

AirWave 8.2.1.1



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AirWave 8.2.1.1 is a software patch release that introduces fixes to issues detected in previous releases. The release notes include the following sections:

- "New Features" on page 4
- "Supported Infrastructure Devices" on page 8
- "Resolved Issues" on page 10
- "Known Issues" on page 18

Contacting Support

Table 1: *Contact Information*

Main Site	arubanetworks.com
Support Site	support.arubanetworks.com
Airheads Social Forums and Knowledge Base	community.arubanetworks.com
North American Telephone	1-800-943-4526 (Toll Free) 1-408-754-1200
International Telephone	arubanetworks.com/support-services/contact-support/
Software Licensing Site	licensing.arubanetworks.com
End-of-life Information	arubanetworks.com/support-services/end-of-life/
Security Incident Response Team (SIRT)	Site: arubanetworks.com/support-services/security-bulletins/ Email: sirt@arubanetworks.com

This document describes new features, supported devices, fixed issues, and known issues in the AirWave 8.2.1.1 release.

New Features in AirWave 8.2.1.1

AirWave 8.2.1.1 does not introduce any new features.

Features Introduced in Previous AirWave Releases

The following enhancements have been made in AirWave 8.2.1:

- "Enhanced Support for Aruba Instant" on page 4
- "Refresh Option for VisualRF Heatmaps" on page 4
- "Enhanced Support Connection" on page 5
- "Enhanced HPE Aruba Switch Configuration" on page 5
- "Security Improvements" on page 5
- "Configurable PAPI Key" on page 5
- "Client Usage Graph Improvements" on page 5
- "High Availability of APs" on page 5

There were no new features in AirWave 8.2.0.3.

There were no new features in AirWave 8.2.0.1.

The following enhancements have been made in AirWave 8.2:


- "Updated User Interface" on page 6
- "Clarity Monitoring" on page 6
- "Aruba Switch Configuration" on page 6
- "Improved CAD Import" on page 6
- "ArubaControllerConfiguration Enhancements" on page 6
- "VisualRF UI Changes" on page 7

Enhanced Support for Aruba Instant

AirWave 8.2.1 supports template configuration for Instant 6.4.4.4-4.2.4.0.

For a complete list of supported devices, see the *AirWave 8.2.1 Switch Configuration Guide*.

Refresh Option for VisualRF Heatmaps

The toolbar on the **VisualRF > Floorplan** page displays a refresh button () so that you can see your latest changes to the floorplan when you place APs and add or delete walls.

For information about using VisualRF, see the *AirWave 8.2.1 User Guide*.

Enhanced Support Connection

A support connection is a point-to-point IP tunnel that is initiated from a AirWave server to Aruba's support server. AirWave 8.2.1 introduces changes to the process to launch a support connection, as well as security enhancements for the connection tunnel.

When you open a case with technical support, AirWave technical support sends you an email with instructions for downloading and installing a .tar file used to launch the support connection. You must contact Aruba technical support and provide login credentials before Aruba support staff can access your AirWave server.

Once the .tar file has been installed you can start, stop, or check the status of the support connection with the following commands:

- # service support_connection start [<days>]
- # service support_connection restart [<days>]
- # service support_connection stop
- # service support_connection status

By default, the support connection remains open for fourteen days unless it is stopped with the **# service support_connection stop** command. To start or restart a connection that does not expire, specify **0** for the optional <days> parameter.

For information about the support connection, see the *AirWave 8.2.1 User Guide*.

Enhanced HPE Aruba Switch Configuration

AirWave 8.2.1 allows you to send partial configurations to HPE Aruba switches using command snippets. This feature is supported on the following HPE Aruba switches running firmware version 16.x or greater: 2620, 2920, 3800, 3810, 5400R, 2530 YA, 2530 YB, and 2930F.

For information on pushing partial configurations to HPE Aruba switches using AirWave, see the *AirWave 8.2.1 Switch Configuration Guide*.

Security Improvements

Improvements have been made in AirWave 8.2.0.3 to the PAPI protocol, which is used by AirWave, Aruba Instant, and ArubaOS for management and control functions.

Configurable PAPI Key

Previous versions of AirWave supported only a single PAPI security key for all Aruba devices. Security improvements in this release allow you to specify a custom PAPI key and require PAPI key validation.

For information about configuring the PAPI key, see the *AirWave 8.2.1 User Guide*.

Client Usage Graph Improvements

AirWave 8.2.0.3 improves client usage graphs on the **Clients > Connected** and **Clients > Overview** pages of the AirWave WebUI. These improvements include using consistent labels for inbound and outbound traffic, called PAPI key and Total Out, and a similar axis for both graphs.

For more information about monitoring clients, see the *AirWave 8.2.1 User Guide*.

High Availability of APs

AirWave 8.2 introduces support for pairs of HP Unified Wired-WLAN (UWW) devices operating in HA mode. AirWave will monitor the status of each controller. After AirWave detects that a failover occurred and the APs failed over to the backup controller, AirWave properly displays the status of the APs.

For more information about high availability for failover scenarios, see the *AirWave 8.2.1 User Guide*.

Enhanced Support for Aruba Instant

AirWave 8.2.0.3 supports template and Instant GUI configuration (IGC) for Instant 6.4.2.6-4.1.3.0 and 6.4.2.6-4.1.3.1.

For a complete list of supported devices, see the *AirWave 8.2.1 Switch Configuration Guide*.

Updated User Interface

AirWave 8.2 introduces an updated user interface. The statistics toolbar at the top of the AirWave window uses new icons to display network health data. Click any of these icons to view detailed information for each user or device category.

For information about navigating the user interface, see the *AirWave 8.2.1 User Guide*.

Clarity Monitoring

Improvements to the Clarity Monitoring dashboard have been made in AirWave 8.2. The dashboard shows the progress of a client as it access the WLAN.

For more information on using the Clarity Monitoring dashboard, see the *AirWave 8.2 User Guide*.

Enhanced AppRF Analysis

From the AppRF dashboard, you can get in-depth details on users applications within widgets that let you find mobile app usage, device information, web categories, and more.

For information about using the AppRF dashboard, see the *AirWave 8.2.1 User Guide*.

UCC Enhancements

AirWave 8.2 introduces a number of enhancements to the call details provided on the Unified Communication and Collaboration (UCC) dashboard.

For information about using the UCC dashboard, filtering information, and understanding the reports, see the *AirWave 8.2.1 User Guide*.

Aruba Switch Configuration

AirWave 8.2 introduces template configuration support for the following models of Aruba switches when these devices are running ArubaOS-Switch Version 16.01: 2530YA, 2530YB, 2620, 2920, 3800, 3810, and 5400R.

For information about using template configuration to provision these devices, see the *AirWave 8.2.1 User Guide*.

Improved CAD Import

AirWave 8.2 introduces an enhancement to the importation of CAD (.dwg) files. When importing a CAD file to VisualRF, you are now given the option to define CAD layers as walls on your floor plan.

For more information about working with CAD layers in VisualRF, see the *AirWave 8.2.1 User Guide*.

ArubaControllerConfiguration Enhancements

Additions have been made to AirWave's controller configuration options to support ArubaOS6.4.3.1.

See the latest *ArubaOS User Guide* and *CLI Guide* for more information.

VisualRF UI Changes

In AirWave 8.2, the VisualRF feature supports only the HTML5-based UI. The **Enable HTML5-based UI** setting added to the **VisualRF > Setup > Server Settings** page in AirWave 8.0 has been deprecated, and the option to toggle between the legacy flash-based UI and the newer HTML5 UI has been removed.

The legacy flash-based VisualRF UI allowed users to add a wiring closet to a floor plan or create a client survey. If you created a wiring closet or client survey in a previous release, this information is still be displayed in AirWave 8.2 but cannot be modified.

For more information about VisualRF, see the *AirWave 8.2.1 User Guide*.

AirWave provides a range of features to manage network infrastructure devices from Aruba Networks and other vendors.

For a complete list of supported products, refer to the *AirWave 8.2.1 Supported Infrastructure Devices* document. You can find this document at support.arubanetworks.com.

Support for New Devices in AirWave 8.2.1.1

There are no new devices supported in AirWave 8.2.1.1.

Support for New Devices in AirWave 8.2.1

The following new devices are supported in AirWave 8.2:

- Aruba 7008 controller
- Aruba 2930F switch
- Aruba AP-334, AP-335, AP-314, and AP-315 access points
- Cisco 3800AP

Support for Instant in AirWave 8.2.1

AirWave 8.2.1 supports Aruba IAPs running Instant 6.4.4.6-4.2.40 and prior versions, including the management of configuration settings and software upgrades.

Table 2 shows the version of Instant that supports template configuration and Instant GUI configuration in AirWave.

Table 2: *AirWave Support for Instant*

Instant Version	Support for Template Configuration	Support for IGC configuration
Instant 4.2.4	AirWave 8.2.1	AirWave 8.2.1, with the Instant 4.2.1 UI
Instant 4.2.3	AirWave 8.2	AirWave 8.2, with the Instant 4.2.1 UI
Instant 4.2.2	AirWave 8.2	AirWave 8.2, with the Instant 4.2.1 UI
Instant 4.2.1	AirWave 8.0.10.0	AirWave 8.0.10.0
Instant 4.2	AirWave 8.0.9	AirWave 8.0.9
Instant 4.1.3.1	AirWave 8.2.0.3 and 8.0.11.2	AirWave 8.2.0.3 and 8.0.11.2
Instant 4.1.3	AirWave 8.2.0.3 and 8.0.11.2	AirWave 8.2.0.3 and 8.0.11.2
Instant 4.1.2	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

Table 2: *AirWave Support for Instant (Continued)*

Instant Version	Support for Template Configuration	Support for IGC configuration
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

Support for New Devices in AirWave 8.2.0

AirWave introduces support for the following wireless access points, switches and access point module:

- AP-314, AP-315, AP-324, AP-325, AP-334, AP-335 access points
- IAP-324, IAP-325 with 4.2.4 (template configuration only) instant access points
- 2530YA, 2530YB switch, 2620, 2920, 3800, 3810, 5400R switches
- APM-210 module (for Ericsson RBS 6402)

The following tables list issues resolved in AirWave 8.2.1.1 and prior releases.

Table 3: *Issues Resolved in AirWave 8.2.1.1*

ID	Description
DE26015 DE25582	<p>Symptom: AirWave 8.2.1 did not support ZTP on the HPE Aruba Switch Models 2530 YB and 2620.</p> <p>Scenario: We addressed this issue by supporting ciphers in order to accept TLS 1.0 calls.</p>
DE25988	<p>Symptom: Client graphs were inconsistent with corresponding AMON data after upgrading to AirWave 8.2.1 from 8.2.0.3.</p> <p>Scenario: This issue occurred when the new AMON receiver crashed while trying to calculate AMON message loss. Message loss monitoring has been fixed.</p>
DE25869	<p>Symptom: If you upgraded the firmware on a controller and then rebooted it, the device might appear to be down although its status is up when polled.</p> <p>Scenario: This issue has been fixed. You no longer see a <code>Device Down</code> error in the event log.</p>
DE25577	<p>Symptom: After an upgrade to AirWave 8.2.0.2, AirWave tried to restart every few seconds when running out of memory.</p> <p>Scenario: We fixed an issue that prevented AirWave from loading AppRF data.</p>

Table 4: *Issues Resolved in AirWave 8.2.1*

ID	Description
DE25427	<p>Symptom: A controller does not automatically reboot if a firmware download operation fails.</p> <p>Scenario: If the AirWave system boot process detects file copy failures during a firmware upgrade, the reboot process will not initialize, and the switch will not reboot.</p>
DE25735	<p>Symptom: AirWave is now able to restore a backup file after an AirWave server upgrades from AirWave 8.0.x to AirWave 8.2.1.</p> <p>Scenario: Improvements to how the internal <code>server_watcher_limits</code> file is handled resolve this issue in AirWave 8.2.1.</p>
DE25704	<p>Symptom: AirWave 8.2.1 does not create duplicate entries for devices added via Activate if those devices are moved to another group.</p> <p>Scenario: When an Mobility Access Switch is added to AirWave 8.2.1 via Activate Zero-Touch Provisioning and then moved into a group other than the group defined via Activate, a duplicate entry for that device no longer reappears in the original AirWave folder specified by Activate.</p>

Table 4: Issues Resolved in AirWave 8.2.1 (Continued)

ID	Description
DE25599	<p>Symptom: Planned APs correctly appear on an AirWave 8.2.1 VisualRF floorplan.</p> <p>Scenario: An issue was identified in AirWave 8.2 that prevented planned APs from appearing on a floorplan. This issue is resolved in AirWave 8.2.1 by improvements to the parsing of the internal catalog repository that maintains all of the values used by VisualRF.</p>
DE25580 DE25544	<p>Symptom: An issue is resolved where Instant APs configured via the Instant GUI Config (IGC) feature could lose a configured PPPOE-password parameter and incorrectly add an additional ACL entry.</p> <p>Scenario: This issue occurred when IGC incorrectly identified a mismatch on the device, and attempted to modify the device configuration to resolve that mismatch. Internal changes in AirWave 8.2.1 prevent a mismatch from being incorrectly identified, resolving this issue.</p>
DE25691	<p>Symptom: APs placed in a VisualRF floorplan no longer shift location slightly when the page is refreshed.</p> <p>Scenario: When APs were placed on a small VisualRF floor plan configured with metric units and a small grid size, rounding errors in internal calculations made the AP change positions slightly when the position was saved to the floorplan. This issue is resolved in AirWave 8.2.1.</p>
DE25623	<p>Symptom: An Instant AP image can not be uploaded via an external file server if an image with the same name is already uploaded to the AirWave server.</p> <p>Scenario: The Device Setup >Upload Firmware & Files page of the AirWave WebUI now supports uploading files via an external file server, even if a file with the same name already exists in the firmware list on the Groups > Firmware page.</p>
DE25540	<p>Symptom: AirWave failed to import Cisco IOS templates from standalone APs.</p> <p>Scenario: This issue has been fixed in AirWave 8.2.1.</p>
DE25539	<p>Symptom: AirWave 8.2.1 contains OpenSSL security updates for RHSA-2016:0996-2.</p> <p>Scenario: Security flaws in OpenSSL could allow an application that is compiled against it to crash, or execute arbitrary code, using the permissions of the user running the application. AirWave 8.2.1 includes enhancement for RHSA-2016:0996-2, which resolves vulnerabilities CVE-2016-2842, CVE-2016-2100, CVE-2016-2108, CVE-2016-2107, CVE-2016-2106, CVE-2016-2105, and CVE-2016-0799.</p>
DE25509	<p>Symptom: An issue is resolved where an Instant AP cluster appeared in an error state after upgrading from Instant 4.1.1.13 to Instant 4.1.3.</p> <p>Scenario: Changes to how the AirWave Instant GUI Config (IGC) feature handles Instant releases with double digits resolves this issue in AirWave 8.2.1.</p>
DE25472 DE24975	<p>Symptom: AirWave 8.2.1 contains OpenSSL security updates for RHSA-2016:0301-1.</p> <p>Scenario: Security flaws in OpenSSL allowed side-channel attacks, application crashes, decryption of RSA-encrypted cipher text, or allowed malicious SSLv2 clients to negotiate SSLv2 ciphers that were disabled on the server. AirWave 8.2.1 includes enhancement for RHSA-2016:0301-1, which resolves vulnerabilities CVE-2015-3197, CVE-2016-0702, CVE-2016-0705, CVE-2016-0797 and CVE-2016-0800.</p>

Table 4: Issues Resolved in AirWave 8.2.1 (Continued)

ID	Description
DE25434	<p>Symptom: An issue is resolved where a large number of alerts for high CPU or memory usage were incorrectly triggered.</p> <p>Scenario: An AirWave trigger configured as "<i>Device Type is Access Point, Percent CPU Utilization >= 80% or Percent Memory Utilization >= 30% for 1 minutes</i>" triggered many alerts where the alert type appeared as "deleted" in the System > Alerts page. Improvements to CPU utilization processes resolve this issue in AirWave 8.2.1.</p>
DE25421	<p>Symptom: Some .dwg files were not correctly uploaded into VisualRF as floorplan images.</p> <p>Scenario: Improvements to an internal image converter process resolves an issue where some .dwg images were not getting correctly converted to .svg images in VisualRF.</p>
DE25385	<p>Symptom: In previous releases of AirWave, filters applied to limit the display of rogue devices could not be removed all filters at once, but had to be removed individually.</p> <p>Scenario: AirWave 8.2.1 resolves this issue with the addition of a new Reset filters link on the RAPIDS > List page.</p>
DE25382	<p>Symptom: The default duration for a support connection is fourteen days in AirWave 8.2.1. In previous versions of AirWave 8.2.x, the default connection period was one day.</p> <p>Scenario: A support connection is a point-to-point IP tunnel that is initiated from a customer AirWave server to Aruba's support server. A support connection on a server running AirWave 8.2.1 remains open for seven days, unless it is manually closed using the command # service support_connection stop.</p>
DE25373	<p>Symptom: When running a custom report with the Uptime by Device option selected, AirWave reported incorrect uptimes or reported devices as being down although they were running.</p> <p>Scenario: This issue has been fixed by improvements to the order in which device uptime records are set.</p>
DE25317	<p>Symptom: The Clients > Diagnostics page inaccurately reported the channel width when it displayed 120 MHz for very high throughput (VHT) mode.</p> <p>Scenario: The channels displayed are now correct for high throughput (HT) and VHT networks. Channels a device can use are: 20, 40, 80, or 160.</p>
DE25282	<p>Symptom: An AirWave server running AirWave 8.2.0.x sent random authentication requests to the RADIUS server.</p> <p>Scenario: This issue occurred only for RADIUS authentication, where unexpected RADIUS requests were repeatedly sent to the RADIUS server, and continually failed.</p>
DE24713	<p>Symptom: Cisco 2700e LWAPP APs did not correctly display heat maps for 802.11ac radios, although heatmaps did correctly display for radios in 'ng' or 'na' modes.</p> <p>Scenario: Updates to the internal catalog allows VisualRF to recognize Cisco 2700e LWAPP AP radios in 802.11ac mode.</p>

Table 4: *Issues Resolved in AirWave 8.2.1 (Continued)*

ID	Description
DE24567	<p>Symptom: Previous releases of AirWave 8.x generated two NMS events for the same rogue ID classification if a trigger is configured to forward an alert to another network management system.</p> <p>Scenario: Improvements in AirWave 8.2.1 sends a single detailed alert for an NMS trap, rather than sending one NMS trap with details, and another NMS trap without details.</p>
DE22575	<p>Symptom: The Supported Platforms column in the interfaces table on the Groups > Controller Config > Local Config > Network > Port/Interfaces > Gigabit Ethernet page now correctly lists the Aruba 7205 controller.</p> <p>Scenario: In previous releases of AirWave, the 7205 controller was incorrectly omitted as a supported platform for Ethernet interfaces that were supported by that device.</p>

Table 5: *Issues Resolved in AirWave 8.2.0.3*

ID	Description
DE25624	<p>Symptom: AirWave did not generate matching event reports for an AP on the Reports > Detail page although it had connected clients.</p> <p>Scenario: This issue occurred when AirWave skipped AMON messages that didn't contain AP identification information. The method in which AirWave obtains the identification information for an AP has been changed to resolve this issue.</p>
DE25570	<p>Symptom: When VisualRF ran calculations to build the campus grid, it generated large amounts of data which resulted in extremely large backups.</p> <p>Scenario: As a result of this issue, VisualRF ran out of memory and crashed. Visual RF now runs calculations in smaller intervals.</p>
DE25448	<p>Symptom: Sometimes the Domain Name System (DNS) Resolution graph in the Clarity dashboard wouldn't display.</p> <p>Scenario: This graph wouldn't load because of an underlying ArubaOS issue, where the DNS samples field populated when it shouldn't. The mechanism for querying the DNS samples measured has been corrected.</p>
DE25419	<p>Symptom: Old JRE files remained after an upgrade.</p> <p>Scenario: When upgrading from an earlier version of AirWave, a new JRE installs over itself, leaving JREs from previous installations. You can run a script and select which JRE files to delete. The script is in the /src/x86_64/rpms/Makefile directory.</p>
DE25416	<p>Symptom: After upgrading from AirWave 8.0.11.1 to 8.2.x, the Network view in VisualRF displayed incorrect results on the campus map.</p> <p>Scenario: AirWave 8.2.0.3 fixes an issue where the data migration of pixel width and height didn't work during an upgrade from 8.0.11.x. Campuses no longer overlay each other on the map, and you can drag and drop, or auto arrange items again.</p>

Table 5: *Issues Resolved in AirWave 8.2.0.3 (Continued)*

ID	Description
DE25408	<p>Symptom: You could not modify the primary, secondary, or tertiary controllers from the Cisco Thin AP Settings or the Manage Configuration page.</p> <p>Scenario: After upgrading from an earlier version of AirWave to 8.2.0.1, you couldn't make a selection from the drop down menu, or access the drop down menu. These issues are resolved for all web browsers.</p>
DE25352	<p>Symptom: In the Usage graph for connected clients, accessed from the Client > Connection page, the labels and color codings were incorrect.</p> <p>Scenario: The information in these graphs, such as color coding, axis direction, and client traffic direction, were changed to match other Usage graphs in the WebUI.</p>
DE25346	<p>Symptom: During an upgrade to AirWave 8.2.x, the system attempted to upgrade the firmware after exceeding the maximum retries limit.</p> <p>Scenario: The system now stops the upgrade when it reaches the maximum retries limit.</p>
DE25320	<p>Symptom: The row of statistics hyperlinks, called Top Header Stats, displayed incorrectly.</p> <p>Scenario: AirWave 8.2.0.3 corrects this screen output issue.</p>
DE25312	<p>Symptom: Security flaws in the AirWave 8.0.x release could have caused an application that is compiled against the NSS library to crash, or execute arbitrary code, using the permissions of the user running the application (CVE-2016-1978 and CVE-2016-1979).</p> <p>Scenario: AirWave 8.2.0.3 contains the following Linux security updates, which correct these issues:</p> <ul style="list-style-type: none"> • nss-util security update RHSA-2016:0370-1 • glibc security and bug fix update RHSA-2016:0175-1 • kernel security and bug fix update RHSA-2015:2636-1 • nss, nss-util, and NSPR security update RHSA-2016:0591-1
DE25310	<p>Symptom: AMON messages sent from ArubaOS controllers contain timestamps in various formats.</p> <p>Scenario: AirWave 8.2.1.1 resolves this issue by reporting all messages in the Clarity dashboard in milliseconds. In order to view complete Clarity data, upgrade AirWave to 8.2.0.3 and ensure that the controller is running ArubaOS 6.4.3.9, 6.4.4.8, or later.</p>
DE25067	<p>Symptom: When you deploy an AP in a floor plan, VisualRF doesn't display a heatmap for the AP unless you restart VisualRF.</p> <p>Scenario: VisualRF automatically refreshes and displays a heatmap for APs added to a floor plan.</p>
DE24962	<p>Symptom: The telnet_cmds log file tracks commands sent between AirWave and a device using Telnet or SSH and might include passwords and secret data.</p> <p>Scenario: Security enhancements in AirWave 8.2.1.1 prevent these files from being viewed using the WebUI and prevent them from being included in an AirWave backup file.</p>

Table 6: Issues Resolved in AirWave 8.2.0.2

ID	Description
DE25409 DE25378	<p>Symptom: Clients associated to an Instant AP correctly appear in VisualRF.</p> <p>Scenario: In previous releases of AirWave 8.2.x, IAP clients did not appear correctly in VisualRF floor plans.</p>
DE25333	<p>Symptom: AirWave 8.2.x processed incoming rogue data and didn't update the AP database correctly.</p> <p>Scenario: AirWave stores this rogue AP data and shows rogue devices accurately in the RAPIDs overview pages.</p>
DE25314	<p>Symptom: In the Home > Clarity Monitoring pages of the WebUI, the AP Name column in the AP Summary table and APs column of the AP Association table display the AP name defined by the controller to which that AP is associated.</p> <p>Scenario: AirWave displays the correct AP name sent by the controller in the Clarity monitoring tables and graphs.</p>
DE25260	<p>Symptom An issue prevented AirWave 7.7.14 from upgrading to earlier releases of AirWave 8.2.x.</p> <p>Scenario: This issue is resolved by changes to the internal installation process that modified the order in which some modules were installed.</p>
DE25429	<p>Symptom: The DNS failure graph on the Home > Clarity pages of the WebUI displayed inaccurate DNS data.</p> <p>Scenario: Aruba controllers running ArubaOS 6.4.4.6 sent continuous server timeout errors. As a result, the DNS failure graphs displayed inaccurate data. This issue has been resolved.</p>
US14749	<p>Symptom: The accuracy of Clarity data is improved with a change that allows AirWave to use VLAN IP addresses to validate the source of the AMON messages sent to the AirWave server.</p> <p>Scenario: This change resolves an issue that allowed the Home > Clarity Monitoring pages to display inaccurate information for the following deployments:</p> <ul style="list-style-type: none"> • In a Master+Master-Standby controller deployment with VRRP and LMS IP set on the controller, AMON AP messages were being sent with the LMS IP, preventing AirWave from processing them. • If messages were sent from the AP use a different VLAN IP than the controller, AirWave would not process them correctly. • If the IP address used by a single controller VLAN is defined as the IP address by which AirWave communicates with the controller, AP station AMON messages sent from any other VLAN IP defined on the controller would not be processed correctly by AirWave.

Table 7: Issues Resolved in AirWave 8.2.0.1

ID	Description
DE25275 DE25251	<p>Symptom: An issue is resolved where an AirWave server upgrading to AirWave 8.2.0 might have insufficient disk space issue to allow the upgrade to completing successfully.</p> <p>Scenario: This issue is resolved by changes to the internal upgrade procedures in AirWave 8.2.0.1 that reduced the required disk space for the upgrade.</p>

Table 7: *Issues Resolved in AirWave 8.2.0.1 (Continued)*

ID	Description
DE23592	<p>Symptom: VisualRF correctly saves grid size modifications to floor plans.</p> <p>Scenario: AirWave 8.2.0.1 resolves an issue that prevented VisualRF section of the AirWave UI from saving modifications to the floor plan grid size property.</p>

Table 8: *Issues Resolved in AirWave 8.2*

ID	Description
DE23305	<p>Symptom: VisualRF floor plans could display floor plan dimensions in feet, even if VisualRF was configured to display metric units. AirWave 8.2 resolves this issue, and floor plan dimensions are correctly converted from imperial to metric measurements.</p> <p>Scenario: This issue was observed when VisualRF settings were changed to display dimensions in metric units.</p>

The tables below lists known issues identified in AirWave 8.2.0, 8.2.0.2, 8.2.0.3, and 8.2.1 releases. There are no known issues in AirWave 8.2.0.1 and 8.2.1.1.

Table 9: *Known Issues in AirWave 8.2.1*

ID	Description
DE25926	<p>Symptom: 2530YA, 2530YB and 2620 HPE Aruba switches fail to register with AirWave when provisioned via Zero-Touch Provisioning (ZTP) or configuration settings pushed from AirWave to the switch command-line interface.</p> <p>Scenario: This issue is triggered by OpenSSL updates in AirWave that caused a compatibility issue with this device.</p>
DE25875	<p>Symptom: AirWave displays incorrect transmission power for APs running ArubaOS 6.4.4.0 to 6.4.4.6.</p> <p>Scenario: For APs running the impacted versions of ArubaOS, transmission power levels on the APs/Devices > Monitor page are displayed as twice the actual level on the AP, and VisualRF heatmaps may display incorrect information. This issue is caused by changes in the information sent to AirWave by the devices running these versions of ArubaOS.</p>
DE25845	<p>Symptom: The configuration snippet push to a ZTP device gets stuck in the "In Progress" state.</p> <p>Scenario: After you start a partial configuration job for a group of factory-default devices added to AirWave via ZTP, you might see "In Progress" for the ZTP device in the Job Details table on the Groups > Templates > Partial Config page. This partial configuration option was designed for only Aruba switches, and factory-default devices should not be available for selection from the partial configuration option.</p>
DE25501	<p>Symptom: EAP failures in 802.1X AMON messages are not monitored by AirWave.</p> <p>Scenario: If clients with invalid certificates attempt to associate to AirWave, AirWave drops EAP_FAILURE Dot1x messages, preventing the tracking of clients which are facing EAP-FAILURE.</p>
DE25400	<p>Symptom: The AirWave RAPIDS feature may incorrectly calculate signal strengths from the RSSI value for rogue devices.</p> <p>Scenario: The cause of this issue is under investigation.</p>
DE25399	<p>Symptom: RAPIDS drops the event that corresponds to the strongest RSSI signal heard from a rogue AP.</p> <p>Scenario: RAPIDS records the strongest signal heard for a rogue as the rogue entry's signal value and doesn't overwrite that value until a stronger signal is heard, but RAPIDS may fail to retain the discovery event for that entry.</p>
DE25350	<p>Symptom: There is no support for pushing a full configuration for an Aruba switch running the ArubaOS-switch Operating System using the secure file transfer protocols, SCP and SFTP.</p> <p>Scenario: If you use the (unsupported) no tftp client CLI command, the switch is unable to accept TFTP requests. As a result, AirWave cannot push full configurations to the switch.</p>

Table 9: *Known Issues in AirWave 8.2.1 (Continued)*

ID	Description
DE25268	<p>Symptom: Database schema failures do not cause the upgrade process to halt.</p> <p>Scenario: When a database schema change fails during a software upgrade, the upgrade process continues running.</p>
DE24019	<p>Symptom: When monitoring a stack of Aruba switches, or a standalone switch that has stacking-enabled, AirWave shows a junk record for a switch with a status of Unknown.</p> <p>Scenario: This issue occurs when you remove the switch designated as commander from a stack and move it to another part of the network. When SNMP discovery finds the switch in a new stack, the junk record disappears.</p>

Table 10: *Known Issues in AirWave 8.2.0.3*

ID	Description
DE25598 DE25522 DE25500	<p>Symptom: After updating the IP address of the controller, you see syslog error messages listed under device events in the Clients > Detail page and not in the Clarity dashboard.</p> <p>Scenario: Underlying issues with ArubaOS caused AirWave to report only DNS information in the Clarity dashboard.</p> <p>Workaround: In order to view complete Clarity data, upgrade AirWave to 8.2.0.3 or later, and ensure that the controller is running ArubaOS 6.4.3.9, 6.4.4.8, or later.</p>
DE25434	<p>Symptom: AirWave sends hundreds of alerts for high CPU or memory usage.</p> <p>Scenario: You might encounter this issue if you configured AirWave to send alert notification until it is acknowledged.</p> <p>Workaround: When adding a trigger on the System > Triggers page, set the Suppress until acknowledge option to Yes.</p>
DE25324	<p>Symptom: Upgrading from AirWave 8.0.x caused VisualRF beamwidth, orientation and gain values to reset to their default values.</p> <p>Scenario: The beamwidth, orientation and gain values are not retained after flushing the bootstrap file or upgrading the AirWave server.</p> <p>Workaround: None.</p>
DE25226	<p>Symptom: AirWave takes longer to process station statistics AMON messages than it did in AirWave 8.0.x.</p> <p>Scenario: This issue has been associated with the Internet Explorer web browser.</p> <p>Workaround: None.</p>

Table 11: *Known Issues in AirWave 8.2.0.2*


ID	Description
DE25398	<p>Symptom: When you hover your mouse over the configuration  icon on the Groups > List page, the popup window of available actions might not appear in the correct spot, be hidden out of view, or display at the very bottom of the page.</p> <p>Scenario: This issue has been associated with the Internet Explorer web browser.</p> <p>Workaround: Use another web browser to access the WebUI, or select a group from the Groups > List page and use the navigation bar.</p>

Table 12: *Known Issues in AirWave 8.2*

ID	Description
DE25324	<p>Symptom: VisualRF Beamwidth, Orientation and Gain values on deployed APs automatically reset when you upgrade AirWave to any version, or when you remove the bootstrap file.</p> <p>Scenario: The beamwidth, orientation and gain values are not retained after flushing the bootstrap file or upgrading the AirWave server.</p>
DE25220	<p>Symptom: VisualRF indicated an incorrect number of APs associated with the AirWave server.</p> <p>Scenario: In a deployment where over 4,000 APs were associated to an AirWave server, and the active APs status icon at the top of the WebUI page showed the correct number of APs, VisualRF incorrectly indicated that AirWave had over 10,000 associated APs.</p>
DE25154	<p>Symptom: If an AP upgrades to Instant 4.2.3 and uses Lync applications in its access control rules, Instant GUI Config (IGC) may show a configuration mismatch for that device.</p> <p>Scenario: This issue occurs because the list of Lync applications that can be included in an access control rule in the AirWave 8.2 IGC feature differs from the list of available rules in Instant 4.2.3. The following applications are unsupported by IGC in AirWave 8.2.</p> <ul style="list-style-type: none"> • SOS ALG SVP • SOS ALG Vocera • SOS ALG FTP • SOS ALG RTSP • SOS ALG SIP • SOS ALG NOE • SOS ALG SIPS • SOS ALG H323 • SOS ALG Facetime • SOS ALG Skype4B Voice • SOS ALG Skype4B Video • SOS ALG Skype4B File-Transfer • SOS ALG Skype4B • SOS ALG SIP-Audio • SOS ALG SIP-Video • SOS ALG Skype4B Desktop-Sharing • SOS ALG Jabber • SOS ALG Jabber-MC • square application • pearsonvue web • squirrelysystems web • learninganalytics web • youtubeeducation web
DE25110	<p>Symptom: If a switch IP address is changed from a static IP address to an IP address dynamically assigned via DHCP, the device may appear as down in AirWave.</p> <p>Scenario: This issue is triggered because AirWave has no way to determine the IP address that will be assigned to the switch after the change to a DHCP-assigned IP address.</p> <p>Workaround: Manually change the IP address when the IP provisioning option is changed from static to DHCP.</p>
DE24785 DE24834 DE24836 DE24872	<p>Symptom: When the Groups > Instant Config pages of the AirWave WebUI are accessed using the Internet Explorer web browser, these pages may not properly display Instant Config (IGC) configuration settings or browser elements, and may not correctly save or update configuration changes.</p> <p>Scenario: This issue occurs when you attempt to use Internet Explorer to create or modify a configuration for Instant devices via Groups > Instant Config. This issue does not occur with other supported web browsers.</p> <p>Possible IGC behaviors in Internet Explorer include the following:</p> <ul style="list-style-type: none"> • Drop-down lists may not display properly • Configured settings may not save or update properly • Scrolling down a page in the IGC WebUI may cause the browser to unexpectedly return to the top of the page. • Clicking the Save or Apply button may not save any configuration changes, may cause the browser to unexpectedly return to the top of the page. <p>Workaround: Use an alternate web browser, such as Mozilla, to configure Instant devices.</p>

Table 12: Known Issues in AirWave 8.2 (Continued)

ID	Description
DE24424	<p>Symptom: A non-default Failure Timeout value configured via AMP Setup > General > Firmware upgrade/Reboot Options is not correctly applied.</p> <p>Scenario: By default, if a firmware upgrade on a switch fails, that switch state is locked, and the switch cannot attempt another upgrade until the default failure timeout period of 60 minutes has elapsed. In AirWave 8.2, if you configure a non-default value for this failure timeout, the switch state may be locked for a time period equal to the default value of 60 minutes <i>plus</i> the new failure timeout period. For example, if you configure a custom failure timeout period of 15 minutes, that setting may keep a switch locked in a pending state for 75 minutes, instead of the expected 15.</p>
DE24417	<p>Symptom: Firmware updates on Aruba switches may fail when firmware changes are simultaneously sent to switches in a multi-level switch topology, where an upstream switch is located between a downstream switch and the AirWave server.</p> <p>Scenario: This issue occurs when an upstream switch downloads the firmware image and reboots, temporarily disrupting the firmware download on the second, downstream switch. This disruption may cause the firmware upgrade on the second switch to fail.</p> <p>Workaround: Perform separate firmware upgrades on switches at different levels. (For example, upgrade the first-level (upstream) switches before you upgrade any second level (downstream) switches.</p>
DE24406	<p>Symptom: Backup configurations downloaded from the AirWave WebUI are not compressed properly, cannot be restored.</p> <p>Scenario: This issue occurs when a nightly backup file is downloaded using the Chrome web browser.</p> <p>Workaround: Use an alternate web browser, such as Mozilla, to download the backup file.</p>
DE24163	<p>Symptom: The Current Secondary Version column in the System > Firmware Upgrade Job Detail > Devices Being Upgraded table displays incorrect image information for an Aruba switch.</p> <p>Scenario: The Devices Being Upgraded table should display the version number for the software stored in the secondary flash in the Current Secondary Version column. This column may instead display the boot ROM software version.</p> <p>Workaround: Access the switch command-line interface and issue the command show flash to view the primary and secondary image versions.</p>
DE24019	<p>Symptom: The Member Switches table on the APs/Devices > Monitor page for an Aruba switch may display incorrect stack member information.</p> <p>Scenario: If a HPE 3810 stack is discovered via SNMP discovery on the network, and the stack member with commander status is moved to another stack, an invalid stack record may appear in the Member Switch table for members of the original stack.</p> <p>Workaround: Adding another stack to the AirWave server may clear these invalid entries.</p>
DE23592	<p>Symptom: VisualRF does not correctly save modifications to floor plans.</p> <p>Scenario: When modifying floor plans using the VisualRF section of the AirWave WebUI, changes to the floor plans settings (like the floor name or number) are not correctly saved.</p> <p>Workaround: Re-measure the floor plan to save modifications to the floor plan settings.</p>

Table 12: *Known Issues in AirWave 8.2 (Continued)*

ID	Description
DE23289	<p>Symptom: VisualRF floor plans do not open correctly for clients accessing the AirWave WebUI via the Microsoft Edge browser.</p> <p>Scenario: When viewing the VisualRF section of the AirWave WebUI using the Microsoft Edge browser on a Windows 10 client, double clicking on a building or floor does not open the page for that building or floor.</p>
DE23281	<p>Symptom: If the APs/Devices > Monitor page for a device displays a VPN IP address, hovering your mouse over that VPN IP address displays a HTTPS and SSH tooltip that contains invalid links.</p> <p>Scenario: This issue occurs because the VPN IP address displayed on that page is an internal IP address. Clicking the HTTP link in the tooltip displays a blank page, and on the SSH link does not log a user into any device.</p>
DE19402	<p>Symptom: Reports exported via FTP are not sent if the report is modified, as the modified report fails to authenticate to the FTP server.</p> <p>Scenario: This issue occurs when you modify an existing FTP report and do not re-enter the FTP server passwords in the Export Options section of the Reports > Definition > Export Options page.</p> <p>Workaround: Redefine the FTP server password when you modify a report to be exported via FTP.</p>
US14365	<p>Symptom: PVOS commands values are unnecessarily grouped in the device running-config</p> <p>Scenario: Some ArubaOS-Switch Operation System commands which are executed individually on the switch appear in a group in the device running-config. AirWave supports a 1:1 comparison of commands from the template and the device running-config, so this grouping may incorrectly cause the device to show a mismatch.</p> <p>For example, the template may show two separate commands:</p> <pre>loop-protect transmit-interval 10 loop-protect disable-timer 3000</pre> <p>While the running-config groups these into a single line:</p> <pre>loop-protect transmit-interval 10 disable-timer 3000</pre> <p>Workaround: Use the grouped command directly in the template to avoid a mismatch.</p>
US14468	<p>Symptom: PVOS commands values may vary between the template and device running-config</p> <p>Scenario: When using template configuration to configure Power over Ethernet settings, the template command power-over-ethernet pre-std-detect is modified in the running configuration to add port values. AirWave supports a 1:1 comparison of commands from the template and the device running-config, so this modification of the value may incorrectly cause the device to show a mismatch.</p> <p>For example, the template may show the command:</p> <pre>power-over-ethernet pre-std-detect</pre> <p>While the running-config adds port number values</p> <pre>power-over-ethernet pre-std-detect ports 1-48</pre>

Table 12: Known Issues in AirWave 8.2 (Continued)

ID	Description
US14468	<p>Symptom: PVOS commands values may vary between the template and device running-config</p> <p>Scenario: When using template configuration for 5400R, 3810, and 3800 Aruba switches, if the template command ip aspath list does not include a sequence number, the running configuration applies a sequence value of 5. AirWave supports a 1:1 comparison of commands from the template and the device running-config, so this modification of the value may incorrectly cause the device to show a mismatch.</p> <p>For example, the template may show the commands:</p> <pre>ip aspath-list listname deny abcd</pre> <p>While the running-config adds a sequence number to the running configuration:</p> <pre>ip aspath-list "listname" seq 5 deny "abcd"</pre>
US14471	<p>Symptom: PVOS commands values may vary between the template and device running-config</p> <p>Scenario: On 2530 and 2620 Aruba switches, some ArubaOS-Switch Operation System commands which are executed individually on the switch appear in a modified format in the device running-config, where leading zeros in a configuration value are added or deleted, and hexadecimal values in a template configuration may appear in a decimal value in the running configuration. AirWave supports a 1:1 comparison of commands from the template and the device running-config, so this modification of the value format may incorrectly cause the device to show a mismatch.</p> <p>For example, the template may show the command:</p> <pre>qos rate-limit dscp 0 1 kbps 0</pre> <p>While the running-config adds one or more leading zeros to the value:</p> <pre>qos rate-limit dscp 000000 1 kbps 0</pre> <p>Workaround: Use the expanded command set in the template to avoid a mismatch.</p>
US14471	<p>Symptom: PVOS commands values may vary between the template and device running-config</p> <p>Scenario: On 2530 and 2620 Aruba switches, some ArubaOS-Switch Operation System commands which are executed individually on the switch appear in a modified format in the device running-config, where leading zeros in a configuration value are added or deleted, and hexadecimal values in a template configuration may appear in a decimal value in the running configuration. AirWave supports a 1:1 comparison of commands from the template and the device running-config, so this modification of the value format may incorrectly cause the device to show a mismatch.</p> <p>For example, the template may show the command:</p> <pre>qos rate-limit dscp 0 1 kbps 0</pre> <p>While the running-config adds one or more leading zeros to the value:</p> <pre>qos rate-limit dscp 000000 1 kbps 0</pre> <p>Workaround: Use the expanded command set in the template to avoid a mismatch.</p>

Table 12: Known Issues in AirWave 8.2 (Continued)

ID	Description
US14471	<p>Symptom: Individual PVOS commands values are unnecessarily divided in the device running-config</p> <p>Scenario: Some ArubaOS-Switch Operation System commands which are executed individually on the switch appear in multiple lines in the device running-config. AirWave supports a 1:1 comparison of commands from the template and the device running-config, so this grouping may incorrectly cause the device to show a configuration mismatch.</p> <p>For example, the template may show one individual command:</p> <pre>ip source-interface all vlan 1</pre> <p>While the running-config divides the values from this command into multiple lines:</p> <pre>ip source-interface tacacs vlan 1 ip source-interface radius vlan 1 ip source-interface syslog vlan 1 ip source-interface telnet vlan 1 ip source-interface tftp vlan 1 ip source-interface snmp vlan 1 ip source-interface sflow vlan 1</pre> <p>Workaround: Use the expanded command set in the template to avoid a mismatch.</p>
138330	<p>Symptom: AirWave may not correctly display port statistics or interface information for managed nodes or Services Controllers running ArubaOS 8.0 beta</p> <p>Scenario: This issue occurs when AirWave attempts to display information for managed nodes or a Services Controller running ArubaOS 8.0 beta in a topology where the Services Controller is installed on a server VM.</p>
137999	<p>Symptom: AirWave is unable to create a backup of the current configuration or flash memory on a Service Controller running ArubaOS 8.0 beta.</p> <p>Scenario: A user cannot use AirWave to issue the backup flash and copy flash commands create a Services Controller backup or copy the backup file to another location.</p> <p>Workaround: Create a backup file for a Services Controller directly on that device.</p>
137778	<p>Symptom: AirWave may not correctly display the serial number for managed nodes or Services Controllers running ArubaOS 8.0 beta.</p> <p>Scenario: This issue occurs because AirWave 8.2 reads the serial number information from the legacy MIB OID wlsxSwitchLicenseSerialNumber, which does not return the correct serial number value.</p> <p>Workaround: Access the command-line interface of the device and issue the command show inventory to view the correct device serial number.</p>
N/A	<p>Symptom: Due to a known issue on an Aruba switch (CR191863), the switch state does not change from Factory to Non-Factory unless the switch reboots. If AirWave pushes a partial configuration that does not require a reboot, AirWave continues to see the switch in the Factory state.</p> <p>Scenario: The switch UI page that allows you to fetch a template includes a Push complete configuration file: Device is rebooted after config push option. If a user selects No for this option on a factory-default switch provisioned via a DHCP server, AirWave only pushes a delta configuration, which does not result in a switch reboot. If a user adds settings via AirWave that are not supported by AirWave 8.2, the full configuration is not pushed and hence the unsupported commands are not applied on the switch.</p>

Table 12: *Known Issues in AirWave 8.2 (Continued)*

ID	Description
N/A	<p>Symptom: If a user decides to reset the switch to a factory default state from the switch command-line interface, all stored passwords, security credentials and system settings will reboot in a factory default state.</p> <p>Scenario: This issue occurs because AirWave always executes the include-credentials command when pushing a configuration to a switch.</p>
N/A	<p>Symptom: Unrecognized PVOS command syntax.</p> <p>Scenario: AirWave may not recognize some syntax for some ArubaOS-Switch Operating System commands, and therefore will not allow to users to configure these commands via AirWave.</p>
N/A	<p>Symptom: Unrecognized PVOS defaults and values.</p> <p>Scenario: AirWave may not recognize some default values or the "no" syntax for some ArubaOS-Switch Operating System commands, and therefore will not recognize these values when these commands are configured via AirWave.</p> <p>For example, if a template has the command ipv6 hop-limit 100, AirWave would be expected to push the default value for this command (64 hops) if that line is removed from the template. If the default value is missing from the command and not recognized by AirWave, the device could not return to its default value, and a configuration mismatch could occur.</p> <p>Workaround: Issue the default value for the command within <push_to_exclude> tags in the template, as shown below.</p> <pre><push_to_exclude> ipv6 hop-limit 64 </push_to_exclude></pre>
N/A	<p>Symptom: Commands are hidden in the running-config.</p> <p>Scenario: Some commands may be hidden by the switch in the running-config and CLI help. Additional steps may be required to add these command settings via template configuration.</p> <p>Workaround: Add a hidden command to a device running config by including within <push_to_exclude> tags. For example, to add the commands crypto key zeroize autorun rsa and crypto key zeroize ssh-client-key, to the template, use the following format:</p> <pre><push_to_exclude> crypto key zeroize autorun rsa crypto key zeroize ssh-client-key </push_to_exclude></pre>