

VMware AirWatch Guide for Samsung Knox Mobile Enrollment

AirWatch Guide To Implementing Knox Mobile Enrollment of Samsung Devices

Workspace ONE UEM v9.4

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Chapter 1:

Overview

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Introduction to Samsung Knox Mobile Enrollment

Samsung Knox Mobile Enrollment is an easy and efficient way to enroll large numbers of corporate-owned devices, while keeping end user interaction to a minimum. You can enroll up to thousands of Samsung devices in Workspace ONE UEM without manually configuring each device. You can enroll device directly to individuals that can be predetermined in the Mobile Enrollment portal. Devices can be enrolled to use only the Knox Standard APIs on the device and to utilize the Knox Premium APIs for the Knox Container as well.

Note: As this is simply an enrollment mechanism, there is no loss or change in the existing policy sets defined in your admin console. Knox Standard policy sets as well as the Knox container will follow normal enrollment methods.

Getting Started with Samsung Knox Mobile Enrollment

There are some prerequisites that have to be met before deploying Samsung Knox Mobile Enrollment including business accounts being verified by Samsung and using Knox Mobile enrollment approved devices. For more information, see [Getting Started with Samsung Knox Mobile Enrollment on page 4](#).

Preparing for Samsung Knox Mobile Enrollment

To prepare for Samsung Knox mobile enrollment, you will need setup user credentials, configure the Knox Mobile Enrollment Portal, and to create the MDM profile used to deploy and configure devices. For more information, please see [Preparing for Enrollment on page 7](#).

Device Enrollment

Device enrollment is an easy process once devices are ready. For more information, see [Enrolling Devices on page 13](#)

Getting Started with Samsung Knox Mobile Enrollment

To use Knox Mobile Enrollment, you must:

- Make sure it is available in your country.
- Purchase devices from an approved carrier or reseller.
- Use only Knox Mobile Enrollment supported devices.
- Have a Knox web account with the Knox Mobile Enrollment feature enabled.

Note: For details visit: <http://www.samsungknox.com/me>

Enterprise accounts must be verified by Samsung. From the Workspace ONE UEM console, the only requirement is that the enrollment username and password is present, otherwise users may be prompted to enter credential information during enrollment.

Knox Mobile Enrollment for Android work managed , or device owner, enrollment is supported on Knox 2.8 and higher. Knox Mobile Enrollment for Android (Legacy) enrollment is supported with devices running Knox 2.4 and higher. With Knox Mobile Enrollment, IT admins and end users can complete the following:

1. Turn on the device from factory reset state.
2. Connect to a preferred Wi-Fi network.
3. Complete the setup wizard which automatically prompts the installation of the AirWatch Agent and Samsung ELM Service.

Note: End users may be required to provide a username and password, depending on the settings in the Workspace ONE UEMconsole and Knox Mobile Enrollment Portal.

Note: On Knox 2.8 and higher devices, excluding devices on ATT network, you do not have to walk through the entire setup wizard. After you connect to Wi-fi, enrollment starts automatically and you can proceed to step 4.

4. Enroll devices with limited to zero user interaction depending on the settings in the Workspace ONE UEM console and Knox Mobile Enrollment Portal. Devices can be enrolled to an end user directly or staged so that the end user can complete enrolling the device to themselves when they receive the device.

Note: On Knox 2.0 supported devices, a subsequent manual browser initiation is required. See instructions on how to manually trigger enrollment at: <https://me.samsungknox.com>

Once a participating device is enrolled into Workspace ONE UEM, it is bound until the unique identifier is removed from the Mobile Enrollment Portal. This essentially means that the AirWatch Agent and Samsung ELM Service applications persist enrollment even if the device is erased or factory reset.

Chapter 2:

Knox Mobile Enrollment

Preparing for Enrollment

To prepare for Samsung Knox mobile enrollment, determine your enrollment type, setup user credentials, configure the Knox Mobile Enrollment Console, and create the MDM profile used to deploy and configure devices.

Enrollment Types

There are several ways to enroll devices for Knox Mobile Enrollment including: fully automatic enrollment, staging enrollment, end users authenticate with existing corporate credentials, or token enrollment. Both Android Work Managed and Android (Legacy) enrollment are supported.

Users enrolling with user credentials will enter their username and password when prompted from the device.

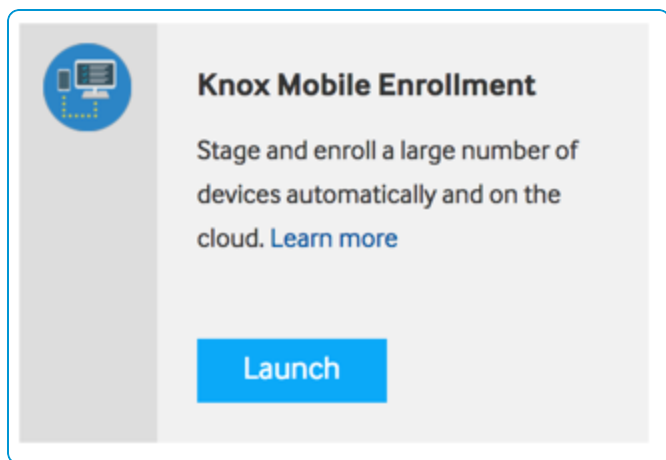
Simplify device enrollment with token enrollment instead of user credentials. Send end users a unique token to enroll their devices into AirWatch.

Setting up Enrollment Credentials from the Workspace ONE UEM Console

To get started, Mobile Enrollment requires at least one set of credentials to enroll devices with. Every device in Knox Mobile Enrollment is required to be associated with user credential. The credentials can be both **Basic** or **Directory**. Staging users are also supported for both single users and multi user staging. Single user staging supports both standard and advanced staging. Standard staging user need to sign in to

Setting up the Knox Mobile Enrollment Console

The Knox Mobile Enrollment Console is available as part of the Knox web account. From here, you will be able to add devices and associate them with the enrollment settings that will be applied to the device. To get to the Knox Mobile Enrollment console, log into to <https://www.samsungknox.com> and select Launch Mobile Enrollment to get started.



The basic steps in setting up Knox Mobile Enrollment are:

1. Create an MDM profile.
2. Enter IMEIs or serial numbers of the devices to be enrolled. The devices are ready to enroll after Samsung validates device info (background) status will show in the status field. Once it says ready to enroll, turn on device from factory state.
3. Associate each device with user credentials for enrollment.
4. Instruct users to accept the prompt to enroll devices.

Creating an MDM Profile

Before you begin enrolling devices, you must create an MDM profile with the AirWatch Agent and Samsung ELM Service and Workspace ONE UEM console tenant information. When you use Knox Mobile Enrollment for the first time, you are automatically directed to the MDM profile creation page.

The first thing required will be the URL of the console in which your devices will be enrolling into. This will be entered for the MDM Server URI value. The MDM Server URI can either be `https://consoleservername.com` or `deviceservicesservername.com`. The `https://` format is only included if you are using a console server. If you are using a Device Services URI, you do not have to include the `HTTPS://` or `HTTP://` protocol in the field.

MDM Server Connection

☒ **MDM Server URI**

☐ **Server URI not required for my MDM**

An MDM URI points to the MDM installation of an enterprise. This portal connects to the URL internally to download specific configurations.

Make sure you can connect to your MDM before proceeding (for example if your MDM is behind a firewall or is not accessible from the public Internet).

[Need help?](#)

Cancel

Next

Once that has been entered, you will be prompted to enter a Profile Name and Description. This will help distinguish different profiles that may be associated with different devices.

MDM Profile Details

Profile Name *

Description

0 / 200 Characters

Next, add links to the APK required for enrollment. This will be the AirWatch Agent and the Samsung ELM Service applications. These will be downloaded without requiring end user interaction to accept the install. Additionally, you may send down other applications as well. The primary APK, which is the AirWatch Agent, must be selected as the one managing Knox on the device.

MDM Agent APK URL: <https://discovery.awmdm.com/mobileenrollment/airwatchagent.apk>

ELM App APK URL: <https://discovery.awmdm.com/mobileenrollment/samsungelmservice.apk>

MDM Agent APK *

These applications will be downloaded and installed on the device when it first connects to a Wi-Fi network.

Primary

- ☒ <https://discovery.awmdm.com/mobileenrollment/airwatchagent.apk> Remove
- ☐ <https://discovery.awmdm.com/mobileenrollment/samsungelmservice.apk> Remove

Select which APK manages KNOX on the device.

Add APK

Next, the custom JSON data is where you can configure what Organization Group in the console's architectural hierarchy the device will enroll into. The format being adhered to is `{"groupid":"groupname"}`. This is the only JSON Data required for enrollment.

Custom JSON Data (as defined by MDM)

A custom configuration type can be defined here. The MDM solution must be able to recognize this configuration. Please contact your MDM solution provider to learn more about custom configurations.

```
{"groupid":"groupname"}
```

0 / 200 Characters

Lastly, you can configure an End User License Agreement (EULA) that should be accepted before beginning enrollment. This EULA will supercede the EULA set down from the console as part of the enrollment process.

EULAs, Terms of Service, and User Agreements

Add any End User License Agreements, Terms of Service, or other user agreements that users must acknowledge before using the device.

Add user agreement

Once a profile is created, it can be edited from the Knox Mobile Enrollment Portal.

Samsung Knox Mobile Enrollment Support

DEVICES MDM PROFILES

Full text search from Profile Name and MDM URI 0 selected

Delete Add

<input type="checkbox"/>	Profile Name <input type="text"/>	MDM URI <input type="text"/>	Devices	Time Updated <input type="text"/>	
<input type="checkbox"/>	Profile # 1	https://mdm.air-watch.com	1	06/19	▼
<input type="checkbox"/>	Profile # 2	https://console.air-watch.com	0	06/16	▼
<input type="checkbox"/>	Profile # 3	https://url.air-watch.com	1	06/16	▼

Adding Devices and Credentials

The devices are uploaded in a .CSV format containing the following information:

- IMEI or serial number
- Username
- Password

Any additional information can be added into the fourth column if required.

Knox Mobile Enrollment supports Token- Based enrollment where Workspace ONE UEM generates a token that is used to enroll devices instead of users entering username and password when prompted during device enrollment. Simply leave the Username and Password fields blank and the user enters the token provided in the Group ID field when prompted during enrollment.

Upload Devices (CSV file - see format below)*

The required format is also provided for reference as is a template to follow.

CSV File Format

As a minimum, the CSV file must contain Device IDs in the first column. Additional columns may be added according to the figure below.
[Download file template](#)

Column 1: IMEI or serial number	Column 2: Username (Optional)	Column 3: Password (Optional)	Column 4: Additional Information (Optional)
327929874389	John	xxxxxxx	-
327929874356	Dave	xxxxxxxxxx	-
327929874376	Sally	xxxxxxxxxx	-

The Device ID can be the IMEI, MEID, or serial number of your device. This information is found under **Settings > About Device** or on the device packaging.

Username can be login name, user ID and email address to identify a user and allow access to your MDM.

Some MDMs support passing additional info (up to 500 characters) to the device. This can be used to input configurations and options. Contact your MDM provider or Samsung KNOX Support for more information.

Once the devices have been uploaded, you can assign an MDM profile to the list of devices you are adding. The devices have now been added, and you will be able to see which devices are associated with which profile.

Samsung Knox Mobile Enrollment

DEVICES **MDM PROFILES**

All Devices

DeleteUpload Devices

Full text search from Device ID, Model and Profile

0 selected

	Device ID	Model	Time Uploaded	Profile	Status
<input type="checkbox"/>	990005779828152	SM-G925V	06/19	Profile #1	Activated
<input type="checkbox"/>	357743060048612	SM-G925V	06/08	Profile #2	Activated

Download as CSV file1 - 2 of 21

The Knox Mobile Enrollment tool verifies your purchase details to ensure that each device is enrolled in the proper enterprise. Along with the device information, you must provide purchase details including:

- Name of the reseller
- Contact information of the reseller
- Customer or Invoice ID so your reseller can recognize the transaction.

After submitting the devices, you will receive an email with a rejection reason if some of the devices are rejected. After correcting any errors, resubmit the devices. If the devices are accepted, they are queued for verification once Samsung receives the device list and purchase information from carriers and distributor. Should there be delays, please escalate to your Samsung Representative. Only Samsung Knox 2.4+ and TIMA-enabled devices are supported out of the box by the Samsung Knox Mobile Enrollment tool. Devices also have to be connected to Wi-Fi and end users must agree to download and install the MDM agent in order for the device to successfully enroll in the enterprise.

Enrolling Devices

Requirements

In order to ensure there are no issues encountered during the enrollment process, please check that you have the following items:

- Stable Wi-Fi connection
- Supported devices for bulk enrollment
- Valid user credentials from the console

Enrolling Devices

1. Turn on your device and connect to Wi-Fi. The device needs to be enrolled from factory reset state.
 - a. If you are not able to connect, go to <https://me.samsungknox.com> after the Device Setup Wizard is complete.
2. Tap the **Enroll** button to begin.
3. Tap **Continue** when you receive a prompt to enroll with Knox:
 - a. If you have any questions or concerns, tap CONTACT YOUR IT ADMINISTRATOR and select a phone or email option if available.
 - b. If you don't belong to the organization listed, tap CONTACT SAMSUNG.
4. Read the SECURITY STATEMENT and the Knox PRIVACY POLICY and tap **I agree to all of the above** the **Next**.

Your credentials will be validated and your device will be enrolled in your organization's enterprise IT environment. Depending on your staging user type, you may have to enter your personal credentials to complete enrollment.

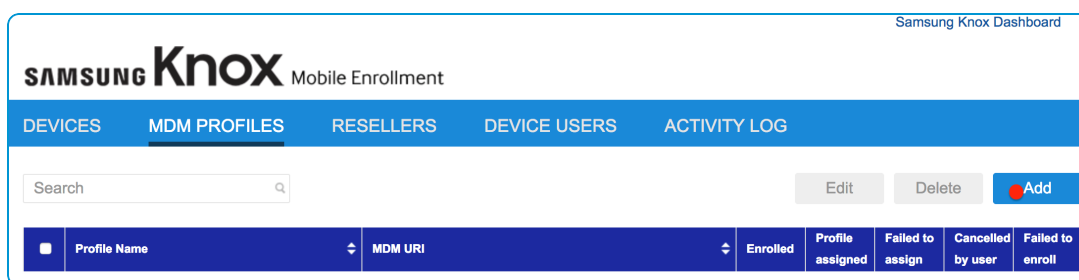
Knox Mobile Enrollment and Android Work Managed Mode

You can configure devices in your organization to enroll as Android work managed mode using Knox Mobile Enrollment (KME) portal.

Work Managed mode, also called Device Owner, is scoped to the whole device on Android devices. The device owner has a much greater level of control over the device, and can configure policies, lock down the device, prevent access to certain applications and settings, and prevent any malicious behavior.

To configure the KME portal for Android work managed devices:

1. Select **Add** to create an MDM Profile to configure enrollment into an environment where Android is enabled.



For more information on configuring Android, see [Introduction to Workspace ONE UEM Integration with Android](#).

2. On the next page, select **Add MDM applications** and enter the URL for the AirWatch Agent. Do not add any other MDM applications.

MDM Profile Details

Profile Name *

Enrollment Profile

Description

0 / 200 Characters

MDM Agent APK *

Provide downloadable links of one or more MDM applications which the device will be enrolled to. These applications will be downloaded and installed on the device when it first connects to a Wi-Fi network.

 Add MDM applications

3. Select **Enable this app as a Google Device Owner** to set the Agent APK as the device owner.
4. Select **AirWatch** in the **Supported MDM** drop-down.

MDM Agent APK *

Provide downloadable links of one or more MDM applications which the device will be enrolled to. These applications will be downloaded and installed on the device when it first connects to a Wi-Fi network.

<https://discovery.awmdm.com/mobileenrollment/airwatchagent.apk> [Remove](#)

☒ Enable this app as a Google Device Owner

1. Make sure that the MDM supports Google Device Owner provisioning.
2. This feature is only available for devices with Knox 2.8 or above. (Certain carriers are not supported.)

Supported MDM *

Airwatch

☐ Leave all system apps enabled

5. In the custom JSON text box below, add {"gid":"yourgroupID"} which specifies the Organization Group ID for device enrollment.

Custom JSON Data (as defined by MDM)

A custom configuration type can be defined here. The MDM solution must be able to recognize this configuration. Please contact your MDM solution provider to learn more about custom configurations.

```
{"gid":"mygroupID"}
```

20 / 200 Characters

Note: The group ID key {gid} is not the same as Android Legacy KME.

6. **Optional** Add extra EULA agreements or Knox licenses to the configuration.
7. Select **Add User** to create the enrollment user name and password to the device in KME portal.

Samsung Knox Dashboard

SAMSUNG Knox Mobile Enrollment

DEVICES MDM PROFILES RESELLERS **DEVICE USERS** ACTIVITY LOG

Search

<input type="checkbox"/>	User ID	Password
--------------------------	---------	----------

Add user

User ID *

Password

8. Navigate to the **Devices Details** page, select, and edit the device to assign the MDM profile and enrollment user. The device needs to be pre-registered in the portal, typically by your Samsung Reseller.

Device Details

MDM profile

KME Device Owner

Profile changes will not take effect until the device is enrolled again

Tags

NFC

Add a tag

User ID

username

Password

.....

Cancel

Save

9. From a factory state, power on the device and connect it to the Internet through the cellular network or Wi-Fi. Knox mobile enrollment automatically starts and enrolls the device into work managed mode.