

AirWave 8.3.0



a Hewlett Packard
Enterprise company

Release Notes

Copyright Information

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USA

The following table lists the revision numbers and the corresponding changes that were made in this release:

Table 1: *Revision History*

| Revision | Change Description |
|-------------|--------------------|
| Revision 01 | Initial release. |

AirWave 8.3.0 is a patch release that introduces new features and provides fixes to known issues. Refer to these release notes for the most up-to-date information.

These release notes contain the following chapters:

- **New Features** describes new features in this release.
- **Resolved Issues** describes the issues we've fixed.
- **Known Issues** describes known issues.
- **Upgrade Instructions** describes how to upgrade your software.

Contacting Support

Table 2: *Contact Information*

| | |
|---|---|
| Main Site | arubanetworks.com |
| Support Site | asp.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 | lms.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: aruba-sirt@hpe.com |

AirWave introduces new features and fixes to issues detected in previous releases. There are no licensing changes in this release.



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- For a complete list of supported products and validated firmware versions, refer to the *AirWave 8.3.0 Supported Infrastructure Devices*.
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New Features

Migration to RHEL 8.6

Today, AirWave is running on CentOS 7 as the backend operating system. Since the CentOS 7 is going end of support on June 30, 2024. Therefore, AirWave 8.3.0 will be released with RHEL 8.6 version and all future releases with AirWave 8.3.x will be released with RHEL 8.6 or later versions only. AirWave firmware end-of-life dates can be found at <https://www.arubanetworks.com/support-services/end-of-life/#AirWave>. For further questions and clarifications, please reach out to your Aruba account team or Aruba TAC.



For monitoring AP status and AP discovery, the user can now choose to use AMON or SNMP. Currently, SNMP is the default option. To use AMON, contact Aruba Technical Support for further assistance.

Chapter 4

Resolved Issues in AirWave 8.3.0

There are no resolved issues in this release.

Chapter 5

Known Issues in AirWave 8.3.0

There are no known issues in this release.

This chapter provides the following information to help you with the upgrade process of the AirWave server:

- [Minimum Requirements](#)
- [Upgrade Instructions](#)
- [Upgrade Paths](#)
- [Migrate to AirWave 8.3.0](#)



FIPS support is currently not available for RHEL. FIPS support will be included in future releases.

Minimum Requirements

Ensure that you have sufficient disk storage, memory, and relevant hardware or software versions. As additional features are added to AirWave, increased hardware resources become necessary and hardware requirements vary by version. For the most recent hardware requirements, refer to the latest *AirWave Server Sizing Guide*.



As a prerequisite, it is mandatory to upgrade to AirWave 8.2.15.1 before migrating to AirWave 8.3.0.

Upgrade Paths

Your upgrade workflow depends on your current version of AirWave.

- To upgrade from AirWave versions prior to 8.2.15.1, follow all the steps in [Migrate to AirWave 8.3.0](#).
- To migrate from AirWave 8.2.15.1 to AirWave 8.3.0, follow the steps starting from [Step 2: Back up your AirWave 8.2.15.1 Data](#) to migrate to AirWave 8.3.0.



If you are upgrading from AirWave 8.2.8.x or earlier version, contact [Technical Support](#) for help with a multiple-step upgrade path.

Migrate to AirWave 8.3.0

If you have an AirWave version prior to AirWave 8.2.15.1 version, the migration process involves upgrading to AirWave 8.2.15.1, backing up your data, exporting the backup file, performing a fresh install of AirWave 8.3.0 with RHEL 8 (64-bit) OS on your server, restoring the backup data onto that server.



For more information on creating backups of your data, refer to the **System Pages** section of the AirWave User Guide. For information on performing a fresh installation of AirWave 8.3.0, refer to the AirWave Installation Guide.

Before You Begin

Prior to migration, navigate to **Home > License** and save a copy of the license key. AirWave licenses are associated with the server IP address. All new installations of AirWave have a 90-day grace period for licenses.

Keep these considerations in mind when working with AirWave licenses:

- If you plan to reuse the same IP address, then apply the license key after you restore the AirWave 8.2.15.1 backup.
- If you are planning to migrate data to a new server, work with Aruba support or use the license portal, to generate the new license in advance, then follow the migration path and apply the new license key. Keep in mind that you may have to adjust some devices (such as Instant APs and devices that send AMON or syslog messages to AirWave) in order for those devices to send updates to the new IP address.



Whenever the nightly backup is restored that is taken from AirWave 8.2.15.1(CentOS 7) to AirWave 8.3.0 (RHEL), NTP configuration will not be restored under **AMP Setup -> Network -> Network time**.

Aruba recommends configuring NTP again manually through the WebUI. It is advised to save the NTP configuration before proceeding with AMP Backup and Restore.

Bootable DVD and USB drives are currently not supported for AirWave 8.3.0 installation.

Step 1: Upgrade to AirWave 8.2.15.1

1. Log in to the AirWave server with the **ampadmin** user name and password. If you previously changed the ampadmin user name and password, enter the current credentials.
2. Enter **4** to select **System**.
 - a. At the next prompt, enter **1** to select **Upgrade**, then select 8.2.15.1 from the listed AMP versions, if AMP upgrade tar.gz file is already uploaded to this AMP Server.
 - b. Select the option for **8.2.15.1**.



If the **8.2.15.1** software does not appear in the list of local upgrade versions, select option **2 None of the Above**, then manually enter **8.2.15.1**.

- c. Enter **y** to enable AirWave to connect to a proxy server. Or, you can enter **N** to bypass this step. At the next prompt:
 - Enter the server address and port number (for example, *test.proxy.com* and port 22).
 - Enter **y** to enter the proxy user name and password (for example, *testuser* and *password*).
- d. Enter **1** or **2** to log in to your customer portal with your support user name and password.
- e. Follow the on-screen instructions to download the software.

Step 2: Back up your AirWave 8.2.15.1 Data

1. Navigate to AMP **Setup -> Network -> Network Time (NTP)** on AMP GUI and make a note of the NTP configuration before taking the AirWave 8.2.15.1 backup.
2. Log in to the AirWave server with the **ampadmin** user name and password. If you previously changed the **ampadmin** user name and password, enter the current credentials.
3. Enter **2** to select **Backup**.
4. Enter **1** to open the **Backup** menu.
5. Enter **1** to select the **Backup Now** option.

Step 3: Export the Backup

1. After creating your backup, enter **b** to return to the previous **Backups** menu.
2. Enter **5** to open the **Users** menu options, then enter **3** to add a file transfer user.
3. Enter a user name for the file transfer user, then click **Enter**. The user name for an AirWave image file transfer user must be five characters or longer, and contain only lowercase letters and numbers. To use the default file transfer user name **awscp**, click **Enter** without entering a user name.
4. Enter a password for the file transfer user, then click **Enter**. The password must be eight characters or longer, and can contain uppercase and lowercase letters, numbers, and non-alphanumeric characters. Spaces are not allowed.
5. Enter **b** to go back to the main CLI menu.
6. Use SCP to connect to your remote repository and move the AirWave 8.2.15.1 backup file from the **AirWave/user** directory to a remote server.



If you want to use your current hardware for RHEL installation, navigate to the BIOS, delete the existing array, create a new array using the preferred RAID 10 configuration, and then save the settings.

Step 4: Migrate to RHEL 8

Accessing a remote PC/Laptop over VPN/WAN may result in slowness and timeouts.

If a remote laptop is not available in the lab, please contact the support team for assistance with an alternative installation method to speed up the process.

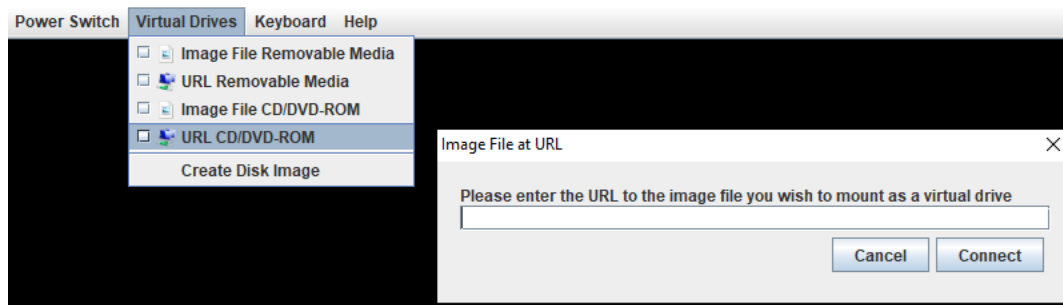


During installation, the **Downloading Packages** step may take anywhere between 45 minutes to 1 hour on a physical server. Be patient and wait for it to complete.

For more information on installing a new instance of AirWave 8.3.0 on your server, refer to the *AirWave 8.3.0 Installation Guide, Pre-Installation Checklist*.

1. Ensure that the **Boot Mode** is set to **Unified Extensive Firmware Interface (UEFI)** mode in the **ILO Administration -> Boot Order** page and click **Apply**.
2. Perform a fresh installation of AirWave 8.3.0 using any of the following methods:

- a. **ILO Virtual Drives** by selecting the URL **CD/DVD-ROM** option and providing an URL *http://<ip address>/AMP-8.3.0-x86_64.iso* of the webserver, where the .iso is hosted.



- b. Select the Local*. iso file by clicking the Virtual Media icon in the remote console of ILO. Browse and select the .iso file downloaded on the Local PC /Laptop using the same network.



Step 5: Upload the Backup

Follow one of these steps to upload the backup on AirWave 8.3.0:

- If using SCP, enter **1-1** to open the **File** and **Upload File** menus. Provide the user name, host, and path for an SCP server using FIPS-approved encryption.
- If using SFTP, enter **5-3** to open the **User** and **Add File Transfer User** menus. Log in from another system using those credentials, and upload the backup.

Step 6: Restore the Data

Follow these steps to restore the backup on AirWave 8.3.0:

1. Save the NTP configuration to the 8.3.0 AMP GUI before restoring the AirWave 8.2.15.1 backup.
2. From the AMP CLI, enter **2-2** to open the **Backups** and **Restore** menus.
3. Enter **1** to restore the server from the uploaded backup.

Step 7: Install Certificates

In this step, you will add an SSL certificate, or generate a certificate signing request and install a signed certificate.

To add the SSL certificate:

1. From the command-line interface, enter **3-4** to open the **Configuration** and **Certificates** menus.
2. Enter **1** to open the **Add SSL Certificate** menu.
3. Follow the prompt to install the SSL certificate on your AMP server. The signed certificate should be in PKCS12 format with a *.pfx or *.p12 file extension.

To generate a CSR and install the certificate:

1. From the command-line interface, enter **3-4** to open the **Configuration** and **Certificates** menus.
2. Enter **2** to open the **Generate Certificate Signing Request** menu.
3. Follow the prompt to create a CSR that identifies which server will use the certificate.
4. Next, enter **b** to return to the previous menu,
5. Enter **1-2** to open the **Files** and **Download File** menu to download the resulting CSR.
6. Send the CSR to your certificate signer.
7. Once the certificate is signed, upload the certificate to the AirWave 8.2.15.1 server.
 - If using SCP, enter **1-1** to open the **File** and **Upload File** menus. Provide the user name, host, and path for an SCP server using FIPS-approved encryption.
 - If using SFTP, enter **5-3** to open the **User** and **Add File Transfer User** menus. Log in from another system using those credentials, and upload the backup.
8. From the WebUI, go to **Device Setup > Certificates**, then click **Add** to add a trusted root CA certificate. To add a new certificate, provide the following information:
 - **Name**—Name of the certificate.
 - **Certificate File**—Click **Choose File** to find the certificate file on your local system, then click **Open**.
 - **Passphrase**—Select a password.
 - **Confirm Passphrase**—Retype the passphrase to confirm.
 - **Format**—Select the certificate format from the drop-down list.
 - **Type**—Select the certificate type from the drop-down list.
9. From the **3-4 Configuration** and **Certificates** menu, enter **3** to open the **Install Signed Certificate** menu.
10. Follow the prompts to install the certificate.



For monitoring AP status and AP discovery, the user can now choose to use AMON or SNMP. Currently, SNMP is the default option. To use AMON, contact Aruba Technical Support for further assistance.

Migrate to AirWave 8.3.0 in Aruba Central (on-premises) Server

If you are performing a fresh installation of AirWave 8.3.0 on Aruba Central (on-premises) servers, interfaces on the Aruba Central (on-premises) server will always be in the following order:

- eth0- eth3 – 1G interfaces
- eth4 and eth5 - 10G interfaces

If you are upgrading from a prior AirWave version to AirWave 8.3.0 on Aruba Central (on-premises) servers, the following message is displayed.

```
Running Upgrade
Local upgrade versions:
1. 8.2.14.1.20220405.001
2. 8.2.13.1
3. None of the above.

Which version? 1
Upgrading to 8.2.14.1.20220405.001. The system will be rebooted when the upgrade completes.
Proceed? (y/N) y
Upgrade script AMP-8.2.14.1.20220405.001-amp_upgrade was not found in local cache.
Upgrade package found in local cache.
Validating the upgrade package...
Using upgrade script extracted from local package.
Upgrade package found in local cache.

Vendor = VMware, Inc. , Product = VMware Virtual Platform

Old Version --> 8.2.13.1 ; New Version --> 8.2.14.1.20220405.001

Checking iptables.

Checking the database schema.
```

Perform the following steps on Aruba Central (on-premises) server Gen10 server with both 1G and 10G interfaces only.

1. Run upgrade to AirWave 8.3.0.
2. Post upgrade, run **intfinorder**, reboot, and configure network setup by entering the following options in AMP CLI:
 - a. Enter option **8 - Advanced**.
 - b. Enter option **1 - Custom Commands**.
 - c. Enter option **2 - Enter Commands**.
 - d. This will run the enter commands, execute **\$ intfinorder**.

```
Advanced
 1 Custom Commands >
 2 Enter Commands
  b >> Back
Your choice: 2

Running Enter Commands

Type 'help' for the list of commands.
$ intfinorder
Use this script on HPE physical appliance especially if you intend to use 10G ports.
Running this script will ensure interfaces are detected / named in the same order
everytime the system is rebooted. Not required to be run for systems using fresh installed 8.2.12
and beyond releases.

Please make sure you have console access. You need to reboot and do a network setup (AMPCLI->Configura
tion (3) -> Configure Network Settings(1)) post reboot after the execution of this command.

Do you want to continue (y/N)? : █
```

- e. Click **y** when prompted with **Do you want to continue (y/N)? :** message.
3. Type **exit** and navigate to the CLI prompt and select option **4 - System** and then, select option **4 - Reboot System** to reboot the system.

```
system
1 Upgrade
2 Disable AMP
3 Restart AMP
4 Reboot System
5 Shutdown System (halt)
6 Show SNMPv3 EngineID
7 Module Key
b >> Back
Your choice: 4

Running Reboot System

Are you sure? (y/n): y
```

4. If you lose connection to Aruba Central (on-premises) server post step 3, login to the ILO/console of the server and navigate to the CLI prompt, and select option **3 - configuration** and **option 1 - Configure Network Settings**.

```
Configuration
1 Configure Network Settings
2 Set Hostname
3 Set Timezone
4 Certificates >
5 SSHD >
6 CLT >
b >> Back
Your choice: 1

Running Configure Network Settings

Running [/usr/local/airwave/bin/network_setup]...
Here are the ethernet interfaces with hardware present:

1. eth0    new  28:67:7c:d9:65:bc
2. eth1    new  28:67:7c:d9:65:bd
3. eth2    new  28:67:7c:d9:65:be
4. eth3    new  28:67:7c:d9:65:bf
5. eth4    new  48:df:37:72:39:98
6. eth5    new  48:df:37:72:39:98
q. Quit

Which interface shall we configure?
```

5. Select the proper network interface and configure the IP address for your AMP and commit the changes. The AMP should be reachable with the IP address configured.

This will enable reliable ordering of interfaces in upgrade scenario that is, eth0 - eth3 mapped to 1G interfaces and eth4- eth5 mapped to 10G interfaces at the end. Once interfaces are set in proper order, future AMP upgrades will be smooth. The **\$ intfinorder** script should be run from the AMP CLI menu as described above for users using Aruba Central (on-premises) server after upgrading to AirWave 8.3.0 build.

Manually Download the Software

You can manually download the software if your AirWave server cannot access the Internet.

1. Go to the [Aruba Support Portal](#) to download the upgrade image. This new portal replaces the legacy Aruba support site (support.arubanetworks.com), which is currently read-only and will be deprecated sometime in the future.
2. Click the upgrade package, then click **Save** and install the file later.

3. Define a user that can transfer AirWave images, and then upload the software:



For security purposes, image file transfer users are automatically removed every night during nightly maintenance operations.

4. From the AMP command-line interface, with the **ampadmin** user name and password. If you subsequently changed the ampadmin user name and password, enter the current admin name and password.
5. Add a file transfer user. This process varies, depending upon the version of AirWave currently running on your system.
 - a. *If you are upgrading from AirWave versions prior to 8.2.15.1*, enter **5** to open the **Users** menu options, then enter **3** to add a file transfer user.
 - b. *If you are upgrading from AirWave 8.2.15.1*, enter **8** to open the **Advanced** menu options, then enter **7** to add a file transfer user.
6. Enter a user name for the file transfer user, then click **Enter**. The user name for an AirWave image file transfer user must be five characters or longer, and contain only lowercase letters and numbers. To use the default file transfer user name **awsftp**, click **Enter** without entering a user name.
7. Enter a password for the file transfer user, then click **Enter**. The password must be eight characters or longer, and can contain uppercase and lowercase letters, numbers, and non-alphanumeric characters. Spaces are not allowed.
8. Enter **b** to go back to the main CLI menu.
9. Use SFTP to connect to your remote repository and upload the AirWave 8.3.0 upgrade file from the remote server into the AirWave **/user** directory.