

# Release Notes - Maintenance

## OmniAccess Stellar

AP1101, AP1221, AP1222, AP1231, AP1232, AP1251

AWOS Release 3.0.2.2076

The following is a list of issues that have been identified and corrected in this AWOS software release. This document is intended to be used as a pre-upgrade guide and does not replace the GA Release Notes which are created for every GA release of software.

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### Fixed Problem Reports Between Builds 3.0.2.1065 and 3.0.2.2076

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

### Fixed Problem Reports Between Builds 40 and 1065

PR	Description
ALEISSUE-127	<b>Summary:</b> APs in 5Ghz band using same channel though Automatic channel configuration is enabled. <b>Explanation:</b> Optimization on DRM module, especially when Country Code changed.
ALEISSUE-138	<b>Summary:</b> Allow space in SSID name <b>Explanation:</b> Create/Edit strings beginning with space and end with space will be deleted when finish saving this configuration; If there is multiple spaces in the middle of the strings, the length of SSID will include the length of those multiple spaces.
ALEISSUE-134	<b>Summary:</b> 5 Ghz band not broadcasting <b>Explanation:</b> Fixed one possible trap in DRM, which may cause this.
ALEISSUE-109	<b>Summary:</b> When PVC role changes from one AP to another, there is no notification <b>Explanation:</b> Add logs when PVC role changed include performing the "update to PVC" action.
OVE-837	<b>Summary:</b> Client status takes about 5-10 mins to update in OV WLAN dashboard and WMA->Client UI <b>Explanation:</b> 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	<b>Summary:</b> 【802.11r roaming】 802.11r roaming has problem in R3.0.2.38 <b>Explanation:</b> This happens in Germany Customer environment, when Client roaming between multiple APs, Client needs to finish a complete process of PSK authentication.
HOS30-1491	<b>Summary:</b> 【Cluster】 Privilege Escalation Vulnerability in AWOS v3.0.2.x (and all previous) <b>Explanation:</b> 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 38 and 40**

PR	Description
OVCLOUD-2774	<b>Summary:</b> Cloud connection status in AP <b>Explanation:</b> Add “ocloud_show” command for trouble shooting in support account.
OVCLOUD-3251	<b>Summary:</b> AP cannot call home successful to AS in PreProd env <b>Explanation:</b> This happens in specific environment when VPN connection takes a fairly long time.
OVCLOUD-3139	<b>Summary:</b> Cannot apply AV profile to AP 1251 <b>Explanation:</b> 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 63 and 38**

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

ALEISSUE-99	<b>Summary:</b> Band Steering doesn't work on Express Mode Release 3.0.0.57 <b>Explanation:</b> This issue was caused by the load balance algorithm. The algorithm is now been updated to felicitate correct band-steering.
ALEISSUE-95	<b>Summary:</b> Guest operator account security issues <b>Explanation:</b> The fix blocks from users from altering guest operator's privileges from browser inspector.
ALEISSUE-65	<b>Summary:</b> ÖÅ characters are not supported <b>Explanation:</b> These characters are now supported.
ALEISSUE-82	<b>Summary:</b> Config changes made are not updated when the OLD PVC comes up. <b>Explanation:</b> 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 61 and 63

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

### Fixed Problem Reports Between Builds 57 and 61

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

## Open Problem Reports and Known Issues

PR	Description	Workaround
ALEISSUE-110	<b>Summary:</b> Client inactivity should be a configurable option	We be resolved in R3.0.3 release.
ALEISSUE-128	<b>Summary:</b> L3 ACL does not work in the AP-1101 cluster.	We be resolved in R3.0.3 release.
ALEISSUE-145	<b>Summary:</b> AP name is not consistent throughout the web gui.	We be resolved in R3.0.3 release.
ALEISSUE-88	<b>Summary:</b> ACL per SSID	We be resolved in R3.0.3 release.
ALEISSUE-158	<b>Summary:</b> RSSI Threshold deassociation should not cause a deletion of client-context	Will be optimized in R3.0.3 release.
ALEISSUE-160	<b>Summary:</b> Manually set channels need to be respected by ACS	Will be optimized in R3.0.3 release.
ALEISSUE-164	<b>Summary:</b> The output of "iwlist ath01 txpower" is incorrect on AP1101	There is no known workaround at this time.

## Limitaions and/or dependencies

1. The User needs to login onto WEB GUI again when cluster ID been changed on WEB GUI.
2. Setup cluster through ethernet connection should wait for several seconds and login to WEB GUI, or the setup wizard will come up again due to there is some latency on creating a SSID.
3. Configuration of Software version 3.0.0.x can't be restored on 3.0.2.x, due to the format difference.
4. Using "Image file" for image upgrade (upload upgrade image by http) is recommended in any situation in Express mode, For scenarios of above 20 APs in cluster, SFTP and TFTP is not recommended, due to regular SFTP server and TFTP server are not quite good at concurrent download request.
5. Station associated on the portal SSID and roaming to the AP which was just rebooted, may need authenticate again due to there is latency on station information sync to this AP.
6. For security reasons of handling HOS30-1491, the commands send to AP are encapsulated in the same format, without any common shell commands, APs with Express mode in the same cluster should upgrade all to this build to avoid compatible issues.

## **New Features Introduced - 3.0.2.40**

### **1. OV Cirrus Management**

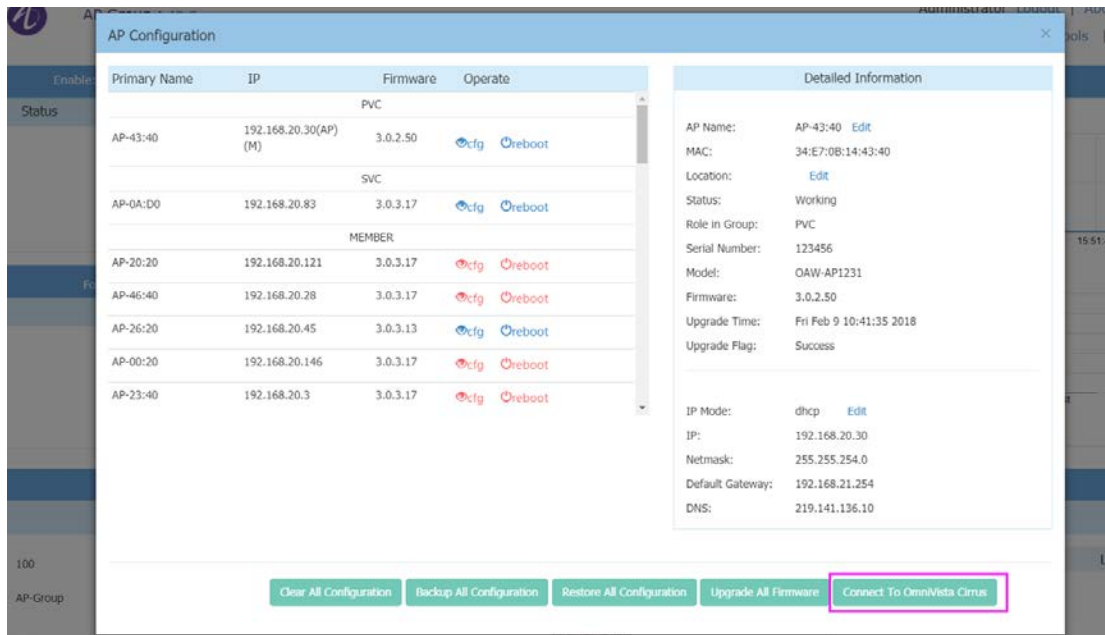
Different from OV Enterprise is the on-premised version based on Client/ Server deployment, OV Cirrus is new solution based on Pure cloud based deployment, it's simple and easy of use.

**For the first boot up in most cases, the AP work mode selection will be like this:**

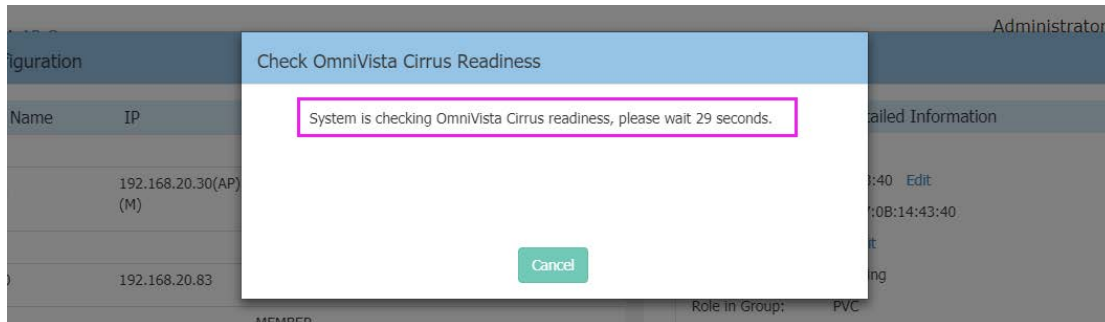
AP got Enterprise OV IP	Activation Server is reachable	AP Account Type	Case No.	AP work mode	AP Behavior
Y	-	-	1	OV Enterprise mode,	AP will not contact activation server.
N	Y	Demo/Premium	2	OV Cirrus mode	AP will be managed by Cloud OV.
		Freemium	3	Cluster mode	AP will form a cluster managed by WEB GUI. Cloud Inventory management and SW upgrade service is available in Global OV.
		No Account at all	4	Cluster mode	AP will form a cluster managed by WEB GUI.
	N	-	5	Cluster mode	AP will form a cluster managed by WEB GUI

**For APs works in WEB GUI mode, follow the steps below to switch to OV Cirrus mode:**

1. In AP Configuration, There is a “Connect to OmniVista Cirrus” button

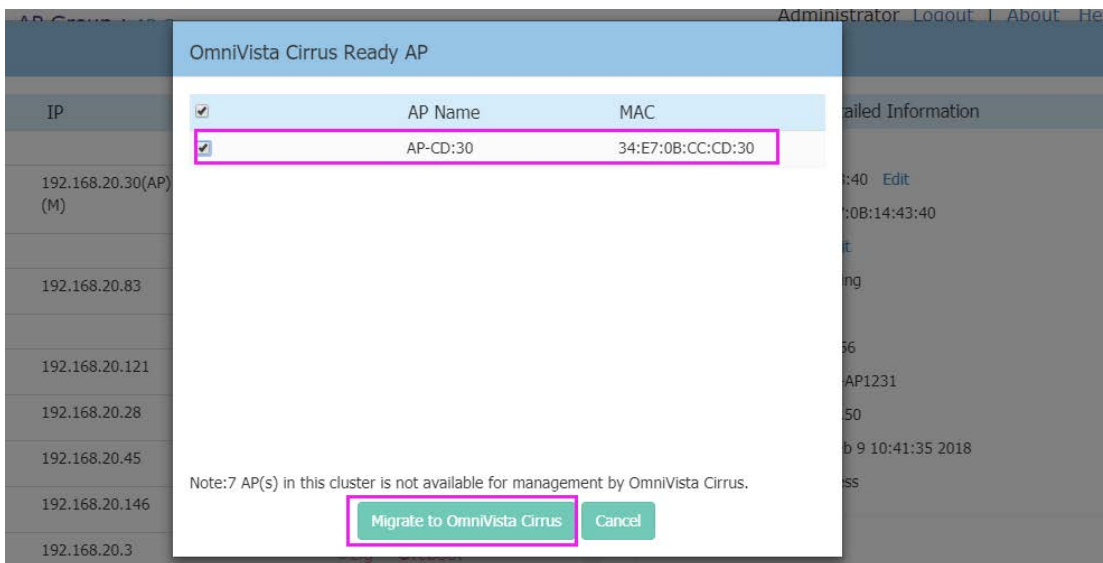


2. Simply click "Connect to OmniVista Cirrus", there will be popup window, start to send request to every AP in this Cluster to start call home process, we should wait for 30 seconds

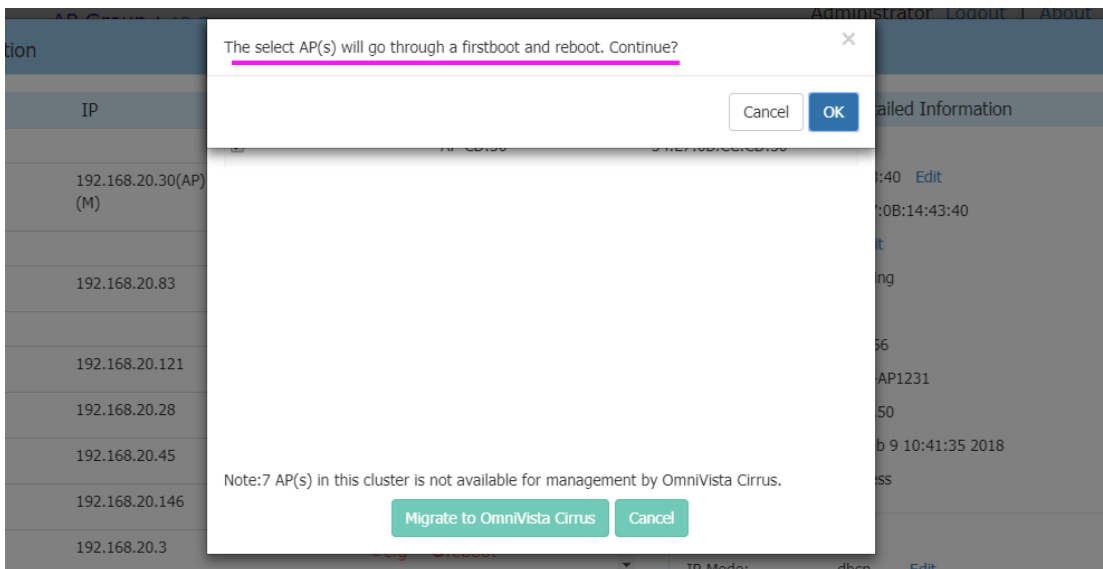


3. After 30 seconds, we can see the results in the following screenshot, APs which can be Cirrus managed will be shown on the list, we can choose specific APs to be Cirrus managed





4. After choosing some of those APs, click “Confirm to connect” button, another window will pop up to confirm this operation, as you can see in the following screenshot, Click OK AP will clear all configuration and reboot to switch to OV Cirrus managed.



**For APs in OV Enterprise mode, follow the steps below to switch to OV Cirrus:**

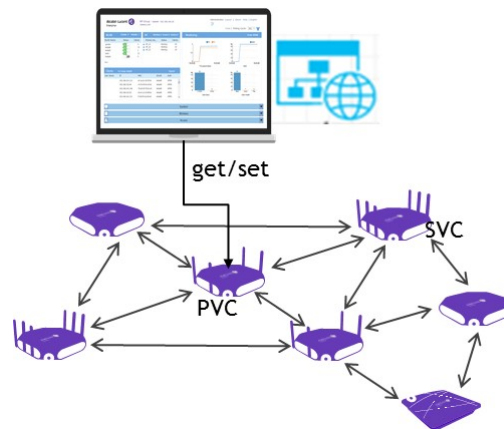
1. Remove the DHCP configuration that directs the AP to enter OV Enterprise mode (capwap configuration on DHCP server).
2. Reset AP to factory settings to force it to connect to OV Cirrus.

## **New Features Introduced - 3.0.2.38**

### **2. Remote Cluster Management**

The AP Group can be remotely managed by mapping the company external network and the PVC IP or the Group Management IP (hereinafter referred to as GMIP).

The AP configuration model is shown in the following diagram. The management website gets and sets configuration only through PVC, and PVC is responsible for forwarding those commands to the other Access Points in the group, therefore, PVC can connect with other Access Points in any situation whether the Management website is accessed across the NAT or not.



### **3. Channel Bandwidth**

You can now explicitly select the channel width 20, 40 and 80MHz (Only 5GHz).

### **4. DRM Channel List Control**

1. Log in to the AP page, then click “Wireless--RF Configuration” to enter the page of RF Configuration.
2. Select the AP you want to edit, then config the channel list in the right panel.
3. First open the ACS automatic channel list selection button, and then add the channel value in the Channel List. If you want to delete a channel, click “x”. If the channel list is empty, the AP makes auto selection in the all channels.

The screenshot shows the 'RF Configuration' window. On the left is a table with columns: AP, 2.4GHz Channel, 2.4GHz Power(dBm), 5GHz Channel, and 5GHz Power(dBm). The table lists two APs: AP-FF:E0 and AP-BE:70. On the right is the 'Edit RF Information' panel. It includes a 'Channel Width(MHz)' dropdown set to 20. Below that are radio buttons for 'ACS' (ON) and 'APC' (ON). There are 'Channel' and 'Power(dBm)' dropdowns. A 'Channel Width(MHz)' dropdown is set to 80. A 'ChannelList' field contains 'x88', 'x52', and 'x56'. There are also '5GHz(Low)' and '5GHz(High)' sections.

Guidelines:

- 2.4 GHz doesn't support auto channel-list selection.

5. Radius Dynamic VLAN Assignment

With Radius authentication, OmniAccess Stellar now supports the attribute "Tunnel-Private-Group-Id" which facilitates user based dynamic VLAN assignment.

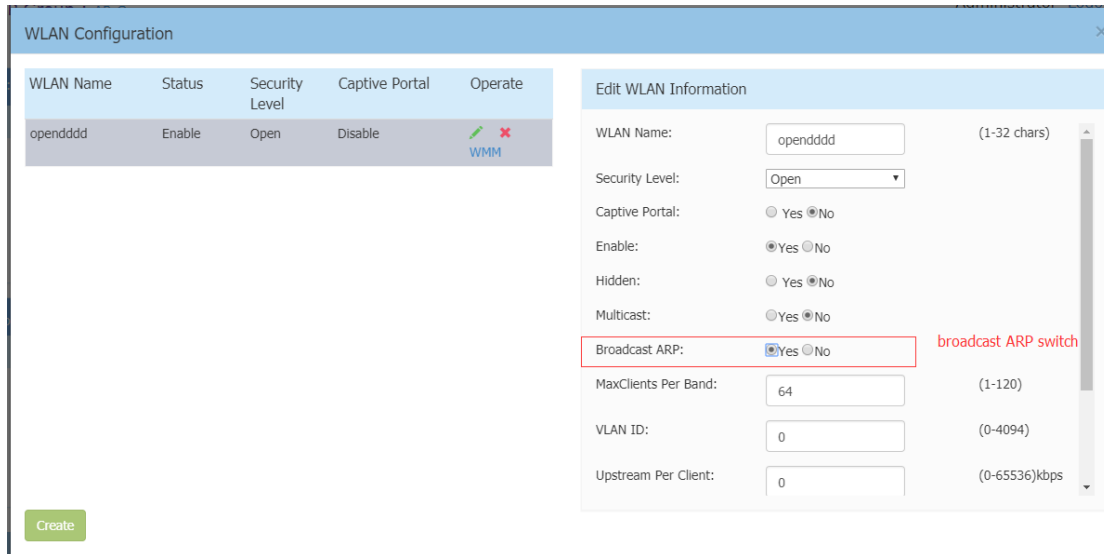
The screenshot shows the 'WLAN Configuration' window. On the left is a table with columns: WLAN Name, Status, Security Level, Captive Portal, and Operate. It lists two WLANs: 'oooo' and 'uuuu-portal'. On the right is the 'Create New WLAN' form. Fields include: 'WLAN Name' (wlan-dynamic), 'Security Level' (Enterprise), 'Key Management' (Both(wpa &wpa2)), 'AuthServer' (172.16.24.101), 'AuthPort' (1812), and 'AuthSecret' (masked with dots). There are red arrows pointing to the AuthServer and AuthSecret fields with labels 'free radius ip' and 'NAS client Secret' respectively. A 'Create' button is at the bottom left.

6. Broadcast Filter ARP

The Stellar AP will act as an "ARP Proxy". If the ARP-request packet requests a client's MAC address and the AP knows the client's MAC and IP address, the AP will respond to the ARP-request but not forward the ARP-request

(broadcast) to all broadcast domains. This reduces ARP broadcast packet forwarding and significantly improves network performance. Note that Stellar APs do not act as ARP proxy for Gratuitous ARP packets. When the station gets an IP from DHCP or IP release/ renew, the station will send Gratuitous ARP packets. AP will not respond to such special ARP packets and broadcast them normally.

Broadcast/Multicast Optimization can be configured as below:



## 7. Client Isolation

Main usecase prevent guest wireless users from communicating with one another, Allow configuration per SSID, default setting is client isolation disabled, this feature can be configured as the following screenshot : New->Advance->Client Isolate.

### Create New WLAN ×

MaxClients Per Band:	<input type="text" value="64"/>	(1-120)
Upstream Per Client:	<input type="text" value="0"/>	(0-65536)kbps
Downstream Per Client:	<input type="text" value="0"/>	(0-65536)kbps
Client Isolate:	<input type="checkbox"/> off	
802.11r:	<input type="checkbox"/> off	
802.11v:	<input type="checkbox"/> off	
802.11k:	<input type="checkbox"/> off	
802.11b:	<input type="checkbox"/> off	
802.11g:	<input type="checkbox"/> off	
2.4GHz Supported Status:	<input type="checkbox"/> off	
2.4GHz Supported	<input type="text"/>	Mbit/s

### Release Guidelines - 3.0.2

1. The user needs to login onto the AP again when cluster ID has been changed.
2. Upgrading from 3.0.0.x to 3.0.2.x is supported. However, a 3.0.0.x backup configuration cannot be restored to an AP running 3.0.2.x.

## **Technical Support**

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

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

**Email :** [ebg\\_global\\_supportcenter@al-enterprise.com](mailto:ebg_global_supportcenter@al-enterprise.com)

**Internet:** Customers with service agreements may open cases 24 hours a day via the support link at the web page: [www.al-enterprise.com](http://www.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.

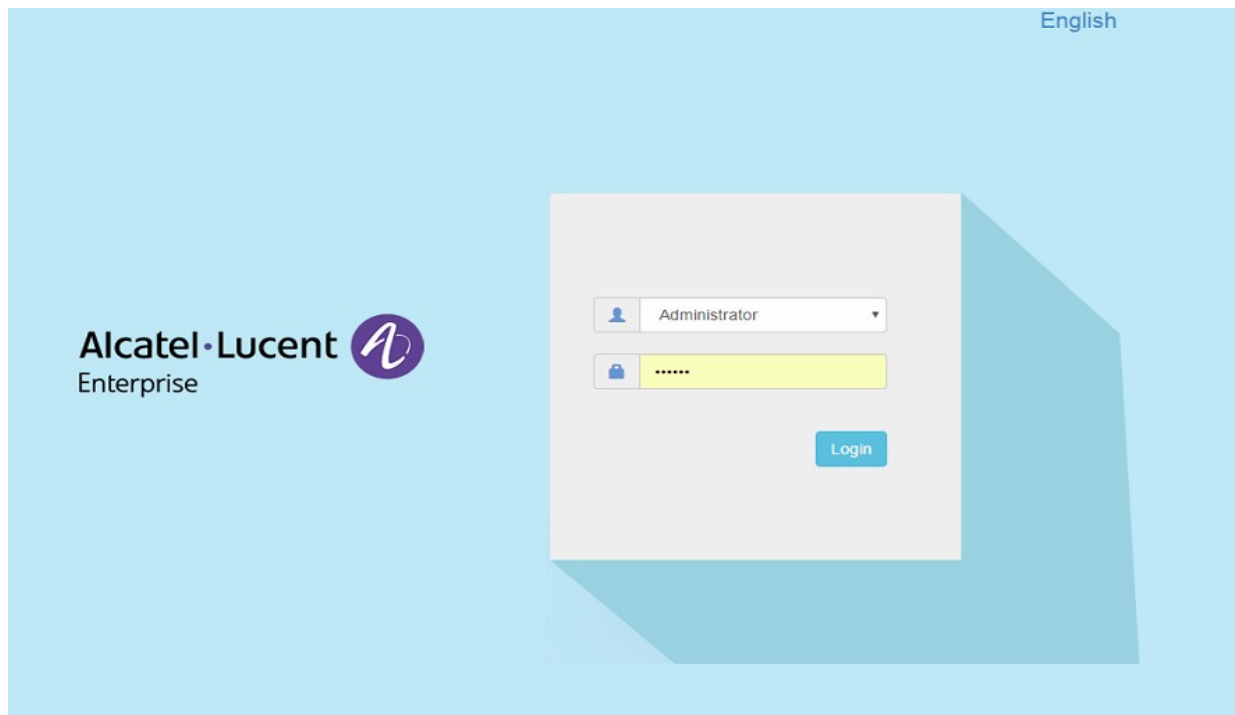
**Severity 3** - Network performance is slow or impaired—no loss of connectivity or data.

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

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## Appendix A: Software Upgrade Instructions in WiFi Express Mode

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 : Han-Networks - 192.168.50.253

Administrator Logout | About Help | English | Tools | Polling Cycle: 30s

WLAN Name	Status	Clients	Primary Name	Status	Clients
HAN-Employee	on	77	192.168.50.210	Working	0
HAN-Guest2	on	0	192.168.50.219	Working	0
HAN-PERSON	on	0	192.168.50.205	Working	5
HAN-PORTAL	on	0	192.168.50.217	Working	0
HAN-Person1	on	0	192.168.50.202	Working	4
HAN-Guest	off	0	192.168.50.218	Working	1
			192.168.50.214	Working	3

User Name	IP	MAC	WLAN	Auth
	192.168.50.17	d0:33:11:26:6c:32	HAN-Employee	PSK
	192.168.50.112	20:3c:a6:43:f4:41	HAN-Employee	PSK
	192.168.50.101	74:23:44:08:4f:d1	HAN-Employee	PSK
	192.168.50.87	60:cd:fe:53:1a:39	HAN-Employee	PSK
	192.168.50.1	98:01:a7:d0:16:1b	HAN-Employee	PSK

Monitoring Group: Han-Networks

Throughput(Mbps) Line Chart: RX (blue), TX (orange)

Client Band Bar Chart: 2.4GHz (10), 5GHz (97)

Client Health Bar Chart: Best (48), Good (29), Fair (0)

System Wireless Access

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

### AP Configuration

Primary Name	IP	Firmware	Operate
PVC			
192.168.50.210	192.168.50.210(AP) 192.168.50.253(M)	3.0.2.34	
SVC			
192.168.50.219	192.168.50.219	3.0.2.34	
MEMBER			
192.168.50.205	192.168.50.205	3.0.2.34	
192.168.50.217	192.168.50.217	3.0.2.34	
192.168.50.202	192.168.50.202	3.0.2.34	
192.168.50.218	192.168.50.218	3.0.2.34	
192.168.50.214	192.168.50.214	3.0.2.34	

**Detailed Information**

AP Name: 192.168.50.210 [Edit](#)  
MAC: 34:E7:0B:03:C2:70  
Location: [Edit](#)  
Status: Working  
Role in Group: PVC  
Serial Number: SSZ170200040  
Model: OAW-AP1221  
Firmware: 3.0.2.34  
Upgrade Time: Tue Jan 16 21:44:49 2018  
Upgrade Flag: Success

---

IP Mode: dhcp [Edit](#)  
IP: 192.168.50.210  
Netmask: 255.255.255.0  
Default Gateway: 192.168.50.254  
DNS: 219.141.136.10

[Clear All Configuration](#) [Backup All Configuration](#) [Restore All Configuration](#) [Upgrade All Firmware](#)

*Click here to get firmware upgrade* (arrow pointing to Upgrade All Firmware)

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

### Multi-model Upgrade

Model	Firmware	AP Quantity	
AP1220	3.0.2.34	4	<a href="#">Expand</a>
AP1230	3.0.2.34	1	<a href="#">Expand</a>
AP1250	3.0.2.34	2	<a href="#">Expand</a>
AP1101	3.0.2.34	13	<a href="#">Expand</a>

**Update Firmware**

**Don't turn off the power during the upgrade process!**

Image File  Image File URL

AP1101  No file chosen

AP1220  No file chosen

AP1230  No file chosen

AP1250  No file chosen

[Remove All](#) [Upload All](#)

*Select right firmware file for different model of AP* (arrows pointing to Choose File buttons)

*Click here to upload all* (arrow pointing to Upload All button)