

# Zebra Services Agent for AirWatch



**ZEBRA**

## **Installation Guide**

2024/11/19

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## Overview

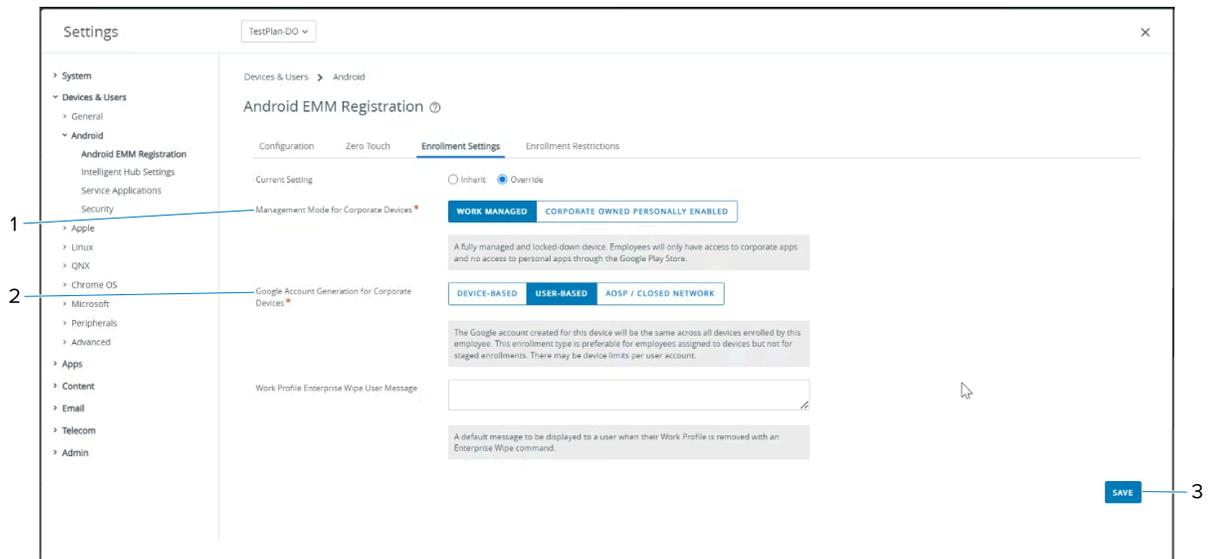
VMware AirWatch is an Enterprise Mobility Management (EMM) solution that enables companies to securely manage devices and endpoints with any form factor and operating system throughout their lifecycle, from deployment to retirement.

The **Zebra Services Agent (ZSA)** app is designed to be installed and configured through EMM tools.

## Pre-requisite

Devices must be enrolled as **Work Managed**.

1. To verify if devices are configured as **Work Managed**, log into the **AirWatch Console**.
2. Select **Groups & Settings > All Settings > Devices & Users > Android > Android EMM Registration > Enrollment Settings**.
3. Verify the two settings below under **Enrollment Settings**.



- Management Mode for Corporate Devices: **WORK MANAGED** (1)
- Google Account Generation for Corporate Devices: **USER-BASED** (2)

4. Click **Save** (3).

## Deploying Zebra Services Agent

Install the Zebra Services Agent (ZSA) app on the devices.

Download the `Zebra_Services_Agent_V2.0.0.2.apk` file from [zebra.com/zebra-services-agent](https://zebra.com/zebra-services-agent).

1. Log into the **AirWatch Console**.
2. Click **Resources > Apps > Native > List View > Add > Application File**.

3. Upload the **ZSA APK** file, and click **Continue > Save & Assign(1)**.

The screenshot displays the 'Add Application - Zebra Services Agent v 2.0.0.2' configuration interface. The page title is 'Add Application - Zebra Services Agent v 2.0.0.2' with subtext 'Internal | Managed By: TestPlan-DO | Application ID: com.zebra.zsa | App Size: 10934 KB'. The interface includes a navigation bar with 'Details', 'Files', 'Images', 'Terms of Use', and 'More'. The main content area contains the following fields and controls:

- Name \***: Text input field containing 'Zebra Services Agent'.
- Managed By**: Text input field containing 'TestPlan-DO'.
- Application ID \***: Text input field containing 'com.zebra.zsa'.
- App Version \***: Text input field containing '2.0.0.2'.
- Current UEM Version**: Text input field containing '2.0.0.2'.
- Is Beta**: Radio button group with 'YES' and 'NO' options; 'NO' is selected.
- Update Notifications**: Radio button group with 'NOTIFY' and 'NONE' options; 'NOTIFY' is selected.
- Change Log**: Text area for logging changes.
- Categories**: Text input field with placeholder 'Start Typing to Select Category ...'.
- Minimum OS \***: Dropdown menu set to 'Any'.
- Supported Models \***: Text input field containing 'Android'.
- Is App Restricted to Silent Install**: Radio button group with 'YES' and 'NO' options; 'NO' is selected.
- Description**: Text area for app description.
- Keywords**: Text input field for app keywords.
- URL**: Text input field for app URL.

At the bottom right, there are two buttons: 'SAVE & ASSIGN' (highlighted with a blue arrow and the number '1') and 'CANCEL'.

The next screen prompts to configure application assignment parameters.

## 4. Assignment Configuration:

- a) Enter a distribution **Name**(1).
- b) Add **Assignment Groups**(2), the organization groups created during registration.
- c) Select the **App Delivery Method** (3) to **Auto**.

Zebra Services Agent - Assignment

**Distribution**

Restrictions

Tunnel

Application Configuration

Components Profile Configuration

**Distribution**

Name \* Battery RUL, Drop Detection and Diagnostic tool Assignments

Description Battery RUL, Drop Detection and Diagnostic tool Assignment configuration.

Assignment Groups \* To whom do you want to assign this app?  
ps-EMM\_GRC (TestPlan-DO / ps-EMM\_GRC) X

Deployment Begins \* 10/21/2024 12:00 AM (GMT-05:00) Eastern Time (US & Canada)

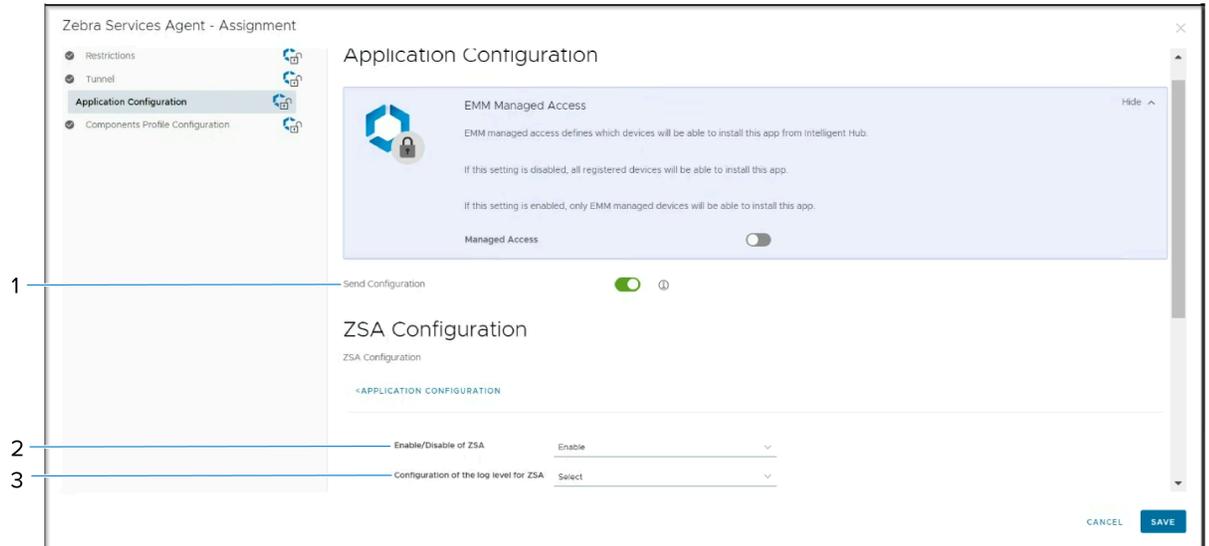
App Delivery Method \*  Auto  On Demand

CANCEL CREATE

- d) Click **Create** (4).

## 5. Managed Configuration:

- a) The ZSA Managed Configuration contains four modules, each with an enable/disable feature to set the configuration.

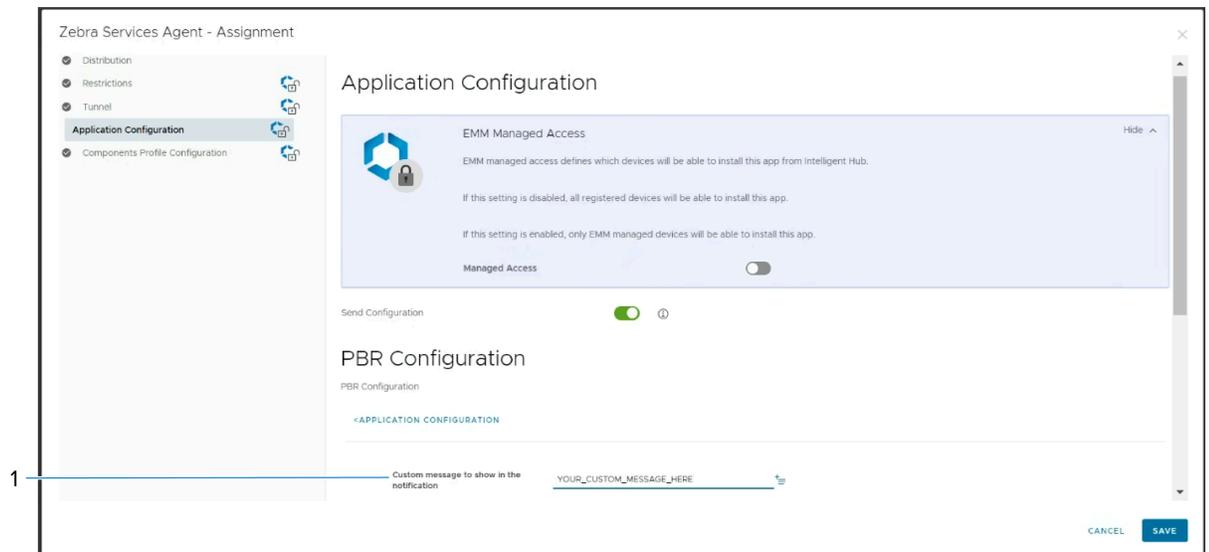


- b) To send the configurations to devices, go to **Application Configuration > Send Configuration**(1).

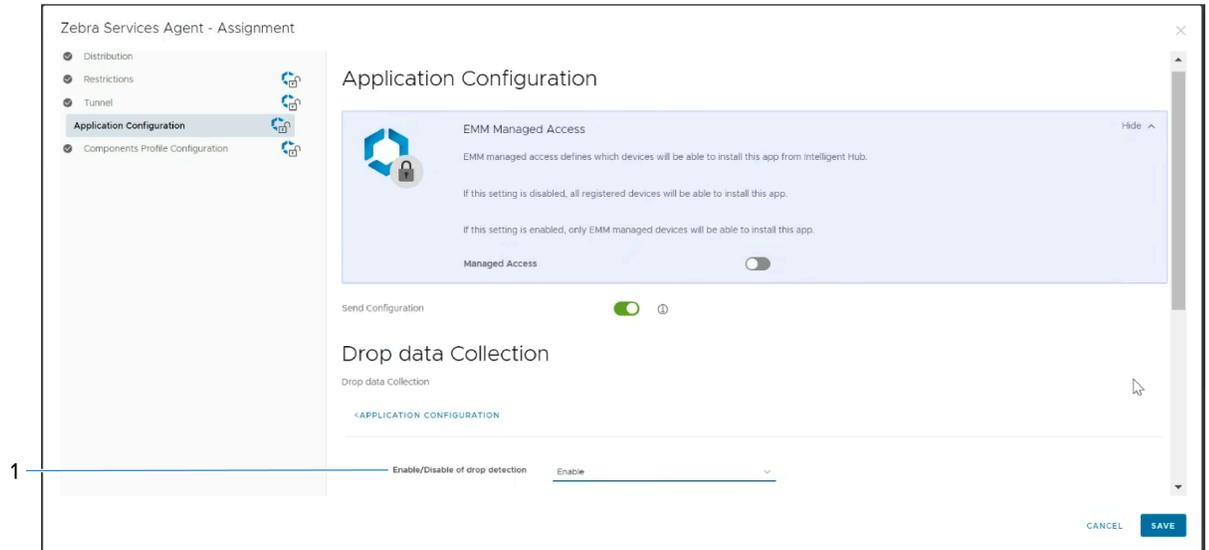
- c) Enable the **ZSA Configuration** (2) option and set the **Configuration of the log level for ZSA** (3) with the following values:

- 0: Info
- 1: Debug
- 2: Sensitive

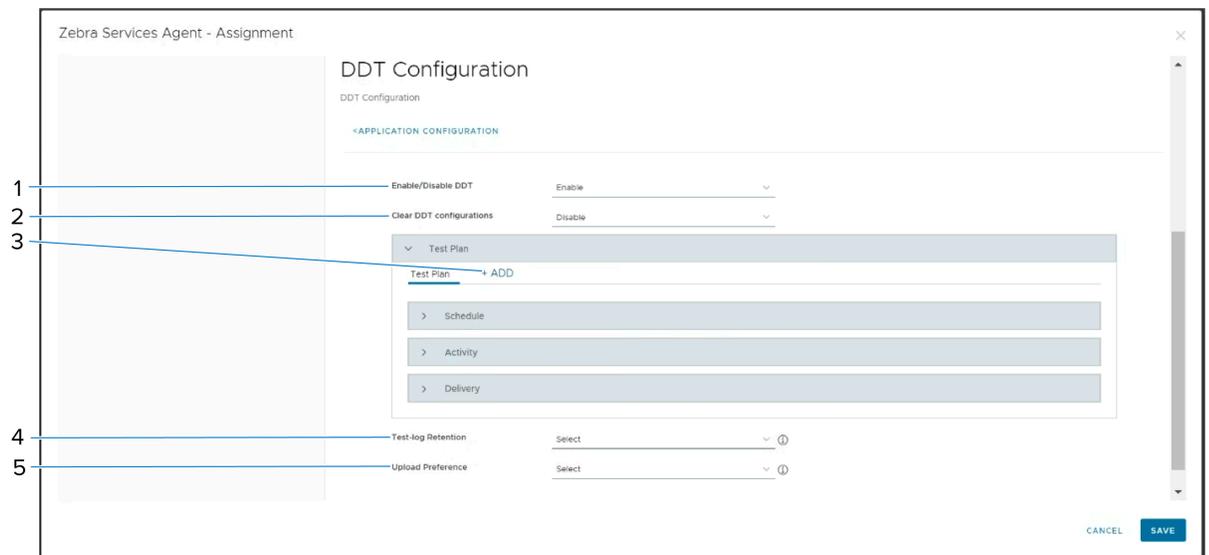
- d) Provide a **Custom Message** (1) as required in the **PBR Configuration** section.



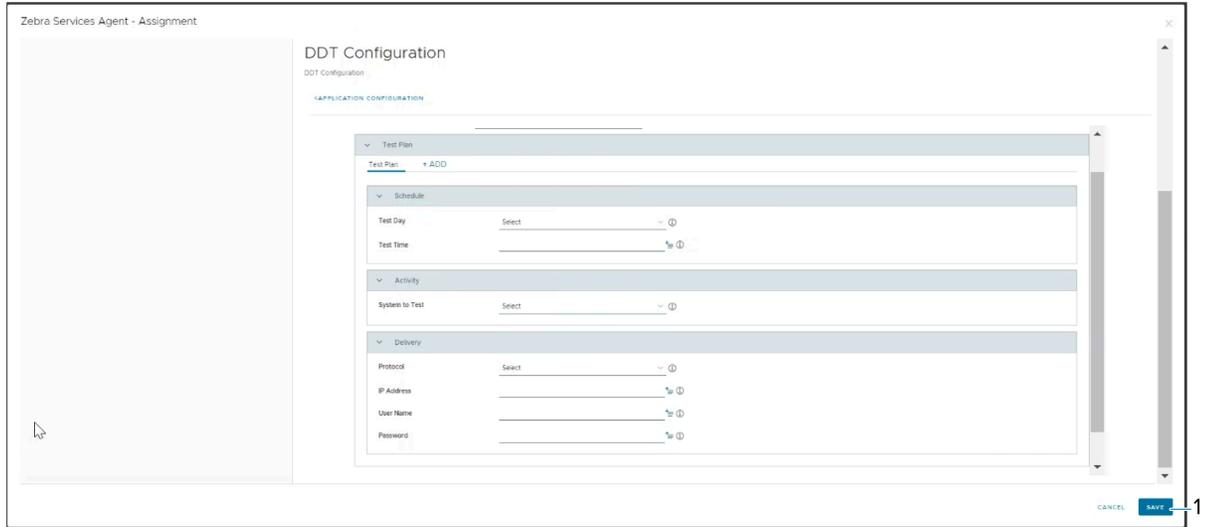
- e) Enable **Drop Detection** (1) in the **Drop data Collection** section.



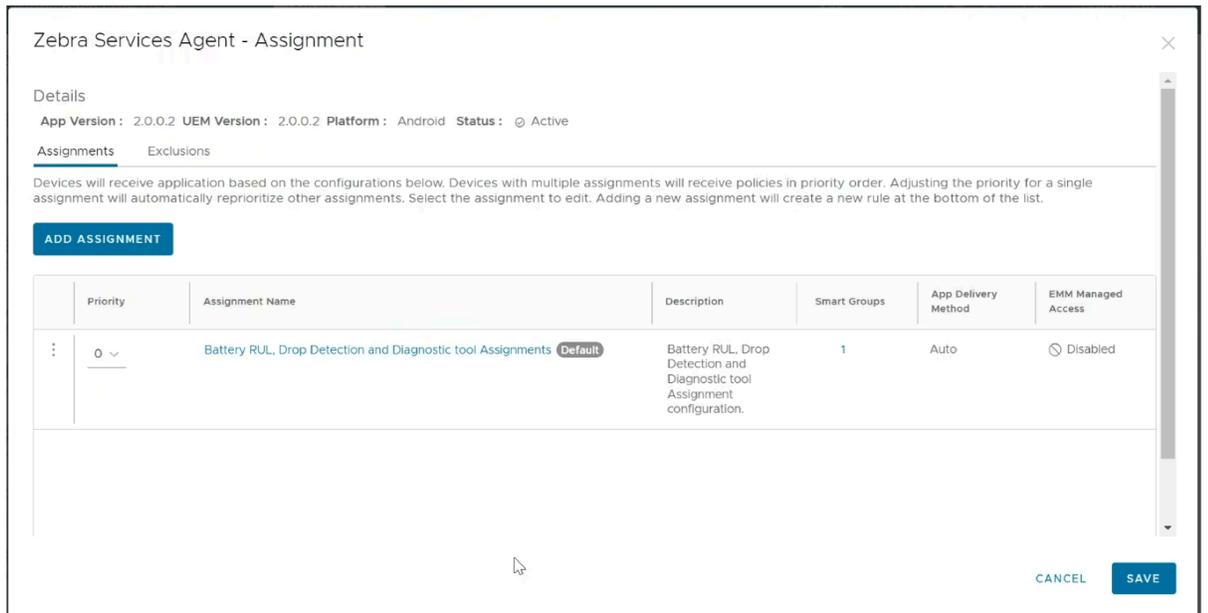
- f) Under the **DDT Configuration** section, enable the **Enable/Disable DDT** (1) option, keep the **Clear DDT configurations** (2) disabled in the primary setup, and click **Add** (3) in the **Test Plan** section. Select **Test-log Retention** (4) and **Upload Preference** (5).



- g) Configure the **Test Plan** and click **Save** (1).



The ZSA Assignment page displays.



h) Preview the **Assigned Devices** to ensure only the target devices are listed, then click **Publish(1)**.

# Zebra Services Agent for AirWatch Installation Guide

Zebra Services Agent - Preview Assigned Devices

Protection thresholds have been configured to avoid undesired removal of applications from a large number of devices. These thresholds can be managed in All Settings > Apps > Workspace ONE > App Removal Protection. App removals will be held for administrator approval in the App Removal Log when the number of devices receiving the app removal triggers reaches the configured threshold. Your team will be notified via email when this occurs.

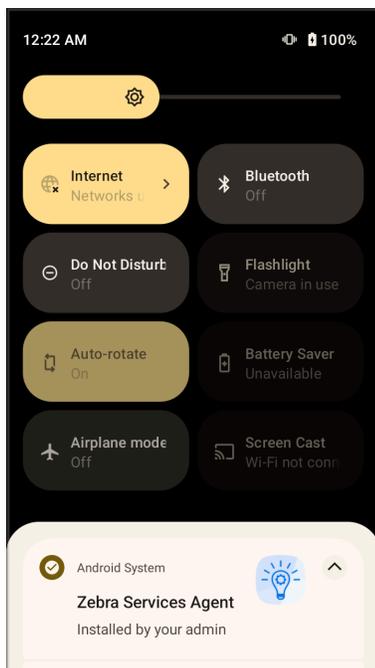
Assignment Status: All Search List

Assignment Status	Friendly Name	User	Platform	Organization Group
Added	TestPlan-DO Zebra ET45 Android 14.0 0148	TestPlan-DO	Android	TestPlan-DO

Page Size: 20 Items 1 - 1 of 1

CANCEL PUBLISH 1

The application is now installed on the devices.



## Auto-Grant Permissions for Zebra Services Agent

To add the automatic permissions:

1. Select **Devices > Provisioning > Components > Profiles > Add Profiles > Android**.

The **Add a New Android Profile** page displays. Enter the name as **Grant ZSA Permissions Profile**.

2. Scroll down to **Custom Settings**, select **Configure**, and then add the below script:

```
<characteristic uuid="e135b2b0-e9ac-4dd2-8b92-65eb259dc301"
type="com.airwatch.android.androidwork.permissions"
target="1"><parm name="MasterRuntimePermission" value="1"
type="integer" /><parm name="AppLevelRuntimePermissions"
value="W3sicGFja2FnZU5hbWUiOiJjb20uemVicmEuenNhIiwicGVybw
lzc2lvbnMiOlt7Im5hbWUiOiJhbmRyb2lkLnBlcm1pc3Npb24uV1JJVEVfQ090
VEFDVFMiLlZSI6IjEifSx7Im5hbWUiOiJhbmRyb2lkLnBlcm1pc3Npb2
4uQ0FMTF9QSE9ORSIsInZhbHVlIjoIMSJ9LHsibmFtZSI6ImFuZHZJvaWQucGVy
bWlzc2lvbi5SRUNPUkRfQVVEVSU8iLlZSI6IjEifSx7Im5hbWUiOiJhbm
Ryb2lkLnBlcm1pc3Npb24uUkVBRF9DT05UQUUNUyIsInZhbHVlIjoIMSJ9LHsi
bmFtZSI6ImFuZHZJvaWQucGVybwlzc2lvbi5JTlRFUk5FVCIsInZhbHVlIjoIMS
J9LHsibmFtZSI6ImFuZHZJvaWQucGVybwlzc2lvbi5SRUFEX1NFVFRJTkdTiiwi
dmFsdWUiOiIxIn0seyJuYW1lIjoiyW5kcm9pZC5wZXJtaXNzaW9uLlJFQURfUE
hPTkVfU1RBVEUiLlZSI6IjEifSx7Im5hbWUiOiJhbmRyb2lkLnBlcm1p
c3Npb24uUkVBRF9FWFRFUK5BTF9TVE9SQUdFiwiwiFsdWUiOiIxIn0seyJuYW
1lIjoiyW5kcm9pZC5wZXJtaXNzaW9uLldSSVRFX0VYVEVSTkFMX1NUT1JBR0Ui
LlZSI6IjEifSx7Im5hbWUiOiJhbmRyb2lkLnBlcm1pc3Npb24uUkVBRF
9QUk9GSUxFlwiwiFsdWUiOiIxIn0seyJuYW1lIjoiyW5kcm9pZC5wZXJtaXNz
aW9uLlVTRV9DUkVERU5USUFMUyIsInZhbHVlIjoIMSJ9LHsibmFtZSI6ImFuZHZ
JvaWQucGVybwlzc2lvbi5NQUSBR0VfQU5DT1V0VFMiLlZSI6IjEifSx7Im5hbW
UiOiJhbmRyb2lkLnBlcm1pc3Npb24uUkVBRF9TWU5DX1NUQVRTIiwidmFsdWUi
OiIxIn0seyJuYW1lIjoiyW5kcm9pZC5wZXJtaXNzaW9uLlJFQURfU1l0
Q19TRVRUSU5HUyIsInZhbHVlIjoIMSJ9LHsibmFtZSI6ImFuZHZJvaWQucGVybw
lzc2lvbi5XUklURV9TWU5DX1NFVFRJTkdTiiwiwiFsdWUiOiIxIn0seyJuYW1l
```

```
IjoiYW5kcm9pZC5wZXJtaXNzaW9uLlJBSVNFRFR9USFJFQURfUFJJT1JJVfkiLC
J2YWx1ZSI6IjEifSx7Im5hbWUiOiJhbmRyb2lkLnBlcm1pc3Npb24uUE9TVF90
T1RJRklDQVRJT05TIiwidmFsdWUiOiIxIn0seyJuYW11IjoiYW5kcm9pZC5wZX
JtaXNzaW9uLlJFQURfUFJk1MRUdFRFR9QSE9ORV9TVEFURSIzInZhbHV1Ijoi
MSJ9LHsibmFtZSI6ImFuZHVvaWQucGVyYbWlzc2lubi5SRUNFSVZFX0JPT1RfQ0
9NUExFVEVEIiwidmFsdWUiOiIxIn0seyJuYW11IjoiYW5kcm9pZC5wZXJtaXNz
aW9uLkZPUkVHUK9VTkRfU0VSVklDRSIsInZhbHV1IjoiMSJ9XX1dIA==" type="string" /
></characteristic>
```



**NOTE:** The **AppLevelRuntimePermissions** value is encoded using the below permission JSON value into base64 via [base64decode.org](https://www.base64decode.org/):

```
[{"packageName": "com.zebra.zsa", "permissions":
[{"name": "android.permission.WRITE_CONTACTS", "value": "1"},
{"name": "android.permission.CALL_PHONE", "value": "1"},
{"name": "android.permission.RECORD_AUDIO", "value": "1"},
{"name": "android.permission.READ_CONTACTS", "value": "1"},
{"name": "android.permission.INTERNET", "value": "1"},
{"name": "android.permission.READ_SETTINGS", "value": "1"},
{"name": "android.permission.READ_PHONE_STATE", "value": "1"},
{"name": "android.permission.READ_EXTERNAL_STORAGE", "value": "1"},
{"name": "android.permission.WRITE_EXTERNAL_STORAGE", "value": "1"},
{"name": "android.permission.READ_PROFILE", "value": "1"},
{"name": "android.permission.USE_CREDENTIALS", "value": "1"},
{"name": "android.permission.MANAGE_ACCOUNTS", "value": "1"},
{"name": "android.permission.READ_SYNC_STATS", "value": "1"},
{"name": "android.permission.READ_SYNC_SETTINGS", "value": "1"},
{"name": "android.permission.WRITE_SYNC_SETTINGS", "value": "1"},
{"name": "android.permission.RAISED_THREAD_PRIORITY", "value": "1"},
{"name": "android.permission.POST_NOTIFICATIONS", "value": "1"},
{"name": "android.permission.READ_PRIVILEGED_PHONE_STATE", "value": "1"},
{"name": "android.permission.RECEIVE_BOOT_COMPLETED", "value": "1"},
{"name": "android.permission.FOREGROUND_SERVICE", "value": "1"}]}]
```

3. Click **Save**.

## Auto-launching Zebra Services Agent

After deploying the apps, set the app to auto-launch:

1. Select **Devices > Provisioning > Components > Files/Action > Android**.
2. In the **General** tab, enter the **Name and Description**.
3. In the **Manifest** tab, click **Add Action** under **Install Manifest**.

- Configure the following information in the **Add Manifest** options.
  - Action(s) to Perform: Run Intent
  - Command Line and Arguments to run:

```
mode=explicit,broadcast=false,action=android.intent.action.MAIN,
package=com.zebra.zsa,class=com.zebra.zsa.ui.splash.SplashActivity
```

```
TimeOut: -1
```

- Click **Save**.

## Activating Permissions Product

To activate the Permissions Product:

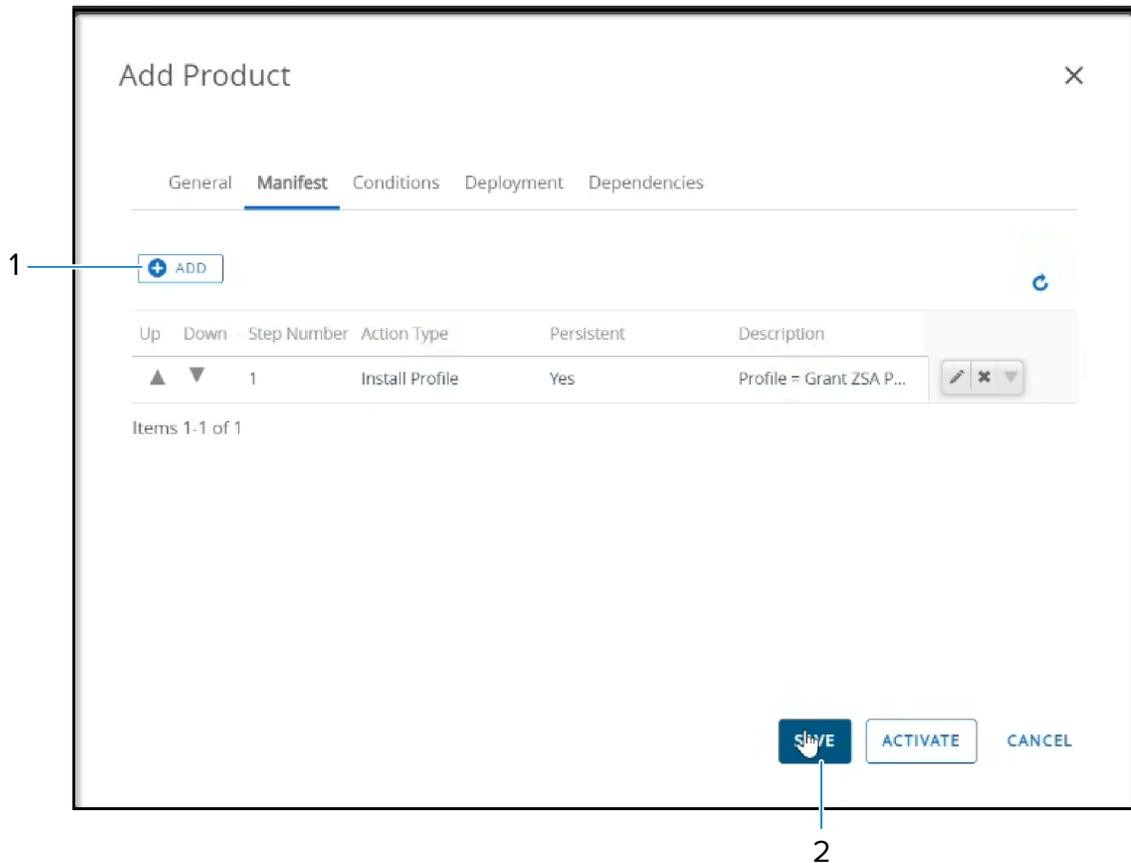
- Go to **Devices > Provisioning > Product List View**.
- Click **Add Product**, and select **Android**.
- In the **General** tab, fill in the **Name**, **Description**, and **Smart Groups** fields.

The screenshot shows the 'Add Product' dialog box with the following details:

- Title:** Add Product
- Tabs:** General (selected), Manifest, Conditions, Deployment, Dependencies
- Name \***: ZSA All Permission
- Description**: (empty)
- Managed By \***: TestPlan-DO
- Smart Groups**: ZSA - Test (TestPlan-DO) (with a search icon and a close icon)
- Assignment Rules**: ADD RULES
- Buttons:** VIEW DEVICE ASSIGNMENT, SAVE, ACTIVATE, CANCEL

- Click **Save**.
- In the **Manifest** tab, click **Add (1)**.

6. Configure the following information in the **Add Manifest** options.



- Select **Profile Install** from the drop-down list.
- Search for the permissions profile of Zebra Services Agent and select the permissions profile.
- Select the **Persistent** checkbox via enterprise reset.
- Click **Save(2)**.
- Repeat steps **a - e** to add Zebra Services Battery Health permissions.

## Creating an Auto-launch Product

To create an Auto-launching Product:

- Go to **Devices > Provisioning > Product List View**.
- Click **Add Product**, and select **Android**.

3. In the **General** tab, fill in the **Name**, **Description**, and **Assigned Groups** fields.

**Add Product** [X]

**General** Manifest Conditions Deployment Dependencies

Name\* ZSA - Auto Launch

Description

Managed By\* TestPlan-DO

Smart Groups ZSA - Test (TestPlan-DO) [X]  
Start typing to add a group [Q]

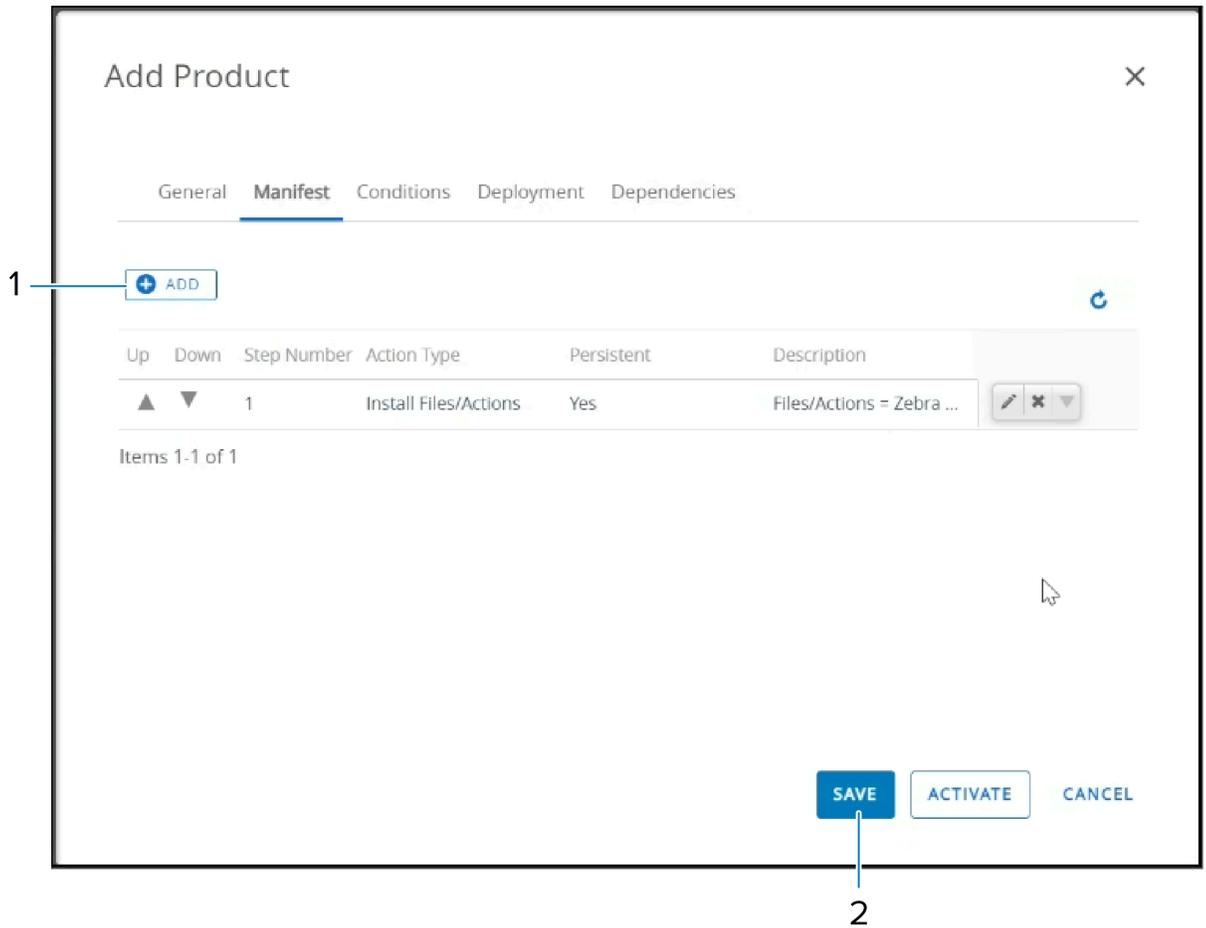
VIEW DEVICE ASSIGNMENT

Assignment Rules ADD RULES

SAVE ACTIVATE CANCEL

4. Click **Save**.
5. In the **Manifest** tab, click **Add (1)**.

6. Configure the following information in the **Add Manifest** options.



- a) Select **File/Action** from the drop-down list.
- b) Search the auto-launch File/Action for Zebra Services Agent.
- c) Select the auto-launch File/Action.
- d) Select the **Persistent** checkbox via enterprise reset.
- e) Click **Save**(2).

After creating two products, activate the first permission product and wait for it to comply with all devices.



**IMPORTANT:**

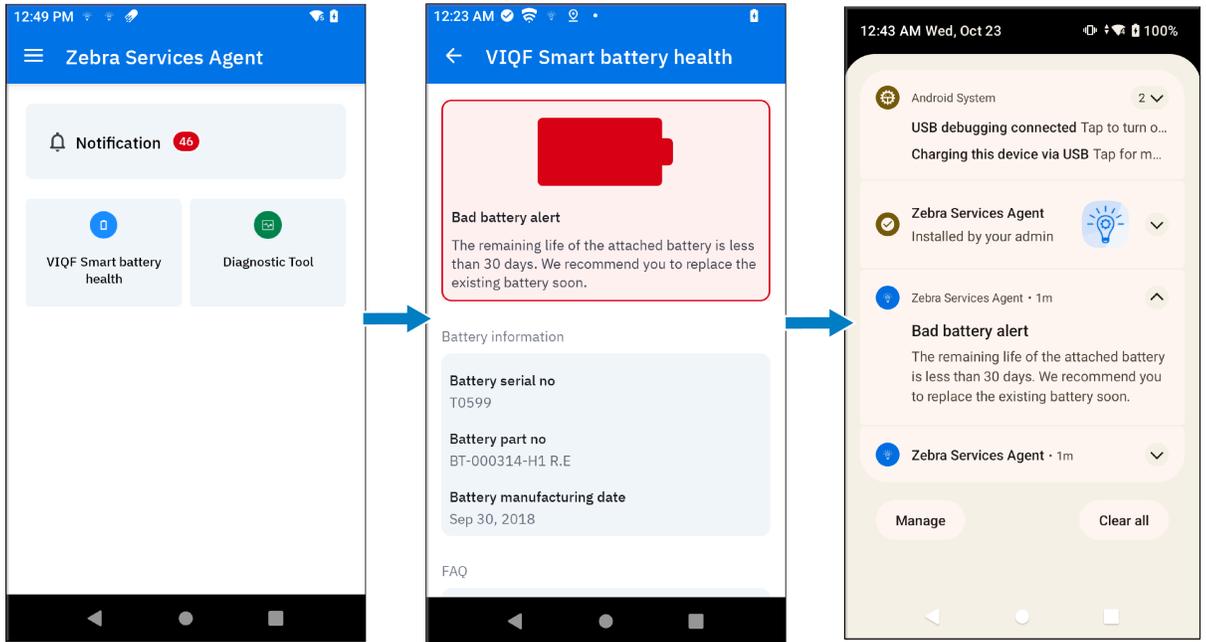
You are only required to **Activate** the Zebra Services Agent autolaunching products from the list of products under Provisioning.

## Expected Behaviour After Auto-launching Zebra Services Agent

This section explains the behavior of the ZSA app after the auto-launching.

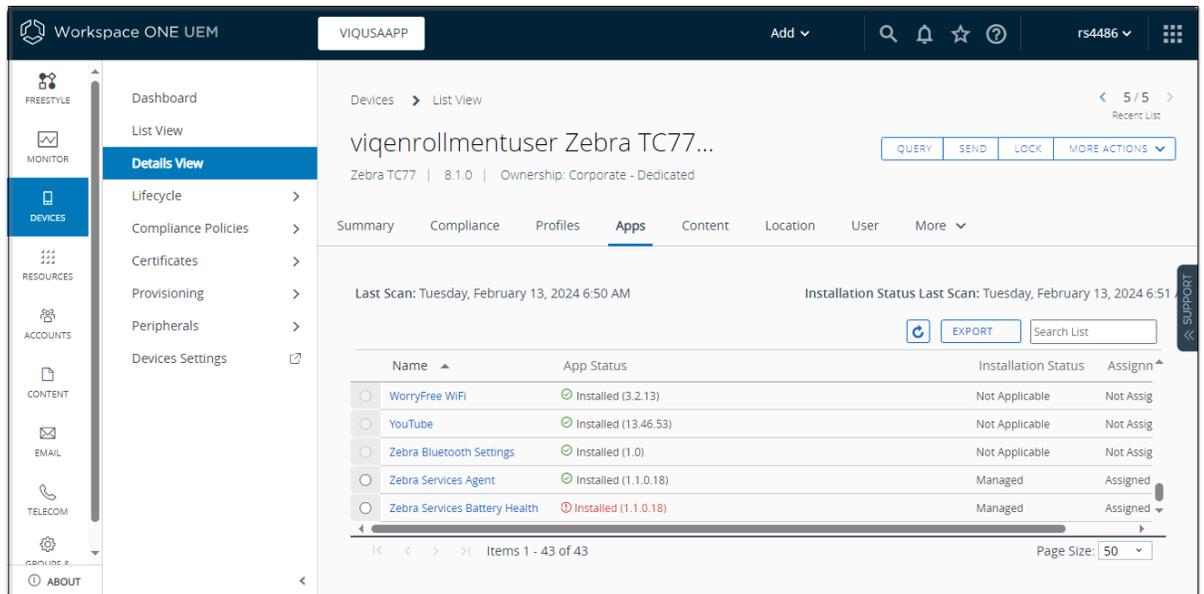
1. Auto-launching the ZSA application on your device. The ZSA home screen displays the appropriate entitlement.
2. If the ZSBH module is entitled, the ZSA app automatically launches it after a few seconds.

3. The ZSA home screen displays the VIFQ Smart battery health and Diagnostic tool, and if a **bad battery** condition is detected, a notification will display.
4. After a few seconds, the ZSA app will close.



## FAQs

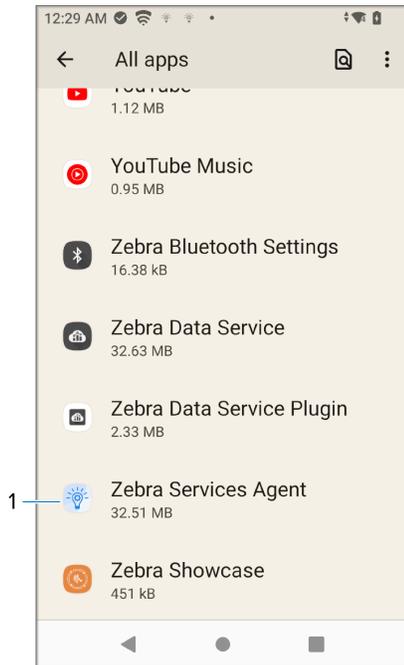
1. How do you determine which apps are installed on the devices in AirWatch?
  - a) Go to **Devices > List View**.
  - b) Select any device from the list, and it provides information about the selected device.



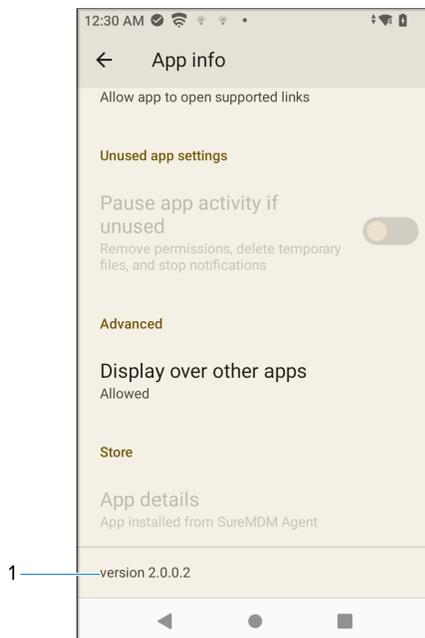
- c) Click the **Apps** tab, then scroll down or use the **Search** feature to find the ZSA app.

2. How can the user verify if the app is installed with the correct permissions and is able to connect to Zebra servers?

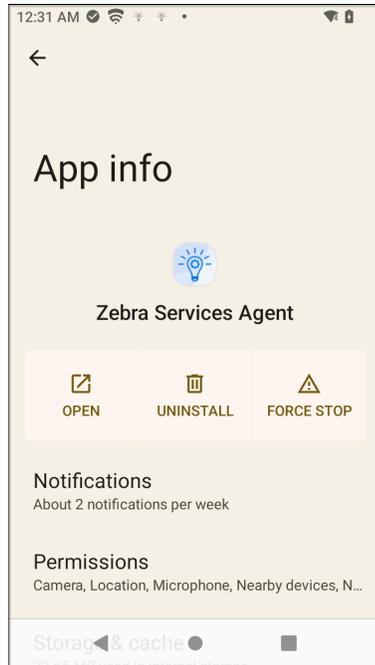
a) To verify the app version, go to **Settings > Apps > All apps** and select **Zebra Services Agent(1)**.



b) The **App Info** page displays the **Version(1)**.



c) To verify the ZSA Permissions, go to **Settings > Apps > All apps > Zebra Services Agent > Permissions**.



d) To verify ZSA Network connectivity to the Zebra URL:

- Launch ZSA and go to **Settings** (1) > **Refresh** (2).

