

VMware AirWatch Integration with Android Smart Glasses

AirWatch v8.4

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Chapter 1:

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Introduction to Android Smart Glasses

Smart Glasses are headsets or head-mounted displays that enable an augmented reality experience.

The glasses display information in a hands-free smartphone-like format, and wearers communicate with the device using natural language voice commands. The voice-command feature of Smart Glasses allows users to prompt for instructions as they work without ever having to take their focus off of the equipment.

AirWatch provides you with a robust set of mobility management solutions for enrolling, securing, configuring, and managing your Smart Glasses deployment. Through the AirWatch Admin Console, you have several tools and features at your disposal for managing the entire life-cycle of Android Smart Glasses.

Before You Begin

Before deploying Smart Glasses, consider the following requirements from the AirWatch team. Familiarizing yourself with the information available in this section helps prepare you for a successful deployment of devices.

Supported Operating Systems

- AirWatch Admin Console v8.2+
- A PC or Mac computer equipped with Android Debug Bridge is needed for sideload staging

Best Practices

- All Smart Glasses must be registered in the AirWatch Console in a separate Organization Group.
- Disable the following enrollment settings:
 - Terms of Use
 - Optional Prompts
- Create separate Android profiles for your Smart Glasses deployment. Do not reuse Android mobile profiles.

Chapter 2:

Smart Glasses Enrollment

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Smart Glasses Enrollment Overview

All Smart Glasses in your deployment must be enrolled before it can communicate with AirWatch and access internal content and features. Enrollment is facilitated with the AirWatch Agent for Android.

Create an Enrollment User

1. Navigate to **Devices > Users > List View > Add > Add User**
2. From the **General** tab, enter the details for your user.

Setting	Description
Security Type	Choose Basic to add a basic user.
Username	Enter a username with which the new user is identified.
Password	Enter a password that the user can use to log in.
Confirm Password	Confirm the password.
Full Name	Complete the First Name, Middle Name, and Last Name of the user.
Display Name	Enter a name to represent the user in the AirWatch Console.
Email Address	Enter or edit the user's email address.
Email Username	Enter or edit the user's email username.
Domain	Select the email domain from the drop-down field.

3. Select **Save**.

Upload the AirWatch Agent .APF File for Smart Glasses

Upload the .apf file for your Smart Glasses deployment to enable a simplified enrollment. The Agent Package can be uploaded only in specific organization group types, for example, in organization groups of type 'Customer'. It is recommended to upload the Agent Package at the highest organization group. You can find the file specific to your OEM located in AirWatch Resources.

To upload an .apf file, follow the steps detailed below:

1. Navigate to **Devices > Staging & Provisioning > Components > Agent Packages** and select **Add**. Make sure you are using the top level organization group.
2. Select **Upload** and **Choose File** to browse for the .apf file of the agent version you want to upload.
3. Select the .apf file and select **Open** to choose the file.
4. Select **Save** to close the upload dialog.
5. Enter a **File Name**.
6. Enter a **Package Name**.

7. Enter a **Version** for the agent.
8. Select **Save** to upload the .apf file to the AirWatch Console.

Create Android Wi-Fi Profile for Staging (Optional)

The staging Wi-Fi profile connects a device to a Wi-Fi network used for enrollment if the device is not configured to a network.

To create the staging Wi-Fi profile:

1. Navigate to **Devices > Staging > Provisioning > Components > Profiles > Add Profile > Android**.
2. Select the **General** profile option.
3. Set the Profile Scope of the Wi-Fi profile:
 - **Staging Wi-Fi Profile** – Connects a device to the Wi-Fi used for staging.
 - **Production Wi-Fi Profile** – Connects a device to the Wi-Fi used for everyday use. Production Wi-Fi profiles are under Device ▶ Profiles ▶ List View ▶ Add. You must use auto deployment and publish the profile before staging a device with it
 - **Both** – Connects the device to Wifi to be used for staging and continues use during production.
4. Navigate to **Wi-Fi > Configure**.
5. Provide the Service Set Identifier to name the network to which the device will connect.
6. Indicate if the Wi-Fi network is a Hidden Network.
7. Ensure the WiFi is setup as the Active Network.
8. Specify the Security Type of access protocol used and whether certificates are required.
9. Provide the Password required for the device to connect to the network.
10. Select **Save & Publish**.

Create a Staging Package

Create a staging package to configure your devices to connect to Wi-Fi, download the AirWatch Agent, and enroll Smart Glasses with minimal interaction.

To create a staging configuration, follow the steps outlined below:

1. Navigate to **Devices > Products > Staging > List View > Add**.

2. Select the Platform type for which you want to create a staging configuration.
3. Complete the required fields on the **General** tab.

Settings	Description
Name	Enter the name of the staging configuration.
Description	Enter the description of the staging configuration.
Enrollment User	Enter the username of the enrollment user.
Password	Enter the password for the enrollment user.
Confirm Password	Re-enter the password for the enrollment user.
Agent	Select the AirWatch Agent to download during staging. These agents are uploaded as an Agent Package. See Upload the AirWatch Agent .APF File for more information.

4. Select **Save**.

Generate a Sideload Staging Package

AirWatch can create a sideload staging package that allows you to create one side staging enrollment for all devices and assign the device to an Organization Group as needed.

To create a side staging package:

1. Navigate to **Devices > Staging & Provisioning > Staging > List View**.
2. Choose a previous staging package that you want to create a sideloaded staging package for. Select the **More** option and select **Staging Side Load** from the drop-down.
3. Choose the **Organization Group** to which this staging applies.
4. Select **Download** to start downloading the zip file of the staging sideload.
5. Download and install the Android Debug Bridge to the computer from which you will stage devices. For more information, see <http://developer.android.com/tools/help/adb.html>.
6. Unzip the staging file and connect the Smart Glasses to the staging computer.
7. Ensure that the Android Debug Bridge is enabled and running on the staging computer.
8. Run the autoenroll script:
 - a. Find the script from the agent folder saved to your computer and run the script from within the agent folder.
 - b. The device should auto enroll into AirWatch.

Chapter 3:

Smart Glasses Device Profiles

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Smart Glasses Profiles Overview

Device profiles ensure proper use of devices, protection of sensitive data, and workplace functionality. Profiles serve many different purposes, from letting you enforce corporate rules and procedures to tailoring and preparing Glass devices for how they are used.

The individual settings you configure are referred to as payloads. Consider configuring only one payload per profile, which means you will have multiple profiles for the different settings you want to push to devices. For example, you can create a profile to integrate with your email server and another to connect devices to your workplace Wi-Fi network.

Create Android Wi-Fi Profile

Configuring a Wi-Fi profile lets devices connect to corporate networks.

To configure the Wi-Fi profile:

1. Navigate to **Devices > Profiles > List View > Add > Add Profile > Android**.
2. Configure the **General** profile settings as appropriate.
These settings determine how the profile is deployed and who receives it. For more information on General settings, refer to the VMware AirWatch Mobile Device Management Guide, available on [AirWatch Resources](#).
3. Select the **Wi-Fi** payload and configure the Wi-Fi settings:

Setting	Description
Service Set Identifier	Provide the name of the network the device connects to.
Hidden Network	Indicate if the Wi-Fi network is hidden.
Set as Active Network	Indicate if the device connects to the network with no end-user interaction.
Security Type	Specify the access protocol used.
Password	Provide the required credentials for the device to connect to the network.

4. Select **Save & Publish**.

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Smart Glasses Device Management

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Smart Glass Device Management Overview

After your devices are enrolled and configured, manage the devices using the AirWatch Admin Console. The management tools and functions enable you to keep an eye on your devices and remotely perform administrative functions.

You can manage all your devices from the VMware AirWatch Dashboard. The Dashboard is a searchable, customizable view that you can use to filter and find specific devices. This feature makes it easier to perform administrative functions on a particular set of devices. The Device List View displays all the devices currently enrolled in your AirWatch environment and their status. The Device Details page provides device-specific information such as profiles and apps. You can also perform remote actions on the device from the Device Details page that are platform-specific.

Upload Internal Application, Local File

Upload internal applications with local files to deploy them to your mobile network and to take advantage of the mobile application management features of AirWatch.

Review instructions from platform sites about how to develop and package applications.

1. Navigate to **Apps & Books > Applications > List View > Internal** and select **Add Application**.
2. Select **Upload > Local File** to browse for the application file on the system.
3. Select **Continue** and configure the **Details** tab options. Not every option is supported for every platform.

Setting	Description
Name	Enter a name for the application.
Managed By	View the organization group (OG) that the application belongs to in your AirWatch OG hierarchy.
Application ID	Represents the application with a unique string. This option is pre-populated and was created with the application. AirWatch uses the string to identify the application in systems like application whitelists and blacklists.
Actual File Version	Displays the coded version of the application set by the application's developer.
Build Version	Displays an alternate "File Version" for some applications. This entry ensures AirWatch records all version numbers coded for applications because developers have two places within some applications they can code a version number.
Version	Displays the internal version of the application set by the AirWatch Admin Console.
Is Beta	Tags the application as still under development and testing, a BETA version.
Change Log	Enter notes in this field to provide comments and notes to other admins concerning the application.
Categories	Provide a category type in the field to help identify how the application can help users.
Minimum OS	Select the oldest OS that you want to run this application.

Setting	Description
Supported Models	Select all the models that you want to run this application.
Is App Restricted to Silent Install	<p>Assigns this application to those Android devices that support the Android silent installation feature. The end user does not have to confirm installation activity when you enable this option. This feature makes it easier to uninstall many applications simultaneously.</p> <p>Only Android devices in the smart group that supports silent uninstallation benefit from this option. These Android devices are also called Android enterprise devices.</p>
Default Scheme	<p>Indicates the URL scheme for supported applications. The application is usually packaged with the scheme, so AirWatch parses the scheme and displays the value in this field.</p> <p>A default scheme offers many integration features for your internal applications, including but not limited to the following options:</p> <ul style="list-style-type: none"> • Use the scheme to integrate with other platform and web applications. • Use the scheme to receive messages from other applications and to initiate specific requests.
Description	Describe the purpose of the application.
Keywords	Enter words that might describe features or uses for the application. These entries are like tags and are specific to your organization.
URL	Enter the URL from where you can download the application and get information about it.
Support Email	Enter an email to receive suggestions, comments, or issues concerning the application.
Support Phone	Enter a number to receive suggestions, comments, or issues concerning the application.
Internal ID	Enter an identification string, if one exists, that the organization uses to catalog or manage the application.
Copyright	Enter the publication date for the application.

Complete the options in the **Developer Information** area:

Setting	Description
Developer	Enter the developer's name.
Developer Email	Enter the developer's email so that you have a contact to whom to send suggestions and comments.
Developer Phone	Enter a number so that you can contact the developer.

Complete the options in the **Application Cost Information** area:

Setting	Description
Cost Center	Enter the business unit charged for the development of the application.
Cost	Enter cost information for the application to help report metrics concerning your internal application development systems to the organization.
Currency	Select the type of currency that paid for the development, or the currency that buys the application, or whatever you want to record about the application.

4. Complete the **Files** tab options.

Review the file initially uploaded and upload auxiliary files needed to distribute internal applications.

Platform	Auxiliary File	Description
All	Application File	Contains the application software to install and run the application and is the application you uploaded at the beginning of the procedure.

5. Complete the options on the **Images** tab.

Setting	Description
Mobile Images	Upload or drag and drop images of the application to display in the App Catalog for mobile devices.
Tablet Images	Upload or drag and drop images of the application to display in the App Catalog for tablets.
Icon	Upload or drag and drop images of the application to display in the App Catalog as its icon.

6. Complete the **Terms of Use** tab.

Terms of use state specifically how users are expected to use the application. They also make expectations clear to end users. When the application pushes to devices, users view a terms of use page that they must accept to use the application. If users do not accept, they cannot access the application.

7. Complete the **More > SDK** tab.

Setting	Description
SDK Profile	Select the profile from the drop-down menu to apply features configured in Settings & Policies (Default) or the features configured in individual profiles configured in Profiles .
Application Profile	Select the certificate profile from the drop-down menu so that the application and AirWatch communicate securely.

8. Complete the **More > App Wrapping** tab.

Setting	Description
Enable App Wrapping	Enables AirWatch to wrap internal applications.

Setting	Description
App Wrapping Profile	Assign an app wrapping profile to the internal application.
Require encryption (Android)	<p>Enable this option to use Data At Rest (DAR) encryption on Android devices. AirWatch uses the Advanced Encryption Standard, AES-256, and uses encrypted keys for encryption and decryption.</p> <p>When you enable DAR in App Wrapping, the App Wrapping engine injects an alternative file system into the application that securely stores all the data in the application. The application uses the alternative file system to store all files in an encrypted storage section instead of storing files in disk.</p> <p>DAR encryption helps protect data in case the device is compromised because the encrypted files created during the lifetime of the application are difficult to access by an attacker. This protection applies to any local SQLite database, because all local data is encrypted in a separate storage system.</p>

9. Select **Save & Assign**.
10. After adding Assignments, Click **Save & Publish**, then **Publish** to deploy the app to your Smart Glasses

Android Smart Glasses Feature Matrix

This matrix summarizes specific functionality and configurations, as available by OEM.

	Atheer AiR Glasses	ODG R-7	Recon Jet	Vuzix M100
Asset Tracking				
UDID	✓	✓	✓	✓
OS Version	✓	✓	✓	✓
Manufacturer	✓	✓	✓	✓
Model	✓	✓	✓	✓
Serial Number	✓	✓	✓	✓
Internal App Management				
Install Applications	✓	✓	✓	✓
Remove Applications	✓	✓	✓	✓
Update Applications	✓	✓	✓	✓
Push Services				
AWCM	✓	✓	✓	✓
Wi-Fi				
WPA/WPA2	✓	✓	✓	✓

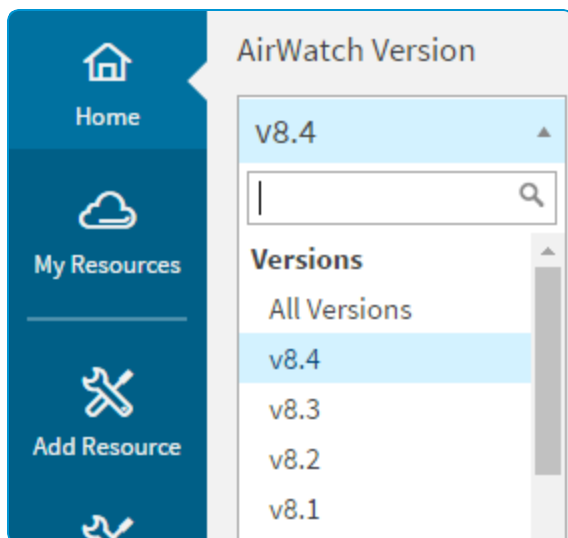
Finding More Documentation

While reading this documentation you may encounter references to documents that are not included here. You can access this documentation through the AirWatch Resources page (<https://resources.air-watch.com>) on myAirWatch.

Note: Always pull the document from AirWatch Resources each time you reference it.

To search for and access documentation on AirWatch Resources:

1. Navigate to <http://my.air-watch.com> and log in using your AirWatch ID credentials.
2. Select **AirWatch Resources** from the navigation bar or home screen. The AirWatch Resources page displays a list of recent documentation and a list of Resources Categories on the left.
3. Select your AirWatch Version from the drop-down menu in the search parameters to filter a displayed list of documents. This selection limits the search to documentation that is specific to your version of AirWatch.



4. Access documentation using the following methods:
 - Select a resource category on the left to view all documents in that category. For example, select **Documentation** to view the entire technical documentation set. Select **Platform** to view only platform guides.
 - Search for a particular resource using the search box in the top-right by entering keywords or document names.
 - Add a document to your favorites and it appears in **My Resources**. Access documents you saved as a Favorite by selecting **myAirWatch** from the navigation bar. Then select **My Resources** from the toolbar.
 - Download a PDF of a document by selecting the button. Note, however, that documentation is frequently updated with the latest bug fixes and feature enhancements. Always pull the document from AirWatch Resources each time you want to reference it.

Having trouble finding a document? Make sure that you select a specific **AirWatch Version**. Searching **All Versions** typically returns excessive results. Select **Documentation** from the category list, at a minimum. If you know which category you want to search (for example, **Platform, Install & Architecture, Email Management**), then select that category to narrow your search further and return better results. Limit **File Type** to **PDF** to limit the search to technical documentation manuals.