214	Summary: Random Client disconnect. Explanation: When AP detects excessive packet retransmission errors, the AP puts the client into a state preventing handling of any further data packets. To resolve the issue, the AP upon detecting this state kicks the client so it can disconnect & reconnect.
ALEISSUE-267	Summary: Stellar AP 1221 randomly stop broadcasting SSIDs. Explanation: SSIDs not broadcasting on some of the APs after running for a long time. The root cause was RF tuning was not occurring in the right sequence leading to interface down status. The sequencing of operation with respect to interface and frequency setting has been corrected to resolve this.
ALEISSUE-282	Summary: AP1221 - stopped advertising SSID on 2.4Ghz. Explanation: This issue occurs because of a race condition when the AP attempts to perform a channel change, and at approximately the same exact time the DCM functional block (responsible for band-steering & load-balancing) queries the ACS on the old channel for utilization information. This results in the SSID interface locking up stopping SSID to be broadcasted on the band. To resolve, when ACS functional block is performing a channel change, the DCM functional block will back off until the channel change operation is completed.
ALEISSUE-272	Summary: AP's going down in OV but it's actually up and serving clients. Explanation: The root cause is after deleting the GTTS interface, AP does not handle receiving/forwarding of bigger packets. This has been resolved.
ALEISSUE-189	Summary: Though AP's are in Australia country code, customer noticed the Channels 120, 124, 128 in the RF profile which is restricted in Australia. Explanation: Remove channel 120,124,128 from web UI.
ALEISSUE-221 ALEISSUE-224	Summary: Band steering not working on couple of APs. Explanation: The root cause was the lbd process was not initialized properly leading to this. lbd process initialization is corrected to fix this.
ALEISSUE-225	Summary: SSIDs not broadcasting. Explanation: SSIDs not broadcasting on some of the APs after running for a long time. The root cause was RF tuning was not occurring in the right sequence leading to interface down status. The sequencing of operation with respect to interface and frequency setting has been corrected to fix this.
ALEISSUE-240	Summary: AP-1101 devices are continuously rebooting after enabling the Airtime Fairness. Explanation: Updated new driver on OAW-AP1101 to solve the problem.

ALEISSUE-216	Summary: NAS-ID field not being sent in RADIUS request by Stellar cluster. Explanation: Allow user to specify the NAS identifier in web UI and send out through RADIUS request packets.
ALEISSUE-227	Summary: HSTS Certificate Error on Android devices while doing Social Login using Facebook Explanation: Adding m.facebook.com into the white list domains of Walled Garden, as well as Optimizing the release rules for the IP address resolved by the DNS server.
ALEISSUE-255	Summary: Immediately change the default image of captive portal. Explanation: Replace the Express internal captive portal background picture.
ALEISSUE-256	Summary: APs show down on OV. Explanation: Some APs appear as down at the OV2500, SSIDs are propagated but the users cannot log in. The root cause was timeout of the AP connection agent when getting other service information, finally leading to this. The timeout process has been optimized to fix this.
ALEISSUE-258	Summary: 5 AP's in a cluster not broadcasting 5 Ghz Radio Explanation: The root cause was RF tuning was not occurring in the right sequence leading to interface down status. The sequencing of operation with respect to interface and frequency setting has been corrected to fix this.
ALEISSUE-207	Summary: Remove default NTP servers if a local server is entered
ALEISSUE-198	Summary: OAW-AP1251-ME TX power in 5GHz is very low in 3.0.2.2078
ALEISSUE-167	Summary: 8118 phones keep disconnecting & reconnecting to the AP1221(reopen issue 144)
ALEISSUE-170	Summary: Compatibility issue of the stellar AP1101 with IE browser.
ALEISSUE-189	Summary: Even though AP's are in Australia country code, customer noticed the Channels 120, 124, 128 in the RF profile which are restricted in Australia.
ALEISSUE-201	Summary: AP is sending corrupted LLDP packets.
ALEISSUE-127	Summary: APs in 5Ghz band using same channel even though Automatic channel configuration is enabled.
OVC-363	Summary: AP should support default NTP servers from OV cirrus vendor pool
OVC-1541	Summary: AS should change the status of a device to connectedToOV when receiving openVpnConfigFileStatus value = vpnConnectionRetained for AP
OVC-1238	Summary: Support new openVPnStatus value = vpnConnectionRetained for AP

Fixed Problem Reports Between Builds 3.0.2.2078 and 3.0.3.32

PR	Description
ALEISSUE-110	Summary: Client inactivity should be a configurable option
ALEISSUE-128	Summary: L3 ACL does not work in the AP-1101 cluster.
ALEISSUE-145	Summary: AP name is not consistent throughout the web gui.
ALEISSUE-88	Summary: ACL per SSID
ALEISSUE-160	Summary: Manually set channels need to be respected by ACS
ALEISSUE-193	Summary: mywifi factory SSID provides open access to network
ALEISSUE-186	Summary: Client is not receiving the IP address if SSID is configured with VLAN-2 on AP1231/32
ALEISSUE-179	Summary: AP 1221 with 3.0.0.57 sending unknown UDP packets

ALEISSUE-90	Summary: Guest re authentication on inactivity
ALEISSUE-87	Summary: Captive portal page is hosted only in http by default
ALEISSUE-86	Summary: Unable to install public, wildcard, private or self-signed certificate on the cluster

Fixed Problem Reports Between Builds 3.0.2.2076 and 3.0.2.2078

PR	Description
Internal	<p>Summary: In Enterprise mode when AP running with 3.0.2.2076 or older reboots or when setting up a new AP, it cannot connect to OV.</p> <p>Explanation: The AP certificate used for secure encryption to OV for configuration expired on May 2nd, 2018. This new AP software has been patched to address this. Additionally, “OmniVista 4.2.2. Build 115 Patch 2” addresses this issue and “OmniVista 4.3R1” has an option as part of the VA menu, to configure if AP certificates are tightly checked or not”.</p> <p>Note: If you still have an AP that is failing to connect to OV, please call customer support for further assistance.</p>

Fixed Problem Reports Between Builds 3.0.2.1065 and 3.0.2.2076

PR	Description
ALEISSUE-111	<p>Summary: EIRP for AP 1251 in 3.0.0.60 code is always 10 dBm.</p> <p>Explanation: The issue was in the display.</p>
ALEISSUE-122	<p>Summary: Handheld scanners on 2.4Ghz don’t roam properly on AP1101 cluster.</p> <p>Explanation: Option now available to disable 802.11b rates on the 2.4Ghz.</p>
ALEISSUE-139	<p>Summary: AP Throughput goes low periodically.</p> <p>Explanation: The issue is happened when disable background scanning, throughput drops in a large amount.</p>
ALEISSUE-146	<p>Summary: Client IP is not consistent.</p> <p>Explanation: This happens in a special kind of environment, when Net camera works as a HTTP server associate to the AP.</p>
ALEISSUE-161	<p>Summary: ACS needs to choose 20 or 40 MHz channel width when working in Israel.</p> <p>Explanation: ACS to choose 20/40 MHz wide channels when operating in a country code that has limited 5 GHz channels.</p>
ALEISSUE-170	<p>Summary: Compatibility issue of the stellar AP1101 with IE browser.</p> <p>Explanation: UTF-8 encoding automatically when access WEB GUI now.</p>

Fixed Problem Reports Between Builds 3.0.2.40 and 3.0.2.1065

PR	Description
ALEISSUE-127	<p>Summary: APs in 5Ghz band using same channel though Automatic channel configuration is enabled.</p> <p>Explanation: Optimization on DRM module, especially when Country Code changed.</p>
ALEISSUE-138	<p>Summary: Allow space in SSID name.</p> <p>Explanation: Create/Edit strings beginning with space and end with space will be deleted when finish saving this configuration; If there are multiple spaces in the middle of the strings, the length of SSID will include the length of those multiple spaces.</p>

ALEISSUE-134	Summary: 5 Ghz band not broadcasting. Explanation: Fixed one possible trap in DRM, which may cause this.
ALEISSUE-109	Summary: When PVC role changes from one AP to another, there is no notification Explanation: Add logs when PVC role changed include performing the “update to PVC” action.
OVE-837	Summary: Client status takes about 5-10 mins to update in OV WLAN dashboard and WMA->Client UI. Explanation: part of this issue was solved as follows: 1. AP Status display Down - need your help to debug the root cause (“UP” in AP list in below screenshot); 2. Client “Attached Band” shows ‘nullGHz’ - WMA polling cycle is too long, AP needs to optimize to send multiple messages to ensure the information is complete in next release.
HOS30-1475	Summary: 【802.11r roaming】 802.11r roaming has problem in R3.0.2.38. Explanation: This happens in Germany Customer environment, when Client roaming between multiple APs, Client needs to finish a complete process of PSK authentication.
HOS30-1491	Summary: 【Cluster】 Privilege Escalation Vulnerability in AWOS v3.0.2.x (and all previous). Explanation: User can simulate Tech Support HTTP request to execute commands in AP, for security reasons, from this build on, the commands send to AP are encapsulated in the same format, without any common shell commands, Sanity check with user input, only supported commands can be executed.

Fixed Problem Reports Between Builds 3.0.2.38 and 3.0.2.40

PR	Description
OV CLOUD-2774	Summary: Cloud connection status in AP. Explanation: Add “ocloud_show” command for trouble shooting in support account.
OV CLOUD-3251	Summary: AP cannot call home successful to AS in PreProd env. Explanation: This happens in specific environment when VPN connection takes a fairly long time.
OV CLOUD-3139	Summary: Cannot apply AV profile to AP 1251. Explanation: This issue cause by too small username and password buffer (only 32 char) for sftp. we have change buffer size to 128.

Fixed Problem Reports Between Builds 3.0.0.63 and 3.0.2.38

PR	Description
<u>ALEISSUE-133</u>	Summary: Client is taking few minutes to connect to the network. it is a PSK SSID. Explanation: This issue was caused by the load balance algorithm. The algorithm is now been optimized to avoid getting into this situation.
<u>ALEISSUE-130</u>	Summary: Duplicate APs in the cluster. Explanation: This issue was caused by the AP obtaining an incorrect mac address at the bootup. It is fixed in this release.
<u>ALEISSUE-100</u>	Summary: AP-1101 running in express mode does not accept the class-B IP address as Group Management IP.

	Explanation: This was an AP GUI's problem and fixed in this release.
<u>ALEISSUE-99</u>	Summary: Band Steering doesn't work on Express Mode Release 3.0.0.57. Explanation: This issue was caused by the load balance algorithm. The algorithm is now been updated to felicitate correct band-steering.
<u>ALEISSUE-95</u>	Summary: Guest operator account security issues Explanation: The fix blocks from users from altering guest operator's privileges from browser inspector.
<u>ALEISSUE-65</u>	Summary: ÖÄÅ characters are not supported. Explanation: These characters are now supported.
<u>ALEISSUE-82</u>	Summary: Config changes made are not updated when the OLD PVC comes up. Explanation: This is fixed by preventing an old PVC from overriding the config done with new PVC after it comes back up.

Fixed Problem Reports Between Builds 3.0.0.61 and 3.0.0.63

PR	Description
ALEISSUE-105	Summary: Static channel assignment gets changed automatically Explanation: Channel assignment changes automatically even if the channel is set manually.
ALEISSUE-106	Summary: Roaming not working when both 2.4 GHz & 5 GHz radio configured with or without 802.11r Explanation: There were no synchronization messages sent to the new neighbor AP resulting in roaming failure

Fixed Problem Reports Between Builds 3.0.0.57 and 3.0.0.61

PR	Description
None	Summary: KRACK / WPA2 Key Reinstallation Vulnerabilities. Explanation: Flaws in WPA2 key management may allow an attacker to decrypt, replay, and forge some frames on a WPA2 encrypted network.
ALEISSUE-101	Summary: Apple AirPlay stopped working, after upgrades AP1101 to release 3.0.0.57. Explanation: Two clients on the same SSID and band were not able to communicate.
ALEISSUE-102	Summary: 5 GHz band not broadcasting. Explanation: Initial setup with 2.4GHz and 5GHz is OK. Overnight 5 GHz band disappears and only see 2.4GHz band can be seen.
ALEISSUE-108	Summary: Performance issue in 2.4G band. Explanation: Wireless performance degrades over time, devices experience slow connection.

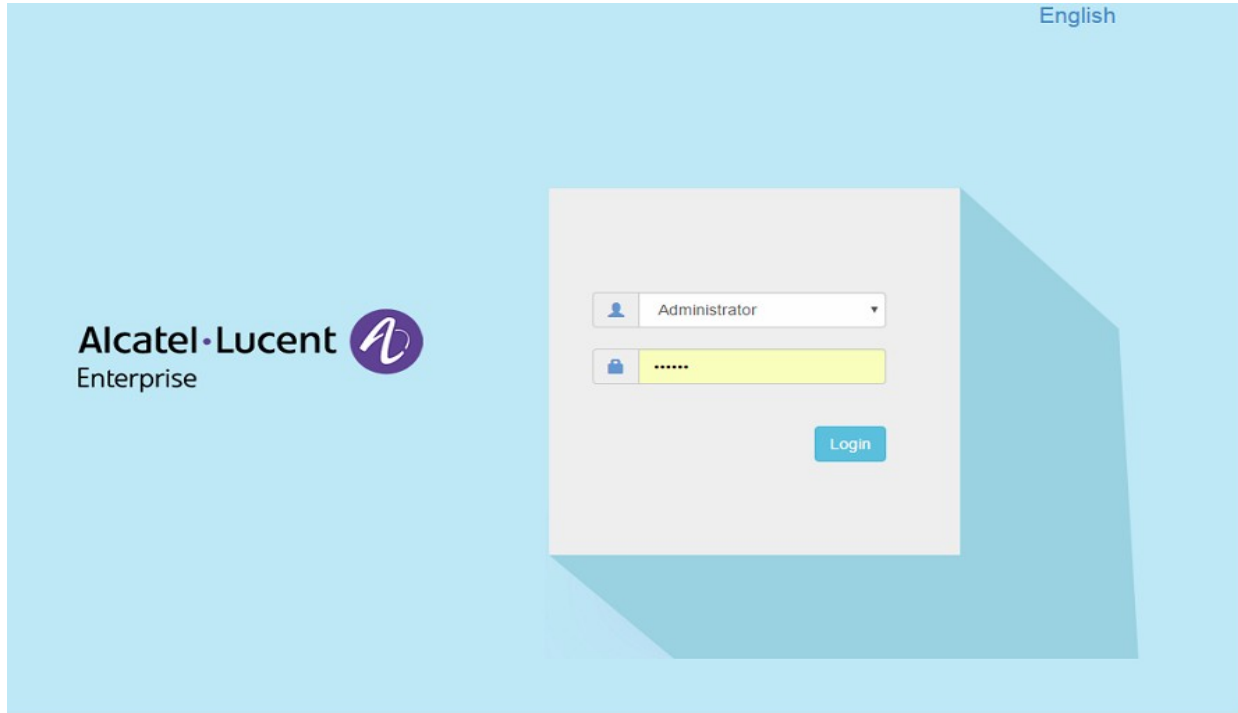
Appendix B - Upgrade Instructions

Mandatory Upgrade of the OAW-AP1101

Release 2.1 is not compatible with Release 3.0. All the Stellar AP1101 APs running R2.1 MUST be upgraded to the latest software release version available from customer support so that all the APs can form a cluster with release 3.0 or can be managed by OmniVista. Please Visit <https://businessportal2.alcatel-lucent.com> to get the latest software and follow the upgrade instructions below.

General Software Upgrade Instructions (WiFi Express)

1. Login to AP using Administrator account with default password 'admin'.



2. Click on the AP tab to open up the AP Configuration page.

Alcatel-Lucent Enterprise AP Group : AP-Group - Administrator | 30s | English

WLAN Enable: 2 Disable: 0

WLAN Name	Status	Clients
weekday	on	0
weekend	on	0

AP Working:3 Down:0 Joining:0

Primary Name	Status	Clients
AP-1A:10	Working	0
AP-DD:50	Working	0
AP-42:20	Working	0

Monitoring Group: AP-Group

System

Wireless

Access

Click here to open AP configuration page

3. On AP Configuration Page, click Upgrade All Firmware.

AP Configuration

Primary Name	IP	Firmware	Operate
PVC			
AP-1A:10	192.168.20.119 (AP) (M)	3.0.5.23	
SVC			
AP-42:20	192.168.20.111	3.0.5.27	
MEMBER			
AP-DD:50	192.168.20.128	3.0.5.6	
Joining			
Pending			
Neighboring Group			
AP-32:30	192.168.20.237	3.0.4.2052	

Detailed Information

AP Name: AP-1A:10 [Edit](#)

MAC: 34:E7:0B:00:1A:10

Location: [Edit](#)

Status: Working

Role in Group: PVC

Serial Number: WKS163300071

Model: OAW-AP1251

Firmware: 3.0.5.23

Upgrade Time: Sat Nov 24 08:25:27 2018

Upgrade Flag: successfully

IP Mode: DHCP [Edit](#)

IP: 192.168.20.119

Netmask: 255.255.254.0

Default gateway: 192.168.21.254

DNS: 219.141.136.10

AP Mode: Express [Edit](#)

Click here to upgrade

[Reboot All AP](#)
[Clear All Configuration](#)
[Backup All Configuration](#)
[Restore All Configuration](#)
[Upgrade All Firmware](#)
[Connect To Cloud](#)
[Convert To Enterprise](#)

4. Select the firmware file and click **Upload To All**, this will upgrade the firmware and reboot the AP.

Multi-model Upgrade

Model	Firmware	AP Quantity	
AP1250	3.0.5.23	1	Expand
AP1101	3.0.5.6	1	Expand
AP1220	3.0.5.27	1	Expand

Upgrade Firmware

Don't turn off the power during the upgrade process.

Image File Image File URL

1. Select corresponding AP model and upload right image

AP1101
 No file chosen

AP1220
 No file chosen

AP1250
 No file chosen

2. Then upload all here

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://businessportal2.alcatel-lucent.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.