



MobileIron Core UEM 10.5 & Knox Platform for Enterprise

August 2020
Samsung R&D Centre UK
(SRUK)

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- 3. Android Enterprise Deployment Modes**
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 - **Fully Managed Device with a Work Profile**
 - **Work Profile on Company Owned Device**
 - **Dedicated Device**
- 4. Managed Google Play [MGP] Configuration**
- 5. AppConfig in MobileIron Core UEM**
- 6. Configure Knox Platform for Enterprise : Standard Edition**
- 7. Configure Knox Platform for Enterprise : Premium Edition**
- 8. Configure Knox Service Plugin [KSP]**

Contacts:

sruk.rtam@samsung.com

Knowledge Base:

https://forums.ivanti.com/s/welcome-mobileiron?language=en_US

Pre-Requisites for Knox Platform for Enterprise

- 1. Obtain access to MobileIron Core UEM console**
- 2. A Gmail account to map to MobileIron Core for Managed Google Play**
- 3. MobileIron Customer Portal Access**
- 4. Consider what enrollment method to use:**
 - Knox Mobile Enrollment (KME)
 - QR Code enrollment
 - Email enrollment
 - Server details enrollment

Configure Android Enterprise

Configure Android Enterprise

- Log into the MobileIron Customer Support Portal. Navigate to: Homepage -> Bottom of page -> (Quick Links) Android Enterprise -> Create New Android Enterprise Enrollment -> Begin

Announcements

→ Community Blog

Trending Articles

- MobileIron Eval
 Mar 7, 2019 | Nic Lechner | 261
- MobileIron Cloud: Ports, Hosts, and IP Addresses
 May 16, 2019 | Russell Mohr | 228
- Resizing Disk Partition of a Core Virtual Machine
 Aug 12, 2015 | Mike Veinott | 214

Quick Links

- Ideas
- Android Enterprise Enrollment
- Whitelist Core Server Hostname
- Wrapped Apps
- Community Help
- Feedback

Android enterprise Enrollments

All ▾

[Create New Android Enterprise Enrollment](#)

	Android Enterprise Enrollment...	Domain	Created By	Created Date
1	SAMSUNG TEST		Nikhil Kamdar	3/27/2019 2:52 PM

Android enterprise Enrollment

Android enterprise Setup - Step 1

Recommended Setup Method (This recommended method is not supported prior to Core 9.2)

Use this method if you do not have a Google Managed Domain. Device users will be provisioned with Google automatically to gain access to Android enterprise. This method does not require the device user to enter a password to authenticate with Google to use Android enterprise. If you do have a Google Managed Domain, please use the alternate method. This recommended method is not supported prior to Core 9.2.

[Begin](#)

Alternate Setup Method

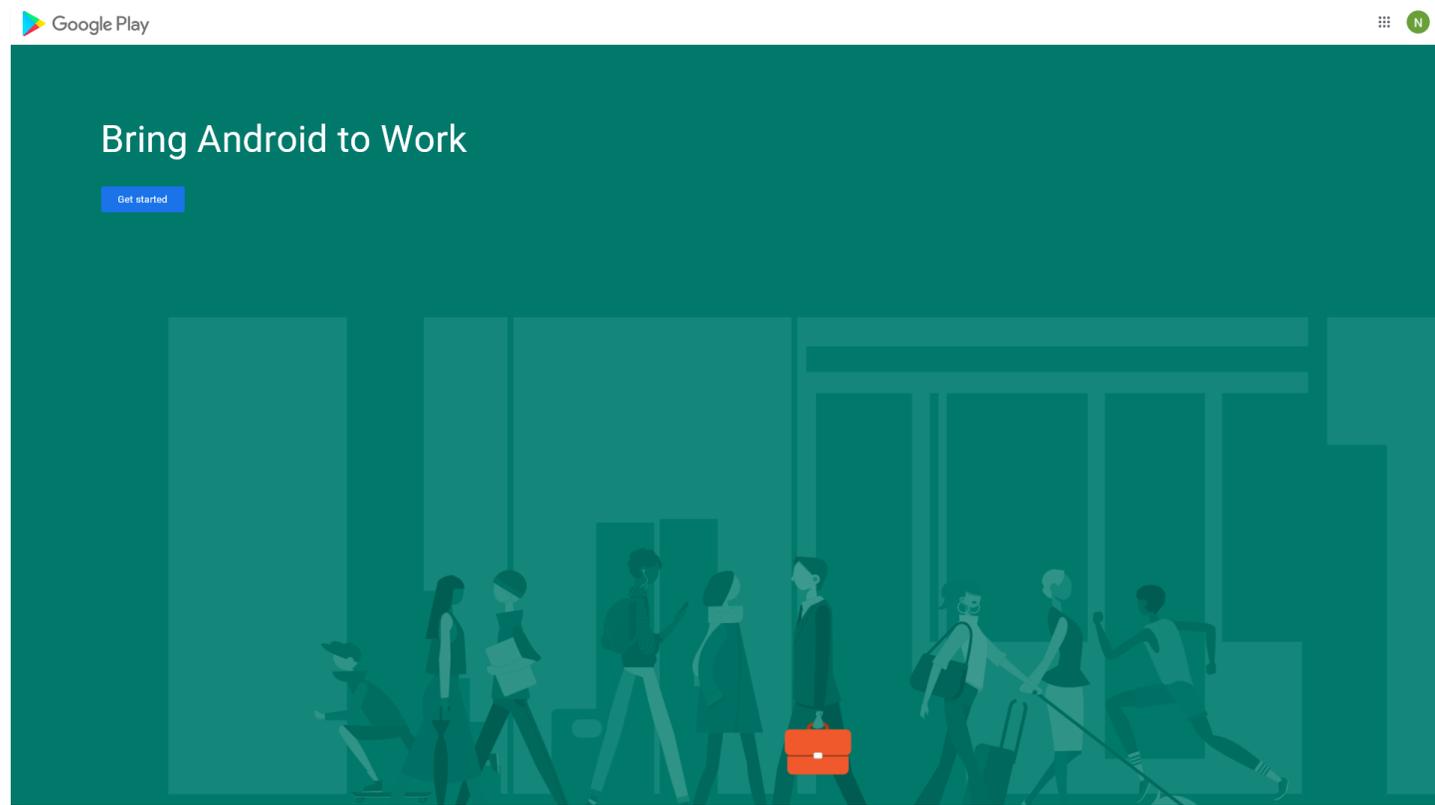
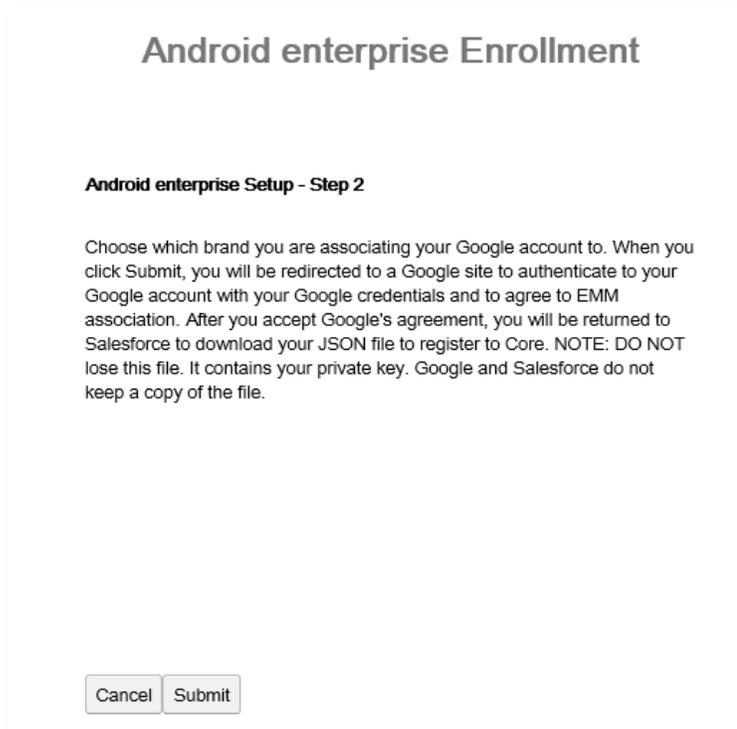
Use this method if you have a Google Managed Domain. A managed domain requires you to provision device users manually to gain access to Android enterprise or to sync users between your LDAP directory and Google with Google App Directory Sync (GADS). Choose this option if you are a current Google for Work subscriber and you have already set up the required infrastructure.

[Use Alternate Setup](#)

Configure Android Enterprise

Configure Android Enterprise

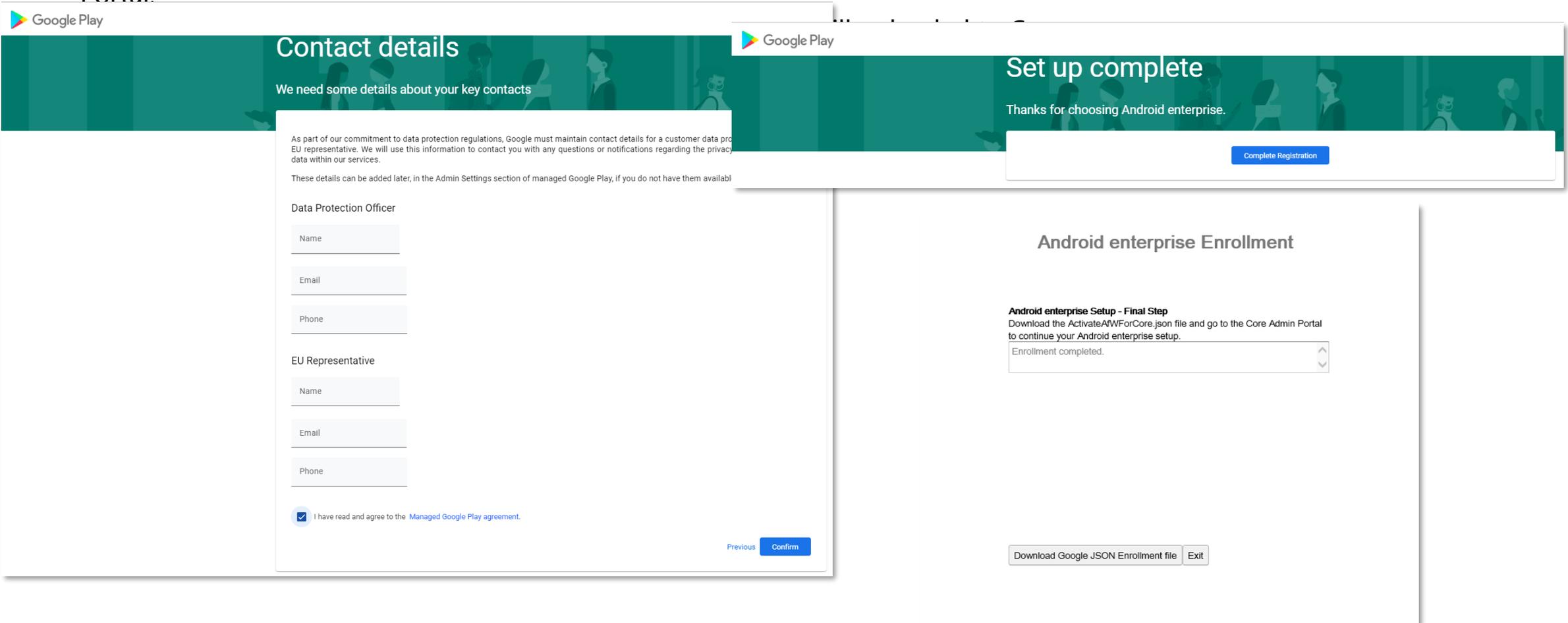
- Click on Submit and make sure that you have signed into the Google Account that you would wish to bind.
- MobileIron Customer Support Portal will forward you to the Google Android Enterprise binding page. Click 'Get started'



Configure Android Enterprise

Configure Android Enterprise

- Fill out the Contact details page, tick the Managed Google Play agreement and then select Confirm. These text fields are not mandatory, so you can alternatively leave them blank and just tick the Managed Google Play agreement and then select Confirm.
- Click Complete Registration to complete the Android Enterprise configuration and return to MobileIron Customer Support Portal.

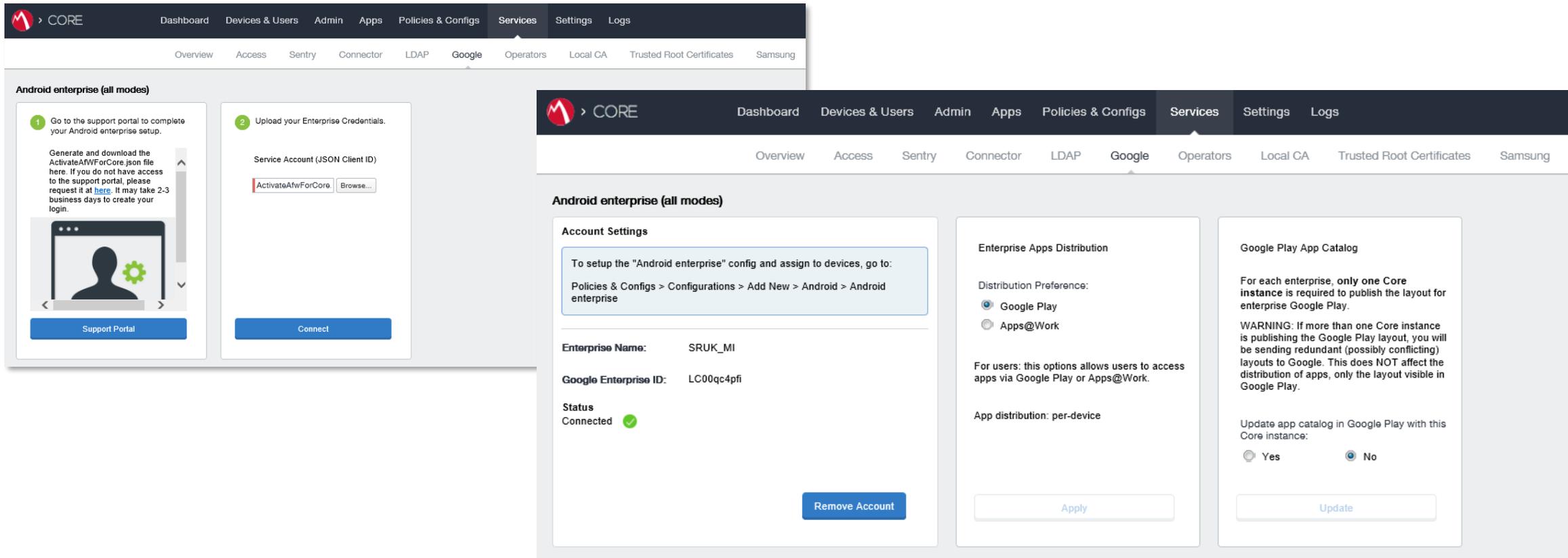


The image displays two screenshots of the Android Enterprise configuration interface. The left screenshot, titled "Contact details", shows a form for providing contact information. It includes sections for "Data Protection Officer" and "EU Representative", each with fields for Name, Email, and Phone. A checkbox at the bottom is checked, indicating agreement to the "Managed Google Play agreement". A "Confirm" button is visible at the bottom right. The right screenshot, titled "Set up complete", shows a confirmation message: "Thanks for choosing Android enterprise." and a "Complete Registration" button. Below this, the "Android enterprise Enrollment" section displays the "Android enterprise Setup - Final Step" instructions: "Download the ActivateAWForCore.json file and go to the Core Admin Portal to continue your Android enterprise setup." A dropdown menu shows "Enrollment completed." and a "Download Google JSON Enrollment file" button is present at the bottom.

Configure Android Enterprise

Configure Android Enterprise

- Log into the MobileIron UEM console and navigate to Services -> Google
- Here you can bind MobileIron to Android Enterprise using the JSON file created in the last step.
- Once the JSON file has been selected under 'Upload your Enterprise Credentials' and then click 'Connect', Android Enterprise is bound.



The image displays two screenshots of the MobileIron UEM console interface for configuring Android Enterprise.

Left Screenshot (Initial Setup):

- Navigation:** Dashboard > Services > Google
- Section:** Android enterprise (all modes)
- Step 1:** Go to the support portal to complete your Android enterprise setup. Includes a "Support Portal" button.
- Step 2:** Upload your Enterprise Credentials. Includes a "Service Account (JSON Client ID)" field with "ActivateAfwForCore" and "Browse..." buttons, and a "Connect" button.

Right Screenshot (Configuration Details):

- Navigation:** Dashboard > Services > Google
- Section:** Android enterprise (all modes)
- Account Settings:**
 - Enterprise Name: SRUK_MI
 - Google Enterprise ID: LC00qc4pfi
 - Status: Connected ✔
 - Remove Account button
- Enterprise Apps Distribution:**
 - Distribution Preference:
 - Google Play
 - Apps@Work
 - For users: this options allows users to access apps via Google Play or Apps@Work.
 - App distribution: per-device
 - Apply button
- Google Play App Catalog:**
 - For each enterprise, only one Core instance is required to publish the layout for enterprise Google Play.
 - WARNING: If more than one Core instance is publishing the Google Play layout, you will be sending redundant (possibly conflicting) layouts to Google. This does NOT affect the distribution of apps, only the layout visible in Google Play.
 - Update app catalog in Google Play with this Core instance:
 - Yes
 - No
 - Update button

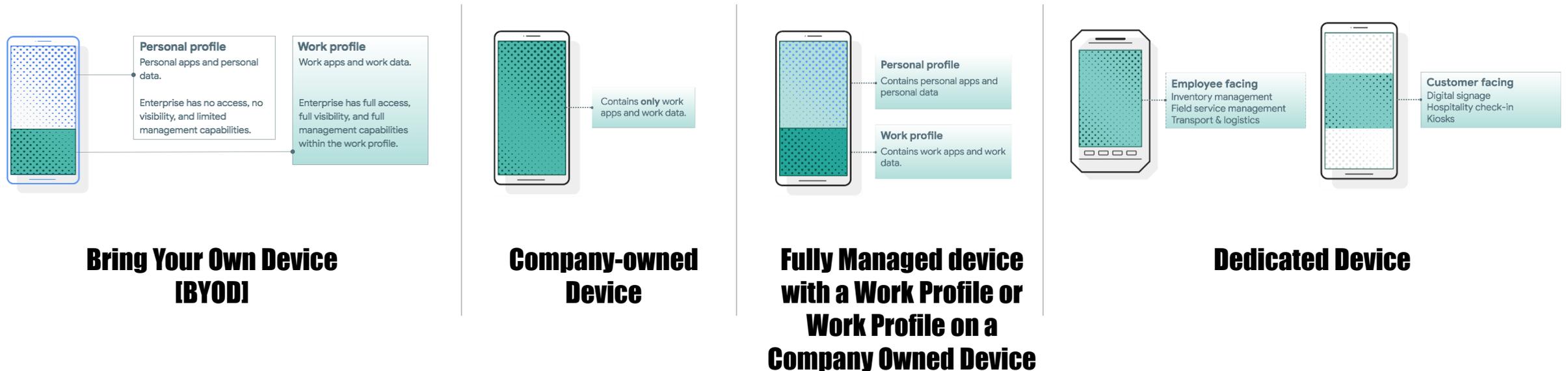
Android Enterprise Deployment Modes

Deployment Modes

Android Enterprise can be deployed in the following 5 deployment modes

1. **BYOD** [*formerly known as Profile Owner*]
2. **Company-owned Device** [*formerly known as Device Owner*]
3. **Fully Managed device with a work profile** [*formerly known as COMP*]
4. **Work Profile on a Company Owned Device** [Android 11+]
5. **Dedicated device** [*formerly known as COSU*]

MobileIron UEM can support **all** 5 of these deployment modes. In this next section we will show you how to configure each of these 5 deployment modes in MobileIron UEM for your device fleet.



Android Enterprise: BYOD (Work Profile)

Android Enterprise BYOD Deployment

To enroll a device in the Android Enterprise BYOD deployment type, you simply need to create a 'Android Enterprise Setting' configuration.

- Go to *Policies & Configs-> Configurations-> Add New-> Android -> Android Enterprise*
- Give the configuration a name and save it.
- By having this config, it enabled BYOD and Company-owned device.
- Apply this config to a label.

Edit Android enterprise (all modes) Setting

Name

Description

Enable Managed Device with Work Profile on the devices

Auto update Mobile@Work app on the devices

For Android 6.0 and higher only

Enable Runtime Permissions

Add Google Account

For Android 7.0 and higher only

Always-on VPN

Work Challenge [i](#)

For Samsung Knox v3 (Android 8.0)

Enable Samsung Per-container VPN

Move In-House app into workspace

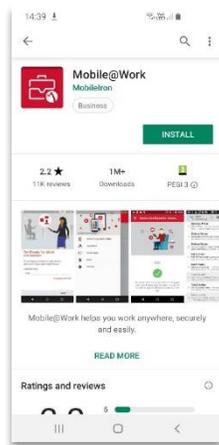
Cancel Save

Android Enterprise: BYOD

Android Enterprise BYOD Deployment

Now all you simply need to do is enroll your device by completing the following:

- On your device, go to the Google Play Store, download the Mobile@Work client, and enroll your device into MobileIron.



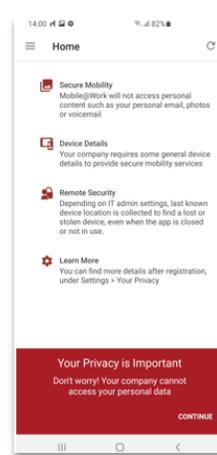
Install Mobile@Work client



Enter server URL & hit NEXT



Enter credentials & hit SIGN IN



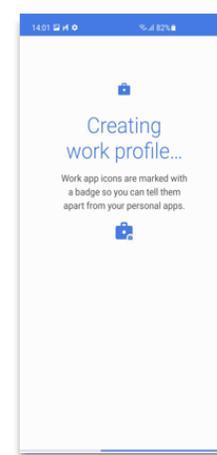
CONTINUE



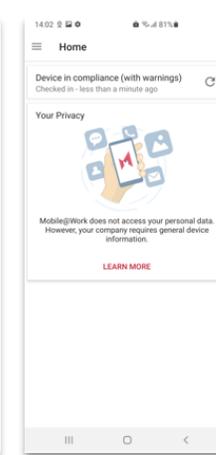
CONTINUE



Set up a work profile tap Agree



Creating Work Profile



Device Enrollment Successful!



The Personal profile is created



The Work profile is created

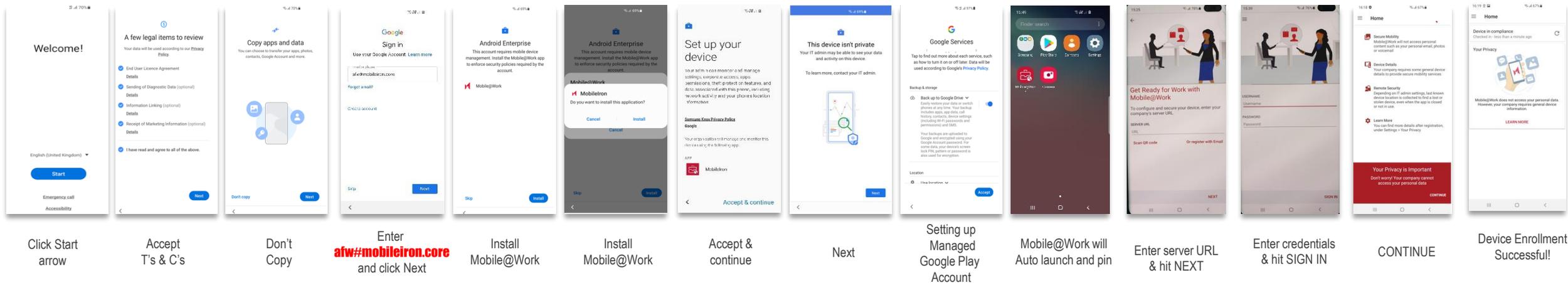
Android Enterprise: Company-owned Device

Android Enterprise Company-owned Device Deployment

To enroll your device as an Android Enterprise Company-owned device, you need to ensure the device is factory reset and at the welcome screen. From here, there are 3 ways you can enroll your device into MobileIron Core UEM as an Android Enterprise Company-owned device. Use the same 'Android Enterprise Setting' configuration but start from a factory reset device.

1. DPC Identifier [Also known as the hashtag method] **afw#mobileiron.core**
2. QR Code Enrollment / NFC Enrollment
3. Knox Mobile Enrollment

• Below is a screen-by-screen play to enroll your device using the DPC Identifier method.



Android Enterprise: Fully Managed Device with a Work Profile

Work Profile on a Company Owned Device (Android 11+)

Android Enterprise Fully Managed Device with a Work Profile Deployment or Work Profile on a Company Owned Device (Android 11+)

To enroll a device in the Android Enterprise Fully Managed Device with a Work Profile Deployment type, the final pre requisites is to modify the 'Android Enterprise Setting' configuration to look like below...

- You must click on the checkbox 'Enable Managed Device with Work Profile on the devices'
- This needs to be in a separate 'Android Enterprise Setting' configuration if you need more than one set of devices enrolling as '**Company-owned Devices**' & '**Fully Managed Device with a Work Profile**'.

Edit Android enterprise (all modes) Setting

Name

Description

Enable Managed Device with Work Profile on the devices

Auto update Mobile@Work app on the devices

For Android 6.0 and higher only

Enable Runtime Permissions

User Prompt

Always Accept

Always Deny

Add Google Account

For Android 7.0 and higher only

Always-on VPN

Work Challenge ⓘ

For Samsung Knox v3 (Android 8.0)

Enable Samsung Per-container VPN

Cancel Save

Android Enterprise: Fully Managed Device with a Work Profile

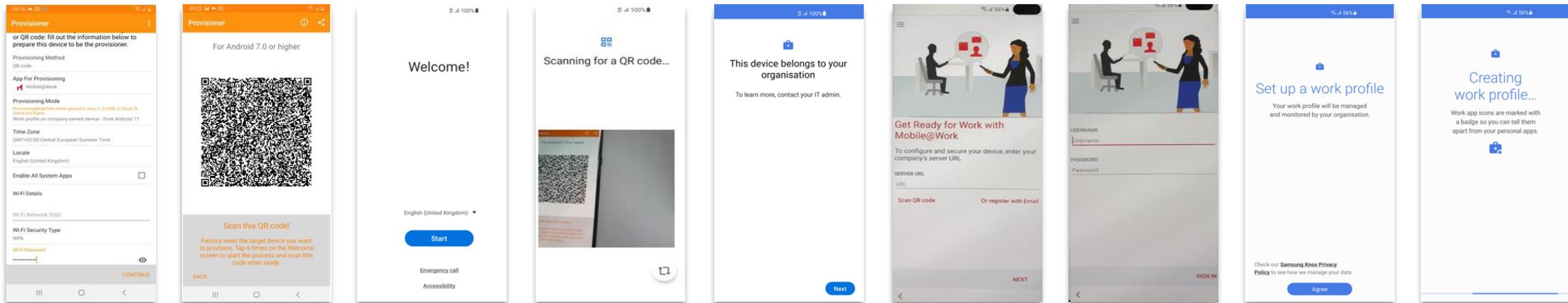
Work Profile on a Company Owned Device (Android 11+)

Android Enterprise Fully Managed Device with a Work Profile or Work Profile on a Company Owned Device (Android 11+) Deployment

To enroll your device using this type of configuration will require a QR code using the MobileIron Provisioner app: <https://play.google.com/store/apps/details?id=com.mobileiron.client.android.nfcprovisioner>. NFC is not available on Android 10 or above

- App for Provisioner: Mobile@Work
- Provisioning Mode: Work profile on company-owned device – Android 11
- Enter you Wi-Fi Network SSID and password

Below is a screen-by-screen play to enroll your device using the QR Code method.



App Provisioner Settings on provisioning device

Tap continue For QR code From provisioning device

Tap 6 times

Scan QR Code

Click Next

Enter Server URL

Enter User credentials

Set up work profile, click Agree

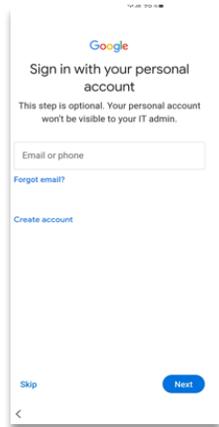
Work profile gets created

Android Enterprise: Fully Managed Device with a Work Profile

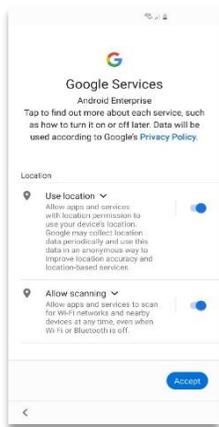
Work Profile on a Company Owned Device (Android 11+)



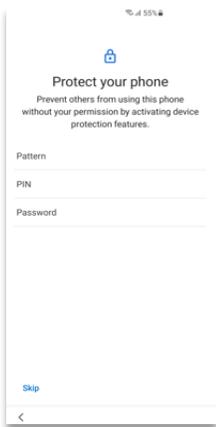
Add a personal account



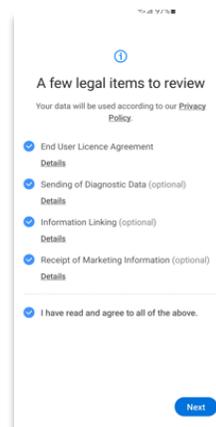
Enter the Credentials & click Next



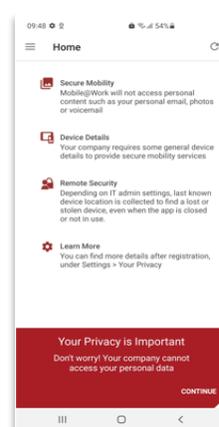
Scroll down, and Accept



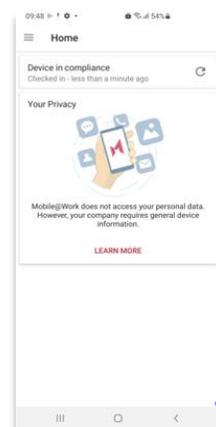
Protect your phone



Accept the legal terms & click Next



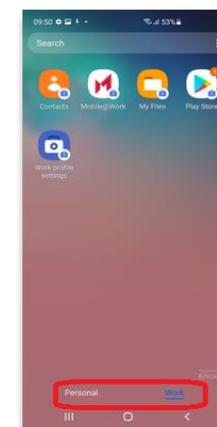
Launch Mobile@Work click CONTINUE



Device is enrolled



A personal profile is created



A Work profile is created



We see the device belongs to the organization

Android Enterprise: Dedicated Device

Android Enterprise Dedicated Device Deployment

To enroll a device in the Android Enterprise Dedicated Device deployment type, you must have the 'Android Enterprise Setting' configuration applied to your label. Also you need to apply the 'Android Kiosk Mode' to your label.

- Go to Policies & configs-> Policies -> Add New -> Android -> Android Kiosk Mode
- Here you can configure branding, restrictions and apps that you would like to be in your Android Enterprise Kiosk

The screenshot displays the 'Edit Android Kiosk App Setting Policy' interface. The top navigation bar shows 'CORE' and 'Dashboard Devices & Users'. The main content area is titled 'Edit Android Kiosk App Setting Policy' and includes a sub-header 'Supports Android 5+ version with Device Owner Mode enabled devices only'. The 'Kiosk Branding' section is active, showing options to 'Enable Top Banner' and configure 'Banner Background Color' (#95918F), 'Banner Border Color' (#95918F), and 'Background Color' (#95918F). There is also a 'Background Image' section with a 'Choose File' button. The 'Kiosk Settings' section includes checkboxes for 'Enable Lock Task Mode', 'Disable Quick Settings', 'Allow User to Access WIFI Settings', 'Allow User to Access Bluetooth Settings', 'Allow User to Access Location Settings', 'Enter Kiosk Mode Immediately', and 'Enable Shared Device'. A 'Kiosk Exit PIN' field is set to '1234'. The 'Choose Apps' section includes 'Built-in Apps' (Built-In Camera, Built-In Dialer) and 'App Catalog Apps' (AnyConnect, BBC News, BFMTV).

Android Enterprise: Dedicated Device

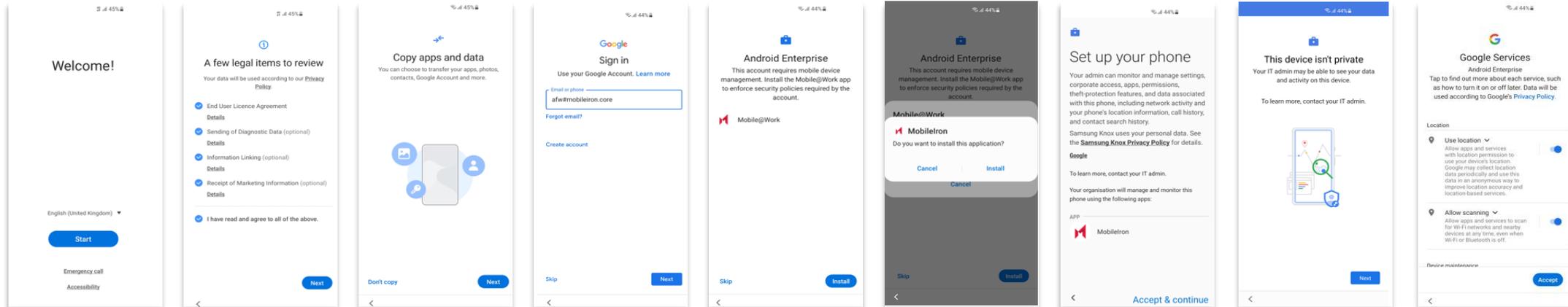
Android Enterprise Dedicated Device Deployment

The Android Enterprise Dedicated Device deployment is part of the Company-owned Device Deployment where the Kiosk is a bolt on feature on top.

Once you have done this you then enroll your device. To enroll your device, you need to ensure the device is factory reset and at the welcome screen. From here, there are 3 ways you can enroll your device into MobileIron UEM as an Android Enterprise Dedicated device.

1. DPC Identifier [Also known as the hashtag method] **afw#mobileiron.core**
2. QR Code Enrollment / NFC Enrollment
3. Knox Mobile Enrollment

• Below is a screen-by-screen play to enroll your device using the DPC Identifier method.



Click Start

Accept T's & C's

Choose Don't Copy

Enter **afw#mobileiron.core** and click Next

Install Mobile@Work

Install MobileIron

Accept & continue

Click Next

Accept the Google terms

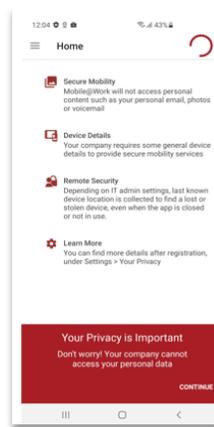
Android Enterprise: Dedicated Device



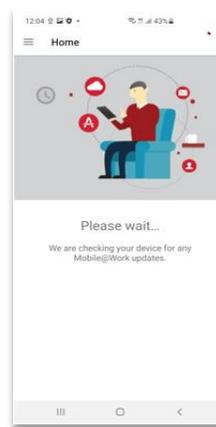
Enter server URL & hit NEXT



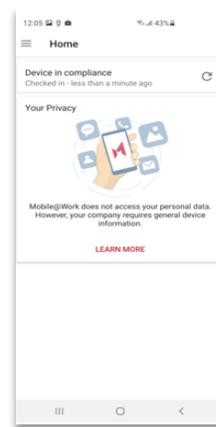
Enter credentials & hit SIGN IN



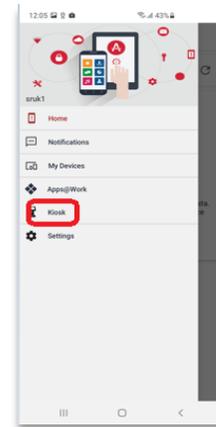
Tap CONTINUE



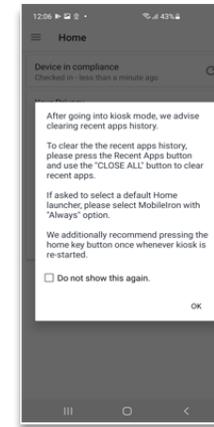
Please wait For a short while



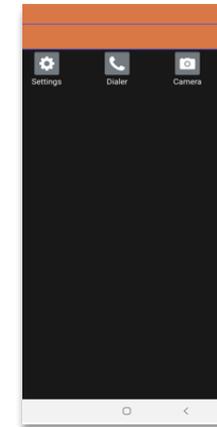
Device Enrollment Successful!



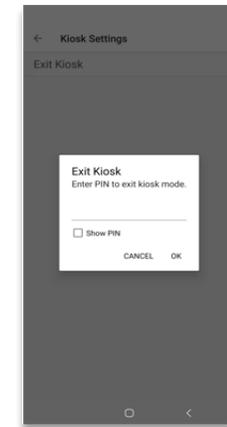
In the Mobile@Work client you can start Kiosk



Accept the usage of the kiosk



Kiosk is fully configured



As an admin you can exit the kiosk using a PIN

Managed Google Play Configuration

Managed Google Play Configuration

In the Configuring of Android Enterprise section of this document, we completed the majority of the work needed to configure applications to be used for Managed Google Play. MobileIron Core UEM supports the Google iFrame directly within the console. So there is no need to navigate to <https://play.google.com/work> for managing Google play applications.

- Navigate to Apps -> Add+ -> Google Play
- Search for the App you want to distribute. For example; Samsung Email
- Click the APPROVE button.
- APPROVE the App Permission request
- Choose how you would like to handle new app permission requests and then click SAVE
- You will now see your app lists in your MobileIron App Catalog
- You must do one more step to make it deployable to an Android Enterprise enabled device.

The image shows a sequence of three screenshots from the MobileIron Core console illustrating the configuration of the Samsung Email app:

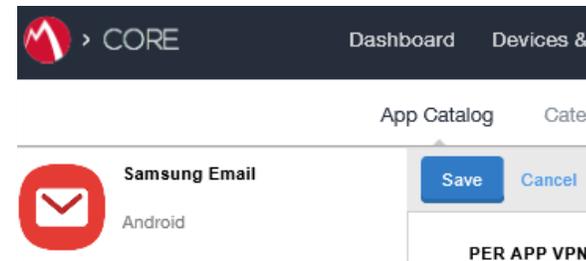
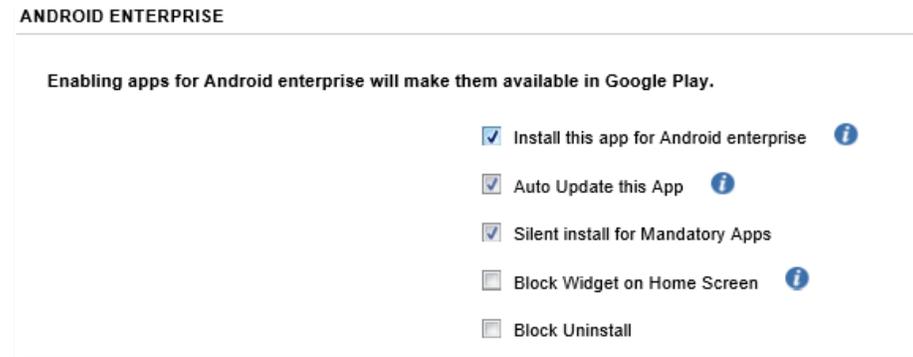
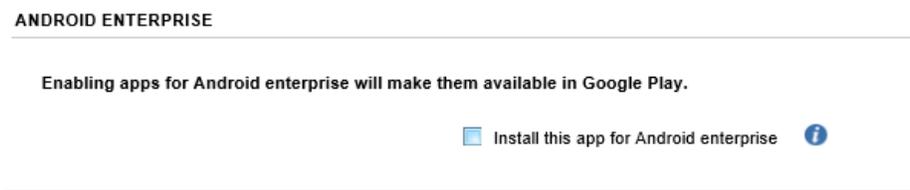
- App Catalog:** The 'Apps' section is selected, and the 'Google Play' category is active. A search for 'Samsung Email' is performed, and the app is found in the 'Featured Work Apps' section. An 'APPROVE' button is visible next to the app listing.
- Permissions Screen:** A dialog box titled 'Samsung Email' displays the permissions the app requests: 'Device & app history', 'Mobile data settings', and 'Identity'. The 'APPROVE' button is highlighted.
- Approval Settings:** A dialog box titled 'APPROVAL SETTINGS' asks 'How would you like to handle new app permission requests?'. Two options are available: 'Keep approved when app requests new permissions.' (selected) and 'Revoke app approval when this app requests new permissions.' The 'SAVE' button is highlighted.

Managed Google Play Configuration

Managed Google Play Configuration

You must navigate to the target app via Apps -> App Catalog -> Click on app -> Edit -> Scroll to the 'Android Enterprise' section -> select 'Install this app for Android enterprise'

- There are a few configurations you can set for the Android Enterprise app, select what is needed.
- Once this has been completed, save the config by clicking Save.

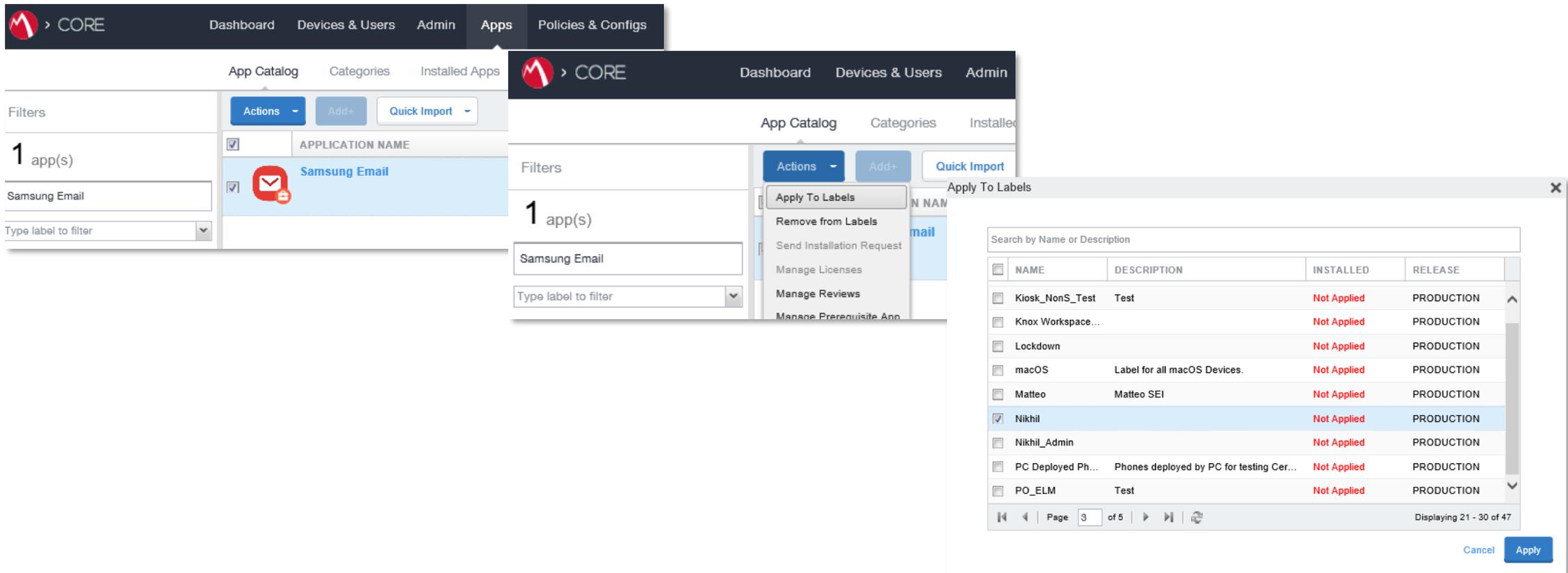


Managed Google Play Configuration

Managed Google Play Configuration

Now we have approved an application we would like to distribute in MobileIron Core.

- Simply select the checkbox next to the app then click on Actions -> Apply to Labels -> select your target label -> Apply
- Depending on the app config attributes the app will now automatically start to download and install on the device.



The screenshot illustrates the process of applying an app to a label in the MobileIron Core App Catalog. It shows three overlapping views:

- App Catalog View:** Shows the 'Samsung Email' app selected in a list. The 'Actions' menu is open, highlighting 'Apply to Labels'.
- Apply to Labels Dialog:** A modal window titled 'Apply to Labels' is open, displaying a table of available labels. The 'Nikhil' label is selected.
- Label Selection Table:** A table listing various labels with their descriptions, installation status, and release type.

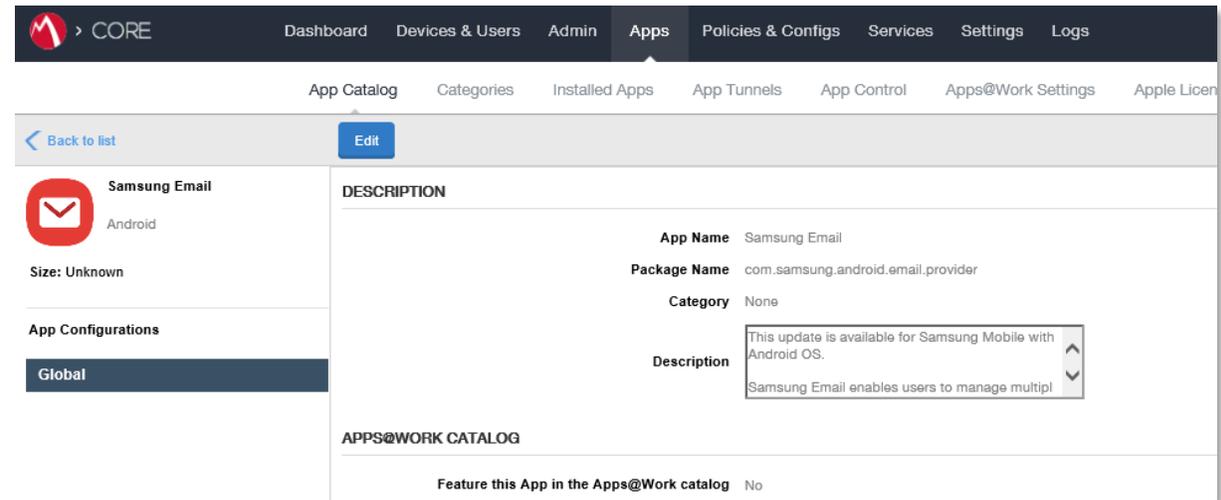
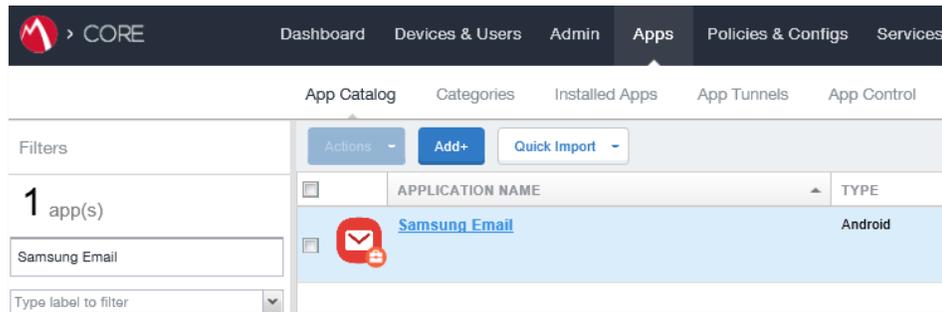
NAME	DESCRIPTION	INSTALLED	RELEASE
<input type="checkbox"/> Kiosk_NonS_Test	Test	Not Applied	PRODUCTION
<input type="checkbox"/> Knox Workspace...		Not Applied	PRODUCTION
<input type="checkbox"/> Lockdown		Not Applied	PRODUCTION
<input type="checkbox"/> macOS	Label for all macOS Devices.	Not Applied	PRODUCTION
<input type="checkbox"/> Matteo	Matteo SEI	Not Applied	PRODUCTION
<input checked="" type="checkbox"/> Nikhil		Not Applied	PRODUCTION
<input type="checkbox"/> Nikhil_Admin		Not Applied	PRODUCTION
<input type="checkbox"/> PC Deployed Ph...	Phones deployed by PC for testing Cer...	Not Applied	PRODUCTION
<input type="checkbox"/> PO_ELM	Test	Not Applied	PRODUCTION

AppConfig on MobileIron Core UEM

AppConfig

AppConfig enables you to send down application configuration profiles along with your managed apps when you distribute them through your Managed Google Play Store. This saves on having to have the UEM implement the required APIs for the app you are using so you can remotely configure it. To use AppConfig on MobileIron Core UEM, follow the instructions below.

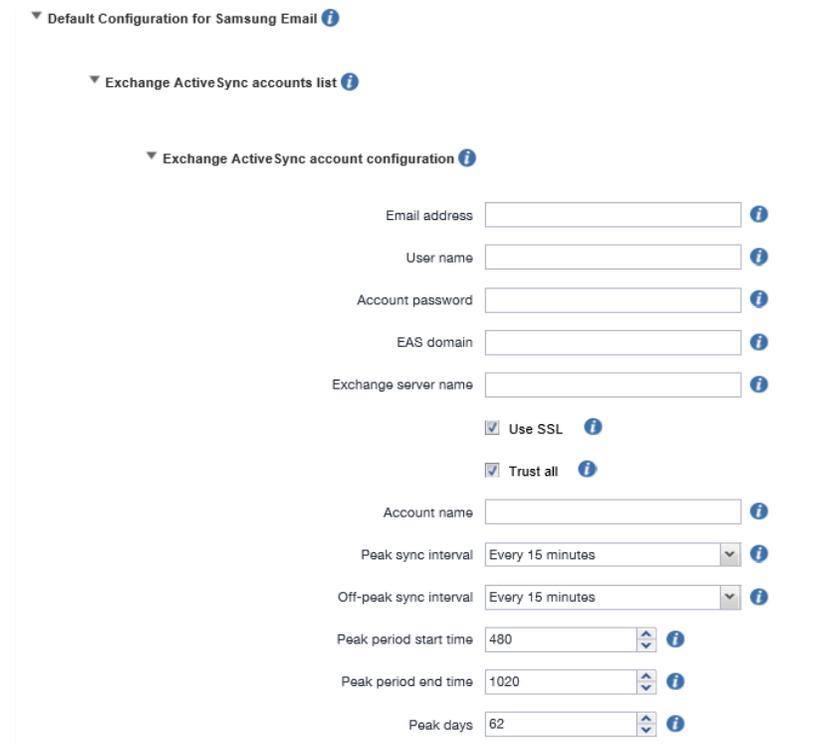
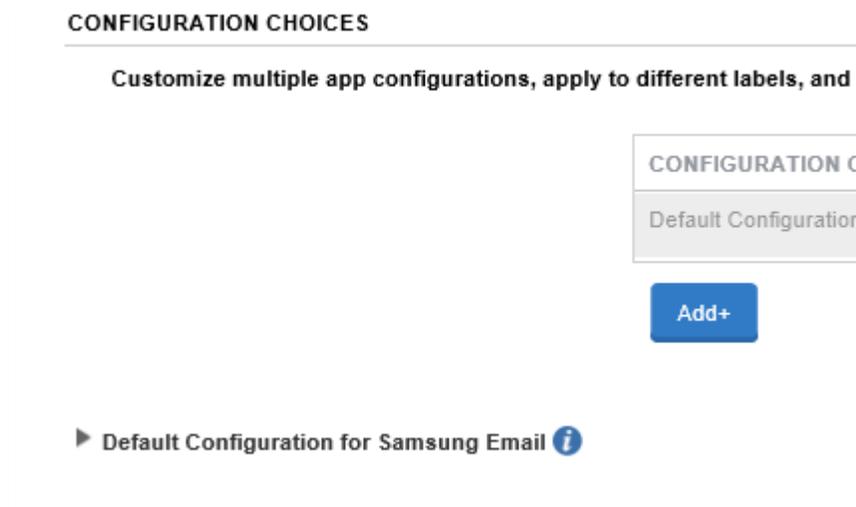
- Navigate to **Apps -> App Catalog -> Click on the app you would like to configure -> Edit**



AppConfig on MobileIron Core UEM

AppConfig

- Scroll down to the 'Configuration Choices' section
- Expand 'Default Configuration for xxx' & configure the various options you wish and then when you are finished, click the Save button.
- Confirm the assignment by clicking Save. You have now used AppConfig to distribute a Managed Play app with a config profile.



Configure Knox Platform for Enterprise : Standard Edition

Knox Platform for Enterprise : Standard Edition

The Knox Platform for Enterprise solution provides a robust set of features on top of the core Android Enterprise platform, to fill security and management gaps and meet the strict requirements of highly regulated industries.

The Knox Platform for Enterprise solution comes in a two tiered offering:

- Knox Platform for Enterprise : Standard Edition [FREE]
- Knox Platform for Enterprise : Premium Edition [FREE or \$ for some special options such as Dual DAR]

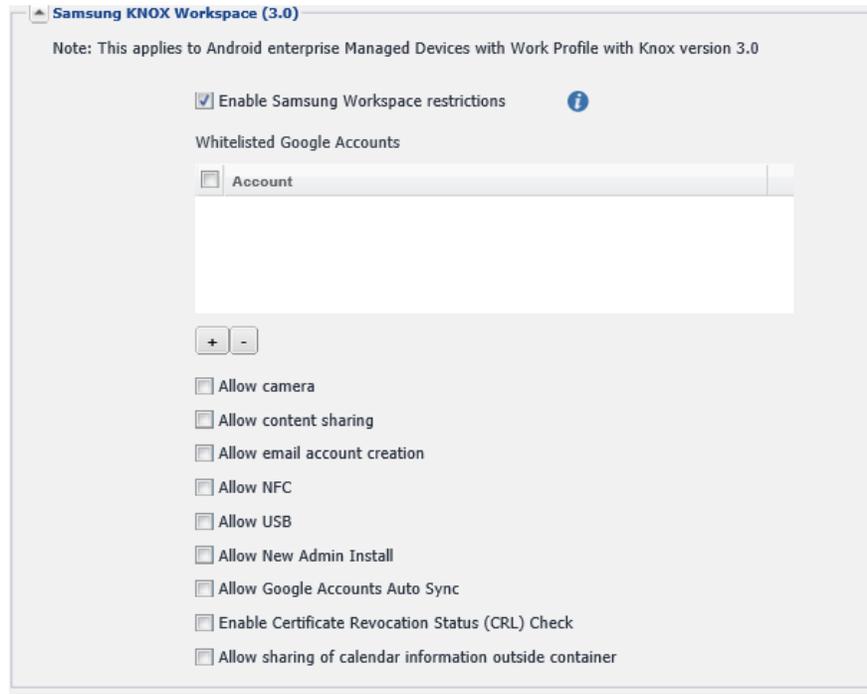
Knox Platform for Enterprise : Standard Edition offers free additional policies you can use to provide enhanced security, manageability and usability over your Samsung device fleet, running Android 8.0 or above.



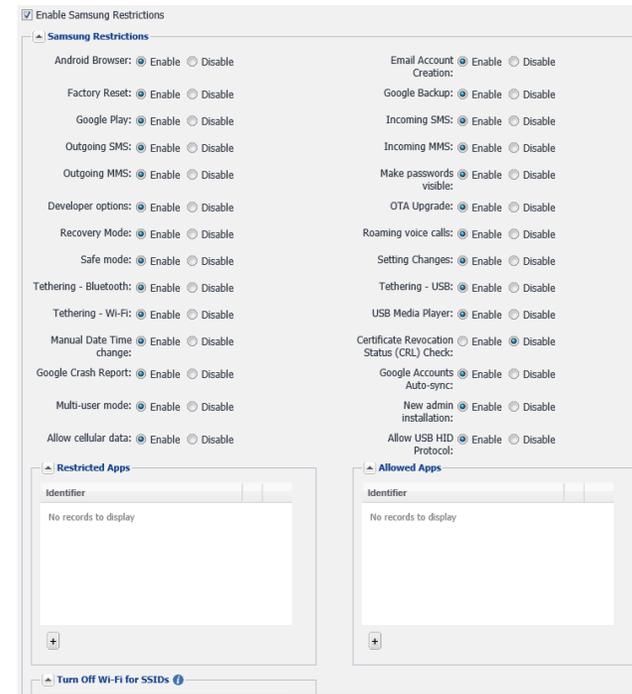
Configure KPE : Standard Edition on MobileIron Core UEM

To take advantage of the free additional APIs available in KPE Standard Edition, simply complete the instructions below.

- Navigate to **Policies & Configs -> Policies > Add New -> Lockdown Policy**
- You have now enabled all the additional KPE Standard APIs available to you in your configuration. You are now free to select those features and take advantage of the free additional APIs found in KPE Standard Edition!



Work Profile Samsung KPE Standard Features



Managed Device Samsung KPE Standard Features

Knox Service Plugin [KSP]

- **In the MobileIron console, navigate to: Apps > App Catalog > Add > Google Play**
- **Search for and approve the Knox Service Plugin Application.**
- **Choose how you would like to handle new app permission requests and then click Done.**

The screenshot illustrates the MobileIron console interface for adding and approving an application. The top navigation bar includes 'mobileiron CORE', 'Dashboard', 'Devices & Users', 'Admin', 'Apps', 'Policies & Configs', 'Services', and 'Settings'. The 'Apps' section is active, showing 'App Catalog', 'Categories', 'Installed Apps', 'App Tunnels', 'App Control', and 'Apps@Work'. A sidebar on the left lists steps: 1. Choose, 2. Describe, 3. App Store, and 4. App Configuration.

In the 'App Catalog' view, three app sources are shown: iTunes, Google Play (with a green checkmark), and Windows. The Google Play source is selected, and a search for 'Knox Service Plugin' is performed. The search results show three apps: 'Knox Service Plugin' by Samsung Electronics Co., 'Samsung Knox Manager' by Samsung SDS INC., and 'Knox Deployment' by Samsung Electronics Co.

The 'Knox Service Plugin' app is selected, and its permissions are displayed. The permissions include 'Photos / Media / Files' and 'Storage', both with sub-permissions for reading and modifying/deleting USB storage contents. A dialog box prompts for approval, with 'Approve' selected.

The 'Approval settings' dialog is shown, asking 'How would you like to handle new app permission requests?'. The 'Keep approved when app requests new permissions' option is selected, with the sub-option 'Users will be able to install the updated app.' The 'Done' button is visible.

Knox Service Plugin [KSP]

- **Select the Knox Service Plugin and then click Next.**
- **Category is optional, select Next.**
- **Select Install this app for Android Enterprise and make sure Silent install for work managed devices, Auto Update this App and Block Uninstall are ticked.**

Admin | **Apps** | Policies & Configs | Services | Settings | Logs

Installed Apps | App Tunnels | App Control | Apps@Work Settings | Apple Licenses



Knox Service Plugin

Samsung Electronics Co., Ltd. ★★★★★ 108

APPROVED

PEGI 3

↓ This app offers managed configuration
 ⓘ This app is only available in certain countries

Select
Unapprove
Approval Preferences

Cancel
Next →



Knox Service Plugin

Application Name

Description

Category

[Add New Category](#)

Cancel
Next →



Knox Service Plugin

Install this app for Android enterprise ⓘ

Silent install for work managed devices

Auto Install Mode

App Download Priority

Install only when connected to Wi-Fi

Install only when charging

Install only when Idle

Auto Update this App ⓘ

Silent install for Mandatory Apps

Block Widget on Home Screen ⓘ

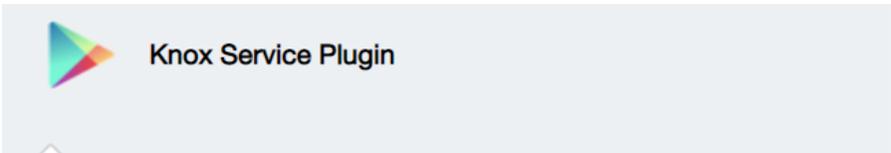
Block Uninstall

Quarantine app when device is quarantined

Cancel
Next →

Knox Platform for Enterprise : Premium Edition

- **Scroll down to Default Configuration for Knox Service Plugin.**
- **Enter a Profile name of your choice.**
- **Copy and Paste your KPE Premium License Key from your Samsung Knox Portal.**
- **To configure the KPE premium settings, scroll down and select configure against the desired configuration option.**
- **Select Finish.**



▼ Default Configuration for Knox Service Plugin *i*

Profile name *i*

KPE Premium License key *i*

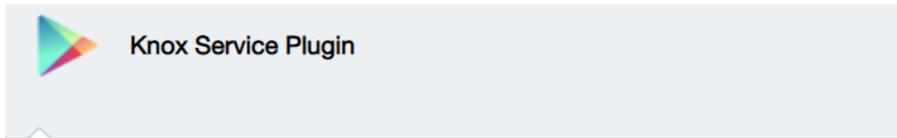
Debug Mode *i*

▶ Device-wide policies (Device Owner) *i*

▶ Work profile policies (Profile Owner) *i*

▶ DeX customization profile (Premium) *i*

▼ Device and Settings customization profile (Premium) *i*



▼ VPN policy (Premium) *i*

Enable VPN controls *i*

VPN type *i*

▶ Manage list of apps that use VPN *i*

Enable on-demand VPN *i*

▶ Manage list of apps that can bypass VPN *i*

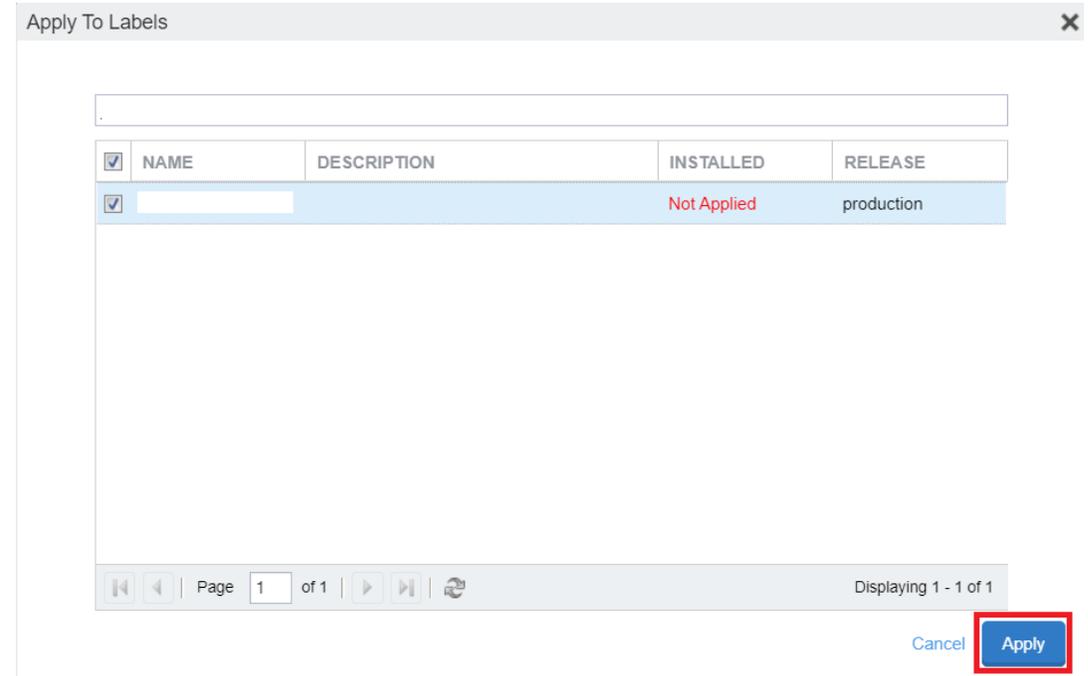
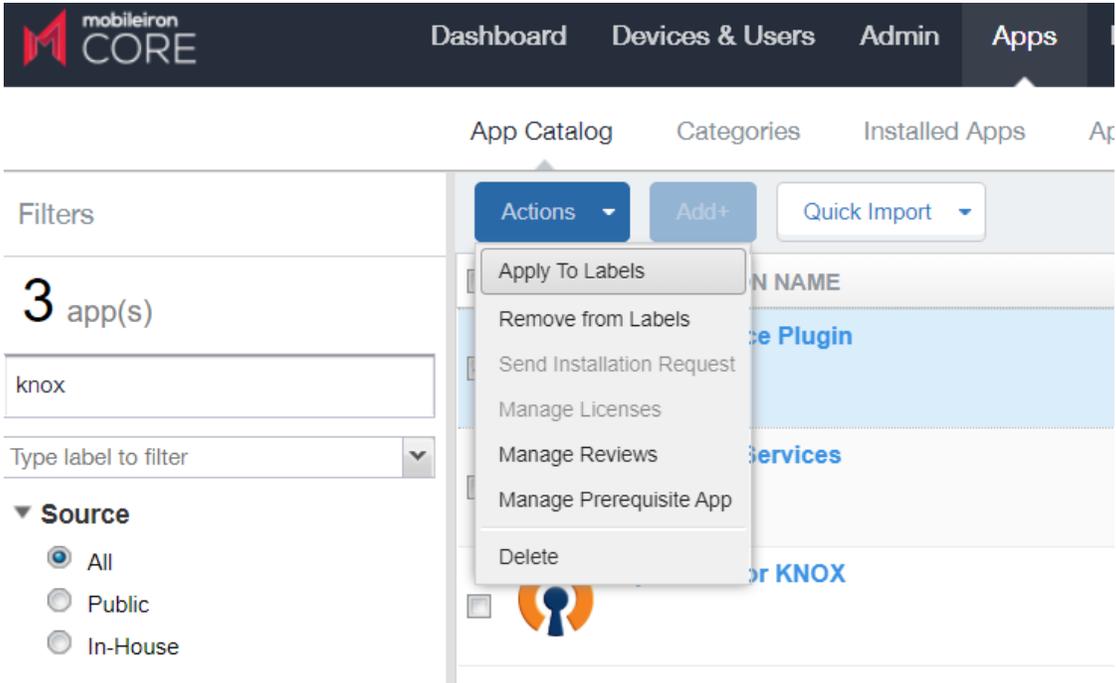
Name of VPN profile to use *i*

Enable VPN chaining *i*

Name of secondary VPN profile to use *i*

Knox Platform for Enterprise : Premium Edition

- **Knox Service Plugin will now appear in your App Catalog list.**
- **To assign, tick the Knox Service Plugin, select Actions and then Apply To Labels.**
- **Select your label and then click Apply.**



Document Information

This is version 2.2 of this document.

Thank you!

