Release Notes

This document describes new and changed features, and known issues in the AirWave 8.0.6.3 release. The release notes includes the following sections:

- "What's New in this Release" on page 1
- "Changes" on page 11
- "The Support Download Page" on page 16
- "Supported Infrastructure Devices" on page 16
- "Fixed Issues" on page 17
- "Known Issues" on page 34

What's New in this Release

The following enhancements have been added in AirWave 8.0.6:

- "Third-Party Device Support " on page 2
- "UCC Dashboard Improvements" on page 4
- "New Configuration API" on page 5

The following enhancements have been added in AirWave 8.0.5:

- "Instant Improvements" on page 5
- "Mobility Access Switch Support Enhancements" on page 5

The following enhancements have been added in AirWave 8.0.4:

- "AirWave Support for Instant" on page 5
- "AirWave Support for New Devices" on page 5
- "Bulk Editing of the Switching File" on page 5
- "Site to Site IKE" on page 5
- "API for Streaming Raw Records" on page 6

The following enhancements were added in AirWave 8.0.x releases prior to AirWave 8.0.4.

- "Usage Column in AP Table" on page 6
- "Support for SCP for Aruba Firmware Upgrades" on page 6
- "Creating Custom Filtered Views" on page 6
- "VisualRF Enhancements in HTML5" on page 8
- "AppRF Enhancements" on page 8
- "UCC Visibility" on page 9
- "Additive Licensing" on page 10
- "Client Health Graph" on page 10
- "New Supported Devices" on page 11

Third-Party Device Support

AirWave 8.0.6 introduces support for the following third-party devices.

Brocade

The Brocade ICX6610-48 switch is now supported in VisualRF.

Cisco

The following Cisco products are supported for monitoring, configuration, and software upgrades.

Table 1: Supported Firmware for controllers

Firmware Version	Model Type
03.06.01E	36503850
7.4.121.0	8510
10.2.111.0 (IOS: 15.3(3)JN3)	2700

Table 2: Supported Firmware for APs

Firmware Version	Model Type
10.2.111.0 (IOS: 15.3(3)JN3)	17002700



VisualRF support for the Cisco devices listed above is not included in AirWave 8.0.6

Dell Networking

The following Dell Networking products are supported for monitoring using AirWave.

Table 3: Supported Firmware for switches

Firmware Version	Model Type
8.3.2.0	 E150 E300 E600 E610 E1200 E1200i
8.4.2.9	• C300 • C150

Table 3: Supported Firmware for switches (Continued)

Firmware Version	Model Type
8.4.2.6	 \$25n \$25pac \$25pdc \$25v \$50 \$50nac \$50ndc \$50e \$50v \$2410cp \$2410p



VisualRF support for the Dell Networking devices listed above is not included in AirWave 8.0.6

Juniper

The following Juniper products are supported for controller and AP discovery and monitoring.

Table 4: Supported Firmware for APs

Firmware Version	Model Type
9.1.0.6.0	WLA321WLA322WLA522WLA532WLA632

Table 5: Supported Firmware for controllers

Firmware Version	Model Type
9.1.0.6.0	 WLC100 WLC2 WLC2800 WLC8 WLC800 WLC880 WLC JunosV



VisualRF support for the Juniper WLAN devices listed above is not included in AirWave 8.0.6

Meru

The following Meru controllers and APs are now supported in VisualRF.

Table 6: Supported Firmware for APs

Firmware Version	Model Type
6.1.1-25	 AP302 AP320i AP332i AP433i AP433is AP822e AP822i AP832e AP832i RS4000

Table 7: Supported Firmware for controllers

Firmware Version	Model Type
6.1.1-25	MC1550MC3200MC4200



VisualRF support for the for the AP433i, AP433e, AP433is, AP822i, and AP822e is not included in AirWave 8.0.6

Motorola

The following Motorola autonomous APs are now supported in VisualRF.

Table 8: Supported Firmware for APs

Firmware Version	Model Type
5.4.2.0-30R	 AP621 AP622 AP6521 AP6522 AP6532 AP7161

Table 9: Supported Firmware for controllers

Firmware Version	Model Type
5.4.2.0-30R	RFS4000

UCC Dashboard Improvements

On the UCC dashboard, The MOS (Mean Opinion Score) is now visible in the Call details, Client Details and Client dialog page. The MOS is updated after a call has ended.

New Configuration API

A new configuration API has been added that changes customer variables, Instant VC variables, and configuration push.

Instant Improvements

- A new configuration option has been added in the AP list: Add Instant Thin AP zone_name bulk. This lets you
 do bulk modifications.
- IAP certificate authentication performance has been improved.

Mobility Access Switch Support Enhancements

- The list of drop down show commands on the switch monitoring page are now categorized. The commands are grouped as follows:
 - Switch Details
 - ArubaStack
 - LLDP/CDP
 - Power over Ethernet
 - Layer 1 / Layer 2
 - Layer 3
 - Tunneling (IPSEC/GRE)
 - Authentication & 802.1x Troubleshooting
 - User Details
- Support for parsing the bandwidth values for wired clients connected to an Aruba Mobility Access Switch has been added. Now AMP shows the data usage for wired clients connected to the switch.

AirWave Support for Instant

AirWave 8.0.4 supports the following Instant features:

- Instant 4.1.1 CLI in template mode.
- Instant 4.1 and Instant 4.1.1 GUI Config (IGC)

AirWave Support for New Devices

AirWave 8.0.4 and VisualRF support the AP-214/AP-215 and IAP-214/IAP-215.

Bulk Editing of the Switching File

The VLAN bulk edit allows you to update the following switching configuration options at the same time:

- access-vlan
- native-vlan
- trunk allowed vlan <list>

Site to Site IKE

AirWave 8.0.4 introduces a Site to Site IKE configuration page under **Controller Config > Advanced Services > VPN Services > IKE > Site to Site IKE** as shown in Figure 1. This page allows you to configure Site to Site IKE on a controller. Refer to the Virtual Private Networks chapter in the *ArubaOS User Guide* for more information about IKE.

Figure 1: Site to Site IKE

Configure DPD:	○ Yes ● No
Permit Invalid Certificates:	○ Yes ● No
Disable Aggressive Mode:	○ Yes ● No
XAuth:	● Yes ○ No
CA-Certificate for VPN Clients: Certificate Name, type uniqueness conflicts between "Aruba Config" and "Controller Override" may result in pushing unintended certificate to the controller.	None ▼
Server-Certificate for VPN Clients: Certificate Name, type uniqueness conflicts between "Aruba Config" and "Controller Override" may result in pushing unintended certificate to the controller.	None ▼
Configure IKE Certificate-Group for VPN Clients:	○ Yes ● No
Site to Site IKE Shared Secrets	
Add New Site to Site IKE Shared Secret	

API for Streaming Raw Records

An API, which streams raw records for reports in CSV format, is available. This API is beta version only. To try this API, please contact your support person for details.

Usage Column in AP Table

A usage column, which can be filtered and sorted, has been added to the AP table.

Support for SCP for Aruba Firmware Upgrades

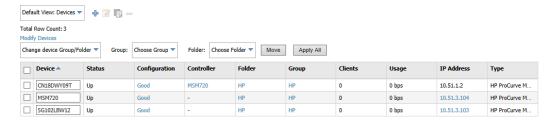
SCP is now supported for uploading a firmware file to a controller when performing a firmware upgrade. An option has been added to select SCP when uploading a firmware file to the AMP.

Creating Custom Filtered Views

Starting in AirWave 8.0.2, the custom filtered views feature supports up to 20 data columns. The columns in these customizable tables resize automatically to fit their contents, but if the table still does not fit within the browser page, a scroll bar appears below the table, allowing you to scroll and view the additional columns. The columns in the default view for each of the following pages are defined in AirWave and cannot be modified. However, you can now create a new view in each of these pages that returns custom information based on the filter parameters and data columns you selected when creating that new view.

- APs/Devices > List
- APs/Devices > Up
- APs/Devices > Down
- APs/Devices > Mismatched
- Groups > Monitor
- Clients> Connected
- Clients> All
- RAPIDS > List

Figure 2: Default View of Devices



To create a new filtered view, navigate to any page that contains a default view list, such as APs/Devices > List.

- 1. Click the icon. The **Filtered View** page opens.
- 2. Enter the name of the new view.
- 3. (Optional) AMP administrators can select the **Is Global** check box to give all users access to the filtered view. Administrators are able to edit any global view they can see in the filtered view drop-down list.
- 4. Click **Add Filter**. A new list of parameters is added to the **Filter** field.
- 5. Scroll the list of parameters and select a **Device** or **Radio** parameter. If required, enter search parameters such as "=" to refine the filter parameters.
- 6. (Optional) To create a filtered view with multiple filter parameters, click **Add Filter** again and define any additional filter parameters. For example, to create a view that displays APs with more than zero clients but less than five clients, you would need to create one filter with the parameters **Clients > 0**, and a second filter with the parameters **Clients < 5**.
- 7. Drag and drop data columns from the **Available Columns** list to the **Current Columns** list to the columns display in the view. You can reorder the columns in the **Current Columns** list by dragging and dropping a data column to a different place in the list.
- 8. Click **OK**. The name of the new view is added to the view list.
- 9. Click the name of the new view. A new page displays the results of the new view, based on the configured filters.

You can edit a custom filtered view at any time, by selecting the view in the view list, then selecting the icon and modifying filter parameters and column displays.

Table 10: Filter icons

Icon	Description
&	Click this icon to create a custom filtered view.
2	Click this icon to edit an existing custom filtered view.
	Click this icon to clone a custom filtered view.
_	Click this icon to delete a custom filtered view.

VisualRF Enhancements in HTML5

This section describes the new features associated with the HTML5-based UI for VisualRF.

Floor Upload Wizard

The **Floor Upload Wizard** allows you define the parameters required to complete a new floor plan. The wizard has three pages:

- **Scale** This page allows you define the lengths and width of the new floor plan.
- Region This page provides drawing tools you use to define the floor plan boundary and planning region(s).
- Access Points This page gives you the option to plan an AP deployment, or to add APs that are already
 deployed.

Navigation Improvements

- You can select between the Map and List views from the VisualRF page. The Map view shows the
 geographic location of each campus. The List view is a sortable table that lists the names of building and
 campuses in the network, the number of floors in each building and the name of each floor. You can click any
 of the links in the table to view that campus, building or floor plan in VisualRF.
- When you select a campus in VisualRF and drill down to view buildings and floor plans within that campus, the
 VisualRF page displays your path in a breadcrumbs format, such as Campus One > Building One > Floor 2.
 Click a link in the breadcrumb list to view the selected campus or building.
- The **Network** page now displays **Properties**, **View**, and **Edit** menu links in the Map view. In the List view, the menu links appear after you select a campus name from the list. These links display information for the selected network, campus, building or floor level.
- A new drop-down menu in VisualRF lists all campuses in the network. To access this menu, click the arrow to
 the left of the **Network** label on the **VisualRF** page. Select a campus name, then expand the list to access a
 building or floor in the campus.
- The VisualRF **Overlays** menu contains three new overlays:
 - AppRF: Identifies clients who are contributing to the usage of one or more selected applications.
 - Channel: Identifies the overlapping and specific regions for selected channels on a floor plan.
 - UCC: Displays the call quality of Unified Communication and Collaboration (UCC) calls.
- The new HTML5 UI replaces the Flash UI as the default view.



The HTML5-based UI does not support wired overlays or wired devices. The **VisualRF Plan** was not migrated to HTML5. To administer wired overlays and devices, go to **VisualRF > Setup** and click **No** in the **Enable HTML5-based UI** field.

AppRF Enhancements

This section describes enhancements to the AppRF visibility features.

AppRF Overlay

The AppRF overlay identifies clients who are using one or more selected applications, such as YouTube or Facebook. The overlay uses colors to show usage thresholds. To see the usage, mouse over the client icon. The threshold colors for the following usage categories are preset and cannot be edited:

- Green: Client has used between 0 and 20 MB in the past two hours.
- Yellow: Client has used between 20 MB and 1GB in the past two hours.
- Red: Client has used more than 1 GB in the past two hours.

AppRF Reports

The AppRF reports show the top client destinations and applications for all groups and folders. The available options for this report are:

- Top Applications Summary
- Top Destination Summary
- Top ten Applications By Device Types
- Top ten Applications By User Roles
- Top ten Applications By SSIDs
- Top three Applications For Top Ten Users
- User Detail

Note that the **User Detail** report is available only to users configured in the report definition.

UCC Visibility

AirWave shows an aggregated view of the UCC calls made in the network. The administrator can see a top level view of the call quality assessment, and further drill down into a specific view based on the analysis required.

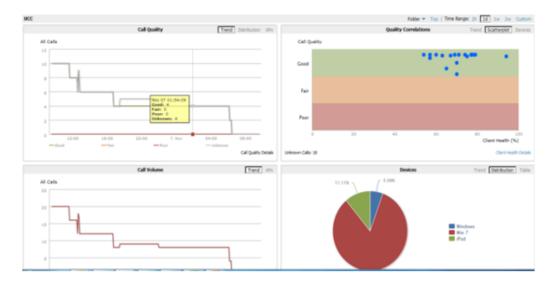
Home>UCC charts

The **Home>UCC** page provides the four charts described below.

- **Call Quality**: This set of graphs show the quality of calls on the network over the selected time period. The **Trend** chart shows the number of calls with good, fair, or poor client health over the selected time period. The **Distribution** graph shows the relative proportions of calls with each quality type, and the APs chart shows information about APs that supported poor quality calls. You can also hover your mouse over the **Trend** or **Distribution** charts to view details about the highlighted section of that chart.
- **Quality Correlation**: These graphs display the correlation between the VoIP call quality and the VoIP client health of every UCC call. The **Trend** chart shows the number of calls with good, fair, or poor client health over the selected time period, while the **Scatterplot** chart shows the call quality and client health of each individual call.
- **Call Volume**: The Call Volume **Trend** graph displays the number of calls by UCC application type, for example, SIP, Lync, SCCP, H.323, NOE, SVP, VOCERA, or FaceTime. The Call Volume **APs** graph shows the names of the APs that supported these calls.
- **Devices**: These graphs display information about the calls made by different device types, such as Windows 7, Mac OS X, iPhone, or Android devices. The Devices **Trend** and **Distribution** graphs show the numbers of calls by each platform type, while the **Quality** graph shows the numbers of calls at each quality level made by each device type.

AMON provides data to populate the charts. The UCC feature also provides a Lync overlay that shows a historic view of calls, and a Lync Mobility trail to track historic call sessions.

Figure 3: UCC Dashboard Example



Call Details and Diagnostics

You can mouse over any of these UCC charts to view details about that chart, or drill down to a detailed view to display more specific information based on call quality and client metrics. To display an aggregated list of UCC call data metrics, click any of the following hyperlinks on the **Home > UCC** page:

- Call Details
- Call Volume Details
- Device Details

Click on any call on the Quality Correlations **Scatterplot** graph to open the **Clients > Diagnostics** page. This page provides an overview of a WLAN user's general status and connectivity on the network

UCC Overlay

VisualRF includes a new UCC Overlay that displays information about UCC calls. You can configure this overlay to display calls that match any of the following values:

- Protocol: Lync or All
- Type: Voice, Video, or All
- Quality: All, Good, or Unknown

Additive Licensing

AirWave now supports multiple licenses on one system. This enhancement allows you to install a new license for additional APs without modifying existing AP licenses.

Client Health Graph

The **Home** and **Folder** pages now include a new graph that provides client health information. The graph shows the percentage of clients with good, fair, and poor health. To view the new graph from the **Home** page, select **Client Health** from the **Clients** menu.

The client health metric displayed in these charts is the efficiency at which that AP transmits downstream traffic to a particular client. This value is determined by comparing the amount of time the AP spends transmitting call data to a client to the amount of time that would be required under ideal conditions, that is, at the maximum Rx rate supported by client, with no data retries.

New Supported Devices

- Aruba Access Points
 - AP-103/AP-103H and IAP-103
 - AP-114/AP-115 and IAP-114/IAP-115
 - AP-204/AP-205 and IAP-204/IAP-205
 - AP-214/AP-215 and IAP-214/IAP-215
 - AP-274/AP-275 and IAP-274/IAP-275
- Multi-Vendor Devices
 - Cisco 5760 wireless LAN controller*
 - Cisco 3700 and 1550 access points
 - Motorola Wing5 RFS controllers and 6532, 6522 and 6521 APs**
 - Brocade ICX switches*

Changes

Changes to AMP were made to the following general categories:

- "UCC Dashboard Improvements" on page 11
- "Audit Page Enhancements" on page 12
- "License Limit Alert" on page 12
- "Automatic IGC Policy Upgrade" on page 12
- "IGC Policy Copy" on page 12
- "Instant Improvements" on page 12
- "VisualRF Improvements" on page 12
- "List Changes" on page 13
- "Configurable Tables" on page 13
- "Enhanced Export Report Option" on page 14
- "Controller Backups and Restoration" on page 14
- "System Resources Trigger" on page 14
- "LDAP Enhancements" on page 14
- "Redis Statistics" on page 15
- "Match Events Table Improvement" on page 15
- "Local Controller Configuration" on page 15
- "Other Categories" on page 15

UCC Dashboard Improvements

On the UCC dasboard, The MOS (Mean Opinion Score) is now visible in the Call details, Client Details and Client dialog page. The MOS is updated after a call has ended.

^{*} Monitoring only; configuration within AirWave not supported

^{**} These AP and controller models may require adjustments to the AirWave SNMP timeouts to compensate for known SNMP issues on these devices.

Audit Page Enhancements

To improve the loading time of the audit page, information displayed on the audit page is now broken up into the following sections:

- Controller configuration backups
- Configuration status, Import, Audit, comparison to archived configurations, and other links, such as telnet logs.
- Diff of the configuration and custom settings

Each section sends requests separately and loads as soon as the response is received. This eliminates dependency on the other sections and reduces bottlenecks in data loading. Additionally, if there is a delay in response, a loading message is now displyed while the data is sent.

License Limit Alert

In addition to displaying the number of days remaining on a license, the UI now displays the license usage when it exceeds 90%. The UI shows **License Usage: xx%** next to **Days Remaining: xx**.

Automatic IGC Policy Upgrade

If all IAPs in a group upgrade to a new software version, IGC now migrates the group policy to the new version if that version of software is higher than the current one.

IGC Policy Copy

IGC is now notified to copy the group policy from the original group to the new group when Duplicate an IGC Enabled Group.

Instant Improvements

- The IAP is reboots automatically when you change the IP address of the IAP.
- In the IGC, the multi-edit save function now saves a change but does not apply it until you click the **Apply** button.
- In the IGC, you can view and edit the Longitude, Latitude, Altitude, and Notes configuration values of a VC and AP
- AirWave 8.0.6 introduces support for destionation IP and reverse DNS lookup for IAP AppRF data.
- Beginning with AirWave 8.0.6, Instant thin AP batch configuration supports DNS and swarm mode configuration.
- A new configuration option has been added in the AP list: Add Instant Thin AP zone_name bulk. This lets you do bulk modifications.
- IAP certificate authentication performance has been improved.

VisualRF Improvements

The following VisualRF Enhancements were introduced in AirWave 8.0.4 to improve performance:

- Background loading of AP and client discovery data in the UI. This causes the floor plan and AP heatmaps to appear immediately while client, rogues, association line data loads in the background.
- Background fetching of AP bandwidth, uptime, AP Radio Channel Utilization and Client health data when user clicks on AP or client to view properties. AirWave will now only fetch the data when a particular AP is clicked on instead of fetching the data for all APs when the floorplan loads.
- Optimize fetching of data from internal caches.
- Reduce startup time by not fetching ap_detail from AMP during startup. Viewing of client and rogue data on floor plan is delayed until the next controller SNMP poll cycle period.

- Read-only users can now use location history.
- The loading icon now appears when a floor plan is opened in any view.
- The channel utilization overlay now loads properly in 8.0.4.
- When using VisualRF in Mozilla Firefox, devices do not stick to the cursor when moving them around the floor plan.

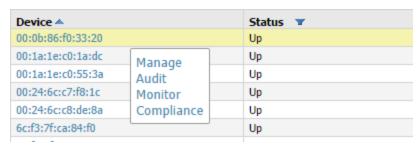
List Changes

The lock icon in the configuration column of an AP/Devices List has been reimplemented in AirWave 8.0.4. The lock icon indicates that the device in that row is in **Monitor only** mode.

For a new Aruba Instant device in the **APs/Devices > New** page, the admin user can mouse over the value under the **Type** column to verify the device's Shared Secret with AMP.

The **Manage** (wrench) icon has been removed in AirWave 8.0.4, however the same functionality has been maintained. If you mouse over an device's line in a list, a popup menu appears, allowing you to select options such as **Manage**, **Audit**, **Monitor**, and **Compliance**. Clicking any of the links takes you to the corresponding page in the UI; additionally, clicking on the device link takes you to the monitor page.

Figure 4: Device Drop Down Menu



Configurable Tables

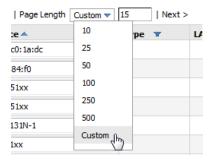
By default, the tables on the pages listed show 25 rows of information. AirWave 8.0.2 allows you to change this value and display a different number of table rows on each page. Click the **Page Length** drop-down menu above the table and select any of the predefined page lengths, or select **Custom** and enter a value in the **Page Length** field to create a new custom page length. You can force all lists to take on a change made to the **Default Number of Records per List** setting on the **User Info** page by clicking the **Reset** button directly below it.

- APs/Devices > List
- APs/Devices > Up
- APs/Devices > Down
- APs/Devices > Mismatched
- Groups > Monitor
- Clients> Connected
- Clients> All
- RAPIDS > List



Although this feature allows you to configure a page length of up to 2000 table entries, longer page lengths require more time to load the page in the Web browser. Best practices are to limit the page display to display 500 or fewer entries.

Figure 5: Defining a Custom Page Length



Enhanced Export Report Option

A new **Export Report** option allows you to use SCP or FTP protocols to transfer a report to an external server. To export a report, the report must be in the .csv or .pdf format. The export parameters are set in the **Export Options** field on the **Reports Definitions** page. Click **Yes** in the **Export Report** field to open the **Export Options** pane, which allows you to define settings for external server.

Controller Backups and Restoration

You can create a backup on demand by creating and collecting a flash backup from the Controller. Daily backups are also created. At a minimum, there are four backup files:

- Two daily backups
- One backup from last week
- One backup from last month

The backup saved from a firmware upgrade is automatic and requires no manual intervention. All backups can be saved or restored and are displayed on the **Audit** page. You can only perform a backup on a device if the firmware version of the device and the backup image are identical. After you click Restore, the device on which the restoration is being performed automatically switches from monitor mode to maintenance mode. After you restore a backup image to a device, you must restart AMP.

System Resources Trigger

System resources usage values are now available as Trigger types. To create a System Resources trigger,

- 1. go to **System > Triggers** and click **Add**.
- 2. In the **Type** drop down list, select **AMP Health>System Resources**.
- 3. The available matching conditions for this trigger are **CPU Utilization Percentage**, **Disk I/O Utilization Percentage**. You must configure at least one matching condition before you can save the new trigger.
- 4. Click **Add** to save your trigger.

LDAP Enhancements

AirWave includes an option to define an LDAP rule that assigns an AMP user role. The configurable parameters for this LDAP rule are **Position**, **Role Attribute**, **Operation**, **Value** and **AMPRole**. If you create multiple LDAP rules, rules are processed in order based on the rule position value, so the position you assign to the LDAP rule represents the order in which the LDAP rule is applied to determine the AMP role. LDAP rules can only be configured and applied after LDAP authentication is enabled. The LDAP rules are similar to the rules used by the controller to derive the AMP role.

Redis Statistics

The **System>Performance** page includes three **Redis Statistics** charts: **Redis Activity**, **Redis Used Memory**, and **Redis Keyspace**. Use these charts under the supervision of Aruba support to troubleshoot Redis activity and keys.

Match Events Table Improvement

The **Match Events** table in the **Clients>Diagnostics** page now includes dBm information in the **From AP Signal** and **To AP Signal** columns. The far right column of the table now uses a green check mark to indicate successful events.

Local Controller Configuration

An enhancement to the local controller configuration feature allows you to configure additional settings and perform a bulk edit on those controller settings during local configuration. Local configuration is disabled by default and can be enabled or disabled under **Groups > Basic**.

You can change the following variables using the bulk edit feature:

- VLAN ID
- Interface VLAN
 - ID
 - IP
 - Netmask
 - Secondary IP
 - Secondary Netmask
- Interface Loopback IP
- Interface Group Gigabit Ethernet
- Site-to-site VPN
 - IKE shared secret,
 - IP Netmask
- Site-to-site (IPSEC Map)
 - Source Network Address
 - Source Netmask
 - Local FODN ID
 - Peer Gateway IP Address
- DHCP Server (DHCP scopes)
 - Server Pool IP Address
 - Server Pool Mask
 - Default Router Address
- IP-Profile Default Gateway

Other Categories

- On the AirWave UI, a tooltip displays when your mouse hovers over any cluster in the list and not just the selected cluster.
- On the AirWave UI, an in-progress status displays anytime a change is being applied.

- The **RAPIDS** Rules feature now includes a new Channel rule. The Channel rule allows you to search for devices and classify whether the devices are or are not on a specific channel. The specific channel to search for is set when configuring the rule. The rule is configured on the **RAPIDS** > **Rules** page.
- The **Client Session Summary** box at the end of the **Client Session Report** page now includes information about total traffic in and out, average traffic in and out per session, and average traffic in and out per client. Traffic statistics are presented in MB.

The Support Download Page

The table below describes the different packages/files that you might see on the Support site when you download AirWave.

Table 11: Download page file descriptions

File name	Description	
Install iso	Standalone installation media including CentOS operating system. This can fit on a CD/DVD, or it can be mounted as a virtual disk for installation.	
Install tar file	Used for installation on a customer-installed CentOS or RHEL server.	
Upgrade package tar file	Used for AirWave upgrades. Note that updates are only supported from up to two versions prior. Contact support if you are upgrading from three versions prior or more (for example, from 7.4 to 7.7).	
Virtual appliance ova	VMware OVA template for AirWave deployment on VMware ESXi infrastructure.	

Supported Infrastructure Devices

AirWave provides a range of features to manage network infrastructure devices from Aruba Networks and other vendors. This document describes the supported product families, software versions, and feature set for Aruba products. For a list of supported products from other vendors, see the *AirWave 8.0 Supported Infrastructure Devices* document, which can be found at support.arubanetworks.com.

ArubaOS

AirWave supports all controllers and most access points that are running ArubaOS 6.4.x and all prior versions that have not reached the End of Support milestone. The AP-80M series of access points is not supported by AirWave.

Refer to http://www.arubanetworks.com/support-services/end-of-life-products for the complete list of end-of-life products.

FIPS

Aruba Controllers running ArubaOS 6.0.x through 6.4.x FIPS and all prior versions that have not reached the End of Support milestone are supported by this version of AirWave, including the management of global configuration profiles and software upgrades.

Instant

Aruba Instant access points running Instant software versions 6.4.0.x-4.1.1.x and prior are also supported, including the management of configuration settings and software upgrades. The following table shows when each new version of Instant was initially supported in AirWave.

Table 12: Instant Support in AirWave

Instant Version	Support For Template Configuration	Support for IGC Configuration
Instant 4.1.1	AirWave 8.0.4	AirWave 8.0.4
Instant 4.1	AirWave 8.0	AirWave 8.0.4
Instant 4.0	AirWave 8.0 and AirWave 7.7.10	AirWave 7.7.8
Instant 3.4	AirWave 7.7.3	AirWave 7.7.8
Instant 3.3	AirWave 7.6.4	AirWave 7.7.8
Instant 3.2	AirWave 7.6.1	AirWave 7.7.5
Instant 3.1	AirWave 7.5.6	N/A
Instant 3.0	AirWave 7.5	N/A

AirMesh

Aruba AirMesh outdoor products running MeshOS 4.2 are supported for monitoring and for software upgrades.

Aruba Mobility Controller 651

Aruba Mobility Controller 651 running 6.2.0 and prior versions are supported.

Aruba Mobility Access Switches

The Aruba series of Mobility Access Switches (S3500, S2500, and S1500) are supported for profile configuration, monitoring, and software upgrades.

In addition to the port statistics supported for most Ethernet switches with the supported firmware described below, AirWave also tracks the activity of authenticated wired clients on Aruba switches.

Table 13: Aruba MAS Supported Firmware and Devices

Firmware Version	Switch Type
Validated up to 7.3.2.0 and 7.4.0.0	Standalone and stacked switches

Fixed Issues

This table lists the fixed issues in AirWave 8.0.6.3

Table 14: Issues Fixed in AirWave 8.0.6.3

ID	Description
DE20803	This release of AirWave introduces a glibc security update (RHSA-2015:0092-1). See CVE-2015-0235 for more information.

Table 15: Issues Fixed in AirWave 8.0.6.2

ID	Description
DE20587	AirWave UI access now works properly. Previously, access failed when AirWave ran out of database connections.
DE20617	VisualRF no longer loses memory due to a leak in AbstractTransactionAwareService . The number of threads that a service can use is limited to 12.
DE20633	Floor plans now display properly in AirWave 8.0.x. A new separate file for auditing deleted items called visualrf_audit_del.log was added. This audit captures deleted campus, building, site ,and AP information.

This table lists the fixed issues in AirWave 8.0.6.1

Table 16: Issues Fixed in AirWave 8.0.6.1

ID	Description
DE20568	On VisualRF, the client and rogue location on the floor maps now works properly for all devices.

This table lists the fixed issues in AirWave 8.0.6

Table 17: Fixed Issues in AirWave 8.0.6

ID	Description
DE16753	In the IGC, the uplink priority list now works properly no longer generates an error index when eth1-4 were enabled .
DE18442	In VisualRF, the Edit tab removed all objects of different types. Now the Action menu has been deprecated with functionality was moved to the Dynamic Popup menu and the Action section.
DE18601	In VisualRF, all columns in the UI are properly aligned.
DE18917	In IGC, Need seven minutes to change group basic's setting when group already has 2000 devices.
DE19124	In VisualRF, the client health model now automatically updates when a new client health value is added.
DE19197	DWF files are now uploaded correctly to VisualRF in the HTML5 mode.
DE19416	Newly added APs now display a heatmap properly on VisualRF.
DE19451	Console refresh issues regarding the list view have been fixed and now works properly.
DE19621	Stale PEF entries are now deleted from all pef_dim_tables during nightly maintenance.
DE19638	AP Audit issues that occurred when IGC was enabled have been fixed.
DE19641	In IGC 8.0, issues with the error log in async_logger_client have been fixed.
DE19690	IGC external-captive-portal is now deleted if referenced by SSID.
DE19711	Monitor lock issues have been resolved and it now works properly in IAP when IGC is enabled.
DE19712	In IGC, Ethernet 0 now supports wired-instant profile.
DE19719	During Audit and Import, mismatch sequences no longer appear.

 Table 17: Fixed Issues in AirWave 8.0.6 (Continued)

ID	Description
DE19744	Multi-byte username and SSID issues no longer cause AppRF to crash.
DE19745	The IAP IP address now updates correctly after it is changed in the IGC.
DE19746	The AirWave server now cleans up the RRD files based on the historical retention setting properly.
DE19767	AirWave now shows the IP of the APs associated to the Cisco WLC 5760 on the AP Monitor page.
DE19779	VisualRF performance improvements now prevent VisualRF from crashing during the startup inventory service check.
DE19812	Cluster AP name changes now work properly and appear in the IGC.
DE19821	In the IGC, the DHCP command now works properly.
DE19847	When a VC is deleted in an AMP cluster it no longer displays as being down.
DE19858	A new field in the Group > Basic page was added that allows you to ignore the folder changes of the device. This is applies only for Aruba switches provisioned through Activate, DHCP or the switch CLI.
DE19859	The MAS ZTP VPN tunnel, changing the SNMP community in the Group configuration now works properly with no errors occurring in the syslog or traps.
DE19876	In the IGC, a new validation value for disallow role number has been added on the Service page.
DE19902	In IGC 8.2, the bug number of the internal user now shows the correct value, and the wifi setting for uplink can now be deleted.
DE19903	In the IGC, all separate accounting server issues work properly for version Instant 4.1.1.
DE19904	The AMP whitelist Edit box IP list works properly now.
DE19905	In IGC, the no accounting-server command now works properly when editing the account server option.
DE19906	In the IGC, When switching the accounting mode the Apply but now works properly.
DE19907	In the IGC, When switching the accounting mode, the command "no accounting server" now works properly.
DE19908	In the IGC, issues for separate accounting servers for version Instant 4.1.1 now perform correctly.
DE19909	In the IGC, the Facebook setting now works properly in the WLAN security page.
DE19912	In the IGC, the WIFI setting of uplink now shows the correct value when you delete a user.
DE19917	VisualRF performance works properly now.
DE19945	In the IGC, support is now available for a new channel for the 11ac radio.
DE19959	Viewing a certificate now works properly.
DE19960	The IAP no longer fails to log into AirWave in cert mode.
	The default values for the rf-arm-profile and htssid profiles have changed.
DE19964	In the ARMP Profile, the default values for Client Match Load Balancing and Client Threshold is now 30 and Client Match Sticky Client Check SNR (dB) is 18 starting with AOS 6.3.1.7.
	In the HTSSID profile, the max number of MSDUs in an A-MSDU on Background AC, Max number of MSDUs in an A-MSDU on Best-effort AC, Max number of MSDUs in an A-MSDU on Video AC. All the three field defaults are now 2 instead of 3 in AOS 6.3.1.7 and later.
DE19972	IAP now supports chained server certificate upload instead of single server certificate upload.

 Table 17: Fixed Issues in AirWave 8.0.6 (Continued)

ID	Description
DE19973	In IGC, the uplink priority list works properly and no longer generates an error index when Ethernet 1-4 were enabled for uplink.
DE19974	When guest security is selected, the AMP now supports a Facebook secret command.
DE19979	The AirWave UI now performs properly and no longer crashes after a reboot.
DE19983	In the IGC,all server drop-down lists now work properly.
DE19984	In the IGC, the Uplink tab on System and Settings page is now hidden if it is in Group mode.
DE19993	The VC no longer stays in a verifying state when a new IAP cannot be created.
DE19995	In VisualRF, auth in icontainer.find(id) is no longer commented out. AP Group/Folder drop-down lets readwrite users add new APs to floorplans.
DE19998	Adding an AP to VisualRF no longer sets the Notes column value to null.
DE20011	Deleting all licenses and then re-adding them no longer creates duplicate daily or weekly report definitions.
DE20013	A license now saves unassigned user role information properly and no longer crashes.
DE20017	VisualRF works properly when floorplans are imported.
DE20025	The kernel security update (RHSA-2014:1392-2) has been applied.
DE20030	In VisualRF, heat maps are now updated when moving APs.
DE20032	The AMP UI now displays the proper AirWave release.
DE20033	The AMP now queries information from the AP_detail.xml file correctly.
DE20034	In the IGC, creating an SSID G4Public - Mobile now works properly.
DE20036	In the IGC, the second authentication server now performs properly when you create an SSID with a wireless or wired guest.
DE20038	In the IGC,Facebook now creates a link to the Facebook website in VC level.
DE20044	In VisualRF, only the error code and message appear, and not the entire HTTP response, when the VisualRF backup fails.
DE20056	In IGC, the message "Processing" appears on the cluster list when a VC is verifying or applying a configuration.
DE20057	In the IGC, the authentication server 1 no longer shows the selected value of authentication server 2 of the wired employee profile.
DE20070	AMP Whitelist page now displays all information properly.
DE20071	The Duration column now shows the correct value on client lists.
DE20085	The Licenses table displays changed information more quickly now.
DE20103	The report definitions now loads properly and efficiently after upgrading.
DE20105	In the IGC, the syslocation now performs properly regarding multi-edit.
DE20106	In the IGC, the VC and IAP monitor page now properly shows the note message.
DE20107	In the IGC, the VC status now works properly when a note message is modified.

 Table 17: Fixed Issues in AirWave 8.0.6 (Continued)

ID	Description
DE20110	AMP charts now correctly displays Chinese characters.
DE20115	This release of AirWave includes a Wget security update for RHSA-2014:1764-1.
DE20117	After OVA deployment, AMP restarts daemons to prevent the AMP from becoming stuck.
DE20125	IGC now correctly handles a change in Virtual Controller uplink. Re-adding the Virtual Controller after an uplink change is no longer required.
DE20127	When an Ethernet port network assignment is changed from one network to another, the deselected network is made available for use by other Ethernet ports and appears in the Network Assignments dropdown menu for each port.
DE20128	In IGC, the configuration for enforce uplink value is correctly pushed to devices.
DE20129	IGC is now able to successfully push commands from the uplink page.
DE20140	The AMP now successfully pushes the no accounting server command when a profile is edited.
DE20141	The AMP pushes commands to the virtual controller in the correct order when editing the auth server configuration.
DE20143	When viewing the Internal User Number, the actual internal user value is now displayed.
DE20153	WCS files are now imported correctly into VisualRF using Safari, Firefox, or Chrome.
DE20158	Weekly reports no longer timeout during execution and no longer return empty Client and Usage graphs.
DE20165	IGC now ignores any IAP Facebook commands since they may be different for each Virtual Controller and are not configurable.
DE20166	Deleting an access rule from IGC no longer causes a mismatch.
DE20169	IGC no longer allows the following characters to be used: % and &.
DE20171	After deleting all APs from an AMP, all APs are re-added successfully instead of adding a subset of detected APs.
DE20188	The Master Console Overview, Usage, and Clients graphs now only return data from the last complete update, preventing incomplete data being displayed.
DE20189	Quotation marks no longer erroneously appear around input text in the Internal Captive Portal configuration tab when the text is retrieved from the database.
DE20190	Editing an existing inbound firewall rule no longer causes the rule to appear on two lines.
DE20191	Changes made when editing an existing External Captive Portal are now saved correctly.
DE20192	A reboot log for resolve duplicate VC keys and per-ap-settings commands has been added.
DE20193	RADIUS Authentication configuration no longer incorrectly changes to Authentication Text after creating an External Captive Portal with RADIUS Authentication.
DE20194	IGC now allows the change IP address retrieval method from manual to DHCP on the Access Point > General page and does not return any errors.
DE20197	Deleting the Services > Network Integration configuration from IGC no longer causes a mismatch.
DE20201	GlusterFS RPMs have been removed from AirWave.
DE20208	The Discard Pending Changes dialog no longer appears when moving from System > Admin in IGC when no changes were made.

 Table 17: Fixed Issues in AirWave 8.0.6 (Continued)

ID	Description
DE20215	Information displayed by AirWave is consistent with the information displayed on the Audit tab; AirWavedoes not show an Virtual Controller mismatch when one does not actually exist. Additionally, a new indicator has been added that displays "Verifying" while AMP is waiting for Instant running config.
DE20217	Logged-in user are no longer able to see any file viewable by Apache.
DE20229	Improvements in AMP's handling of state messages to prevent an internal server error in amp_events.
DE20235	SSID bandwidth tracking for SSIDs with Chinese characters on IAPs no longer fails.
DE20244	New uplink priority items configured in IGC now appear as expected.
DE20245	This release of AirWave includes a kernel security update for RHSA-2014:1843-1.
DE20258	In IGC, subnet addresses in ACL rules are now truncated according to netmask to prevent a mismatch for too long access rules.
DE20259	Editing an AppRF rule to add an option for Application Throttling and remove another rule now works as expected. It no longer deletes the old item without removing the new one.
DE20260	The value for the set-role-machine-auth , set-role-mac-auth , and set-role-pre-auth are no longer incorrectly set to False when they are already false.
DE20261	In IGC, creating a WLAN profile with the WMM option configured no longer results in policy change failure.
DE20262	Deleting a WMM option from the Networks > General page in IGC no longer returns a Policy Change Failed error message.
DE20278	On the IGC system page, the value for the auto join option is now correctly reflects the configuration.
DE20280	IGC now sends the correct commands for the Disable SSID on uplink failure option.
DE20281	In IGC, the creation of centralized and local DHCP scopes now works as expected.
DE20282	The maximum length of an SSID name in IGC increased to 32 from 31 to reflect the Aruba Instant software.
DE20291	Safe Migration of the failover AMP license has been enhanced to prevent license failure on the second make.
DE20295	Airtime and air radio options can now be saved in the WLAN profile in IGC.
DE20296	SSID limits configured in IGC are now correctly enforced.
DE20297	The IGC now accurately displays the Instant configuration and matches the corresponding Instant UI.
DE20298	LDAP servers no longer appear in the Authentication Server drop-down menu when termination is disabled.
DE20306	VisualRF performance has been improved by resolving a number of database issues causing campus and building floorplans to load slowly.
DE20313	IGC no longer adds quotation marks around existing welcome text or policy text when opening the dialog to edit the text.
DE20316	The release introduces performance improvements of the new device page in IGC.
DE20323	IGC now correctly saves the values for access rule, for to particular server, except to a particular server, and to domain name instead of displaying 0.0.0.0.
DE20324	The IGC wired security page now supports the IAP Facebook commands.

 Table 17: Fixed Issues in AirWave 8.0.6 (Continued)

ID	Description
DE20325	In IGC, an error message is now displayed when more than one port is configured as an uplink-enable port.
DE20326	The maximum length of a hostname in IGC increased to 32 from 31 to reflect the Aruba Instant software.
DE20334	The IGC wired network wizard page now blocks the creation of duplicate network names.
DE20335	In IGC, when an internal server is selected as the auth server, authentication survivability is disabled and cannot be changed.
DE20336	The IGC uplink item priority index now performs as expected.
DE20343	The AMP now displays a configuration error when IGC has a configuration error instead of displaying a mismatch.
DE20344	The config process error status reporting from AMP database has been improved to prevent inaccurate reporting of Virtual Controller status.
DE20345	Editing access rules in IGC no longer returns an error when done correctly.
DE20359	When AP license limit is reached, AMP now displays an error messaging informing the user that no additional APs can be added.
DE20360	The restore option on the Audit page now works as expected and no longer requires the user to manually refresh the browser.
DE20367	On the Network page in IGC, a validation has been added when deleting a wired of wireless profile to prevent a mismatch.
DE20369	Using multi-edit for syslocation in IGC now allows spaces in the parameter string.
DE20370	In IGC, the TACACS Accounting checkbox now appears a TACACS server is chosen as the auth server.
DE20371	The auth server can now be edited successfully from the System > Admin page in IGC.
DE20381	On the L3 Mobility tab on IGC, the IP address will automatically update to match the subnet when the subnet is modified.
DE20382	IGC now correctly pushes SNMPv3 configuration to devices
DE20386	Zero (0) can now be typed into the Port field in the SNMP Trap Receivers dialog box in IGC.
DE20387	In IGC, on the WLAN General page, the Disable SSID on uplink failure checkbox is now unchecked by default.
DE20390	After configuring and applying L2 DHCP server setting in IGC, the Option Type configuration is saved correctly.
DE20391	In IGC, the domain name is no longer saved as false when the Domain Name field is left empty on the Access Point page.
DE20392	The Centralized DHCP Scopes configuration dialog in IGC now displays correctly in Mozilla Firefox.
DE20393	The DLNA Media and DLNA Print checkboxes on the Service > Airgroup page in IGC remain checked when changes are saved.
DE20394	IGC now allows the use of spaces in non-Virtual Controller AP names.
DE20395	SNMPv3 Users are correctly deleted from the System-Monitor page in IGC; they no longer exist after applying the changes to delete them.
DE20396	IGC now requires at least eight characters in the password fields on SNMPv3 page from Instant 4.1.1.

 Table 17: Fixed Issues in AirWave 8.0.6 (Continued)

ID	Description
DE20397	The OK button on the VPN Tunnel profile configuration page now works correctly.
DE20398	An 802.11ac new channel option at customize valid channel was added to the RF page in IGC.
DE20399	The IAP configuration no longer disappears, resulting in an IGC mismatch when the Restore Default Value option is used on the RF Radio page.

This table lists the fixed issues in AirWave 8.0.5

Table 18: Fixed Issues in AirWave 8.0.5

ID	Description
DE16614	When the "Prefer AMON vs SNMP Polling" option is enabled, the number of clients reported in AirWave now matches the number of clients that are reported on the controller.
DE16649	Unaudited stacked MAS member switches no longer appear on the APs/Devices > Mismatch page.
DE18556	Viewing an outdoor AP location in Google Earth now works properly.
DE18915	The Modify Devices Apply All option now works with remote users.
DE18937	VisualRF no longer displays campuses and the location of APs in folders outside of the user's access level.
DE19072	The VisualRF > List page now appears properly and no longer displays the zoom bar.
DE19101	The VisualRF Campus view background can be set to None from a custom background image.
DE19299	AirWave refreshes the FQDNs of APs when an entry is not available in the dns_result table periodically.
DE19444	 Pagination now works for the bulk override feature. Accepted parameters include: start_row: this number is the first row of the table. Default is 0. page_length: this number indicates how many records to send in API response. has_next: this indicates if the table has more records in next page.
DE19445	The AirWave Audit page performance issues have been fixed.
DE19503	An HTTP response splitting vulnerability in the network management framework on the remote web server has been resolved.
DE19544	The headers in a CSV file from a connected client list are now in English.
DE19547	An Aruba S1500-24 Mobility Access Switch can be successfully upgraded and rebooted from AirWave.
DE19590	Down devices in the Monitor page no longer show the uptime.
DE19622	Setting a table's custom page length to something other than a number no longer causes AirWave to crash.
DE19626	The AppRF > Destinations > Summary total destinations count now works properly. Previously the summary total displayed the page length number instead of the number of entries in the Destination list.
DE19652	An explanation now displays if a license is not verified during migration.
DE19667	The Client Detail page performance has been improve by optimizing the query for rogue client historical data.
DE19674	A name displays with a link to down devices with AP IDs.

 Table 18: Fixed Issues in AirWave 8.0.5 (Continued)

ID	Description
DE19678	Airwave includes security fixes for Red Hat Enterprise Security Advisory RHSA-2014:1167-1, which resolves vulnerabilities that could allow users to gain additional system privileges, , leak memory to the user space, or cause the system to stop responding.
DE19680	UCC calls now display on the Client Detail page.
DE19698	The Whitelist populates variables to virtual controller.
DE19704	An IAP can be verified and configured now as long as the firmware is upgraded successfully.
DE19705	To improve the loading time of the AppRF tab, missing indicies have been restored to the start and stop columns on aggregate.
DE19706	JSON encoding has been enhanced to prevent AMON data loss and Papi/AMON graph spikes.
DE19707	The error messages displayed on the licensing tab now accurately reflect the error instead of displaying inaccurate information.
DE19718	Show commands can now be executed when logged in with view-only credentials.
DE19721	A timeout was added back to the last_process mmap to help prevent the UI from becoming inaccessible.
DE19722	IAP cert auth performance has been improved.
DE19730	IGC displays the slave IAP IP address on the access point page.
DE19737	The VisualRF backup script no longer stops the current running VisualRF process.
DE19740	The visualrf_backup.pl no longer fails.
DE19742	AMP no longer inverts the Radio Mode for 2.4 GHz and 5.0 GHz. The correct information is displayed for the appropriate radio.
DE19743 DE19138	The HTML5 UI now matches the Flash UI in older versions of AirWave and correctly draws holes or gaps in the wireless coverage for heatmaps.
DE19749	Acknowledge and Delete buttons are no longer displayed on the alert lists for read-only users.
DE19752	The character length for airwave-ip and airwave-backup-ip is changed from 15 to 127 to allow for domain name, IP, and port.
DE19754	OS details are now accurately displayed for iPhone 6 devices.
DE19757	Role assignment rules can now be reordered in IGC.
DE19762	Template versions can now be updated when unsupported commands are shown.
DE19781	This version of AirWave includes a fix for the Bash Code Injection Vulnerability via specially crafted environment variables, which was announced publicly on September 24, 2104. See CVE-2014-6271 and CVE-2014-7169 for more information.
DE19782	The attenutation grid is recalculated when the trasmit power for planned APs is changed by the user.
DE19799	The report process for IAP devices has been made more robust.
DE19800	The config push result has been added to the IGC log file.
DE19813	The Discard Pending Changes pop-up message no longer appears when navigating away from Network > Security if no changes are made.
DE19820	On the DHCP server page, the domain name in the dialog is limited to 64 characters and in panel is limited to 32 characters.

Table 18: Fixed Issues in AirWave 8.0.5 (Continued)

ID	Description
DE19824	This AirWave release includes a fix for the Authenticated Privilege Escalation Vulnerability. See CVE-2014-8368 for more information.
DE19842	Client list views and client search have been optimized to reduce the loading time of client data.
DE19878	VisualRF now works properly during startup, visualrf_bootstrap file deletion is not required.
DE19884	Abbreviations for standard protocols are now used in AppRF in regards to Instant devices.
DE19885	In the IGC System-> Admin page, the cursor no longer jumps to the Password field when characters are entered in the Username field.
DE19897	AMP now correctly interprets 2.4 GHz and 5.0 GHz IAP radio information, preventing VisualRF from displaying a wrong heatmap.
DE19922	Auditing is still performed if AMP has the correct credentials to perform an audit but the encrypt disable command fails.
DE19931	This release of AirWave eliminates exposure to the POODLE SSL vulnerability. See CVE-2014-3566 for more information.
DE19940	This release of AirWave closes two OpenSSL vulnerabilities, an SRTP Memory Leak and a Session Ticket Memory Leak. See CVE-2014-3513 and CVE-2014-3567 for more information.
DE19965	This version of AirWave includes an update to a Critical Java Security update (RHSA-2014:1657-01).

This table lists the fixed issues in AirWave 8.0.4.1

Table 19: Fixed Issues in AirWave 8.0.4.1

ID	Description
DE19781	This version of AirWave includes a fix for the Bash Code Injection Vulnerability via specially crafted environment variables, which was announced publicly on September 24, 2014. See CVE-2014-6271 and CVE-2014-7169 for more information.

The table below lists fixed issues in AirWave 8.0.4.

Table 20: Issues Fixed in AirWave 8.0.4

ID	Description
DE18124	An update to RPM Security (RHSA-2012:0451-3) has been added.
DE18292	Modifications made to the default profile of the Gigabit Ethernet Group are saved and pushed to devices as expected; the AMP no longer returns the error Invalid slot(ALL) for Interfaces .
DE18502	Read-only users can now use location history.
DE18888	AMP users can push passwords with special characters in the management user and enable passwords.
DE19049	Creating and saving a custom report using the config detail widget, while not editing the email settings, no longer returns the error Cannot email configuration audit widget in CSV format ."

 Table 20: Issues Fixed in AirWave 8.0.4 (Continued)

ID	Description
DE19054	Devices can now be filtered based on a single SSID and the output will contain all devices that are transmitting the selected SSID. This includes those devices that are transmitting multiple SSIDs.
DE19059	When creating multiple profiles on AMP in the Group Config UI, the newly created profiles are not incorrectly deleted if an error occurs when saving and applying the profiles.
DE19066	The Switch Role column now displays the switch's actual role (Primary, Secondary, etc.) instead of an integer value.
DE19068	AMP no longer use the same defaults for switches and controllers, which prevents a mismatch for Download Role from Clearpass under the AAA profile.
DE19091	When a new interface is created in AMP, such as Interface Gigabitethernet 0/0/2, fields that use default named profiles are pre-populated by default.
DE19109	The Instant GUI Config no longer incorrectly generates commands after other application rules reach the retry limit.
DE19118	The Overview > License page now displays the correct technical support email address.
DE19189	List views stay on the same page and retain all configured filters after a console refresh.
DE19191	Rogue client reports are generated and can be viewed properly.
DE19198	The AMP no longer returns the Invalid XML data error message when running a Network Wide Usage and Network Client Session error reports.
DE19221	A new menu for configuring Site-to-Site IKE on the controller has been added under Advanced Services > VPN Services > IKE > Site to Site IKE.
DE19234	Configuring WPA-2 Personal key management on a new network no longer returns the error message wrong value: wpa-psk-tkip,wpa-psk-aes .
DE19244	An error message displays if "Prefer AMON to SNMP" is enabled and the audit is disabled or there are no credentials for the CLI.
DE19253	Attempting to simultaneously edit and delete separate items on the Manual Blacklisting page and then applying those changes no longer returns an error message and incomplete changes.
DE19269	If an SSH user attempts to use the encrypt disable command and does not have permission, the configuration fails and an error message displays.
DE19270	On the Instant Config page, the VC Name and Organization fields now support spaces in the name.
DE19290	On the IGC, the Auth server 1 and Auth server 2 fields under Admin now work properly.
DE19305	IGC no longer generates a mismatch message when the Host IP is deleted from the manual GRE.
DE19371	On the AirWave 8.0.4 Instant Config > Access Points page, users can set the AP radio modes separately.
DE19375	AirWave no longer pushes existing port channels while it is creating new channels.
DE19383	The loading icon now appears when a floor plan is opened in any view.
DE19395	The channel utilization overlay now loads properly in AirWave 8.0.4.
DE19396	AppRF supports up to a maximum of 39K clients.

Table 20: Issues Fixed in AirWave 8.0.4 (Continued)

ID	Description
DE19415	Adding new devices to a group in IE 9 now works properly.
DE19440	Deleting a VC from a group and then re-adding it to the same group no longer causes the VC to be duplicated.
DE19460	Configuring ports when creating Access Rules using the IGC now works properly.
DE19468	When using VisualRF in Mozilla Firefox, devices do not stick to the cursor when moving them around the floor plan.
DE19475	Both AirWave 8.0.4 and Instant produce the same report regarding detection of rogues.
DE19476	AMON process performance improvements were made to reduce the chances of a backlog in handling AMON messages and provide a more up-to-date view of the network.
DE19477	The IGC System Location field now works in Instant 4.1 and greater.
DE19502	The single poller now starts and works properly.
DE19532	Dragging VisualRF icons now works properly.
DE19633	Sorting by the Radio Antenna on AP lists now works properly.

The table below lists issues fixed in AirWave 8.0.3.1

Table 21: Issues Fixed in AirWave 8.0.3.1

ID	Description
DE19149	An additional internal issue was fixed in AirWave 8.0.3.1 so that VisualRF is now using the proper amount of CPU.
DE19295	A VisualRF performance issue that was caused by an architectural change has been fixed. VisualRF performance now works properly.
DE19395	VisualRF now loads properly when the Channel Utilization overlay is applied to a floor plan.
DE19423	The clean_database.pl maintenance script did not execute for users running 8.0.3. This problem has been resolved with AirWave8.0.3.1. Users upgrading from 8.0.3 to this release may experience a longer than usual clean_database.pl run time initially to make up for it not being run since upgrading to 8.0.3.
	Users running AirWave8.0.3 who do not want to upgrade to AirWave 8.0.3.1 can run this command to fix the issue: mv /usr/local/airwave/bin/clean_database /usr/local/airwave/bin/clean_database.pl
DE19475	The issue, where only a reported classification of valid from a device is allowed to demote the threat level, has been fixed.

The table below lists issues fixed in AirWave 8.0.3.

Table 22: Issues Fixed in AirWave 8.0.3

ID	Description
DE18908	Floor Upload Wizard changes are now saved correctly after clicking Finish .

 Table 22: Issues Fixed in AirWave 8.0.3 (Continued)

ID	Description
DE19141	VisualRF is no longer using too much CPU. Previously it was using over 40% CPU.
DE19149	The Floor plan page is no longer timing out after upgrading the server to AirWave 8.x.
DE19320	The loading speed of floors in the Flash UI has been improved.
DE19358	The loading speed of densely-populated floor plans has been improved.

The table below lists issues fixed in AirWave 8.0.2.

Table 23: Issues Fixed in AirWave 8.0.2

ID	Description
DE17161	AirWave includes includes security fixes for Red Hat Enterprise Security Advisory RHSA-2014:0917-1, which resolves vulnerabilities that could allow users to return unencrypted information to the server.
DE18122	AirWave includes ca-certificates security update (RHSA-2013:1866-3).
DE18533	The Uptime report, which was not 100% for IAPs, has been resolved.
DE18753 DE17510	When sorting AppRF data by MAC address, the Home > AppRF > MAC address window filters out entries that do not have MAC address data.
DE18449	HTTPD has been updated to resolve https://rhn.redhat.com/errata/RHSA-2014-0370.html
DE18609	In VisualRF, an issue is resolved where changing the band setting for channel bands displayed by the VisualRF overlay triggered an error that could cause the VisualRF WebUI to stop responding and display an "Unresponsive script" error.
DE18680	In previous versions of AirWave, a file locking error could lead to concurrency issues with AirWave tools interacting with data stored in the AirWave database. This issue is resolved in AirWave 8.0.2.
	The number of items viewable on a list is changeable and maximum value is capped at 2000.
DE18694	NOTE: The user info list settings only apply to the first time viewing the list. If the setting was ever changed manually, then changing user info setting will not have any effect.
DE18733	A lock option has been added to the VisualRF floor plan to prevent accidental changes to the location of campuses, buildings, APs, etc.
DE18745	When VisualRF requests information from the AMP, it logs in with a randomly generated username and password. An improvement in AirWave 8.0.2 prevents unnecessary external authentication requests for these internally generated usernames and passwords.
DE18718	802.11ac is now bucketed by channel width (20/40/80/160). This appears corrected on the RF Performance page and lists.
DE18792	This change corrects a VRRP shutdown processing issue. Additionally, ip access-group <name> session is correctly understood in interface vlan.</name>
DE18853 DE17510	When sorting AppRF data by MAC Address, data that does not include the MAC address is not returned.
DE18860	When list view refreshed per the console refresh rate, the list view stays on the current page and retains all filters.

 Table 23: Issues Fixed in AirWave 8.0.2 (Continued)

ID	Description
DE18904	The Restore Backup function no longer fails between AMP and the controller.
DE18913	On the Rapids setup page, a warning message appears anytime a user enables containment.
DE18954	When selecting Show Label in Channel in VisualRF, the full ap name and 802.11 channels are displayed.
DE18968	The change helps prevent a database lock contention between multiple processes
DE18784	The change helps prevent a database lock contention between multiple processes
DE18985	The maximum viewable columns in list view is 20. Once you reach 20, the available options go grey and you cannot slide over any other column options.
DE18994	Exported CSV files no longer displays device uptime in epoch format. Uptime is now displayed as days, hours, minutes.
DE18997	LV pagination options are now available for 25,50,100,250,500, and Custom.
DE19143	AirWave includes includes security fixes for Red Hat Enterprise Security Advisory RHSA-2014:0924-1, which resolves vulnerabilities that could allow users to gain additional system privileges, or cause the system to stop responding.
DE19149	In VisualRF, the floor plan data is now working properly and is no longer timing out.
DE19174	Recent IAP template changes, including several Instant and IAP changes, are now available in AirWave 8.0.

The table below lists issues fixed in AirWave 8.0.1.

Table 24: Issues Fixed in AirWave 8.0.1

ID	Description
DE15596	If you override the Routed Virtual Interface value an Aruba switch inherits from its group profile, and then move that device to another group, the routed virtual interface count in the AP/Devices > Manage page increases correctly.
DE15994	Action icons in the UI display tooltips when you mouse over those icons.
DE17274	AirWave includes security fixes for Red Hat Enterprise Security Advisory RHSA-2014:0475-1, which resolves vulnerabilities that could allow users to gain additional system privileges, or cause the system to stop responding.
DE17619	The VPN session client graphs displayed on the Clients VPN Sessions page correctly show Usage as the default Y-axis value. Previously, this value was undefined until the Usage value was selected.
DE17642	In VisualRF, clicking on a campus or building link in the List view correctly displays the campus or building Map view, regardless of the browser used to access the AirWave WebUI.
DE17987	The Clients > Diagnostic page for a wired client no longer displays data fields applicable to wireless clients only.
DE18117	AirWave includes security fixes for Red Hat Enterprise Security Advisory RHSA-2014:0126-1, which resolves vulnerabilities that could allow a remote attacker to crash an OpenLDAP server.

 Table 24: Issues Fixed in AirWave 8.0.1 (Continued)

ID	Description
DE18118	AirWave includes security fixes for Red Hat Enterprise Security Advisory RHSA-2013:1409-1, which resolves extended Internet daemon (xinetd) package vulnerabilities that could allow users to gain additional system privileges.
DE18125	AirWave includes security fixes for Red Hat Enterprise Security Advisory RHSA-2014:0043-1, which resolves vulnerabilities in the way Berkeley Internet Name Domain (BIND) handles queries for NSEC3-signed zones,
DE18169	If you edit a Routed Virtual Interface profile to define an IP Netmask for multiple devices, the confirmation page now correctly shows the IP Netmask value is associated with the IP Netmask field. In previous releases, the confirmation page incorrectly showed the netmask value associated with the IP Address field, even though the netmask value was correctly defined in the profile.
DE18182	When the Use Global Aruba Configuration setting is enabled in the AMP Setup > General page, changes to a Gigabit Ethernet interface port on the Device setup > Aruba Configuration > Local Config Network > Ports/interfaces page can now restrict the Gigabit Ethernet interface port setting to devices within a selected group or set of groups.
DE18371	VisualRF correctly displays properties for APs with disabled radios. In previous versions of AirWave, an AP with a disabled radio incorrectly appeared as an AP with an error in VisualRF.
DE18378	Association or neighbor lines in an HTML5 VisualRF floor plan correctly display settings for the connection PHY band (5 Ghz and/or 2.4 GHz).
DE18405	VisualRF floor plans correctly show distances in metric units (rather than US [imperial] units), when the Use Metric Units setting is selected in the VisualRF > Setup page.
DE18410	By default, VisualRF allocates 2,500 grid cells to each floor plan, and calculates grid cell size by dividing the square footage of the floor plan by 2,500. The grid cell size shown in the floor plan lists on the VisualRF> Floor Plans page now limits the cell size value to two decimal places. (for example, 1.85 ft.)
DE18413	Users logging in to AirWave with read-only credentials are able to change the size of VisualRF icons.
DE18419	A user logging in to AirWave with read-only credentials is no longer incorrectly logged out of AirWave when the user selects and drags a region point on a VisualRF floor plan.
DE18422	VisualRF correctly prevents users from drawing walls outside the floorplan background when editing a floor plan.
DE18437	AirWave includes security fixes for Red Hat Enterprise Security Advisory RHSA-2014-0513, which resolves a libxml2 vulnerability that could allow a remote attacker to launch a Denial of Service (DoS) attack on the system.
DE18489	An issue has been resolved where resizing a VisualRF floorplan before adding planned APs prevented the floor from loading correctly.
DE18490	An issue is resolved where settings from an Instant Virtual Controller were not imported correctly, triggering a configuration mismatch error. AirWave now correctly stores the VLAN ID, netmask and gateway for a Virtual Controller.
DE18522	The 802.11g Radio profile now appears in the list of controller profile settings that can be managed using the Aruba Controller override list in the APs/Devices > Manage Page .
DE18538	In VisualRF, the grid size for an AutoCad floorplan can be configured correctly using either the flash UI or the default HTML5 UI, and the size of the floorplan no longer limits the available grid size settings.

 Table 24: Issues Fixed in AirWave 8.0.1 (Continued)

ID	Description
DE18551	Importing a configuration from a 7200 Series controller caused the AirWave WebUI to stop responding. This issue is resolved by changes that allow AirWave to ignore an unrecognized configuration setting imported from a controller running a newer version of ArubaOS not yet unsupported by that version of AirWave.
DE18558	The information on the Home > UCC page correctly refreshes with the frequency defined in the Console Refresh Rate field in the Home > User page.
DE18578	When AMP is installed on a virtual machine, the AMP monitoring process recognizes the correct number of CPU cores allocated in the VM. Previously, the monitoring process on an AMP installed on a VM did not get updated with this information, and would use the number of cores configured in the AMP Setup > General > Performance page.
DE18582	An issue is resolved where importing a configuration from a master controller with a local controller did not correctly add the local controller's IPsec keys.
DE18588	AirWave includes security fixes for OpenSSL Security Advisory CVE-2014-0224, which resolved vulnerabilities for a Man-in-the-middle (MITM) attacks that could allow an attacker to can decrypt and modify traffic from the attacked client and server.
DE18594	An issue is resolved where the AirWave WebUI would stop responding because longer data retention periods caused the cached data reach the maximum cache size of 4 Gb. There is no longer a defined limitation on the cache size, which is now limited only by the size of the AirWave server.
DE18619	The device uptime reported in the Device Info section of the APs/Devices > Monito r page displays accurate uptime values.
DE18621	The VisualRF List View correctly refreshes the information on that page with the frequency defined in the Console Refresh Rate field in the Home > User page.
DE18628	AirWave can import planned APs using the Ekahau format into VisualRF floor plans.
DE18650	The Instant GUI Configuration (IGC) feature now supports configuration of the AirWave AMS-IP, AMS-backup-IP and Organziation settings.
DE18675	An issue is resolved where rogue APs did not correctly appear in Visual RF floor plans.
DE18710	AirWave includes security fixes for Red Hat Enterprise Security Advisory RHSA-2014:0771-1, which resolves vulnerabilities that could allow local users to gain additional system privileges, or cause the system to stop responding and display an unresponsive script warning.

The table below lists issues fixed in AirWave 8.0.0.

Table 25: Issues Fixed in AirWave 8.0.0

ID	Description
DE15403	The default view for user graphs is now the <i>maximum</i> user count. In previous releases, user count graphs showed the <i>average</i> user count by default.
DE15629	The client diagnostics page no longer displays an unnecessary blue area in the match events popup window.
DE16457	Time stamps on for traps on the System > Syslog & Traps page correctly coincide with the time stamp value on SNMP trap messages.

 Table 25: Issues Fixed in AirWave 8.0.0 (Continued)

ID	Description
	The SNMP Source column that appears in the Client lists has been renamed to Source , as this column can now show information for the following source types:
DE17077	SNMP PollSNMP TrapAMONHTTPS
DE17731	The User column in the in the Home > AppRF > Users table correctly resizes to display the entire User name. In previous releases, longer user names could be truncated.
DE17839	Open menus close correctly when a user scrolls up and down a page in the AirWave UI using a mouse scroll wheel.
DE17939	The AppRF graphs Trend for Top 3 Destinations and Trend for Top 3 Applications correctly show data for the selected time period, without any unexpected data gaps.
DE18022	The Interface Gigabit Ethernet profile and Port Channel profiles used for Aruba device configuration includes fields for configuring a session ACL and a session VLAN ACL.
DE18078	Changes to client diagnostic page thresholds are saved as expected.
DE18133	The VisualRF Auto-match Planned Devices feature correctly displays the total number of floors for the view of all campuses.
DE18171	AMP has an internal whitelist that allows administrators to use the WebUI to view the log files on the System>Status page. If a user attempts to access a file not on this list through the WebUI, AMP displays an 'Access Denied' error message.
DE18178	An issue is resolved that prevented a VLAN without a description or AAA profile from being correctly pushed to a controller and created on the device.
DE18185	If you use the controller UI to assign an IP address to a VLAN, and then delete that VLAN from the Device Setup > Aruba Configuration > Local Config > Network > VLANS > VLAN page of the AirWave WebUI, AirWave correctly deletes the IP address for the VLAN before it deletes the VLAN itself. In previous versions, the VLAN was deleted <i>before</i> its IP address, triggering a configuration mismatch error.
DE18188	The DHCP Option 82 setting configurable in the Device Setup > Aruba Configuration > Local Config>Network>IP page of the AirWave WebUI is correctly applied to the controller configuration.
DE18275	Resizing campus icons on the VisualRF>Network map no longer causes the campus icons to move to an incorrect location on the map.
DE18287	Instant template configurations created and edited in AirWave support WPA2 passwords with an apostrophe (') or other special characters.
DE18367	When you configure a report definition to allow that report to be exported via FTP or SCP, the
DE18372	Reports >Definitions page displays a warning if the FTP or SCP settings are invalid.
DE18424	You can use VisualRF to create and export a bill of materials for a campus, building or floor by right-clicking on the icon for that location, and selecting Bill of Materials . Earlier versions of AirWave could incorrectly display an error message when a user attempted to create a bill of materials using the right-click menu.
DE18433	VisualRF allows you to drag-and-drop an AP onto a floor plan using the Internet Explorer 11 browser.
DE18487	VisualRF supports .svg files as floor plan background images.

Known Issues

The table below lists known issues in AirWave 8.0.6.3

Table 26: Known Issues in AirWave 8.0.6.3

ID	Description
DE20768	When the download AMC Client URL is accessed on AMP, the download does not begin and the page crashes.

The table below lists known issues in AirWave 8.0.6.2

Table 27: Known Issues in AirWave 8.0.6.2

ID	Description
DE20751	The List view in VisualRF has an extraneous lock icon to the right of the List link. This is a cosmetic defect and has no impact on VisualRF behavior.
DE20753	Heatmaps in VisualRF and heatmaps in Bill of Material (BOM) reports do not match because BOM reports calculate heatmaps with a default signal cutoff of -85dBm.
DE20754	Sensor maps are not shown in BOM reports for floors that have AMs.

The table below lists known issues in AirWave 8.0.5

Table 28: Known Issues in AirWave 8.0.5

ID	Description
DE15549	The Total Disk Usage chart display is limited by the total number of disk mounts that have taken place. If more than eight disks have been mounted, the AMP only displays the first eight mounted disks.
	Once the limit on historical mount points is reached, subsequent mounts are not graphed, regardless of whether the previous mounts are connected.
DE19741	Running nightly maintenance during midnight can cause AMP to temporarily stop monitoring the network. Normal monitoring resumes once nightly maintenance completes.

The table below lists known issues in AirWave 8.0.4

 Table 29: Known Issues in AirWave 8.0.4

ID	Description
DE19369	For enable Console Access, do the following: From the AirWave GUI, navigate to System> General . Click Console access: enable again, then select Save or Apply All .
DE19548	The nightly backup log may have errors related to the VisualRF backup. Ignore these errors as they do not affect the overall AirWave nightly backup.

The table below lists known issues in AirWave 8.0.3.1.

Table 30: Known Issues in AirWave 8.0.3.1

ID	Description
DE19491	VisualRF UI takes longer to load after the VisualRF has been restarted.
DE19490	Floorplans with high-client density take a long time to load.

The table below lists known issues in AirWave 8.0.0.

Table 31: Known Issues In AirWave 8.0.0

ID	Description
DE12398	AMP servers using Security Technical Implementation Guide (STIG) management standards do not run the security-hardening script stig.pl upon each upgrade.
DE12888	SecureAMP has no menu item for setting the clock. A re-installation may be necessary if the clock is wrong, because logins are denied for significant clock deviations.
DE12919	VMWare tools cannot be installed during the SecureAMP installation procedure, and must be pre-loaded before the installation. The tools should be pre-loaded, or loaded from the CLI menu.
DE13668	In the legacy flash-based VisualRF UI, the QuickView Preferences>General , Preferences>APs and Preferences>Clients menus display configuration options that are no longer applicable to VisualRF. This is not a known issue for the default HTML5 VisualRF UI.
DE13678	The overlay and display menus in the legacy flash-based VisualRF UI refers to "sensors", while the default HTML5 UI refers to these devices as "air monitors."
DE13683	When you edit and save the Virtual Controller Variables - Default Values template, the Confirm Changes page shows the database changes, rather than the user-defined settings.
DE15112	When you perform a search in AMP, then resize the Search Results pop-up window, you have to scroll to see some of the buttons in this window.
DE15239	If AMP is not getting health data from Aruba controllers, the user diagnostic page shows an empty health graph.
DE15304	On the Groups > Templates page, there is a note saying you can use templates to manage the configuration of devices. Although this list includes HP, only HP WesM devices support template configuration.
DE15512	 When you perform a search in AMP, pressing Enter and clicking the magnifying glass icon return different results. Pressing Enter does a search based on what is specified on the AMP Setup > General page under the Search Method section. Clicking the magnifying glass always does a quick search.

 Table 31: Known Issues In AirWave 8.0.0 (Continued)

ID	Description
DE15596	If you import settings from an Aruba switch, then move that switch to a new group, the Aruba Overrides section of the APs/Devices>Manage page can show an incorrect number of Routed Virtual Interfaces.
DE15814	When an inactive client expires, RRD files containing AMC Signal Data for that client are retained.
DE15921	Links in the UI do not allow you to right-click the link and select the Open in new Tab or Open in New Window options.
DE16144	Adding a user to the internal user database using the Instant GUI Config (IGC) feature incorrectly triggers a no user error for a configuration mismatch when you save and apply the change, even though the user is added correctly.
DE17613	The AirWave UI does not fully support the Safari for Windows browser. (5.1.7 or earlier)
DE17665	AirWave can allow more devices to be added than are supported by the current license count. Exceeding the device licensing limits can cause performance issues.
DE17739	Active APs making UCC calls can appear to be down when the device is polled using SNMP. This can cause AirWave to incorrectly report that a down AP is supporting an active UCC call.
DE17897	AMP uses outdated timezone data, which incorrectly calculates the date that daylight savings time in Brazil. AMP can also encounter errors when it attempts to calculate reoccurring event times during the changeover period between standard time and daylight savings time in Brazil.
DE17960 DE17998	The table in the RAPIDS > List page cannot be sorted or filtered by the by the following data columns. Name Detecting APs Channel Threat level Confidence
DE17971	The Scatterplot UCC data chart supports a maximum of 1000 datapoints.
DE17998	The device table on the RAPIDS > List page does not allow you to filter data by the Detecting APs , Channel , Threat level or Confidence table columns.
DE18051	Reinstalling AMP doesn't overwrite and clear all previous database entries.
DE18259	In VisualRF, if the Draw Walls tool is selected, moving an AP to a new location on the floor plan will draw a wall between the previous location of the AP and its new location on the floor plan.
DE18920	With the parameter as "none" in the xml request (https:// <your.airwave.server>/amp_stats.xml), the following parameters are not listed in the xml response: bandwith_in bandwidth_out To get all the attributes (including bandwidth details) in the amp_stats response, use the URL https://<your.airwave.server>/amp_stats.xml?include_bandwidth=1.</your.airwave.server></your.airwave.server>

 Table 31: Known Issues In AirWave 8.0.0 (Continued)

ID	Description
DE19266	When enabling AMON, auditing should be set to daily and have been successful at least once to allow AMP to calculate the proper BSSIDs per radio. If these BSSIDs do not exist, clients are dropped because they do not have any corresponding BSSIDs in the AMP database.
US12233	Buildings cannot be moved to new campuses under the HTML5 version of AirWave 8.0.6.3. To work around this issue:
	Disable the HTML5 user interface (revert back to flash).Restart the VisualRF engine and make the necessary changes.



www.arubanetworks.com 1344 Crossman Ave Sunnyvale, California 94089 Phone: 1-800-WIFI-LAN (+800-943-4526) Fax 408.227.4550

© 2014 Aruba Networks, Inc. All rights reserved.