This document describes new and changed features, and known issues in the AirWave 8.0.10 release. The release notes include the following sections:

What's New in this Release

The following enhancements have been added in AirWave 8.0.10:

The following enhancements have been added in AirWave 8.0.9.2:

The following enhancements have been added in AirWave 8.0.9.1:

The following enhancements have been added in AirWave 8.0.9:

The following enhancements have been added in AirWave 8.0.8.1:

The following enhancements have been added in AirWave 8.0.8:

The following enhancements have been added in AirWave 8.0.7:

The following enhancements have been added in AirWave 8.0.6:

The following enhancements have been added in AirWave 8.0.5:

The following enhancements have been added in AirWave 8.0.4:

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

Third-Party Device Support in AirWave 8.0.10

Cisco

Support for stacking of the Cisco 3650.

HP

Added support for the following HP devices:

- MSM-775 controller
- HP425 AP
- HP560 AP
- HP-350 AP
- HP-355 AP
- HP-365 AP
- HP-385 AP
- 1910, 1920, and 1950 series Comware switches

Aruba Instant Configuration Enhancements

AirWave 8.0.10 introduces the following Instant configuration enhancements:

- In order to reduce confusion when using the Instant GUI configuration, AirWave now makes it clear whether the user is making changes at the group level or virtual controller level. When a specific virtual controller is selected, on the **AirWave** link is highlighted and the remaing links are greyed out. If the user clicks on one of the greyed-out links, AirWave will prompt the to continuing working at the virtual-controller level or not. If the user clicks **OK**, the greyed-out links become highlighted. If the user clicks **Cancel**, the user is moved to the group level to continue configuration.
- Uplink configuration is now supported at the group level.
- Remote SSH access to a virtual controller is now supported. To initiate an SSH connection with a virtual controller, navigate to **Groups > Monitor** and click on the **IP Address** column. A menu will with an SSH link; click the link to start the session.
- Configuration template for thin IAPs. Prior to 8.0.10, template configuration for Instant only applied to virtual controllers. To create a thin IAP virtual controller template, navigate to **Group > Template** and use the **Aruba InstantThin AP (Any Model)** option.
- AirWave now calculates the uptime of a device based on the actual uptime of the device, not just the time that the device is connected to the AMP.
- Existing clients with an unkonwn device type are no automatically updated when AirWave's OUI tabe is updated.
- The **Overrides** tab in the IGC has been update. Overrides are now displayed as a list of CLI commands that from the group configuration per virtual controller. Additionally, a **Remove All Overrides** button has been added at the virtual controller level to remove all overrides configured on the spcified virtual controller.
- The IGC supports uplink configuration at the group and virtual controller levels.

Instant 4.2.1 Feature Support

AirWave 8.0.10 introduces support for the following Instant 4.2.1 features in IGC. For more information about each of these features, see the *Aruba Instant 6.4.3.4-4.2.1.0 User Guide.*

- **Dynamic Proxy for RADIUS and TACACS**: IGC now supports dynamic proxy for RADIUS and TACACS. To enable this feature in IGC, navigate to **System > General > Dynamic Proxy** and check the **RADIUS** and/or **TACACS** check boxes and click **OK**.
- **Deauth of Inactive Clients**: Instant can now be configured to deauth clients when they become inactive. To configure this feature in IGC, navigate to **Networks > General > Show Advanced Options > Miscellaneous** and select **Enabled** from the **Deauth inactive clients** drop-down menu. This feature is disabled by default.
- **Time Based Services**: You can configure time range profiles using the IAP UI and CLI. These Time Range Profiles can be enabled on an IAP to allow or deny access to an SSID only during a specific period of time. You can create different types of time profiles, namely:
  - **Periodic**: The SSIDs and user roles will be provided access to the websites periodically within the specified time range. The user needs to select the **Period type** (day/weekday/weekend/daily) and the time range (**Start Time** and **End Time**) to create the periodic profile.
  - **Absolute**: The SSIDs and user roles will be provided access to the websites only during the specified date and time duration.
- **XML-API Server Configuration Enhancement**: You can now configure up to 8 XML API server entries on IAP. You can also create XML API requests with appropriate authentication commands.
- **DHCP Enforcement**: You can now block traffic for IAP clients that do not obtain IP address from DHCP by selecting **Enable** under **Networks > General > Enforce DHCP** in the IGC.

- **Very High Throughput Configuration**: You can now enable or disable Very High Throughput (VHT) function on devices that support VHT. VHT is enabled by default on 802.11ac series IAPs. However, you can disable VHT if you want the 802.11ac IAPs to function as 802.11n IAPs. You can configure VHT on SSID or a 5 GHz radio profile. If you enable or disable VHT on an SSID, the configuration is applicable only to the clients connecting through that SSID. To disable or enable VHT on all SSIDs, configure VHT on the 5 GHz radio profile.
- **Minimum RSSI**: You can now configure the minimum Received Signal Strength indicator (RSSI) for probe and auth requests. The minimum can be specified between 0 and 100 dB.
- **Deny Inter User Bridging**: you can disable bridging traffic between two clients connected to the same AP on the same VLAN if you have security and traffic management policies defined in upstream devices.
- **Cellular SIM PIN Locking**: IAPs support SIM PIN lock function for 3G/4G modems that support the SIM locking feature to prevent fraudulent use. The IAP can now lock and unlock the SIM PIN using the **pin-enable** and **pin-puk** parameters in the **per-ap-settings** of the Instant configuration template.
- **Ethernet Type for L2 ACL**: Ethernet is now a configureable value in L2 ACLs and traffic can now be filtered based on the Ethernet field in the frame header.

Firmware Upgrade Failure Timeout

Beginning with AirWave 8.0.10, you can configure the amount of time AirWave continues to retry a firmware upgrade after a failure. The timeout limit range is from five minutes to 60 minutes. To configure this option, navigate to **AMP Setup > General > Firmware Upgrade/Reboot Options**.

AP-324 and AP-325 Support

Beginning with AirWave 8.0.9.2, AirWave supports the AP-324 and AP-325 access points.

CentOS Update

Beginning with AirWave 8.0.9.1, the AirWave software installation package is bundled with CentOS 6.6.

Firmware Distribution Over HTTP

Beginning with AirWave 8.0.9, firmware distribution over HTTP is disabled by default. To enable this feature, navigate to **AMP Setup > General > Firmware Upgrade/Reboot Options** and select the **Yes** radio button for the **Enable firmware distribution via http** option.

This change impacts upgrades from Instant 4.0 and lower. Enable this feature before upgrading from Instant 4.0 or lower.

Aruba Instant 4.2

AirWave 8.0.9 introduces support for Instant 6.4.3.x-4.2.0.0, also known as Instant 4.2. The following enhancements have been added to support Instant 4.2:

- **Support for Multiple XML API Server Configuration**: Users can now configure up to four XML API server entries on an IAP. These server entries can be edited or deleted if required. To configure this feature for a virtual controller or group of virtual controllers, navigate to **Instant Config > Services > Network Integration**.
- **Prevent Inter-user Bridging**: If you have security and traffic management policies defined in upstream devices, you can disable bridging traffic between two clients connected to the same AP on the same VLAN. When inter-user bridging is denied, the clients can connect to the Internet but cannot communicate with each other, and the bridging traffic between the clients is sent to the upstream device to make the forwarding decision. To find this option in the IGC, navigate to **Networks > New Network > General > Show advanced options > Deny inter user bridging**.

- **RadSec Certificate Support**: You can now upload RadSec and RadSec CA certificates to the IAP. These certificates are used for client authentication when RADIUS communication over TLS is enabled. To access this feature, navigate to **Instant Config > Security > Authentication Servers > New** or **Edit**.
- **Dell Service Tag for IAPs**: The **APs/Devices >Monitor** tab displays the Dell Service tag for Dell Networking W-Series IAPs running Instant 4.2.

NOTE

This feature is not supported by some earlier W-Series IAP models, including the IAP-92, IAP-93, IAP-104, IAP-105, IAP-114, IAP-115, IAP-134, IAP-135, RAP-155, RAP-155P, IAP-175, RAP-3WN and RAP-3WNP.

- **Inactivity Timeout**: This feature allows you to specify a session timeout interval in seconds, minutes or hours. If a client session is inactive for the specified duration, the session expires and the users are required to log in again. You can specify a value within the range of 60-86400 seconds (24 hours) for a client session. The default value is 1000 seconds. To access this feature, navigate to **Instant Config > Networks**, then selected **Wired** for **Type** and click **Show advanced options**.
- **Creating Custom Error Page for Web Access Blocked by AppRF Policies**: You can create a list of URLs to redirect users to when they access blocked websites. You can define an access rule to use these redirect URLs and assign the rule to a user role in the WLAN network. To find this option in IGC, navigate to **Security > Custom Blocked Page URL > New**.
- **Voice Traffic Prioritization**: In the 6.4.3.x-4.2 release, IAPs comply with Spectralink's Voice Interoperability for Enterprise Wireless (VIEW) Certification to ensure interoperability and high performance between Spectralink 84-Series, 87-Series, and 8020/8030 Wireless Telephones and WLAN infrastructure products. You can configure the following parameters in a WLAN SSID profile for voice traffic and Spectralink Voice Prioritization:
  - **Traffic Specification (TSPEC)**—Prioritizes time-sensitive traffic such as voice traffic initiated by the client.
  - **TSPEC Bandwidth**—Reserves bandwidth for voice traffic.
  - **Spectralink Voice Protocol (SVP)**—Prioritizes voice traffic for SVP handsets.

  To find these options in IGC, navigate to **Networks > New Network > General > Show advanced options > WMM**.
- **Captive Portal Server Offload**: This feature enables the external captive portal to reduce the load on the Portal server. This load on the external captive portal server by ensuring that the non-browser client applications are not unnecessarily redirected to the external portal server. To find this option in IGC, navigate to **Security > External Captive Portal > New**.
- **Configurable Transmission Power Limits for Radio Profiles**: The **Customize ARM power range** option is added to the radio profile configuration window to allow administrators to set transmit power limits for a specific radio band. To find this option in the IGC, navigate to **RF > Radio**.
- **Accounting Server Configuration in Wired Profiles**: You can now configure accounting servers for a wired network profile. You can either use the same server for authentication and accounting, or configure a separate accounting server. To enable accounting for wired profile users, configure an accounting server and set an accounting interval. To find this option in the IGC, navigate to **Networks > New Network > Security** and select the authentication server from the drop-down menu.
- **DNS IP Configuration for Virtual Controller**: You can explicitly configure the DNS IP address for Virtual Controllers. IAPs can obtain their DNS IP addresses from per AP configuration (**ip-address** command), from the DHCP server, or from the Virtual Controller DNS IP address configuration. The Virtual Controller DNS IP address is only used for APs and does not apply to the clients connected to the APs. To find this option in the IGC, navigate to **System > General** and then select a virtual controller. Then change the **Virtual Controller network settings** drop-down menu to **Custom** and complete your configuration.
- **Configuring Multiple Exclusion Ranges of IP Subnets**: IAPs now allow you to configure multiple exclusion ranges of IP subnets in a local, L2 DHCP profile. Based on the size of the subnet and the configured

exclusion range, the IP addresses before and after the defined range are excluded. To find this option in the IGC, navigate to **DHCP Server> New** and enter the IP Range in the **IP Address Range** fields.

- **Configurable USB Port Status**: IAPs now allow you to set the USB port status to **enabled** or **disabled** based on your uplink preferences. If you do not want to use cellular uplink or 3G/4G USB modems in your current network, set the USB status to disabled. By default, the USB port status is enabled. To find this option in the IGC, navigate to **Access Points**, select an AP from the list, and then click **Uplink**.

Instant 6.4.3.x-4.2 does not support the IAP-92 and IAP-93.

For more information about the features and enhancements in Instant 4.2, refer to the following documents:

- *Aruba Instant 6.4.3.x-4.2 User Guide*
- *Aruba Instant 6.4.3.x-4.2 Quick Start Guide*
- *Aruba Instant 6.4.3.x-4.2 Release Notes*

Aruba Instant 4.1.2.0

AirWave 8.0.9 introduces support for Instant 6.4.2.3-4.1.2.0.

Instant Whitelist Database Enhancements

The Instant whitelist database is a list of the Instant APs that are allowed to access the AMP server after completing pre-shared key or certificate authentication. AirWave 8.0.9 allows network administrators to download Instant AP data from their Aruba Activate account directly into the Instant AP whitelist database.

To import Instant AP data from Activate to the AMP server:

1. Navigate to **AMP Setup > General > Automatic Authorization**.
2. In the **Authorize Aruba Instant APs connecting to AirWave** section, click **Whitelist**.
3. Next, navigate to Click **Import Instant AP Whitelist from Activate**. The **Activate Settings** page opens.
4. Configure the Activate settings to allow AirWave to access Instant AP data on the Activate server.

AirWave imports Instant AP data over a secure (HTTPS) connection. After AirWave receives the data from Activate, a status message appears at the top of the **Activate Settings** window in AirWave, describing the number of Instant APs added to or updated in the whitelist database, and the number of Instant APs removed from the whitelist database.

NOTE

For more information on configuring the Instant AP whitelist, refer to the *Aruba Instant in AirWave Deployment Guide*.

Brocade Network Advisor Support

In AirWave 8.0.9, AirWave supports Brocade Network Advisor. Once integrated, a link to the Network Advisor is listed on the **Switch Monitoring** page in the **Device Info** section.

To integrate Brocade Network Advisor with AirWave:

1. Log in to AirWave.
2. Navigate to **AMP Setup > External Server**.
3. Enter the IP Address or Hostname of the Brocade Network Advisor.
4. Click **Save**.

Third-Party Device Support in 8.0.9

AirWave 8.0.9 introduces monitoring support for the following devices:

HP

- MSM417
- MSM425
- MSM525
- MSM527
- MSM560
- 830 Unified Wired-WLAN Switch
- 850 Unified Wired-WLAN Switch
- 870 Unified Wired-WLAN Switch
- 7500 Switch Series
- 10500 Switch Series

NOTE: AirWave supports these devices for monitoring only, not configuration. These devices are also not currently supported by VisualRF.

Cisco

The Cisco 3850/3650 acting as a switch.

Licensing Enhancements

AirWave 8.0.9 introduces the following licensing enhancements:

License Expiration Email Notifications

For licenses with an expiration date, the administrator can configure email messages to notify specified parties of when a license is set to expire. AirWave sends an expiration notification email six months, three months, one month, and one week prior to expiration. Additionally, the email lists time remain for each expiring license installed on the AMP. This feature is disabled by default.

To configure Expiry Notifications:

1. Navigate to **Home > License > Expiry Notification Settings**.
2. Check the **Receive Email Notifications** check box to enable.
3. Insert any number of email addresses separated by spaces, commas, or semicolons.
4. Click **Save**.

New Single Device License

AirWave 8.0.9 introduces support for the LIC-AW license SKU. This new license represents a single device monitored by AirWave.

Subscription License

AirWave 8.0.9 introduces support for three new subscription-based license SKUs. These licenses are available in one, three, and five year subscriptions.

The new SKUs are:

- SUB1-AW-K12: One-year license
- SUB3-AW-K12: Three-year license
- SUB5-AW-K12: Five-year license

Aruba Mobility Access Switch Enhancements in ArubaOS 7.3. or Earlier

AirWave 8.0.8 introduces the following enhancements to support for Aruba MAS devices:

Bulk Override

Destination Prefix, **Destination Prefix Mask**, and **Next-Hop Address** are now support bulk override for Aruba MAS devices running version 7.3 or earlier. These are modified under **Groups > Switch Config > Layer 3 Features > IP** in the AMP.

Aruba Mobility Access Switch Enhancements in ArubaOS 7.3.1.0 or Later

AirWave 8.0.8 introduces the following enhancements to support for Aruba MAS devices running ArubaOS 7.3.1.0 or later:

802.1x Authentication Profile

Deny DHCP support in the **802.1x Authentication Profile** for devices running version 7.3.1.0 or later. To configure Deny DHCP:

1. Navigate to **Groups > Switch Config > Security & Authentication > 802.1x**.
2. Click **Add**.
3. Select **Yes** to enable or **No** to disable deny DHCP.

Deny DHCP is disabled by default.

Delay EAP Success support in the **802.1x Authentication Profile** for devices running version 7.3.1.0 or later. To configure Delay EAP Success:

1. Navigate to **Groups > Switch Config > Security & Authentication > 802.1x**.
2. Click **Add**.
3. Select **Yes** to enable or **No** to disable delay EAP success.

This feature is disabled by default.

Web SSH Management Profile

Enable or disable Webserver in the **Web SSH Management** profile for devices running 7.3.1.0 or later. To enable or disable Webserver:

1. Navigate to **Groups > Switch Config > System Features > Web Server**.
2. Click **Yes** to enable or **No** to disable Webserver in the **Enable Webserver** field.
3. Click Save to complete the configuration. This feature is enabled by default.

Enable or disable Captive Portal Ports in the **Web SSH Management Profile** for devices running 7.3.1.0 or later. To enable or disable Captive Portal Ports:

1. Navigate to **Groups > Switch Config > System Features > Web Server**.
2. Click **Yes** to enable or **No** to disable Captive Portal Ports in the **Enable Captive Portal Ports (8080/8081)** field.
3. Click **Save** to complete the configuration. This feature is enabled by default.

Aruba Mobility Access Switch Enhancements in ArubaOS 7.3.2.0 or Later

AirWave 8.0.8 introduces the following enhancements to support for Aruba MAS devices running ArubaOS 7.3.2.0 or later:

Aruba Central

Aruba Central support for Aruba MAS Devices running version 7.3.2.0 and later. To enable Aruba Central Configuration in AirWave:

1. Navigate to **Groups > Switch Config > System Features > General Config > Aruba Central Configuration**.

2. Select **Yes** to enable or **No** to disable.

3. Click **Save**. This feature is enabled by default.

BPDU Filtering Support

BPDU filtering support in the **Rapid-PVST+ Port Profile** for devices running version 7.3.2.0 or later. To configure BPDU filtering in the AMP:

1. Navigate to **Groups > Switch Config > Layer 2 Features > STP > Rapid-PVST+ > Interface Config**.

2. Click **Add**.

3. Select **default** or **unconditional** from the drop-down menu next to the **BPDU Filter** option.

4. Click **Add** to complete the configuration.

BPDU filtering support in the **MSTP Port Profile** for devices running version 7.3.2.0 or later. To configure BPDU filtering in the AMP:

1. Navigate to **Groups > Switch Config > Layer 2 Features > STP > MSTP > Interface Config**.

2. Click **Add**.

3. Select **default** or **unconditional** from the drop-down menu next to the **BPDU Filter** option.

4. Click **Add** to complete the configuration.

Storm Control Bandwidth Range

The storm control bandwidth range has been increased to 1-100. The default value is still 50. This feature is modified in the AMP under **Groups > Switch Config > Layer 2 Features > Switchport**.

Aruba Mobility Access Switch Enhancements in ArubaOS 7.4.0.0 or Later

AirWave 8.0.8 introduces the following enhancements to support for Aruba MAS devices ArubaOS 7.4.0.0 or later:

Aruba-VPN Pools Profile

Aruba-VPN Pools profile configuration support for devices running version 7.4.0.0 or later. To add a new Aruba-VPN Pool profile:

1. Navigate to **Groups > Switch Config > System Features > DHCP > Aruba-VPN Pools**.

2. Click **Add**.

3. Fill in the fields to complete the configuration.

Deny Inter User Traffic in a User Role

Deny Inter User Traffic support in a **User Role** for devices running version 7.4.0.0 or later. To configure Deny Inter User Traffic:

1. Navigate to **Groups > Switch Config > Security & Authentication > User Roles**.

2. Click **Add** to create new role or selecting an existing role to edit.

3. Select **Yes** to enable or **No** to disable deny inter user traffic in the **Deny Inter User Traffic** field.

Deny Inter User Traffic is disabled by default.

Device-Group Profile

Device-Group profile configuration support for devices running version 7.4.0.0 or later. To add a Device-Group profile:

1. Navigate to **Groups > Switch Config > Interfaces > Device-Group**.

2. Fill in the fields to complete the configuration.

Dynamic DNS Client Profile

Dynamic DNS Client profile configuration support for devices running version 7.4.0.0 or later. To configure a Dynamic DNS Client profile:

1. Navigate to **Groups > Switch Config > Layer 3 Features > Dynamic DNS Client**.
2. Click **Add**.
3. Populate the fields relevant to your configuration.
4. Click **Add** to complete the configuration.

IGMPv3 Snooping

Support for **IGMPv3 Snooping** configuration on devices running version 7.4.0.0 or later. To enable configure **IGMPv3 Snooping** in the AMP:

1. Navigate to **Groups > Switch Config > Multicast Features > IGMP Snooping (v1/v2)**
2. Click **Add** or select an existing IGMP snooping profile.
3. For both **IGMPv3 Snooping** and **IGMPv3 Snooping Proxy**, select **Yes** to enable or **No** to disable in the appropriate field.

This feature is disabled by default.

Invert and Range Options

The **Invert** and **Range** options under **Groups > Switch Config > Security & Authentication > Network Aliases > Destination** have been removed.

NAT Pool

NAT Pool configuration support for devices running version 7.4.0.0 or later. To configure a NAT Pool profile in the AMP:

1. Navigate to **Groups > Switch Config > Security & Authentication > NAT Pools**
2. Click **Add**.
3. Configure the NAT Pool completing the UI fields.
4. Click **Add** to complete the configuration.

Probe Profile

The **Probe** profile for L3 interface monitoring configuration support for devices running version 7.4.0.0 or later. To add a new Routed VLAN Interface profile:

1. Navigate to **Groups > Switch Config > Layer 3 Features > Probe**.
2. Click **Add**.
3. Fill in the fields to complete the configuration.

Rogue Containment Profile

Rogue AP Containment profile configuration support for devices running version 7.4.0.0 or later. To add a new Rogue AP Containment profile:

1. Navigate to **Groups > Switch Config > System Features > Rogue AP Containment**.
2. Complete the configuration.
3. Click **Save**.

Route Metrics

Support for route metrics for DHCP Client-enabled L3 Interfaces on devices running version 7.4.0.0 or later. To configure **Interface Metrics**:

1. Navigate to **Groups > Switch Config > Interfaces >Routed VLAN Interfaces**.

2. Enter value between 0 and 65535 in the **Interface Metric** field.

3. Click **Add** to complete the configuration.

By default, the value is set to 0.

Route VLAN Interfaces Profile

Routed VLAN Interface profile configuration support for devices running version 7.4.0.0 or later. To add a new Routed VLAN Interface profile:

1. navigate to **Groups > Switch Config > Interfaces > Routed VLAN Interfaces**.

2. Click **Add**.

3. Fill in the fields to complete the configuration.

Standby Interface VLAN

Standby Interface VLAN configuration support on devices running version 7.4.00 or later. To configure a **Standby VLAN Interface** in the AMP:

1. Navigate to **Groups > Switch Config > Security & Authentication > Virtual Private Networking > IPSEC > IPSEC MAP**.

2. Click **Add** or select and existing IPSEC Map.

3. Select an interface VLAN from the drop-down menu next to **Standby Interface VLAN** or click the **plus (+)** symbol to configure a new one.

4. Click **Add** to complete the configuration.

Juniper Device Monitoring Enhancements

AirWave 8.0.8 introduces the following for Juniper devices:

- A tab on the AMP Setup page has been renamed from **Third Party Integration** to **Juniper**. A link to Network Director appears on the **Switch Montoring** page: **Link to Juniper Network Director**.

- dot11 counters on the Juniper WLAN

- The collection of CPU and memory information from Juniper switches. This information is displayed on the monitoring page of the switch and can be included in reports and triggers.

In AirWave 8.0.7, AirWave supports Juniper Network Director (ND) 2.0. Once integrated, a link to the ND is listed on the **Switch Monitoring** page in the **Device Info** section. Clicking the link redirects the user to the ND UI, where they are prompted for ND login credentials. Users are redirected to the URL **https://<nd>/mode=Monitor&deviceip=<x.x.x.x>**.

> **NOTE**
>
> Currently, AMP does not have visibility into devices managed in ND. ND will display an error if a device with IP address is not found.

To integrate ND with AirWave:

1. Login to the AMP.

2. Navigate to **AMP Setup > External Server**.

3. Enter the IP Address or Hostname of the ND.

4. Click **Save**.

VisualRF Support for Third-Party Devices

Beginning in AirWave 8.0.7, the following third-party devices are supported in VisualRF:

- Cisco Controllers: 3650, 3850, and 8510

- Cisco Access Points: 1700, 2700, and 702W
- Juniper Controllers: WLC100, WLC2, WLC2800, WLC8, WLC800, WLC880, and WLCJUNOSV

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. AirWave supports Brocade switches operating as standalone and stacked switches.

Table 1: *Supported Firmware for switches*

Firmware Version	Model Type
08.0.20T211 and 08.0.30aT213	ICX6610-48

Cisco

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

Table 2: *Supported Firmware for controllers*

Firmware Version	Model Type
03.06.01E, 03.03.05SE, 03.06.01E, 03.07.00E	- 3650 - 3850
7.4.121.0, 7.6.130.0, 8.0.100.0, 8.0.110.0	8510
10.2.111.0 (IOS: 15.3(3)JN3)	2700

Table 3: *Supported Firmware for APs*

Firmware Version	Model Type
10.2.111.0 (IOS: 15.3(3)JN3)	- 1700 - 2700 - 702W

Dell Networking

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

Table 4: *Supported Firmware for switches*

Firmware Version	Model Type
8.3.2.0	- E150 - E300 - E600 - E610 - E1200 - E1200i

Table 4: *Supported Firmware for switches (Continued)*

Firmware Version	Model Type
8.4.2.9	● C300 ● C150
8.4.2.6	● S25n ● S25pac ● S25pdc ● S25v ● S50 ● S50nac ● S50ndc ● S50e ● S50v ● S2410cp ● S2410p

Juniper

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

Table 5: *Supported Firmware for APs*

Firmware Version	Model Type
9.1.0.6.0	● WLA321 ● WLA322 ● WLA522 ● WLA532 ● WLA632

Table 6: *Supported Firmware for controllers*

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

Meru

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

Table 7: *Supported Firmware for APs*

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

Table 8: *Supported Firmware for controllers*

Firmware Version	Model Type
6.1.1-25	• MC1550 • MC3200 • MC4200

NOTE

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 9: *Supported Firmware for APs*

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

Table 10: *Supported Firmware for controllers*

Firmware Version	Model Type
5.4.2.0-30R	RFS4000

UCC Dashboard Improvements

Starting with AirWave 8.0.6, 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 in AirWave 8.0.6 that changes customer variables, Instant VC variables, and configuration push.

Instant Improvements

AirWave 8.0.7 added the following:

- The IGC CLI model now initializes when the AMP starts for the first time. If the IGC engine is not currently running, it may be disabled. You can enable it on the Groups Basic page. The engine may take a few minutes to start after it is enabled.
- After an IAP receives configuration information from AirWave, the Virtual Controller now enters a confirmation message in the AMP Device Events log. The message displayed reads: "Configuration is successfully synchronized from management server."
- AirWave now supports bulk configuration of thin AP radio roles and ARM mode.
- Support has been added for batch collection of debug data from AMP to IAP groups.

AirWave 8.0.5 added the following:

- IAP certificate authentication performance has been improved.

AirWave 8.0.4 added the following:

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

RF Health Report Enhancements

NOTE	Starting in AirWave 8.0.8, the folder, client, and radio statistics in the RF Health Report are unchecked and disabled by default. Additionally, upon upgrade to AirWave 8.0.8, these options will become unchecked and disabled in any previously configured RF Health Report definitions.

In AirWave 8.0.7, a number of enhancements have been added to the RF Health Report. A report can now be summarized by:

- Top Folders By Worst Client and Radio Statistics Combined 2.4 GHz and 5 GHz
- Client and Radio Statistics by Folder - Combined 2.4 GHz and 5 GHz
- Top Folders By Worst Client and Radio Statistics 2.4 GHz
- Client and Radio Statistics by Folder - 2.4 GHz
- Top Folders By Worst Client and Radio Statistics 5 GHz
- Client and Radio Statistics by Folder - 5 GHz

The statistics displayed can be Client Health, Client SNR, Radio Noise, Radio Utilization, or Radio Interference. The thresholds for the statistics are defined in the corresponding fields below. These thresholds are defined by a specified percentage (0-100%) or dBm (-110-0 dBm) for Radio Noise Threshold.

To enable these:

1. Login to the AMP
2. Navigate to **Reports > Definitions**.
3. Select **Daily RF Health Report**.
4. Check any options under **Summarize report by**.
5. Select the statistics to be displayed from the **Top Folder Sorting Column** drop-down menu.
6. Define any thresholds appropriate to your report.
7. Click **Save and Run** or **Save**.

HTTP Request Retry Attempts

In AirWave 8.0.7, you can configure the number of HTTP request retry attempts. Also, more log information regarding **amp_events** about an HTTP retry has been added.

MIB Improvements

In AirWave 8.0.7, two new enhanced traps have been added: **apUp** and **apDown**. These traps now allow the AP MAC address and the AP name to be added. They support rogue containment so there is no mismatch in the AP list when the AP is in **monitor_only** mode and the IGC is enabled.

Because the error is not set in the configuration response from the AP when the IGC is enabled, the error is displayed by the IGC instead.

Mobility Access Switch Support Enhancements

In AirWave 8.0.5, The drop-down list of 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.

Bulk Editing of the Switching File

Starting in AirWave 8.0.4, 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*

API for Streaming Raw Records

An API, which streams raw records for reports in CSV format, is available in AirWave 8.0.4. This API is a beta version only. To try this API, please contact your support person for details.

Usage Column in AP Table

In AirWave 8.0.2, a usage column, which can be filtered and sorted, has been added to the AP table.

Support for SCP for Aruba Firmware Upgrades

In AirWave 8.0.2, 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

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 11: *Filter icons*

Icon	Description
✚	Click this icon to create a custom filtered view.
📝	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.

Copy a Floor in the Same Building

In AirWave 8.0.8, the Floor plan **Duplicate** option lets you copy a floor in a building when you want to create a duplicate floor in the same building.

Floor Upload Wizard

Starting in AirWave 8.0.0, 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

Starting in AirWave 8.0.0:

- 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.

> **NOTE**
> 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 introduced in AirWave 8.0.0.

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 8.0.0 introduces 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 8.0.0 introduces support for 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

Starting with AirWave 8.0.0, the **Home** and **Folder** pages 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-205H (starting in AirWave 8.0.7) and IAP-205H (starting in AirWave 8.0.9)
  - AP-214/AP-215 and IAP-214/IAP-215
  - AP-228 (starting in AirWave 8.0.7) and IAP-228 (starting in AirWave 8.0.9)
  - AP-274/AP-275 and IAP-274/IAP-275
  - AP-277 (starting in AirWave 8.0.7) and IAP-277 (starting in AirWave 8.0.9)
  - AP-324/AP-325 starting in AirWave 8.0.9.2
- 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*

* 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.

Changes

Changes to AMP were made to the following general categories:

Audit Page Enhancements

Starting with AirWave 8.0.6, the **Audit** page is divided into multiple subsections, improving the time it takes that page to load.

The **Audit** page appears when you select a device from the **Devices** list on the **AP/Devices > List** page. Each section of this page sends requests separately and loads as soon as a response is received. This eliminates a dependency on the other sections and reduces bottlenecks in data loading. Additionally, if there is a delay in response, a loading message is now displayed while the data is sent.

License Limit Alert

Introduced in AirWave 8.0.6, in addition to displaying the number of days remaining on a license, the **Home> Licenses** page now displays a warning message when usage levels for a license exceeds 90%. If your AirWave deployment includes temporary or evaluation licenses, the **License** page shows the **License Usage: xx%** warning next to the **Days Remaining: xx** message.

Automatic IGC Policy Upgrade

Introduced in AirWave 8.0.6, if all IAPs in a group upgrade to a new software version, the IGC now migrates the group policy to the new version if the new version of software is higher than the current one.

IGC Policy Copy

Introduced in AirWave 8.0.6, the IGC is now notified to copy the group policy from the original group to the new group when you duplicate a group using the IGC.

Instant Improvements

Introduced in AirWave 8.0.6:

- AirWave 8.0.6 introduces support for destination 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.

Introduced in AirWave 8.0.5:

- The IAP 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 or an AP. For a VC, view or edit these values from the **AirWave > AirWave Settings** pages of the IGC. To view or edit values for an AP associated with a VC, select that device from the **Access Points** page of the IGC, then select **AirWave Settings**.
- A new configuration option has been added that allows you to perform bulk template modifications on virtual controller timezones .
  1. From the **Groups > List** page, select a group of Instant devices and click **Modify Devices**.
  2. Click the **Change device Group/Folder** drop-down list and select **Aruba Instant virtual controller variables**.
  3. Select one or more VCs and click **Update**. If the selected devices are *not* managed using the IGC, the **Groups > Monitor** page opens, allowing you to modify the **Clock_timezone** field.
- 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 values from AirWaveduring 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 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 the AMP server.

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*

Device ▲	Status ▼
00:0b:86:f0:33:20	Up
00:1a:1e:c0:1a:dc	Up
00:1a:1e:c0:55:3a	Up
00:24:6c:c7:f8:1c	Up
00:24:6c:c8:de:8a	Up
6c:f3:7f:ca:84:f0	Up

Manage
Audit
Monitor
Compliance

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*
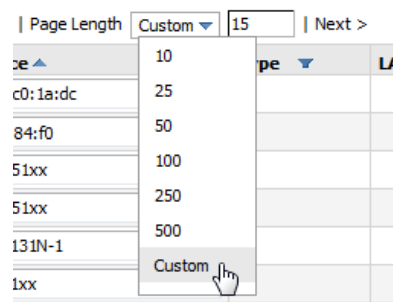
Enhanced Export Report Option

Introduced in AirWave 8.0.0, 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

Starting in AirWave 8.0.0, 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

Starting in AirWave 8.0.0, 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,** and **Memory 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

Starting in AirWave 8.0.0, 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

Starting in AirWave 8.0.0, 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

Starting in AirWave 8.0.0, 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

In AirWave 8.0.0, an enhancement was added 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 FQDN 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

- Starting in AirWave 8.0.6, a tooltip displays in the AMP UI when your mouse hovers over any cluster in the list and not just the selected cluster.

- Starting in AirWave 8.0.6, an in-progress status displays in the AMP UI anytime a change is being applied.
- Starting in AirWave 8.0.0 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.
- Starting in AirWave 8.0.0, 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 12: *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, and 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 6.4.3.x-4.2 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 13: *Instant Support in AirWave*

Instant Version	Support For Template Configuration	Support for IGC Configuration
Instant 4.2	AirWave 8.0.9	AirWave 8.0.9
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 14: *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 8.0.10.

	Description
DE20082	Adding a single device from thousands on the **New Devices** list now takes less than one second.
DE20179	Mismatches are cleared for the IKE Server Certificate and CA Certificate when Site to Site IKE settings are being imported to AirWave.
DE21161	SHA Authentication Protocol and AES Privacy Protocol options can be selected for HP ProCurve switches under **Device Setup > Communication** and **Device Setup > Add**.

	Description
DE21215	Rogue device alerts are not triggered for devices outside of the folder configured in the trigger definition. This applies only to rogue devices that do not have a last discovery event in the database.
DE21720	Access to the **/api/ap_bssid_list.json** and **/api/ap_bssid_list.xml** API queries has been updated to allow read-only users or greater.
DE21750	The funnel mechanism used to classify rules under **RAPIDS > List** has been updated to display all rule names consistently when the **Classifying Rule** is set to **All**.
DE21821	Polling enhancements have been enabled for thin AP clients and thin AP rogues on the MSM controller to prevent clients from being reported with unknown SSIDs when they are in a transition state and do not have a valid vsc_index. A check has also been added to the AMP server to verify whether a client has a valid vsc_index. Clients without a valid vsc_index are ignored by AirWave.
DE21972	The RAPIDS rogue signal calculation has been fixed to ensure all rogue signal strengths are calculated and classified correctly. High-threat rogues no longer display unusually low signal strengths, which previously caused AirWave to classify these potential threats incorrectly and delete them from RAPIDS, where only the highest threats are retained.
DE22144	Upgrade triggers are now enforced in all IAP firmware upgrades. Each IAP is upgraded successfully, and no upgrade job is deleted when the IAP reboots. AirWave no longer triggers the **Needs Firmware Upgrade** alert or restarts the upgrade process once the IAP has already been upgraded.
DE22163 DE22763	The **Channel Utilization** widget calculates and displays the correct max channel usage by storing tx_time and rx_time as percentages and determining the time at which tx_time + rx_time is the greatest. Max channel usage was previously calculated using greatest tx_time + greatest rx_time.
DE22259	A duplicate **vpn hold time** command has been removed from the IGC CLI command file. The IGC page no longer crashes or requires constant rebooting when IAPs are deployed in place of existing APs. The IGC page can now load successfully when an IAP configuration is pushed to the deployment.
DE22279	When the **Aruba Controller Role** is set to **root** from the **AMP Setup > Roles** page, AirWave is now directed to the VPN IP address of a virtual controller instead of the "real" IP address of the virtual controller when a user clicks on the VPN IP address hyperlink found on the controller's **Monitor** page
DE22319	Channel Utilization calculations have been fixed to ensure that both AirWave and the IAP display the same data.
DE22340	When a global group template is modified on the primary AMP of the Master Console, the SSID display updates successfully, and the Master Console no longer crashes due to a timezone and HTTP timeout error.
DE22342	A new **change owner** command has been added to the following folders/files so the VisualRF file permissions no longer change when a user attempts to add a new floorplan to the VisualRF server, as this previously caused floorplan uploads to fail: ● The **/var/airwave/temp** folder ● AirWave VisualRF directories ● **set_visualrf_file_perms**
DE22345	After a new virtual controller is created from an IAP factory reset, the AMP whitelist is re-imported to authorize and map dynamic AP variables to the new controller, which requires the dynamic variables for successful configuration.
DE22413	The **send_interferes_to_vrf** command is now enabled on the **seas_config** table, allowing VisualRF to receive information on interfering devices and display those devices on the VisualRF floorplans.
DE22419	Variables can now be referenced twice on a single line of the controller configuration template.
DE22466	The **New AP Monitor** page of the AMP server no longer displays an error message indicating that the "AP is not associated to Virtual Controller" when a new AP is provisioned and successfully replaces an AP that goes down in a cluster.

	Description
DE22468	When an IAP is added to an AMP server and assigned the static AirWave IP address through the IGC, the shared ams-key for the server can be configured on the IAP under the **Admin** tab of the **Groups > Instant Config > System** page. The IAP can now authenticate and connect to the AMP server using the shared key.
DE22474	The AirWave server now discovers HP 560 APs under the correct device type.
DE22481	The IAP **CPU Utilization** graph no longer displays sudden, unwarranted drops in CPU usage, with the added support for IAP 4.2.1 in the IGC 4.2.0 UI. If an IAP client's IP address is 0.0.0.0, the radio mode must be set to the actual radio mode manually, as the reported radio mode may be incorrect and produce inaccurate data. The **batch command** and **run-command** APIs have also been updated with new parameters and improved security features.
DE22523	WMS offload messages are now sent to the PAPI daemon using RabbitMQ, preventing the airbus from stalling while sending large messages (1MB or larger).
DE22543	AP transmit power levels are now updated and synchronized automtically in the VisualRF without requiring users to execute the **poll_aps_now.xml** command. As long as the synchronization timer is set (2mins/5mins/15mins), VisualRF no longer fails to display the updated power levels periodically. The new **Refresh** button also allows users to view the most recently updated power levels.
DE22547	Load time for the **Client Monitoring** page has been improved.
DE22563	Cisco WLC 5760 controllers that are configured successfully and respond to queries no longer appear as 'down' on the AMP server . The AMP server is also able to retrieve firmware information from the WLC controller through the **constants.pm** file without encountering the "error: fetching existing configuration" message.
DE22599	The RabbitMQ snoop for VisualRF no longer fails and displays an error message when a user executes the **rabbitmq_snoop** command to view the data sent to the VisualRF bus.
DE22600	The VisualRF channel overlay now displays the name of each AP instead of the AP ID, even if the APs are on different floors. APs that are in a planned state appear as **PlannedAp:<last four digits of AP ID>** since they do not have a name or MAC address.
DE22636	The **Instant Config > AirWave > Config Archive** page now updates and displays the archived configuration properly when a user selects a specific archived config, such as **Show Delta** or **Show Audit**.
DE22664	After a configuration is pushed to an AP group, the server no longer deadlocks when the template changes are being saved and applied.
DE22671	Upstream device information is now available on the **IAP Monitoring** page.
DE22674	Users can now select and delete one or more firmware jobs from the WebUI without deleting every job posted on the page.
DE22729	Users are now able to push configurations to the Aruba S1500 and S2500 switches successfully without encountering mismatches in the configuration output.
DE22767	The AirWave **Groups** page and VisualRF now display the same AP and client counts through the following enhancements: ● Updated RabbitMQ snoop message ● Fixed **database flush** command ● New debug message to debug client count issues
DE22818	AP and client database tables no longer overload on data and cause the AMP server to slow down due to a database cleanup failure during the nightly maintenance.
DE22879	The IGC encryption option is now set correctly so it does not get disabled automatically after the IGC security configuration is saved under **IGC > Networks > Security**.

	Description
DE22892	The RF Health Report no longer causes out-of-memory issues due to the accumulation of data in stashed arrays, in which data is continuously pushed on top of itself until memory runs out. AirWave now processes data in a stream-like fashion, removing data at the same rate that it is read. Speed has also been optimized in bottlenecks to help improve the flow of data.
DE22901	AirWave performs a safe eval on individual rogue AP classifications to prevent the database cleanup from failing during the nightly maintenance.
DE23046	Whenever a **walls.xml** file is overwritten due to a clean shutdown or a wall retrieval error in the database, multiple backup copies of the file are saved in the system.
DE23193	When a new VM server is installed on an AirWave deployment, to which IAP devices have successfully connected, the AMP IGC no longer executes duplicate **pppoe-username** and **pppoe-passwd** commands for adding and removing the PPPoE username and password under **pppoe-uplink-profile**. The virtual controller retrieves and displays the proper configuration parameters from the IAP under **System > Uplink** and contains a VC configuration override link.
DE23273	When a device attempts to connect to a virtual controller, it is automatically added to an appropriate group, which contains a desired configuration that is pushed to all new devices joining the group. If auto-configuration is enabled for a virtual controller, the IGC compares the desired configuration, which is set in the IGC, with the actual IAP configuration to locate mismatches and deltas. The user can automatically or manually handle mismatches and push the delta configurations from the IGC to the IAP. If auto-configuration is disabled for the virtual controller, mismatches and delta configurations can only be handled and pushed to the IAP manually.
DE23327	A **umask** is explicitly set at the start of the AirWave installation process to ensure proper permissions are granted for installed AMP files, allowing AirWave to install successfully on Redhat 6.7.
DE23330	The schema migration has been updated, and the **report cleanup** code has been removed so AirWave no longer removes files from the **graphs** directory and produces empty **Network Usage** reports after upgrading the Master Console to AirWave 8.0.9.1.
DE23518	The Master Console's **Device Inventory** report has been fixed to display data even if the **Devices** widget or 'Include details about every device' option is not selected.
DE23532	Master Console reports are no longer exported for each managed AMP due to multiple FTP/SCPs. The Master Console now exports only one report when the option to export the MC report is set.

There are no new fixed issues in AirWave 8.0.9.1.

This table lists the fixed issues in AirWave 8.0.9.

Table 15: *Issues Fixed in AirWave 8.0.9*

ID	Description
DE18515	Rogue devices manually set as valid are no longer incorrectly reclassified as unclassified by AirWave. This improvement resolves an issue where different rogue devices with the same source IP address were treated as duplicate devices.
DE20233	Cloning a group in AirWave no longer triggers an error which can cause the UI to stop responding.
DE20516	AirWave correctly follows configured folder hierarchy restrictions for RADIUS client authentication failure alerts. This resolves an issue where RADIUS authentication alerts appeared in an incorrect folder.
DE20920	Using the **Master Controller IP Address/DNS** field under the **Configuration > Wireless > AP Installation > Provisioning** on the controller to provision an AP no longer causes a configuration mismatch.
DE21162 DE21777	Using the crop option on a .jpg or .png image in the HTML5 version of VisualRF no longer results in a stretched and zoomed image. The crop option now behaves correctly in Flash and HTML5 versions of VisualRF.

Table 15: *Issues Fixed in AirWave 8.0.9 (Continued)*

ID	Description
DE21470	Filtered data from Syslog messages or SNMP trap reports can now be successfully exported to a CSV file. AirWave no longer exports the entire report when a filter is applied.
DE21494	The **RF Performance** tab now includes an IAP client health graph. This information was previously only available in the **Clients > Diagnostics** page.
DE21683	RAPIDS now supports rogue device information in Aruba Instant deployments. AirWave can display information about wireless and wired rogues seen by Instant APs running Instant 4.2.
DE21694	An issue is resolved where a device misconfigured with incorrect SSH credentials could cause errors in the AirWave authentication processes, delaying or preventing the configuration verification of other devices.
DE21698	In the IAP configuration template, custom variables for **wlan access-rule** and **wlan ssid-profile** settings that contain spaces are now successfully pushed to the virtual controller.
DE21723	AirWave now correctly handles description information in user derivation rules sent to a controller. This resolves an issue where the inverted commas could be absent from the rule description in the command, causing the command to fail due to a syntax error.
DE21730	AirWave now correctly generates disk usage alerts when disk usage for the AMP server has met or surpassed a defined threshold and the Alert Notification setting **Suppress Until acknowledged** is set to **No**.
DE21837	AirWave allows you to correctly remove an old WLAN authentication server from the IGC after adding a new one. This resolved an issue where AirWave could retain the old authentication server and attempt to push both to the IAPs.
DE21838	Beginning with AirWave 8.0.9, firmware distribution over HTTP is disabled by default. To enable this feature, navigate to **AMP Setup > General > Firmware Upgrade/Reboot Options** and select the **Yes** radio button for the **Enable firmware distribution via http** option. This change impacts upgrades from Instant 4.0 and lower. Enable this feature before upgrading from Instant 4.0 or lower.
DE21856	Valid access points marked as neighbors, are no longer incorrectly classified as rogues after upgrading AirWave. The Wireline Aruba Instant Data discovery method for IAPs was removed to prevent this.
DE21861	A nightly maintenance failure due to "unsuccessful jobs: clean_database" has been resolved by moving the operation from the server's RAM to the disk.
DE21868	If the IGC receives only virtual controller configuration information from an IAP but no IAP information, it no longer removes the IAP from its database. The IGC now tries to retrieve the IAP information again when it gets incomplete information.
DE21880	An issue is resolved where adding or removing a URL in the **Security > Custom Blocked Page URL** page of the IGC caused mismatches in the Instant devices using that configuration.
DE21962	When managing the IAPs with AirWave, the option to deauthenticate a client from AirWave behaves as expected. This resolves an issue where the **Deauthenticate Client** option on the **Clients> Client Detail** page appeared to be disabled.
DE21964	When an IAP's configuration is reverted, AirWave now generates an entry in the event and AP logs. This change provides an alert for administrators in cases where a network error occurs while AirWave pushes a configuration update to a virtual controller and the push is unsuccessful.
DE21999	The IGC no longer rejects IP addresses containing 255. The acceptable IP range is now 0.0.0.0 to 255.255.255.255.

Table 15: *Issues Fixed in AirWave 8.0.9 (Continued)*

ID	Description
DE22042	An issue is resolved where a failure in database migration upon upgrade caused the AirWave UI to stop responding.
DE22059	The IGC correctly saves a configured DHCP Scope and accepts a DHCP Scope imported to AirWave from an IAP. The error message "Policy Change Failed - cannot set no command on multi-allowed command-set, Comparer handles this" is no longer returned when saving a DHCP Scope in IGC.
DE22060	When an Instant AP creates a GRE tunnel to a controller, the VPN session appears as a user in the VPN sessions table, where the user is mapped to the folder ID of the Instant AP. An issue is resolved where the folder ID for this user would not update when the Instant AP was moved to another folder, preventing the network administrator from deleting the folder that previously contained the Instant AP.
DE22128	AirWave displays more accurate AP metrics on the **APs/Devices > Monitor > Radio Statistics** page due to an improved handling of missing AP data from the controller. In previous releases, missing AP SSID values could cause AirWave to return null values for the following AP metrics: ● Radio Errors ● Radio Power ● Usage ● Clients
DE22144	An issue is resolved where a reboot command sent to Instant APs that recently attempted a firmware upgrade caused some of those devices to attempt another firmware upgrade, greatly increasing the amount of time elapsed until those devices appeared in AirWave.
US13499	If the **Network Interface Vendor** field in the **Clients >Client Details** page or the **By WLAN Vendor** graph on the **Clients > Overview** page displays a large number of **unknown** vendors, this issue can be resolved by manually running a script to update the AirWave OUI database. 1. Access the command-line interface of the AirWave server or appliance using a secure shell (SSH) connection. 2. Log into the device as a root user. 3. Issue the command **/usr/local/airwave/bin/update_client_vendor.pl** to run the embedded OUI update script.

This table lists the fixed issues in AirWave 8.0.8.1

Table 16: *Issues Fixed in AirWave 8.0.8.1*

ID	Description
DE21669	The error message "Nightly maintenance failed because of unsuccessful jobs: clean_database" no longer appears on the AirWave UI homepage when the AMP attempts to rebuild the AP Aruba Role table during nightly maintenance. This error only affected users that had deleted an Aruba AP.
DE21687	The error message "Nightly maintenance failed because of unsuccessful jobs: unknown" no longer appears on the AirWave UI homepage while nightly maintenance is running. This message displayed because AirWave attempted to parse the empty error file before maintenance was complete.
DE21707	Generating an RF Health Report using the folder options under **Reports > Definitions > Report Restrictions > Summarize report by** no longer returns the error message "The server encountered an error while performing your request".
DE21715	Signal and Signal-to-Noise Ratio (SNR) values shown across different tables in the AirWave UI, as well as neighbor client locations in VisualRF, are now correct. Starting in ArubaOS 6.4.2.5, ArubaOS changed the way it communicated Signal and SNR values. This caused incorrect Signal and SNR-related information to display in AirWave.

This table lists the fixed issues in AirWave 8.0.8

Table 17: *Issues Fixed in AirWave 8.0.8*

ID	Description
US13278	Tzdata on AirWave was updated to tzdata-2015b-1 to account for the 2015 leap second.
DE17243	The **Target** column in the **VisualRF Audit** log now updates correctly when a building is deleted.
DE18839	AirWave no longer misclassifies a CPPM device type as an access point when a trigger is set up. The device type **ClearPass Policy Manager** was added as a trigger condition. The device type in the **Device Setup** page changed from **Aruba ClearPass Policy Manager** to **ClearPass Policy Manager**.
DE18679	In VisualRF, the x and y coordinates now adjust to the correct size when a client is moved within a floor plan boundary.
DE19572	The proper heatmap now generates correctly when a planned AP is moved.
DE19913	The **Device Setup > Certificates** page now more quickly; the database query for the tables of certificates was optimized.
DE19947	The IAP now connects successfully to AirWave when any port is changed.
DE20489	Heatmaps now display properly for the Cisco 3700I LWAPP when it is connected to a Cisco 5760 running at 5 GHZ.
DE20493	The AMP now correctly displays the SSID for Juniper and Trapeze APs on the **APs/Devices > Monitor** page.
DE20770	The **Rogue Overview** and **Rogue > List** pages now load properly for users. This transaction caused deadlocks in the database.
DE20894	The VisualRF **ListView** page no longer loads slowly. The page load performance time has been improved.
DE20895	Depending on the IAP configuration, more messages were received from the AP than required and this caused performance issues. VisualRF can now clobber the incoming messages. To clobber the messages, add **svg.clobber.aps=true** in the **/usr/local/airwave/lib/java/svg** property file.
DE20951	AirWave no longer crashes unexpectedly due a memory fragmentation. Two non-GUI settings were added to control when ALC daemons terminate. By default the ALC now recycles after completing 60K payloads or after growing past 4G in memory.
DE20963	Local firmware versions are now listed in the **Group > *Group name* >Firmware** drop-down menu in the **Desired Version** pane.
DE21010	The VisualRF **Deployed Devices** pop-up displays APs without a delay. Previously, when navigating to a floor in VisualRF, clicking **Edit** and then **Add Deploy Devices** caused the pop-up to load quickly but it took several minutes to display all the APs.
DE21022	An extra slash in the XML file has been removed and no longer adversely affects the floor mapping.
DE21023	VisualRF now accepts negative integers as floor numbers.
DE21038	The AMP now passes the band value in XML. This allows the AMP to calculate the channel overlay in VisualRF more efficiently.
DE21065	All relevant commands are executed successfully when pushing an AirWave template, which contains wired-port profiles, from AirWave to the IAP.
DE21073	The AMP now considers the build numbers of ArubaOS when upgrading a controller. This allows the AMP to accept a new build of the currently installed version of ArubaOS as an upgrade.
DE21078	AMP no longer sequentially scans the aggregate session table for each dimension when running nightly maintenance. This change reduces the time required for AMP to complete clean_database.pl.

Table 17: *Issues Fixed in AirWave 8.0.8 (Continued)*

ID	Description
DE21082	The **Juniper ND Hostname/IP Address** field on **AMP Setup > Third Party Integration** is now blank instead of displaying 0.0.0.0 after a fresh AMP installation or upgrade.
DE21098	The **split-tunnel** option now works properly when adding a centralized DHCP scope on the **Groups > Instant config > DHCP server** page.
DE21134 DE21119	When IAPs are added to an IGC group, the IAPs all sync properly now after the devices are upgraded to the group enforced firmware.
DE21121	This release of AirWave introduces a security fix for CVE-2014-8159.
DE21131	Exporting AP run commands from the **IAP > Monitor** page now runs without returning the **Request URI is too long** error.
DE21137	An IGC bootstrap error no longer incorrectly appears in igc.log when attempting to view the IGC GUI when the IGC is disabled.
DE21156	Editing and deleting of the Aruba controller time-range ACL profiles is now supported in AirWave.
DE21170	The IGC now generates the correct order of commands for the WLAN profile. The IGC now pushes the **auth-server** command before pushing the **auth- survivability** command.
DE21196	The IGC now sorts the commands **no wlan ssid-profile** and **no wlan access-rule** correctly when using the **del ssid profile** command to delete the SSID profile on the IGC Network page.
DE21213	VisualRF now supports the configuration of floor numbers with decimals up to one digit in HTML5.
DE21214	The AMP no longer attempts to push any system default ACLs, the RAP Whitelist, or user roles to Aruba controllers. Since ArubaOS 6.3, the Aruba controller has treated system default ACLs, the RAP Whitelist, and user roles as part of the global configuration. When AMP tried pushing those values to the controller, it resulted in an error and no other configuration changes were pushed. Additionally, **opcode** has been deleted from the policy rule **any any svc-kerberos redirect opcode 51 queue low position 1** since it does not exist on the controller. The policy rule now reads as **any any svc-kerberos redirect 51 queue low position 1**
DE21231	Executing the command **show ap monitor arp-cache** from the **IAP > Monitor** page no longer returns an **AP Monitor ARP Cache** error.
DE21239	After Client Session reports are run, AirWave now deletes unneeded temporary databases entries.
DE21244	This releases provides to the performance of the **Groups > Lists** page.
DE21247	The MAC ID now displays on the **Controller Monitoring** page for the Cisco 5760.
DE21252	The IGC configuration performance time has improved.
DE21256	When a planned AP is added and automatched to a deployed AP using MAC addresses, heatmaps correctly appear in VisualRF. When automatching, AMP now checks whether a radio configuration already exists for a particular ID and only attempts to add the new one after removing the old.
DE21261	The VisualRF audit log is now less verbose and easier to read. VisualRF server log events are now recorded in **/var/log/visualrf/visualrf_server_audit.log** and only user events are logged in **/var/log/visualrf/visualrf_audit.log**.
DE21298	Improvements to the performance of the **RAPIDS > Overview** page were made.
DE21302	In VisualRF, the buttons **Delete Planned** and **Delete Deployed** and related warning pop-up text now include the word **all**. The buttons now say **Delete All Deployed Devices** and **Delete All Planned Devices**. Additionally, if a single AP is selected, the **Delete All** options are hidden and only the **Actions** sub-menu is visible.

Table 17: *Issues Fixed in AirWave 8.0.8 (Continued)*

ID	Description
DE21307	The **Apply All** button now works properly after adding a new route and saving the changes. Previously, this button was grayed out.
DE21309	The IGC configured **Network** page now displays properly. Previously the default configuration **Network** page displayed when trying to view a network configuration.
DE21311	Catalog errors preventing heatmaps from appearing for some APs in VisualRF are resolved.
DE21358	In the IGC, the LED display option in **General** tab now works properly.
DE21632	The internal **Captive Portal** page under **Instant Config** now works properly and can be edited.
DE21364	Changing the order of authentication servers on the **Security** tab now works properly on the IGC.
DE21376	Changing a wired profile on a network port now displays properly on the IGC.
DE21382	The average RRD values are now calculated correctly.
DE21386	In the IGC, enabling and disabling the **Security Firewall** setting options display correctly after saving and applying changes.
DE21388	On the AP List page, an IGC IAP's configuration state is now displayed accurately instead of only displayed **Verifying** after upgrading AirWave.
DE21399	Dragging APs when adding planned APs now works correctly in Firefox.
DE21457	When creating a DHCP Scope, the AMP automatically creates invalid DHCP Scope entry (CL2) with undefined type and VLAN. This entry can now be edited.
DE21462	IAP cluster SSIDs are now displayed correctly on the **Groups > List** page.
DE21471	Clicking the magnifying glass icon in the **Add Deployed Devices** list now filters the list as expected.
DE21511	Users are now able to adjust the **Environment Factor**, by using the environment slider, when uploading a new floor plan. Additionally, similar capabilities are available through the **Region Properties** tab. Upon adding a planning region to a floor, users can click the properties tab and use the **Coverage Calculator** window to estimate the number of planned APs in a given region.
DE21520	AirWave now sets the **HttpOnly** flag in cookies to safeguard against cross-site scripting attacks.
DE21561	The **AP Group** page time to load performance has improved.

This table lists the fixed issues in AirWave 8.0.7.1

Table 18: *Issues Fixed in AirWave 8.0.7.1*

ID	Description
DE21201	This release of AirWave includes updated openssl packages to resolve the affected vulnerabilities described by Red Hat Security Advisory RHSA-2015:0715-1.

This table lists the fixed issues in AirWave 8.0.7

Table 19: *Issues Fixed in AirWave 8.0.7*

ID	Description
DE18310	The **config_verifier** log no longer displays incorrect warnings saying that device mismatch has occurred on the Audit tab.

Table 19: *Issues Fixed in AirWave 8.0.7 (Continued)*

ID	Description
DE18556	In VisualRF, the **View in Google Earth** link now works properly.
DE19018	An issue is resolved where AirWave was not pushing rogue AP reclassification commands to an IAP
DE19822	The Instant configuration page now loads properly.
DE19841	In VisualRF, SVG files is now scale correctly when cropped thus allowing floor plans to be uploaded accurately.
DE19898	SSIDs in the Radio list now show what is being broadcast at that moment.
DE20139	VisualRF walls now appear in the proper place after upgrading from AirWave 7.7.11 to AirWave 8.0.4.1.
DE20152	APs listed from the Controller Monitor page or the group/folder view, now show the down radio indicator. The AP list view also shows if the radio is enabled or disabled.
DE20164	An issue is resolved where floor plans in a .dwg format could not be uploaded using the Firefox web browser.
DE20239	The Device UP and DOWN alerts are no longer getting auto acknowledgments and now work properly.
DE20269	IAP no longer shows as being mismatched when there are no mismatches in the IGC.
DE20302	In VisualRF, the error message, "The file you are trying to upload might be corrupted. Please check the file and try again" inaccurately displayed. This no longer occurs.
DE20347	In Visual RF, a campus relationship can be dropped from a building when the strongest permission is set to admin and when the object has no parents.
DE20357	The Policy Version for Specific IAP Groups running the IGC now maps properly on Firefox.
DE20874	When updating the Syslocation setting for each virtual controller, the IGC no longer indicates the virtual controller as **down** in AirWave, even though it is up and running.
DE20889	Configurations with a capital letter in the **Community** string can be pushed to the Mobility Access Switch using Activate.
DE20895	VisualRF no longer times out and now works properly.
DE20903	A crash no longer occurs when logging into **amp_events.**
DE20922	Defining the stationary device in Visual RF HTML now works properly.
DE20424	Polling now works correctly for the Motorola RSF4000.
DE20949	List View transactions no longer slow down the AirWave UI process. D
DE20479	This release of AirWave introduces a security fix for CVE-2015-1390.
DE20489	Heatmaps are now correctly displayed in VisualRF for Cisco 3600 LWAPPs terminating on a Cisco 5760.
DE20536	This release of AirWave introduces a security fix for CVE-2015-1391.
DE20537	Closed a cross-site scripting (XSS) GET request vulnerability.
DE20546	Captive Portal logos are now successfully pushed using the IGC.
DE20559	A configuration from a controller that gets its licenses from a centralized licensing server can be correctly imported into AirWave.
DE20571	AMP now reports AP uptime of APs connected to a Cisco 5760.

Table 19: *Issues Fixed in AirWave 8.0.7 (Continued)*

ID	Description
DE20587	The AirWave UI no longer becomes unresponsive due to a database deadlock issue.
DE20596	When the IGC is enabled, clicking on the **Username** and **Password** fields on Configuration > Security > Users for Internal Server no longer returns and Invalid warning.
DE20626	A crash no longer occurs when navigating to the **Audit** page when you select a Aruba Controller or the **Manage** page for an AP.
DE20633	Floorplans are no longer incorrectly deleted when tasks for polling sites are removed.
DE20643	Aruba AP-214 and AP-215 Radio MAC addresses are populated from the AP device configuration.
DE20658	The following OUIs have been added to the AirWave database: 10:08:B1 (HonHaiPr), 38:B1:DB (HonHaiPr), 34:E6:D7 (Dell), AC:87:A3 (Apple) 90:FD:61 (Apple), F4-4E-05 (Cisco), and FC-5B-39 (Cisco).
DE20715	Upper case letters are allowed in the URL field for configuring External Captive Portal in the IGC.
DE20770	To prevent the **RAPIDS > Overview/Lis**t Page from becoming inaccessible, AirWave now deletes old discovery events for each discovery agent except the most recent.
DE20805	The links for **Rogues** and **Suspected Rogues** under the RAPIDS classifications list on the **RAPIDS > Overview** page have been re-added. The **RAPIDS Classification** list, which is located on the **RAPIDS > Overview** page, was not displaying the **Rogues** and **Suspected Rogues** links. These links now display properly.
DE20935	The IGC UI now displays the correct value for LDAP server and matches the value in the IAP UI.
DE20943	This release of AirWave introduces a security fix for CVE-2015-2201.
DE21024	The User Inventory report now generates more quickly with improved performance.
DE21041	This release of AirWave introduces a security fix for CVE-2015-2202.

This table lists the fixed issues in AirWave 8.0.6.3

Table 20: *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.

This table lists the fixed issues in AirWave 8.0.6.2

Table 21: *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 22: *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 23: *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 the 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 the IGC was enabled have been fixed.
DE19641	In the IGC 8.0, issues with the error log in async_logger_client have been fixed.
DE19690	The 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 the IGC is enabled.
DE19712	In the IGC, Ethernet 0 now supports wired-instant profile.
DE19719	During Audit and Import, mismatch sequences no longer appear.
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 from the AirWave 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.

Table 23: *Fixed Issues in AirWave 8.0.6 (Continued)*

ID	Description
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 the IGC the number of the users for an internal server now shows the correct value, and the Wi-Fi 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 the 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 button 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 Wi-Fi setting on the **System > Uplink** page now shows the correct value when you delete those uplink values.
DE19917	VisualRF performance works properly now.
DE19945	In the IGC, support is now available for a new channel for the 802.11ac radio.
DE19959	Viewing a certificate now works properly.
DE19960	The IAP no longer fails to log into AirWave in cert mode.
DE19964	The default values for the rf-arm-profile and HTSSID profiles have changed. In the ARM 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.
DE19973	In the 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, AirWavenow 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 read-write users add new APs to floorplans.
DE19998	Adding an AP to VisualRF no longer sets the Notes column value to null.

Table 23: *Fixed Issues in AirWave 8.0.6 (Continued)*

ID	Description
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 AirWave UI now displays the proper AirWave release.
DE20033	AirWave now queries information from the **AP_detail.xml** file correctly.
DE20034	In the IGC, an issue is resolved where SSIDs could not be created if there were spaces in the SSID name, for example, "public - mobile".
DE20036	In the IGC, the second authentication server now performs properly when you create an SSID with a wireless or wired guest.
DE20044	In VisualRF, only the error code and message appear, and not the entire HTTP response, when the VisualRF backup fails.
DE20056	In the 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	The 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 load 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.
DE20110	AMP charts now correctly display 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	The 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 drop-down menu for each port.
DE20128	In the IGC, the configuration for enforce uplink value is correctly pushed to devices.
DE20129	The IGC is now able to successfully push commands from the uplink page.
DE20140	AirWave now successfully pushes the **no accounting-server** command when a profile is edited.

Table 23: *Fixed Issues in AirWave 8.0.6 (Continued)*

ID	Description
DE20141	AirWave 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	The 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 the IGC no longer causes a mismatch.
DE20169	The IGC no longer allows the following characters to be used: % and &.
DE20171	After deleting all APs from AirWave, all APs can be re-added successfully. This resolves an issue where only a subset of detected APs were added.
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	The 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 the 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 the IGC when no changes were made.
DE20215	Information displayed by AirWave is consistent with the information displayed on the Audit tab; AirWave does not show a 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 users 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 the IGC now appear as expected.
DE20245	This release of AirWave includes a kernel security update for RHSA-2014:1843-1.
DE20258	In the IGC, subnet addresses in ACL rules are now truncated according to netmask to prevent a mismatch for too long access rules.

Table 23: *Fixed Issues in AirWave 8.0.6 (Continued)*

ID	Description
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 the 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 the 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	The IGC now sends the correct commands for the Disable SSID on uplink failure option.
DE20281	In the IGC, the creation of centralized and local DHCP scopes now works as expected.
DE20282	The maximum length of an SSID name in the IGC increased to 32 from 31 to reflect the 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 the IGC.
DE20296	SSID limits configured in the 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	The 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 the IGC.
DE20323	The 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.
DE20325	In the 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 the 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 the 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 the IGC has a configuration error instead of displaying a mismatch.

Table 23: *Fixed Issues in AirWave 8.0.6 (Continued)*

ID	Description
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 the 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 the IGC, a validation has been added when deleting a wired of wireless profile to prevent a mismatch.
DE20369	Using multi-edit for syslocation in the IGC now allows spaces in the parameter string.
DE20370	In the 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 the IGC.
DE20381	On the L3 Mobility tab in the IGC, the IP address will automatically update to match the subnet when the subnet is modified.
DE20382	The 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 the IGC.
DE20387	In the 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 the IGC, the **Option Type** configuration is saved correctly.
DE20391	In the 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 the IGC now displays correctly in Mozilla Firefox.
DE20393	The DLNA Media and DLNA Print checkboxes on the **Service > Airgroup** page in the IGC remain checked when changes are saved.
DE20394	The 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 the IGC; they no longer exist after applying the changes to delete them.
DE20396	The IGC now requires at least eight characters in the password fields on SNMPv3 page from Instant 4.1.1.
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 the 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 24: *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.
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.

Table 24: *Fixed Issues in AirWave 8.0.5 (Continued)*

ID	Description
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	The 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 the 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 attenuation grid is recalculated when the transmit 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.
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.

Table 24: *Fixed Issues in AirWave 8.0.5 (Continued)*

ID	Description
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 25: *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 26: *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; AirWave no longer returns the error **Invalid slot(ALL) for Interfaces**.
DE18502	Read-only users can now use location history.
DE18888	AirWave 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**."
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 in AirWave in the Group Config UI, the newly created profiles are not incorrectly deleted if an error occurs when saving and applying the profiles.
DE19066	When you select a Mobility Access Switch from the **APs/Devices > List** page, the **Switch Role** column now displays the switch's actual role (Primary, Secondary, etc.) instead of an integer value.
DE19068	AirWaveno longer uses 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.

Table 26: *Issues Fixed in AirWave 8.0.4 (Continued)*

ID	Description
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	The 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.
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.

Table 26: *Issues Fixed in AirWave 8.0.4 (Continued)*

ID	Description
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 27: *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 AirWave 8.0.3.1. 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 AirWave 8.0.3 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 28: *Issues Fixed in AirWave 8.0.3*

ID	Description
DE18908	Floor Upload Wizard changes are now saved correctly after clicking **Finish**.
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 29: *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.

Table 29: *Issues Fixed in AirWave 8.0.2 (Continued)*

ID	Description
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 UI 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.
DE18694	The number of items viewable on a list is changeable and maximum value is capped at 2000. **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**.
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.
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 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.

Table 29: *Issues Fixed in AirWave 8.0.2 (Continued)*

ID	Description
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 30: *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 UI.
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.
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.

Table 30: *Issues Fixed in AirWave 8.0.1 (Continued)*

ID	Description
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.
DE18551	Importing a configuration from a 7200 Series controller caused the AirWave UI 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 decrypt and modify traffic from the attacked client and server.

Table 30: *Issues Fixed in AirWave 8.0.1 (Continued)*

ID	Description
DE18594	An issue is resolved where the AirWave UI would stop responding because longer data retention periods caused the cached data to 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 > Monitor** 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 Organization 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 31: *Issues Fixed in AirWave 8.0.0*

ID	Description
DE15403	The default view for user graphs is now the *maximum* user count. In previous releases, user count graphs showed the *average* 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.
DE17077	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: ● SNMP Poll ● SNMP Trap ● AMON ● HTTPS
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.

Table 31: *Issues Fixed in AirWave 8.0.0 (Continued)*

ID	Description
DE18171	AMP has an internal whitelist that allows administrators to use the UI to view the log files on the **System>Status** page. If a user attempts to access a file not on this list through the UI, 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 UI, AirWave correctly deletes the IP address for the VLAN before it deletes the VLAN itself. In previous versions, the VLAN was deleted *before* 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 UI 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 DE18372	When you configure a report definition to allow that report to be exported via FTP or SCP, the **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 isses in AirWave 8.0.10.

Table 32: *Known Issues in AirWave 8.0.10*

ID	Description
DE23716	IGC migration removes a virtual controller's override settings after the IAP's firmware is upgraded and then migrating the IGC to the corresponding version. However, the overrides for the following components are not removed: ● Uplink ● AirWaveinfo (IP address, key, organization) ● System location ● Virtual controller IP address, netmask, gateway, VLAN, and name ● Per AP (thin AP) settings

Table 32: *Known Issues in AirWave 8.0.10 (Continued)*

ID	Description
	It is recommend that you do not enable **IGC > AirWave > AirWave Settings > Allow Configuration of AirWave Settings** in pre-8.0.10 before migrating to 8.0.10. Enabling this creates an ams-key mismatch after upgrade to 8.0.10 and it may cause IAPs disconnect from Airwave. **Allow Configuration of AirWave Settings** is disabled by default in the IGC. After the midnight auto audit, the IGC retrieves and stores a device's ams-key after migration is complete.
DE22425	AirWave does not create the default ACLs that a controller creates upon role creation. In ArubaOS 6.4.x, this creates a conflict that prevents AirWave from correctly pushing policy configuration to the controller. As a workaround, create new roles on the controller first and then import them to AirWave.
DE23282 DE23670	AirWave sends incorrect trigger alerts for AP down events during the controller upgrade process. For example, AirWave might send AP down alerts when the AP is down for less than the time configured in the trigger. This issue is caused when AirWave picks up an old entry when the AP went down instead of the most recent down event. Since the time since the old entry meets the configured trigger time, an alert is sent.
DE23289	When viewing VisualRF in the Microsoft Edge browser on a Windows 10 client, double clicking on a building or floor does not open the floor or map page.
DE23697	If an invalid or unreachable IP address is configured on a virtual controller through the IGC, the IAP cluster managed by the misconfigured VC becomes completely unreachable. Additionally, attempting to change the VC IP address from the Instant UI does not work because the VC thinks it is being managed by AirWave.

There are no new known issues in AirWave 8.0.9.2.

The table below lists known issues in AirWave 8.0.9.1.

Table 33: *Known Issues in AirWave 8.0.9.1*

ID	Description
123937	In ArubaOS 6.4.2.12, the PhyType message sent by the controller to AirWave for wireless clients does not include the proper encoding information. This causes AirWave to display 802.11g clients as 802.11b.

The table below lists known issues in AirWave 8.0.9

Table 34: *Known Issues in AirWave 8.0.9*

ID	Description
DE21393	The **AMP Setup > General** page allows you to configure time periods for retaining historical data. If you run a report for a longer period of time than the configured data retention period (e.g., you want to view 30 days of data for IDS events, but AirWave is configured to retain only 14 days of IDS data) then the reports may show unexpected results due to the limited data available. AirWave does not display a warning message if an administrator runs a report for a longer amount of time than the data retention window.
DE22133	In VisualRF, when you edit a floor plan to add a deployed device, the names of the folders in the **Devices** pane may appear as a question mark (?) instead of the correct folder name. This is only a display issue, as you can still drag and drop devices from these folders onto the floor plan.

Table 34: *Known Issues in AirWave 8.0.9 (Continued)*

ID	Description
DE22139	In VisualRF, the auto-match feature matches a managed device to a planned device with the same name or MAC address. In AirWave 8.0.9, when you right-click a floor plan, campus or network icon and select the **Auto-Match Planned Devices** option, those devices may incorrectly appear as down, even if the managed device is correctly matched with the planned device, and is active on the network.

The table below lists known issues in AirWave 8.0.8

Table 35: *Known Issues in AirWave 8.0.8*

ID	Description
DE21374	AirWave does not allow you to Telnet to a switch from the AMP server. The browser opens a pop-up to launch the Telnet application but no response is returned from the Telnet application.
DE21464	In the IGC, the global **DHCP Server scope** cannot be deleted from the cluster.
DE21465	The IGC continues pushing a configuration to IAPs after the configured Retry Limit is reached. This occurs when the configured value of **Clients Per Branch**, in the **Branch Size** tab under **DHCP Servers > Distributed DHCP Scopes**, is larger than the value calculated by AirWave. Because the configured number is out the required range, the configuration is not pushed to the IAPs and results in a mismatch. To work around this issue, configure a value smaller than the maximum value suggested in the UI.
DE21551	VisualRF does not display all the folders when you add APs to floors.
DE21570	When two IAPs are configured as a preferred master in the same cluster, the following occurs: 1. Each IAP becomes a virtual controller (VC). However, they do not form a cluster together and instead enter standalone mode. 2. Because they both become virtual controllers and were configured to be in the same cluster, they have the same VC key. 3. Each VC fluctuates between the up and down states because both VCs attempt to connect to AirWave with the same VC key. 4. AirWave detects this situation and, after for 10 minutes, resolves the conflict by making one VC key unique and rebooting both VCs.
DE21581	VPN traffic statistics (VPN IN and VPN OUT) and VPN client statistics do not populate correctly in the **Client** graph on the **Clients > VPN Sessions** page. The VPN client count appears as zero.
DE21607	When you use the IGC to add a new IAP, there may be a configuration mismatch because IAPs do not support the command **no wlan captive-portal**. Since AirWave does support that command, the resulting configuration mismatch cannot be resolved. To avoid this issue, on **Groups > Instant Config > Security > Internal Captive Portal**, set the **Authenticated** field to **Enabled**. Alternately, if a mismatch occurs, factory reset the IAP after the IAP is added to an existing IAP group.

The table below lists known issues in AirWave 8.0.7

Table 36: *Known Issues in AirWave 8.0.7*

ID	Description
DE20356	Users are unable to change the **Orientation**, **Gain**, and **Beamwidth** values for IAPs in VisualRF.
DE20493	The **Radios** table on the **APs/Devices > Monitor** page displays a blank SSID column for Juniper APs. This is due to a defect in the base code implementation for Trapeze from where the Juniper code is derived.
DE20541	A CDP error appears for Motorola SNMP polling. When a Motorola controller is polled through SNMP, timeouts are seen while polling a few OIDs. The timeouts appear in the AirWave Events log.
DE20908	Instant auth-fail SNMP traps send seven parameters, but AirWave does not currently support this. AirWave currently supports two parameters.
DE20922	In VisualRF, the **Defining Stationary Devices** option does not work properly. In the VisualRF HTML5-based interface, the client changes when the client is placed in the floor plan as static. This option does work properly in the flash-based UI.

The table below lists known issues in AirWave 8.0.6.3

Table 37: *Known Issues in AirWave 8.0.6.3*

ID	Description
DE20768	The **Download AirWave Management Client** link on the **Home > Documentation** does not work correctly. Clicking the link does not start the file download and may cause the page to stop responding. To download the file, right-click on the link and select **Save As** to properly save the file.

The table below lists known issues in AirWave 8.0.6.2

Table 38: *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 Air Monitors.

The table below lists known issues in AirWave 8.0.5

Table 39: *Known Issues in AirWave 8.0.5*

ID	Description
DE15549	The **Total Disk Usage** chart may not display the total number of disk mounts that have taken place. If more than eight disks have been mounted, AirWave 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 AirWave 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 40: *Known Issues in AirWave 8.0.4*

ID	Description
DE19369	To enable Console Access, use the following procedure: From the AirWave UI, 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 41: *Known Issues in AirWave 8.0.3.1*

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

The table below lists known issues in AirWave 8.0.0.

Table 42: *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 login attempts 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 AirWave, then resize the **Search Results** pop-up window, you have to scroll to see some of the buttons in this window.
DE15239	If AirWave is not getting health data from Aruba controllers, the user diagnostic page shows an empty health graph.

Table 42: *Known Issues In AirWave 8.0.0 (Continued)*

ID	Description
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 AirWave, 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.
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	AirWave uses outdated timezone data, which incorrectly calculates the date that daylight savings time in Brazil. AirWave 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 AirWave 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.

Table 42: *Known Issues In AirWave 8.0.0 (Continued)*

ID	Description
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.
DE19266	When enabling AMON, auditing should be set to **daily** and have been successful at least once to allow AirWave 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 AirWave database.
US12233	Buildings cannot be moved to new campuses under the HTML5 version of AirWave 8.0.10. To work around this issue: ● Disable the HTML5 user interface (revert back to flash). ● Restart the VisualRF engine and make the necessary changes.