IBM MaaS360

&

Knox Platform for Enterprise

July 2022

Samsung R&D Centre UK
(SRUK)

Agenda

1. How to gain access to IBM MaaS360
2. Pre-requisites for Knox Platform for Enterprise
3. Configure Android Enterprise
4. Android Enterprise Deployment Modes
    - BYOD
        - Work Profile
    - Company-owned Device
        - Fully Managed Device
        - Work Profile on Company-owned Device (WPC, WPCO or WPCOD)
    - Dedicated Device
5. Managed Google Play [MGP] Configuration
6. AppConfig in IBM MaaS360
7. Configure Knox Platform for Enterprise : Standard Edition
8. Configure Knox Platform for Enterprise : Premium Edition
9. Configure Knox Service Plugin [KSP]
10. Document Info

IBM MaaS360 Collateral & Contacts

Contacts:

sruk.product@samsung.com

Knowledge Base:

https://www.ibm.com/support/knowledgecenter/SS8H2S/com.ibm.mc.doc/mc_collateral/mc_landing.htm
https://www.ibm.com/security/mobile/maas360
https://www.ibm.com/security/mobile/maas360/android-mdm

IBM MaaS360 Solution:

https://www.youtube.com/watch?v=UeH_zGcJ-bM

Trial Access:

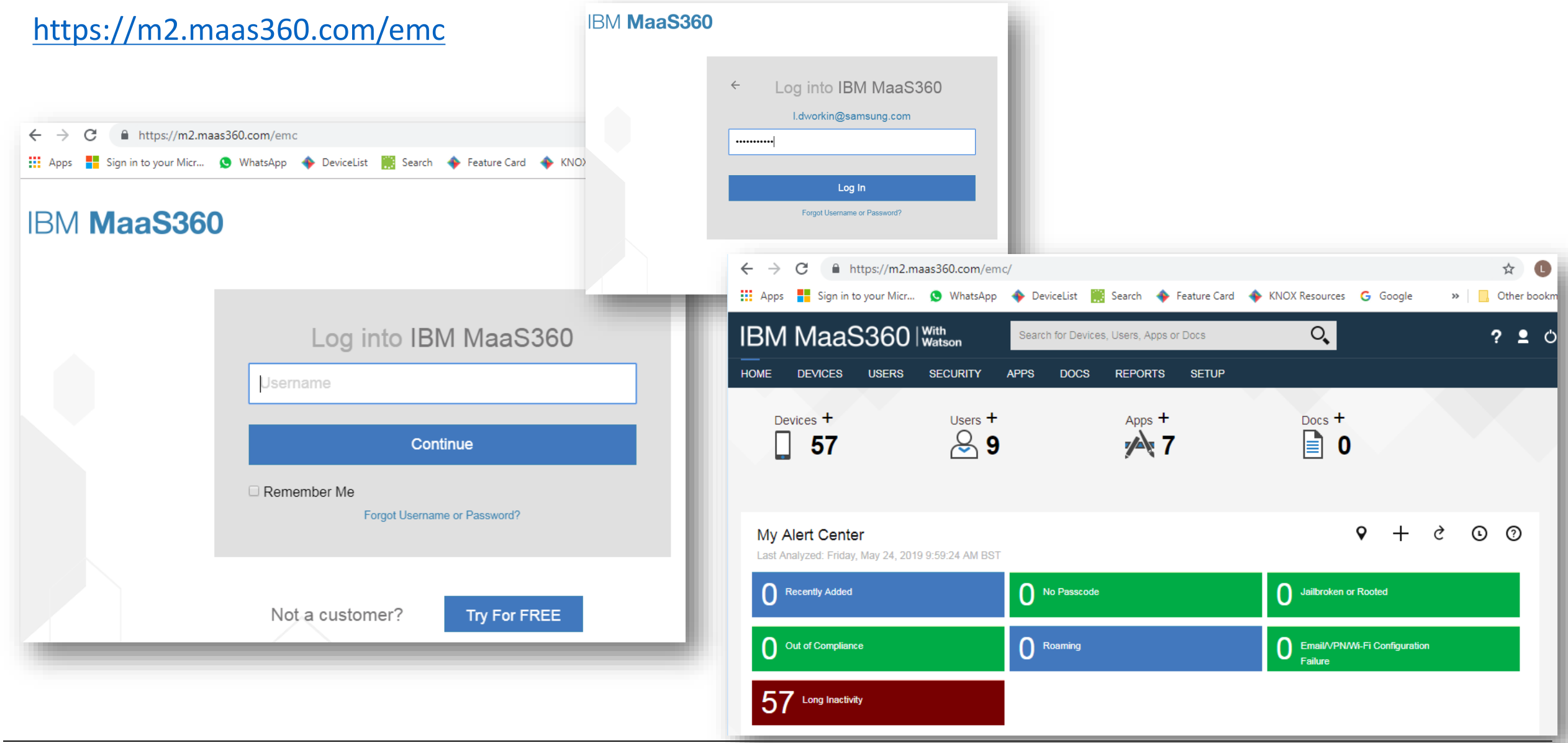
https://www.ibm.com/account/reg/us-en/signup?formid=urx-19907

Pre-Requisites for Knox Platform for Enterprise

1. **Obtain access to MaaS360 console**
2. **A Gmail account to map to MaaS360 for Managed Google Play**
3. **Consider what enrollment method to use:**
   - Knox Mobile Enrollment (KME)
   - QR Code enrollment
   - Email enrollment
   - Server details enrollment
4. **Obtain a Knox Platform for Enterprise Premium License**

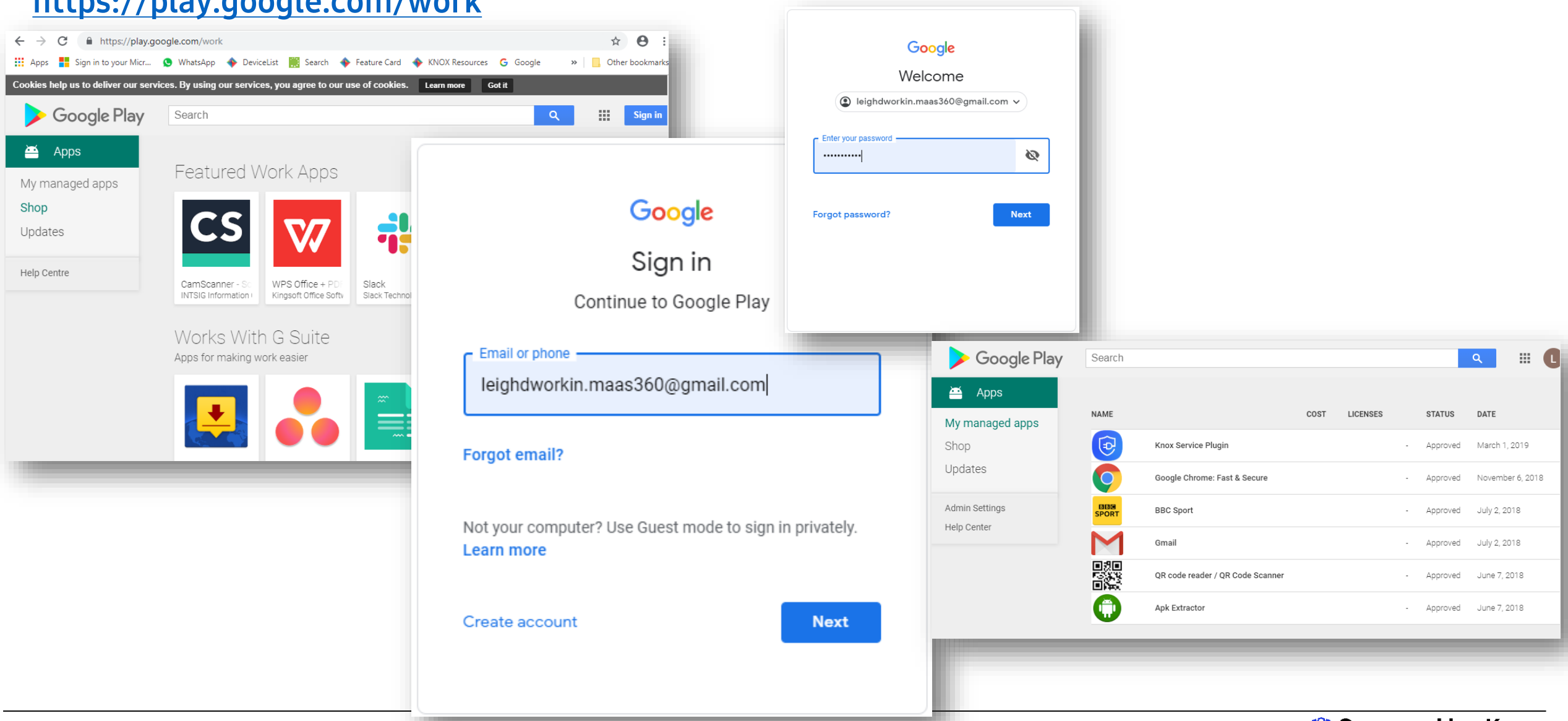
Obtain access to MaaS360 console

https://m2.maas360.com/emc



A Gmail account to map to MaaS360 for Managed Google Play

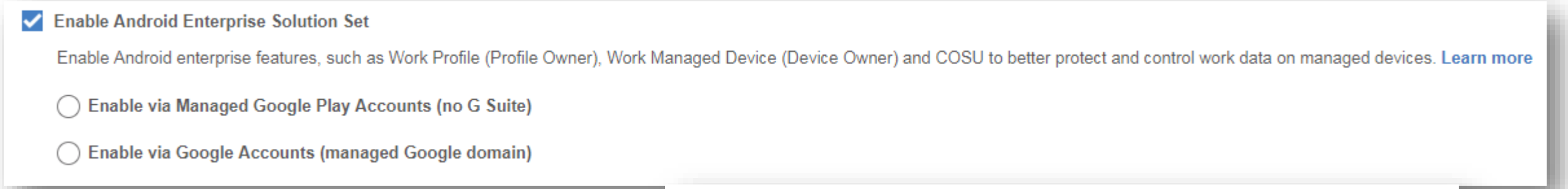
https://play.google.com/work



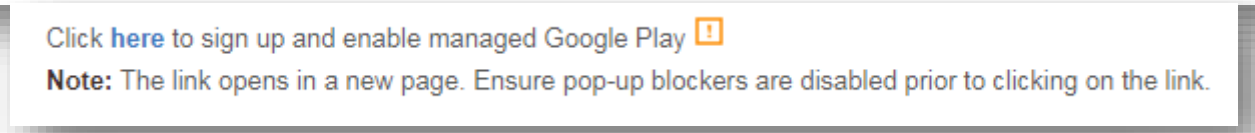
Configure Android Enterprise

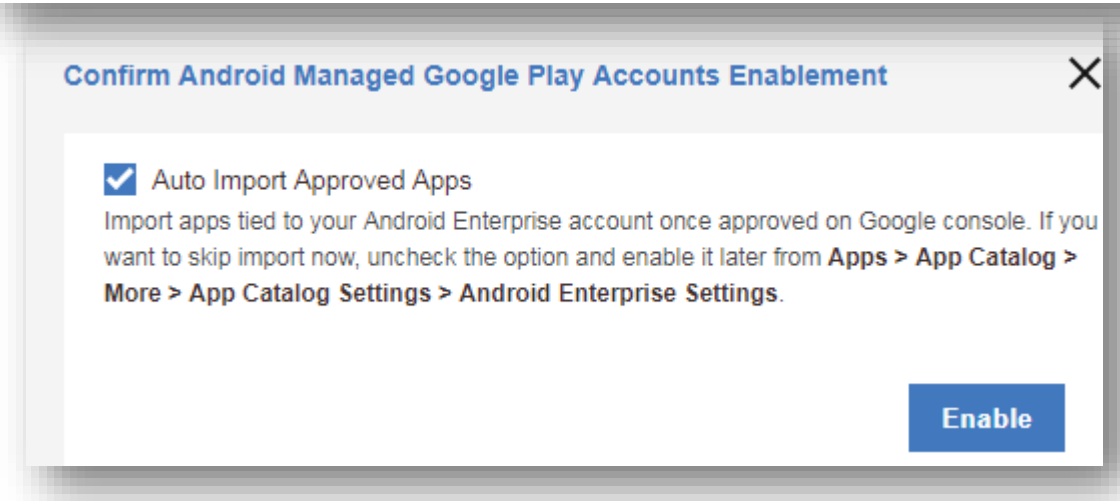
Configure Android Enterprise

- Log into MaasS360 Console. Navigate to: **Setup -> Services -> Mobile Device Management**
- Click **more...** next to **Mobile Device Management**
- Select **Enable Android Enterprise Solution Set**
- Select **Enable via Managed Google Play (no G Suite)**



- Click **here** to sign up and enable managed Google Play
- Then Click **Enable** to Auto Import Approved Apps

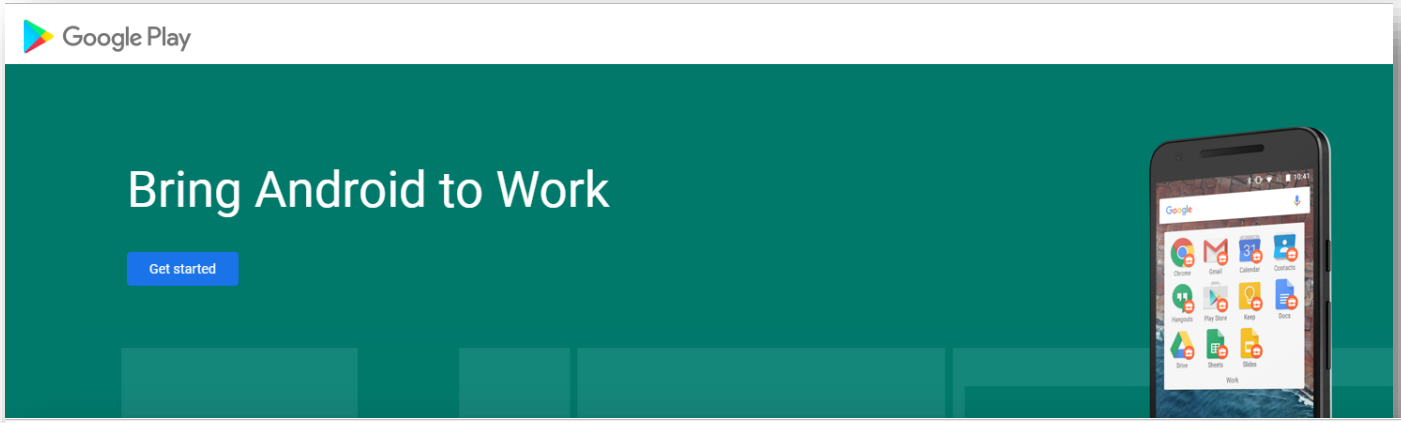


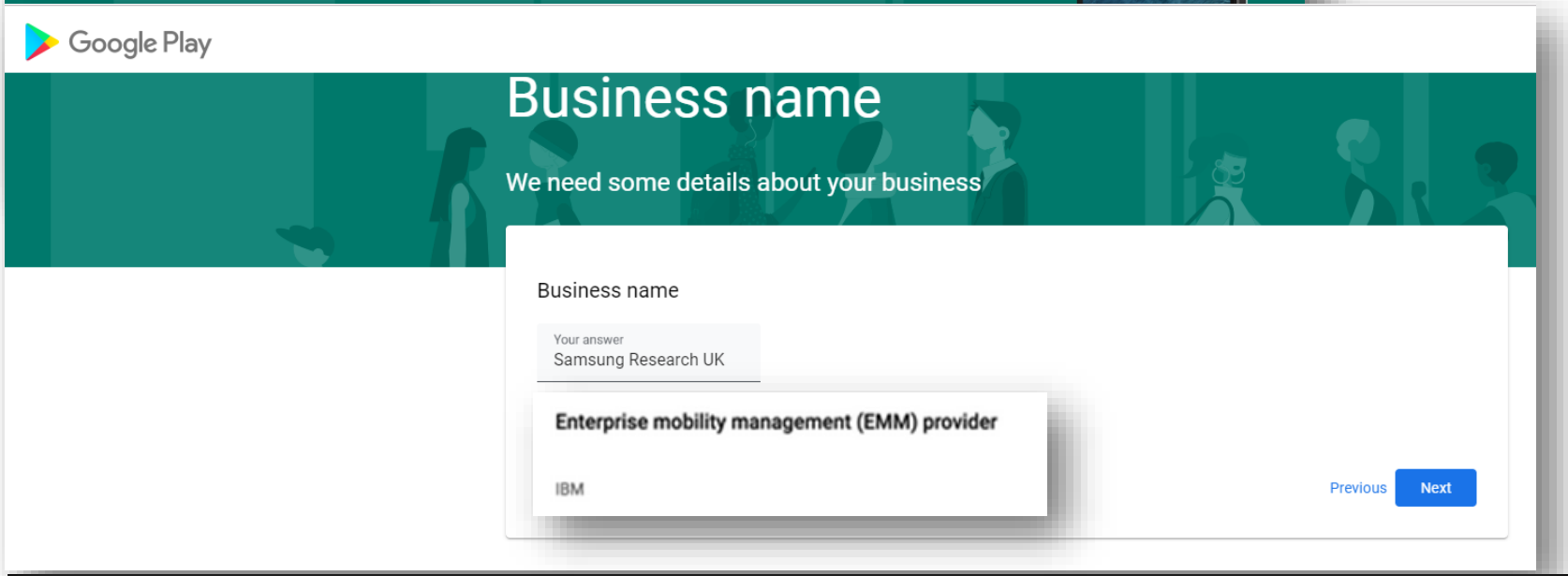


Configure Android Enterprise

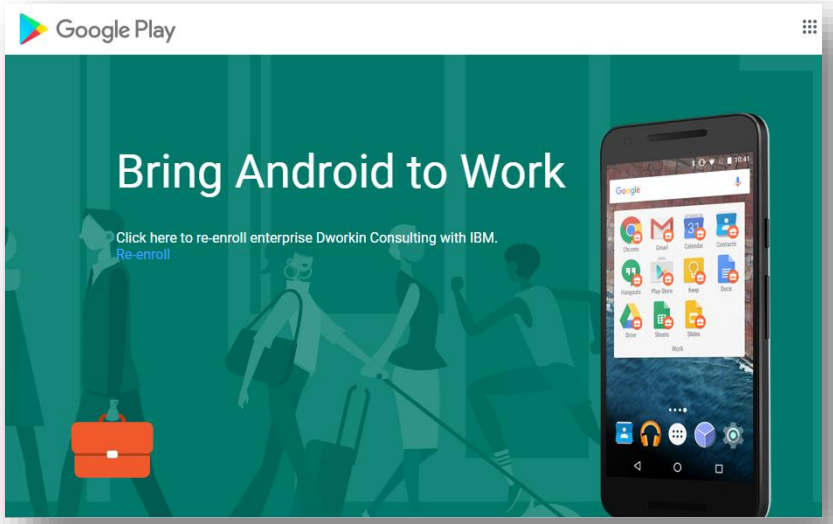
Configure Android Enterprise

- You will then get redirected to a Google Play screen. Click Get started.
- Fill out your Business name and Select Next to allow IBM MaaS360 to be your EMM provider.



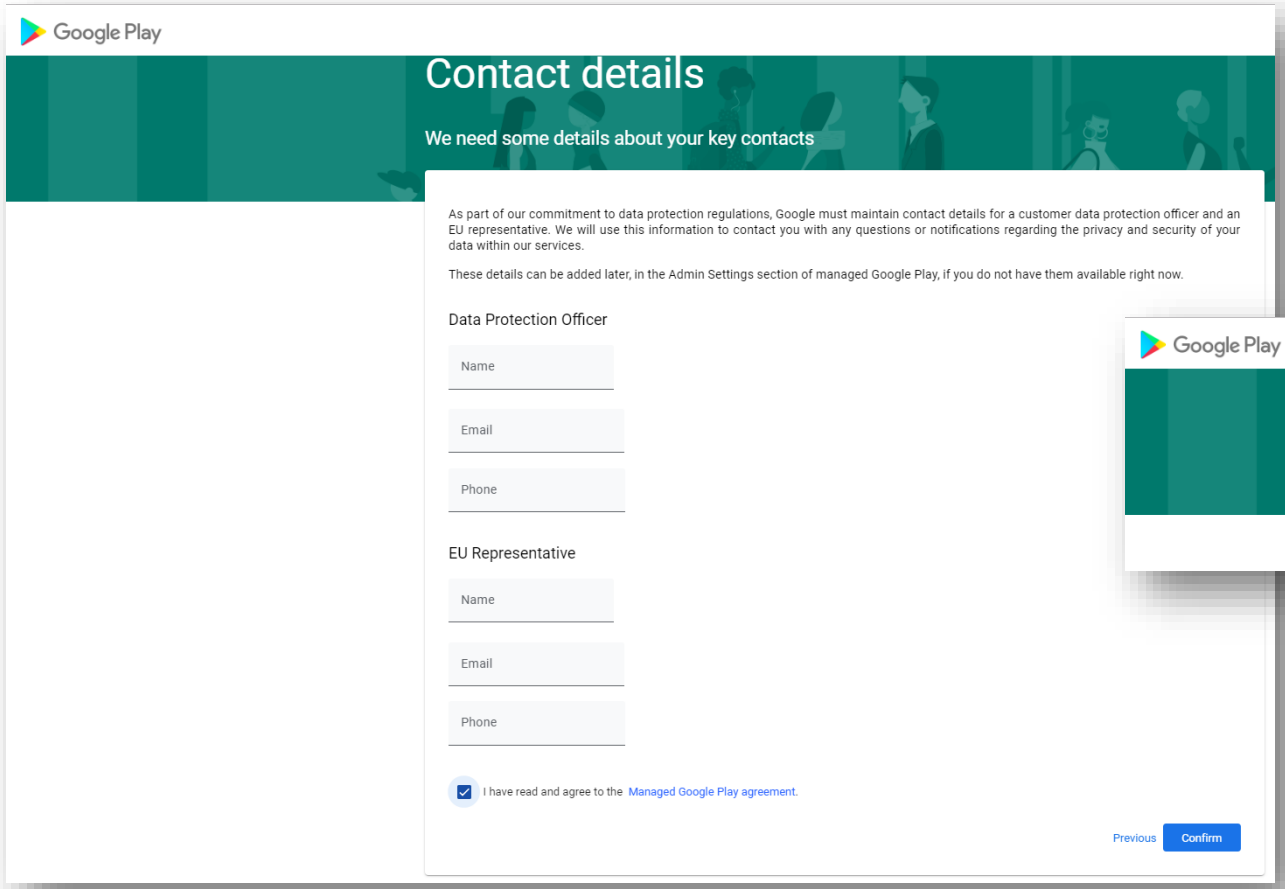


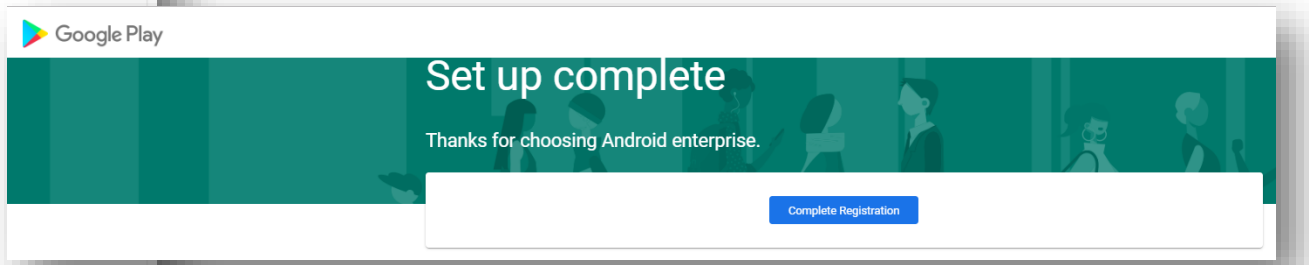
- (Note re-enrolling looks slightly different and there are fewer steps
- Click Re-enroll)



Configure Android Enterprise

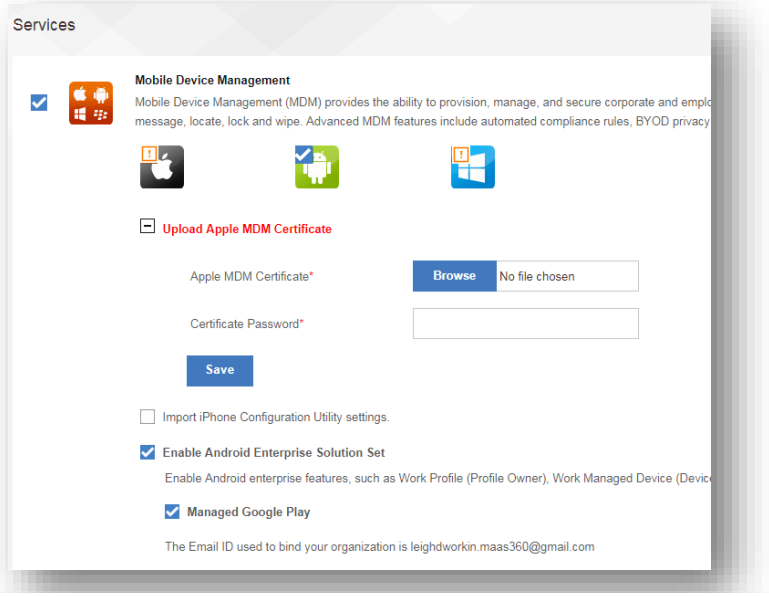
- Fill out the Contact details page, tick the Managed Google Play agreement page and then select Confirm. These text fields are not mandatory, so you can alternatively leave them blank and just tick the Managed Google Play agreement and then select Confirm.
- Click Complete Registration to complete the Android Enterprise configuration and return to IBM MaaS360 Console.

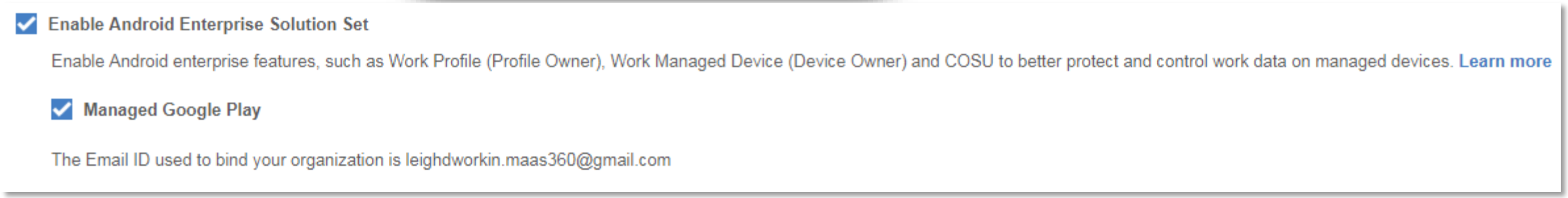




Configure Android Enterprise

- You should now have been redirected back to the IBM MaaS360 console
- The Mobile Device Management configuration should now be completed and look similar to the below.
- You may check by visiting **Setup -> Services -> Mobile Device Management** again
- Your IBM MaaS360 tenant is now configured and ready to deploy Android Enterprise and Knox Platform for Enterprise: Standard Edition.





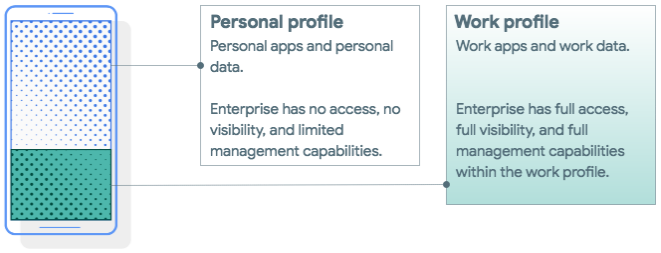
Android Enterprise Deployment Modes

Deployment Modes

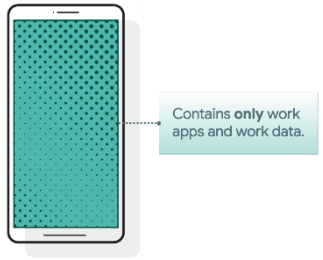
Android Enterprise can be deployed in the following 5 deployment modes

1. **BYOD**
   - Work Profile [*formerly known as Profile Owner or PO*]
2. **Company-owned Device**
   - Fully Managed Device [*formerly known as Device Owner or DO*]
   - **Fully Managed Device with a Work Profile** [*formerly known as COMP, on Android 10 or before*]
   - Work Profile on a Company-owned Device [*WPC, only on Android 11 or later*]
3. **Dedicated device** [*formerly known as Corporate Owned Single Use or COSU*]

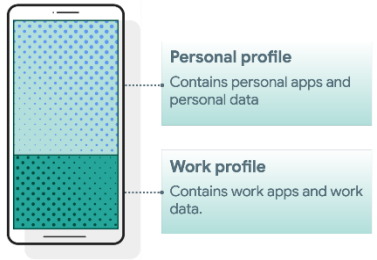
IBM MaaS360 can support 4 of these 5 of these deployment modes, all but COMP. In this next section we will show you how to configure each of these 4 supported deployment modes in IBM MaaS360 for your device fleet.



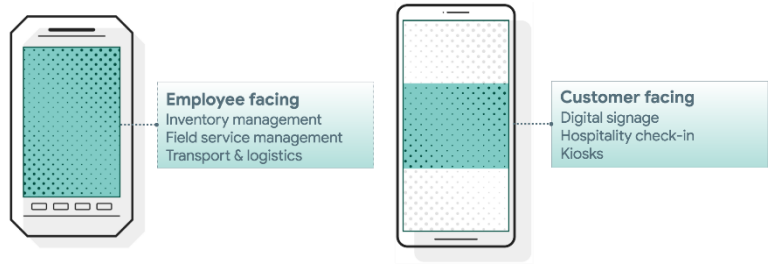
Bring Your Own Device [BYOD]



Company-owned Device



Fully Managed device with a Work Profile
Or
Work Profile on a Company-owned Device

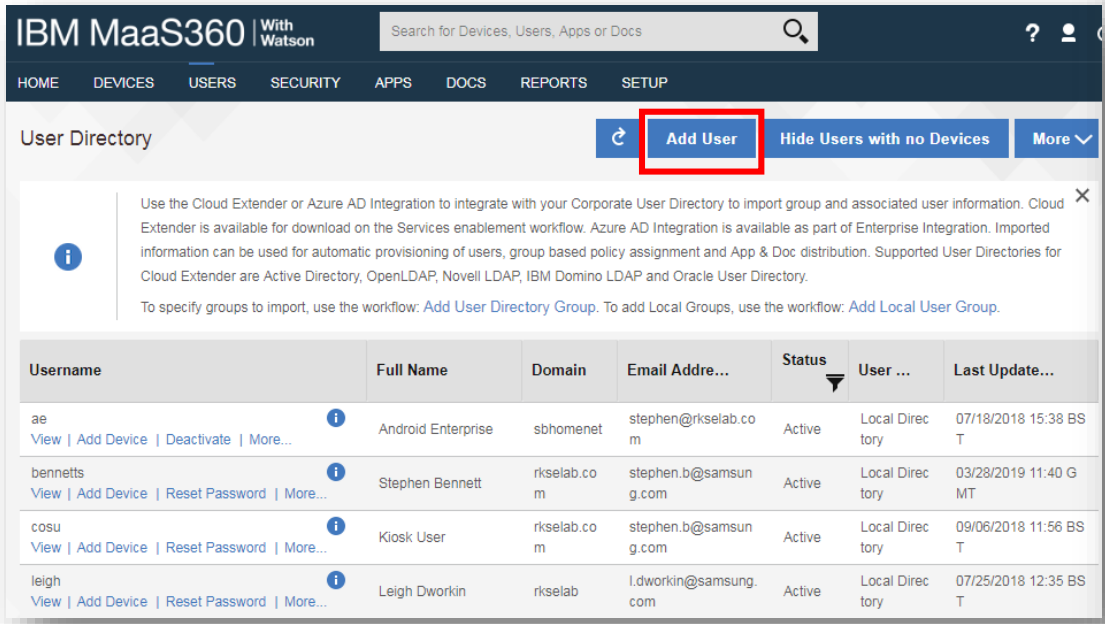


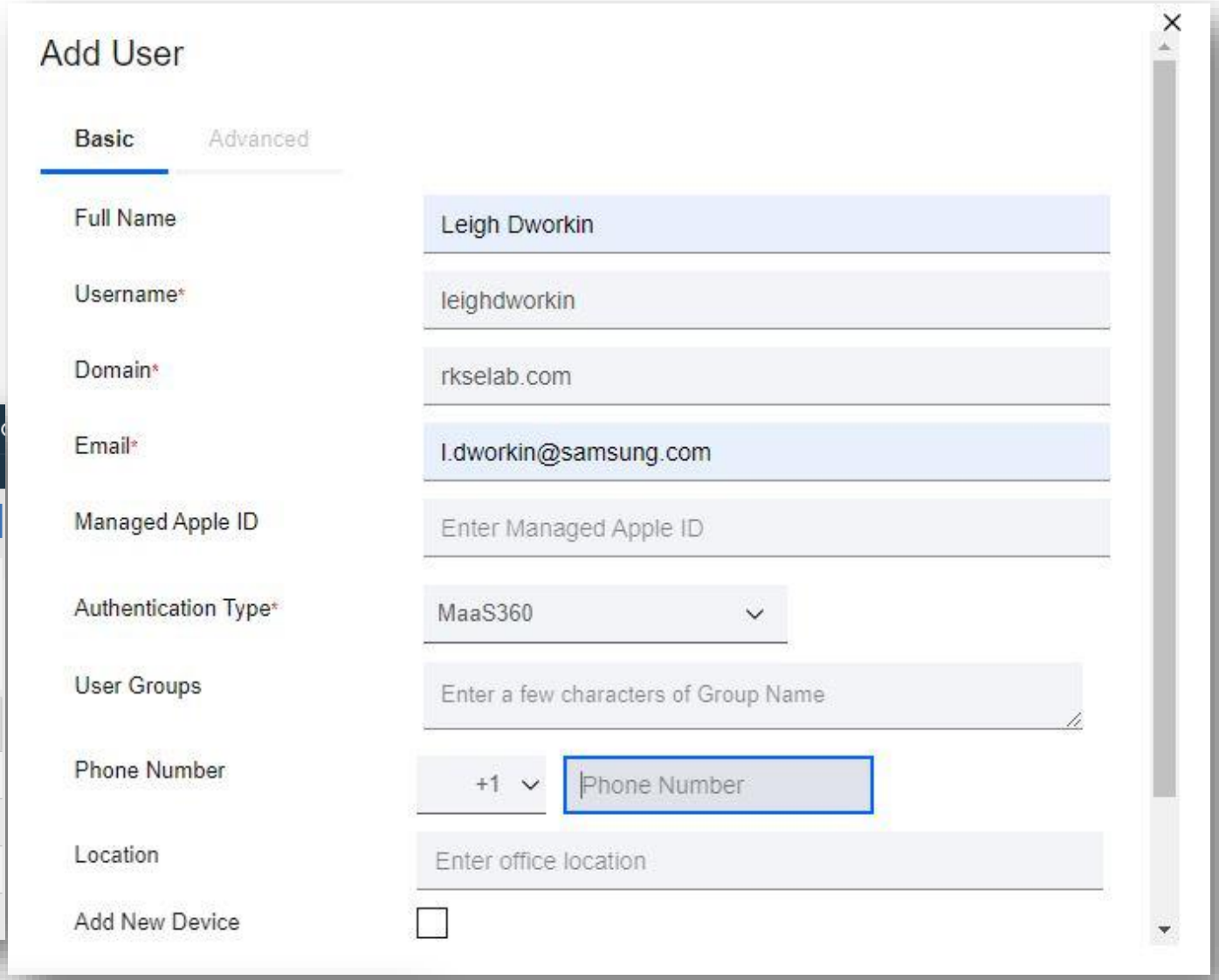
Dedicated Device

Create a User in MaaS360

Create a User in MaaS360

- Navigate to: **Users** and Click the **Add User** button
- Fill in all required fields and then click Save.

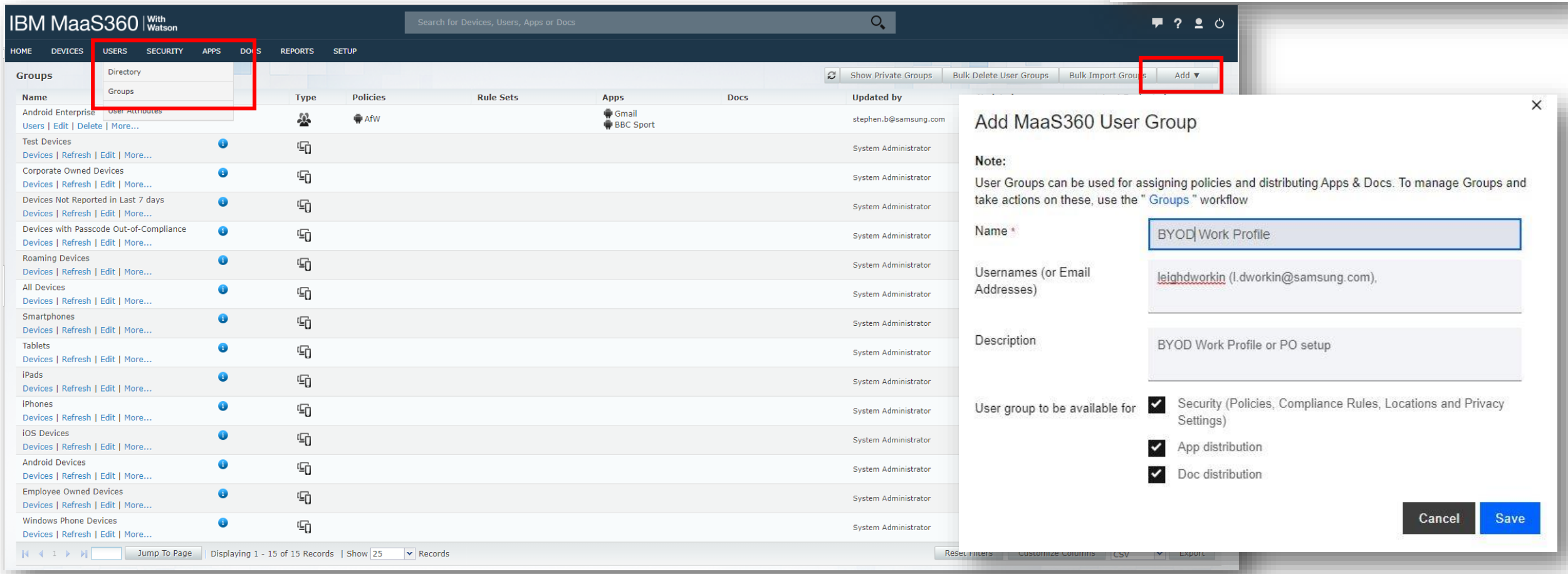


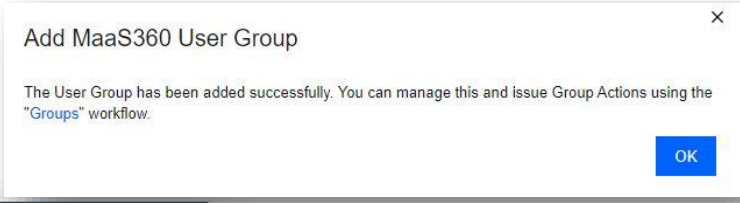


- Note, you may need to Reset the Password for the new user:

Add User to a Group in MaaS360

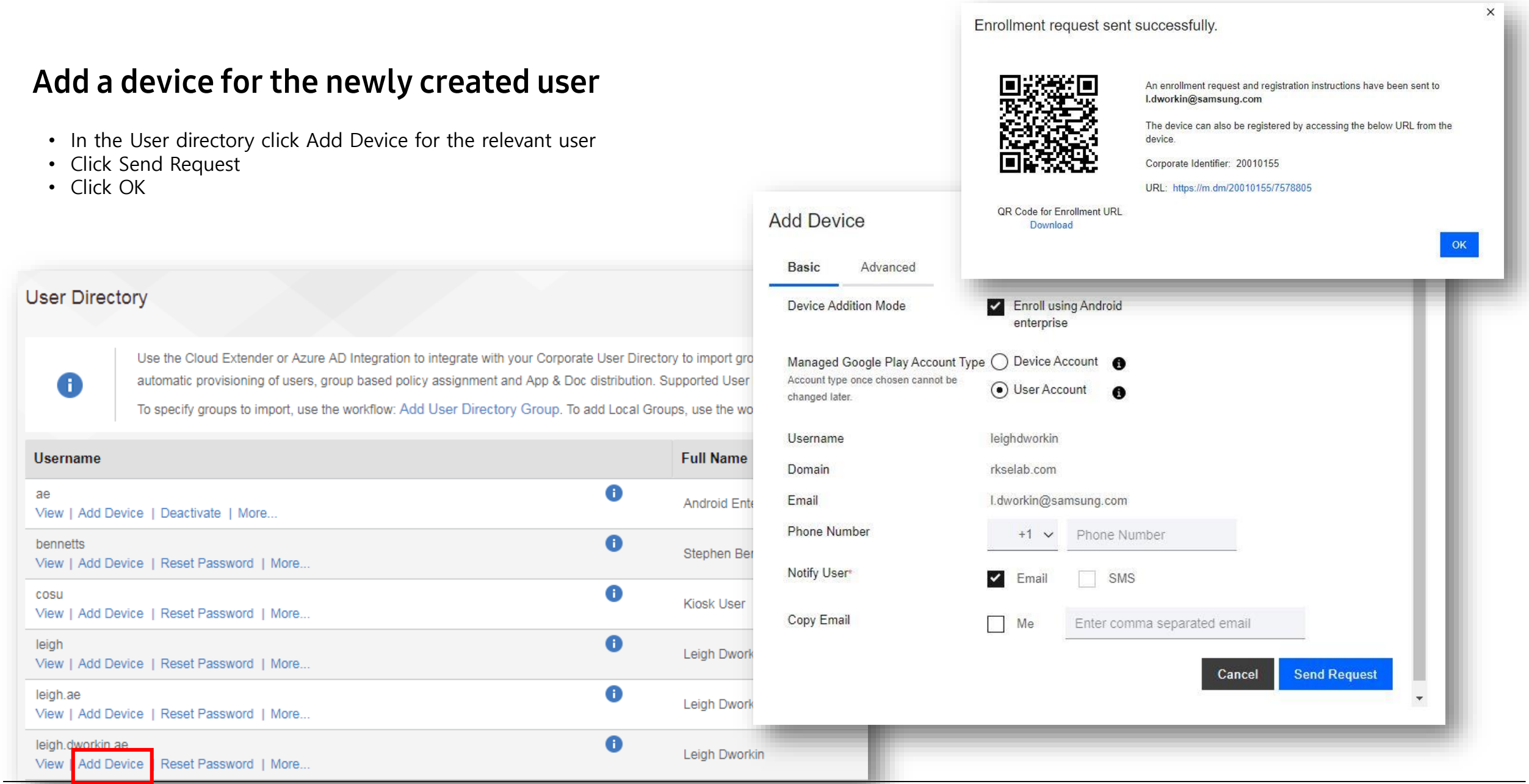
- Navigate to: Users -> Groups -> Add -> MaaS360 User Group.
- Fill in the required fields and add the email address of the user to "Usernames" field. Then click Save.
- Click OK





Add a device for the newly created user

- In the User directory click Add Device for the relevant user
- Click Send Request
- Click OK

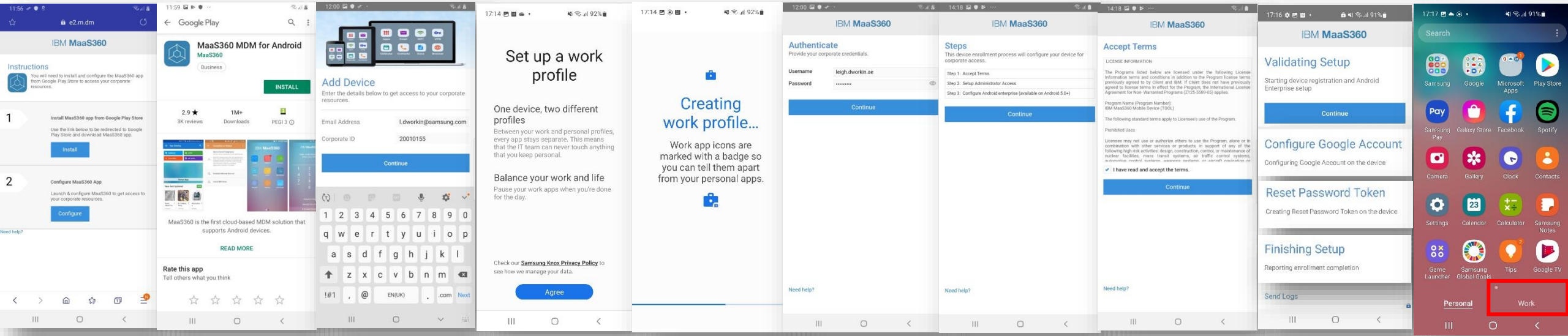


Android Enterprise: Work Profile (BYOD)

Android Enterprise Work Profile 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 IBM MaaS360 agent, and enroll your device into your tenant.
- Alternatively, in a browser on the device, visit the URL from the Email invitation for the device:



Visit URL in Samsung Browser from Email invitation. Click Install

Install MaaS360 agent from Google Play Store

Check email and hit Continue

Click Agree to create Work Profile

Creating Work Profile

Enter user credentials & hit Continue

Review Steps & hit Continue

Accept terms and conditions & hit Continue

Validate Setup by hitting Continue; various screens then flash past ending in Finishing Setup

Device Enrollment Successful!: Work Tab Created

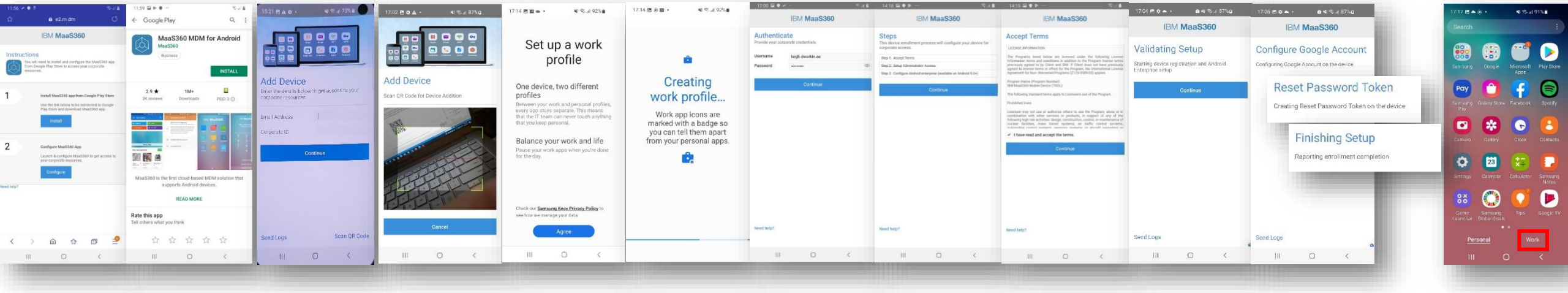
*You can also enroll your device using the alternative IBM MaaS360 methods. For example QR Code – see next slide.

Android Enterprise: Work Profile (BYOD) – QR code

Android Enterprise Work Profile Deployment with QR code

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 IBM MaaS360 agent, and enroll your device into your tenant.
- Alternatively, in a browser on the device, visit the URL from the Email invitation for the device:



Visit URL in Samsung Browser from email invitation. Click Install

Install MaaS360 Agent from Google Play Store and Run it

Click Scan QR Code

Scan the QR code from email invitation then click Continue on next screen

Click Agree to create Work Profile

Creating Work Profile

Enter user credentials & hit Continue

Review Steps & hit Continue

Accept terms and conditions & hit Continue

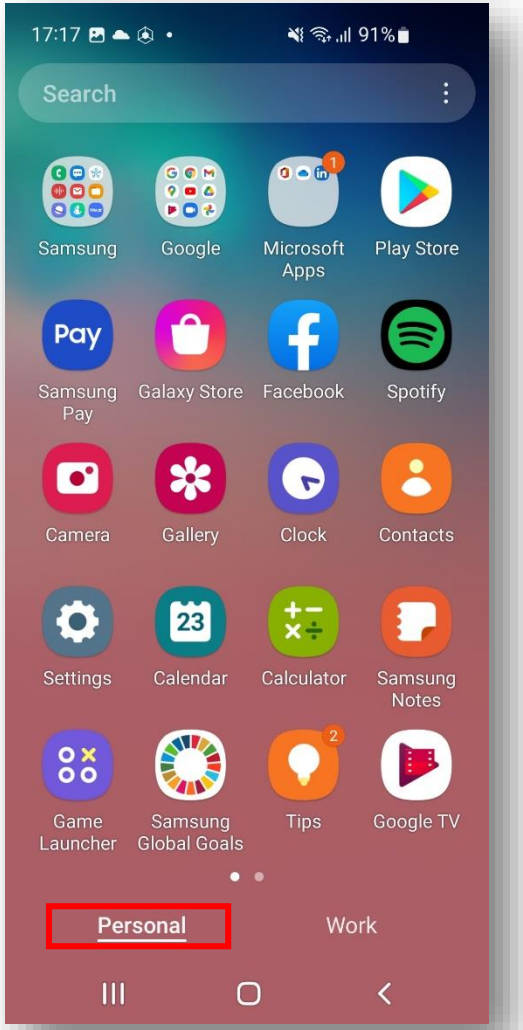
Validate Setup by hitting Continue

Various screens flash by quickly ending in “Finishing Setup”

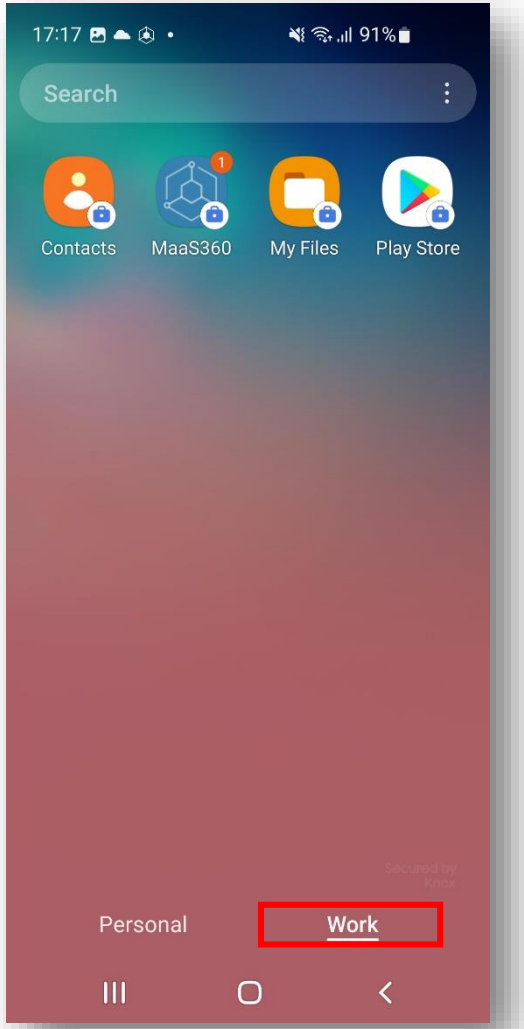
Device Enrollment Successful!: Work Tab Created

Android Enterprise: Work Profile Enrollment

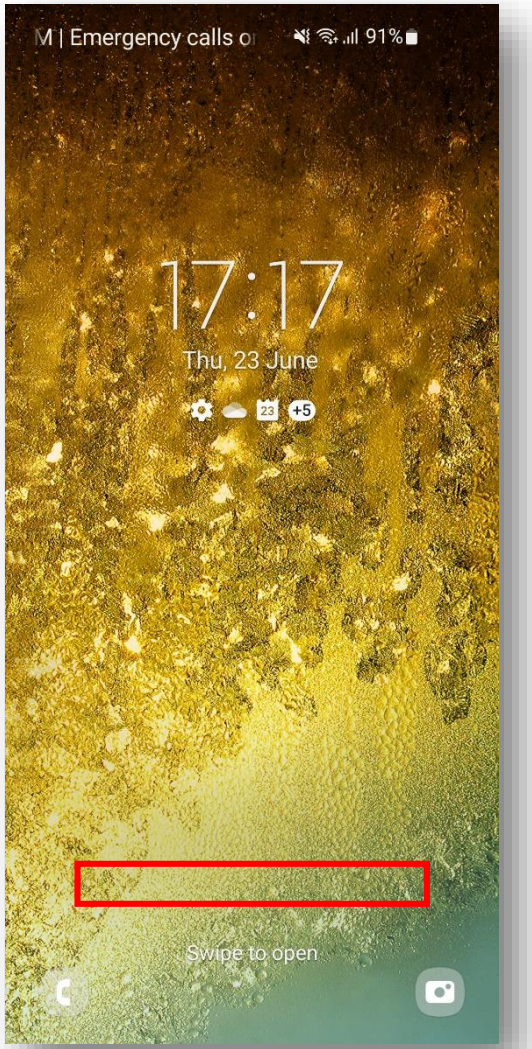
How to tell that Work Profile has been successfully set up:



Personal Tab



Work Tab



No mention of device belonging to your organization on lock screen

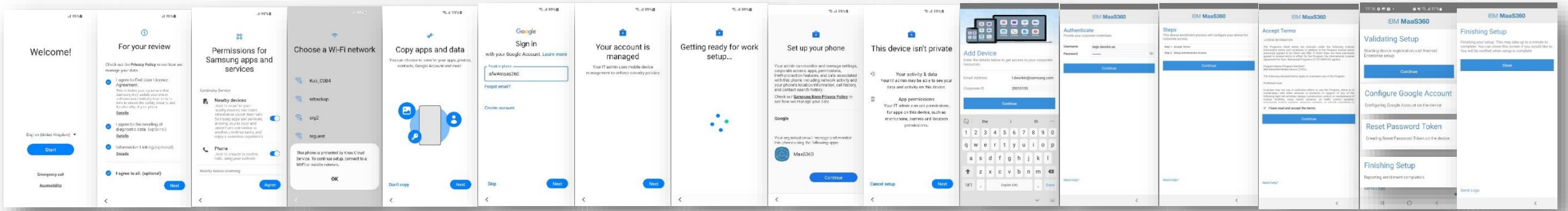
Android Enterprise: Company-owned Device - DPC identifier

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 Workspace ONE UEM as an Android Enterprise Company-owned device.

1. DPC Identifier [Also known as the hashtag method] **afw#maas360**
2. QR Code Enrollment / NFC Enrollment –
   - `scan QR code (MaaS360 Portal -> Devices -> Enrollments -> Other Enrollment Options -> Android Enterprise QR Code Provisioning)`
3. Knox Mobile Enrollment `(MaaS360 Portal -> Devices -> Enrollments -> Other Enrollment Options -> Android Enterprise KME enrollment)`

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



Click Start

Accept T's & C's and click Next

Agree to permissions for Samsung apps

Connect to WiFi if needed

Don't copy apps & data

Enter **afw#maas360** and click Next

Note your account is managed & click Next

Get ready for work setup...

Install MaaS360 by hitting Continue

Note device isn't private & hit Next

Enter email and Corporate ID

Enter Credentials

Review Steps And Continue

Accept Terms and Continue

Validate Setup by hitting Continue; various screens then flash past ending in Finishing Setup

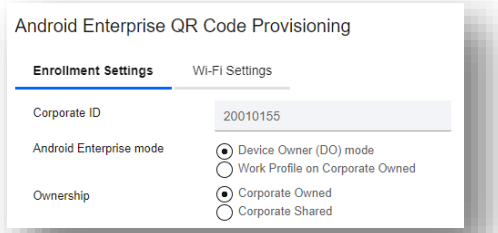
Click Close Device Enrollment Successful!

Android Enterprise: Company-owned Device - QR code

Android Enterprise Company-owned Device Deployment

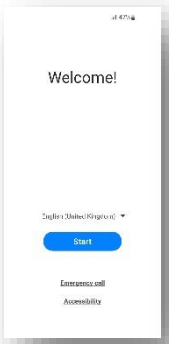
To enroll your device as an Android Enterprise Company-owned device, you need to ensure the device is factory reset and at the welcome screen. From here, there are 3 ways you can enroll your device into Workspace ONE UEM as an Android Enterprise Company-owned device.

1. DPC Identifier [Also known as the hashtag method] **afw#maas360**
2. QR Code Enrollment / NFC Enrollment –
   - `scan QR code (MaaS360 Portal -> Devices -> Enrollments -> Other Enrollment Options -> Android Enterprise QR Code Provisioning)`
   - `Select Device Owner (DO) mode and Corporate Owned:`



3. Knox Mobile Enrollment `(MaaS360 Portal -> Devices -> Enrollments -> Other Enrollment Options -> Android Enterprise KME enrollment)`

- Below is a screen-by-screen play to enroll your device using the QR code method:



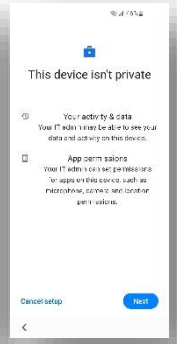
Click 6 times On 1st screen

Scan QR Code generated in Console

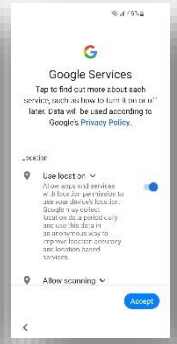
Connect to WiFi

Click Next When Connected

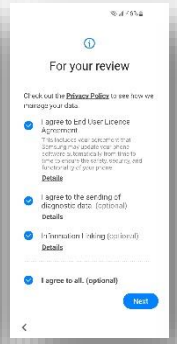
Setting Up phone, click Continue



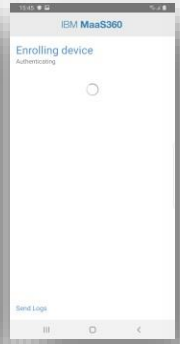
Device not private; Click Continue



Accept Google services



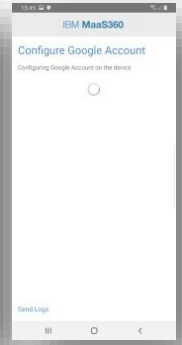
Accept T's & C's Click Next



Enrolling device...

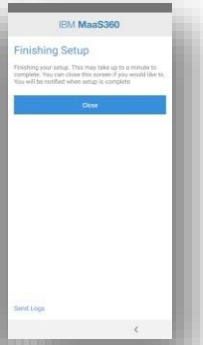
Validating Setup...

Ensure Environment...



Wait for Google Account Configuration

Setup Finishing Note Knox license Activation



Setup Finished Click Close

Android Enterprise: Company-owned Device - KME

Android Enterprise Company-owned Device Deployment

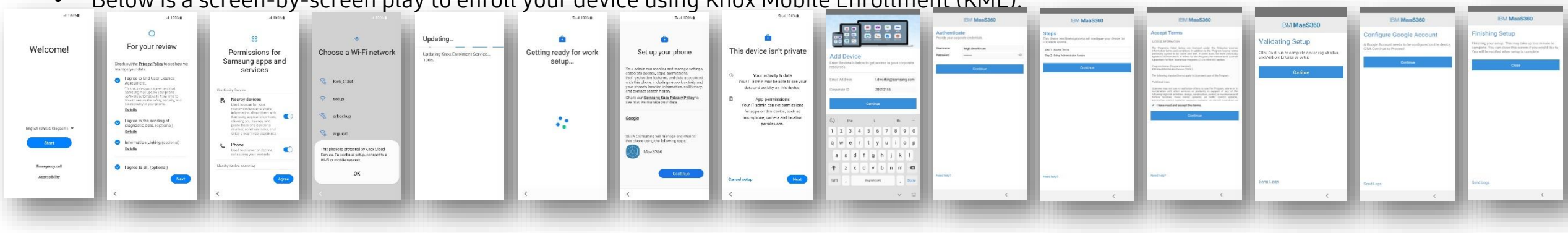
To enroll your device as an Android Enterprise Company-owned device, you need to ensure the device is factory reset and at the welcome screen. From here, there are 3 ways you can enroll your device into Workspace ONE UEM as an Android Enterprise Company-owned device.

1. DPC Identifier [Also known as the hashtag method] **afw#maas360**
2. QR Code Enrollment / NFC Enrollment –
   - `scan QR code (MaaS360 Portal -> Devices -> Enrollments -> Other Enrollment Options -> Android Enterprise QR Code Provisioning)`
3. Knox Mobile Enrollment `(MaaS360 Portal -> Devices -> Enrollments -> Other Enrollment Options -> Android Enterprise KME enrollment)`

This generates a JSON string for your KME profile in the KME console, similar to the one below, which may be customized -

{"prompt_for_asset_tag":false,"disallow_enrollment_skipping":true,"enrollment_corp_id":"XXXXXXXX","enrollment_account_type":"userAccount","prompt_for_device_name":false,"ae_container_type":"WORK_NATIVE_DEVICE","enrollment_username":"a.b@ccccc.com","ae_enrollment_flow":"KME_ENROLLMENT","enrollment_email":" a.b@ccccc.com ","enrollment_ownership":"Corporate Owned","enrollment_password":"**********","android.app.extra.PROVISIONING_DEVICE_ADMIN_COMPONENT_NAME":"com.fiberlink.maas360.android.control/com.fiberlink.maas360.android.control.receivers.Maas360DeviceAdminReceiver"}

- Below is a screen-by-screen play to enroll your device using Knox Mobile Enrollment (KME):

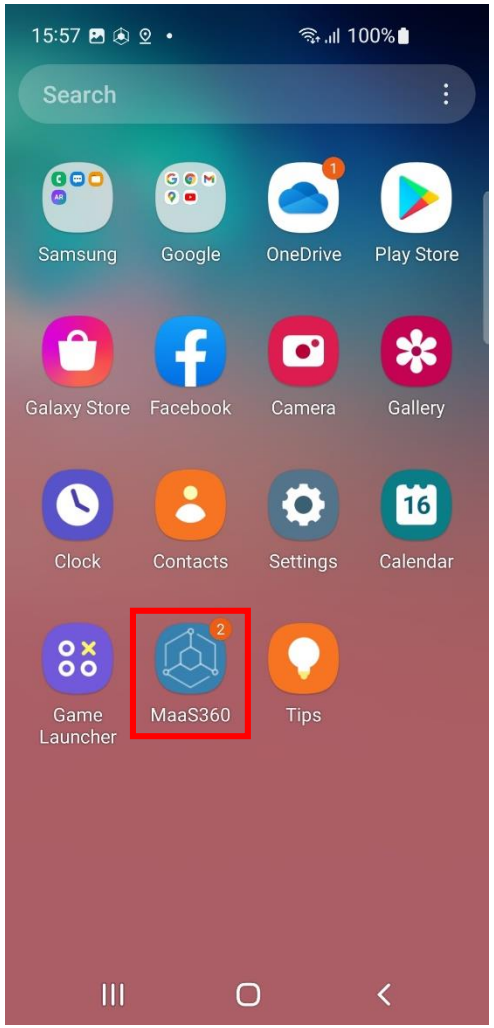


Click Start	Accept T's & C's Click Next	Agree to permissions for Samsung apps	Connect to Wi-Fi	Wait while KME updates	Get ready for work setup	Install MaaS360 MDM app by Clicking Continue	Device not private; Click Next	Enter email and Corporate ID	Enter Credentials	Review Steps And Continue	Accept Terms and Continue	Validating Setup Continue	Configure Google Account - Continue	Setup Finished Click Close

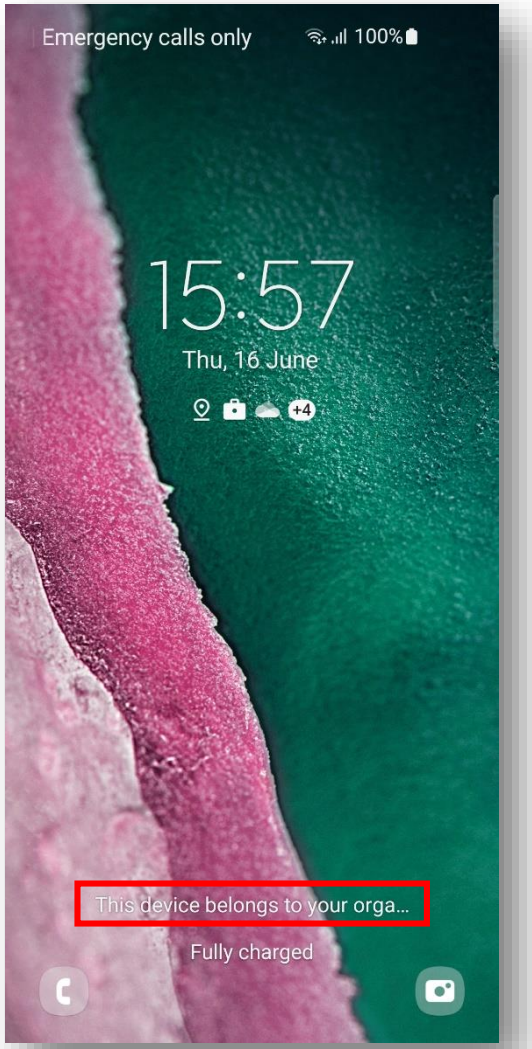
Android Enterprise: Fully Managed Device Enrollment

How to tell that Fully Managed Device has been successfully set up:

Sparse set of icons
on home screen



No Personal nor Work tabs;
Sparse set of icons including MaaS360 agent



Mention of device belonging
to your organization
on lock screen

Android Enterprise: Fully Managed Device with a Work Profile

Android Enterprise Fully Managed Device with a Work Profile Deployment

This is not currently supported by IBM MaaS360.

Attempts to enroll into Fully Managed Device with a Work Profile on Android 10 will result in a Fully Managed Device.

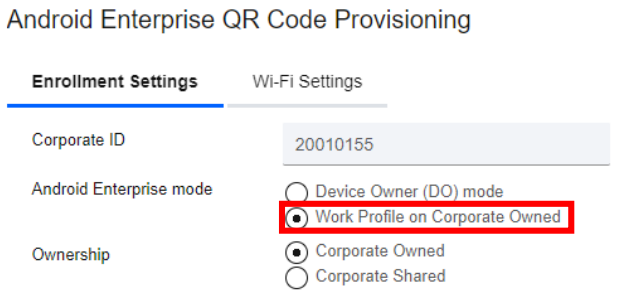
However, on Android 11 or later a very similar deployment mode – Work Profile on Company-owned Device – is supported. See next page.

Android Enterprise: Work Profile on a Company-owned Device (QR CODE)

Android Enterprise Work Profile on a Company-owned Device Deployment

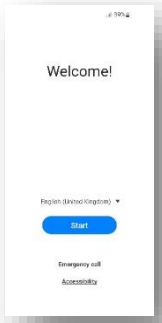
To enroll your device as an Android Enterprise Company-owned device, you need to ensure the device is factory reset and at the welcome screen. From here, there are 2 ways you can enroll your device into Workspace ONE UEM as an Android Enterprise Company-owned device with a Work Profile.

1. QR Code Enrollment / NFC Enrollment –
   - `scan QR code (MaaS360 Portal -> Devices -> Enrollments -> Other Enrollment Options -> Android Enterprise QR Code Provisioning)`
   - `Select Work Profile on Corporate Owned and Corporate Owned:`

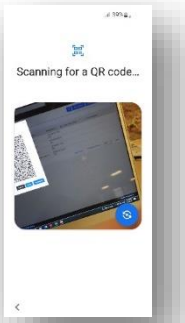


2. Knox Mobile Enrollment `(MaaS360 Portal -> Devices -> Enrollments -> Other Enrollment Options -> Android Enterprise KME enrollment)`

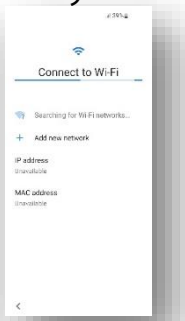
- Below is a screen-by-screen play to enroll your device using the QR code method:



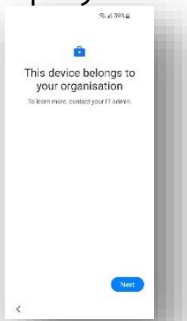
Click 6 times On 1st screen



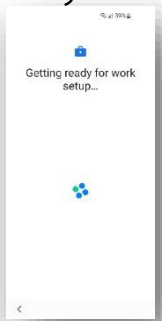
Scan QR Code Generated in Console



Connect to Wi-Fi

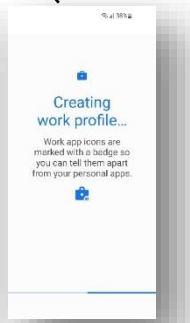


Device is your organization's. Click Next



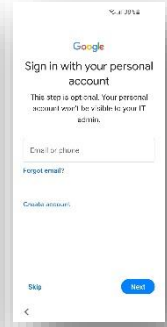
Setting Up Work Device

Set up Work Profile Click Agree

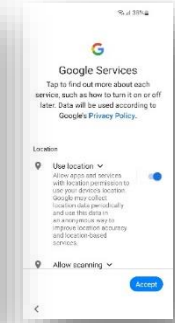


Creating Work Profile

Configure Google Account – Click Next

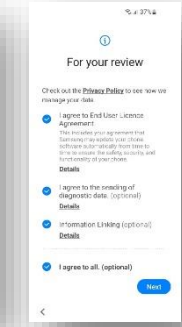


Skip personal Google Account setup



Google Services selection. More then Accept

Getting your phone ready...



Accept T's & C's, click Next


Device Enrollment Successful!

Android Enterprise: Work Profile on a Company-owned Device (KME)

Android Enterprise Work Profile on a Company-owned Device Deployment

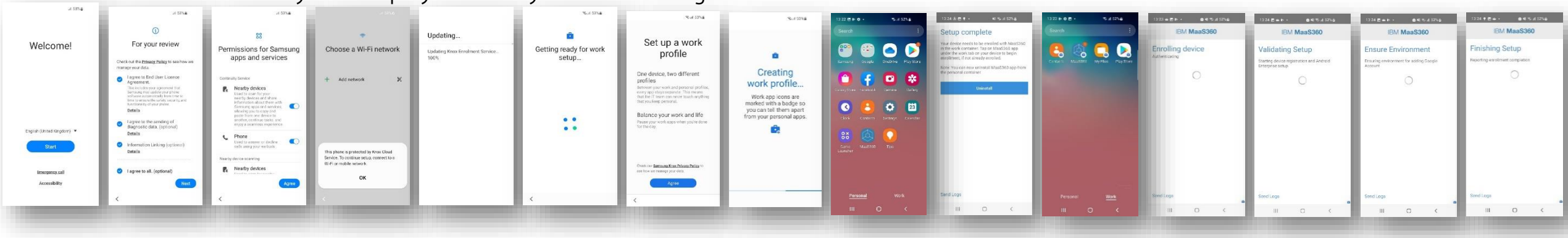
To enroll your device as an Android Enterprise Company-owned device, you need to ensure the device is factory reset and at the welcome screen. From here, there are 2 ways you can enroll your device into Workspace ONE UEM as an Android Enterprise Company-owned device with a Work Profile.

1. QR Code Enrollment / NFC Enrollment –
   - `scan QR code (MaaS360 Portal -> Devices -> Enrollments -> Other Enrollment Options -> Android Enterprise QR Code Provisioning)`
2. Knox Mobile Enrollment `(MaaS360 Portal -> Devices -> Enrollments -> Other Enrollment Options -> Android Enterprise KME enrollment)`

This generates a JSON string for your KME profile in the KME console, similar to the one below, which may be customized

{"prompt_for_asset_tag":false,"enrollment_corp_id":"XXXXXXXXX","enrollment_account_type":"userAccount","prompt_for_device_name":false,"ae_container_type":"WORK_NATIVE_PROFILE","enrollment_domain":"cccccccc.com","enrollment_username":"a.bbbb@cccccccc.com","ae_enrollment_flow":"KME_ENROLLMENT","enrollment_email":" a.bbbb@cccccccc.com","enrollment_ownership":"Corporate Owned","enrollment_password":"**********","android.app.extra.PROVISIONING_DEVICE_ADMIN_COMPONENT_NAME":"com.fiberlink.maas360.android.control/com.fiberlink.maas360.android.control.receivers.Maas360DeviceAdminReceiver"}

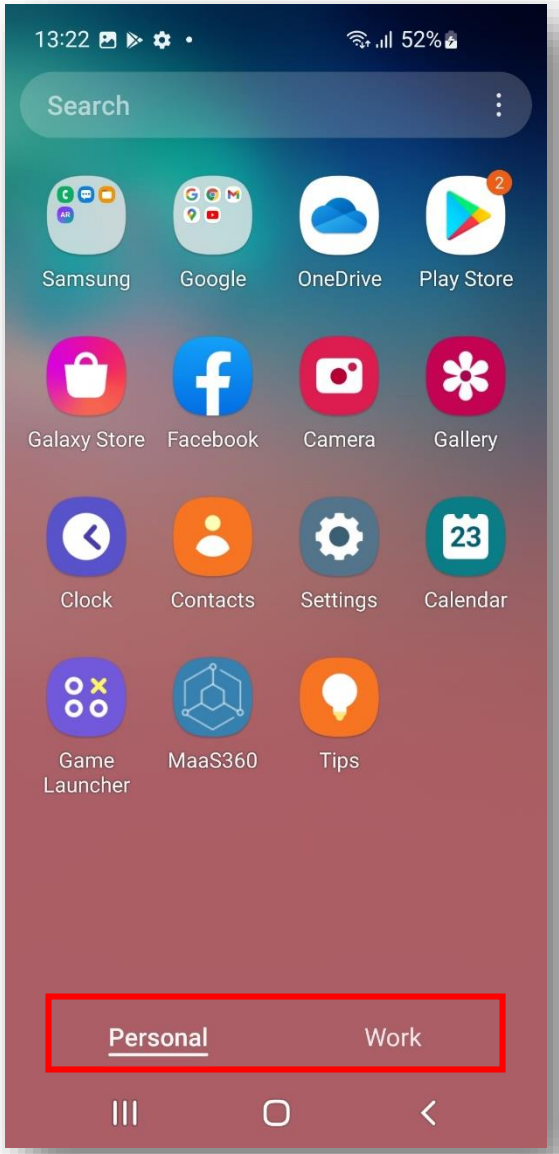
- Below is a screen-by-screen play to enroll your device using the KME method:

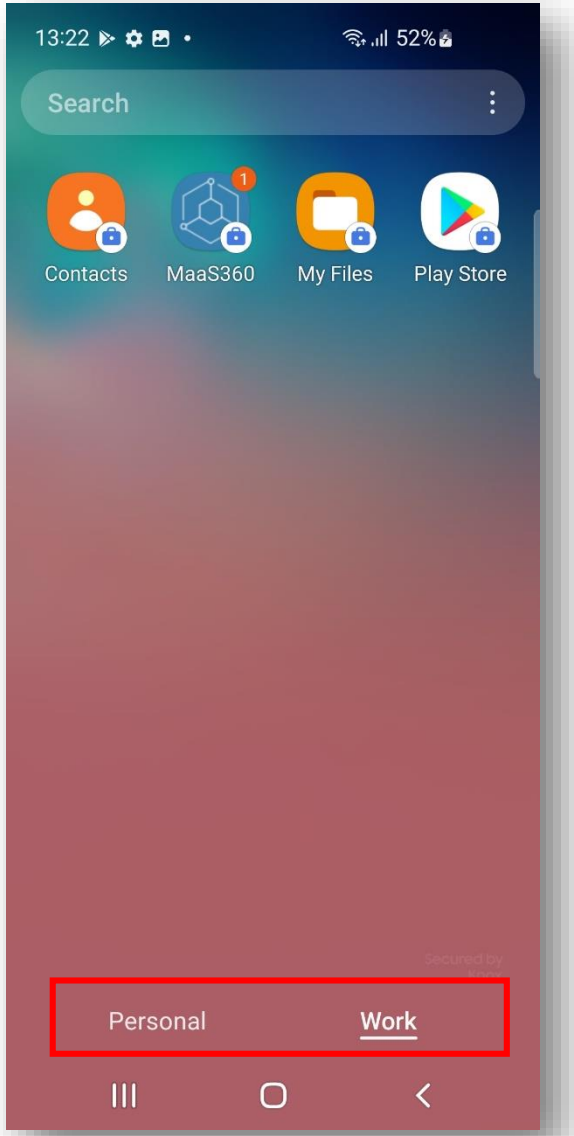


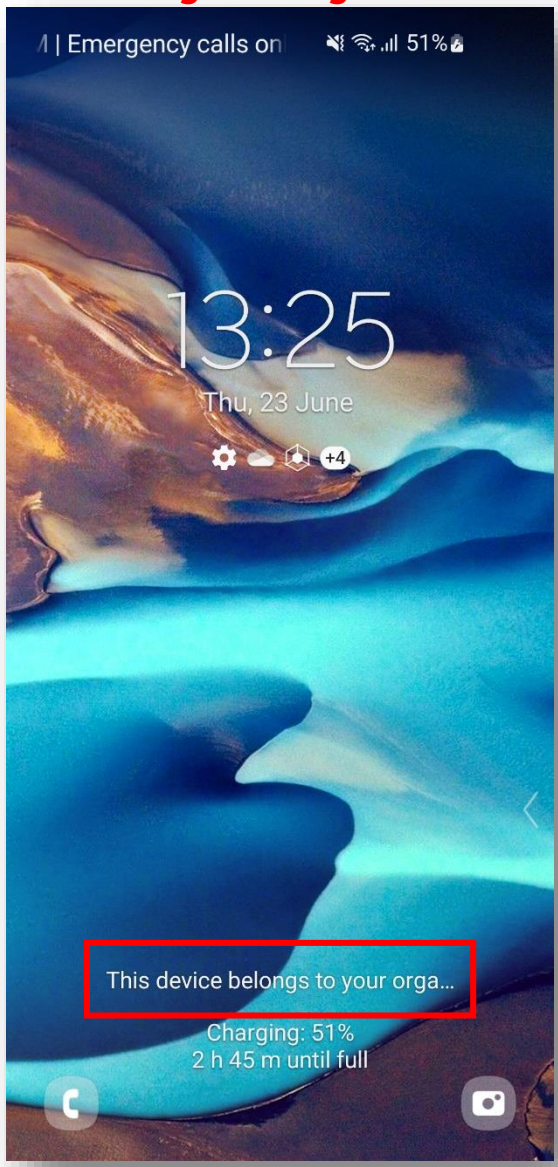
Click Start | Accept T's & C's, click Next | Agree to permissions for Samsung apps | Connect to WiFi | Wait while KME updates | Getting ready For work setup | Set up work profile; Click Agree | Creating Work Profile | Open MaaS360 agent in Personal profile | Uninstall MaaS360 in Personal profile | Open MaaS360 agent in Work profile | Enrolling Device... | Validating Setup... | Ensure Environment... | Finishing Setup!

Android Enterprise: Work Profile on a Company-owned Device (WPC or WPCO)

How to tell on the device that you are in WPC mode – Personal and Work Tabs + Device Belongs to Organisation







Android Enterprise: Dedicated Device

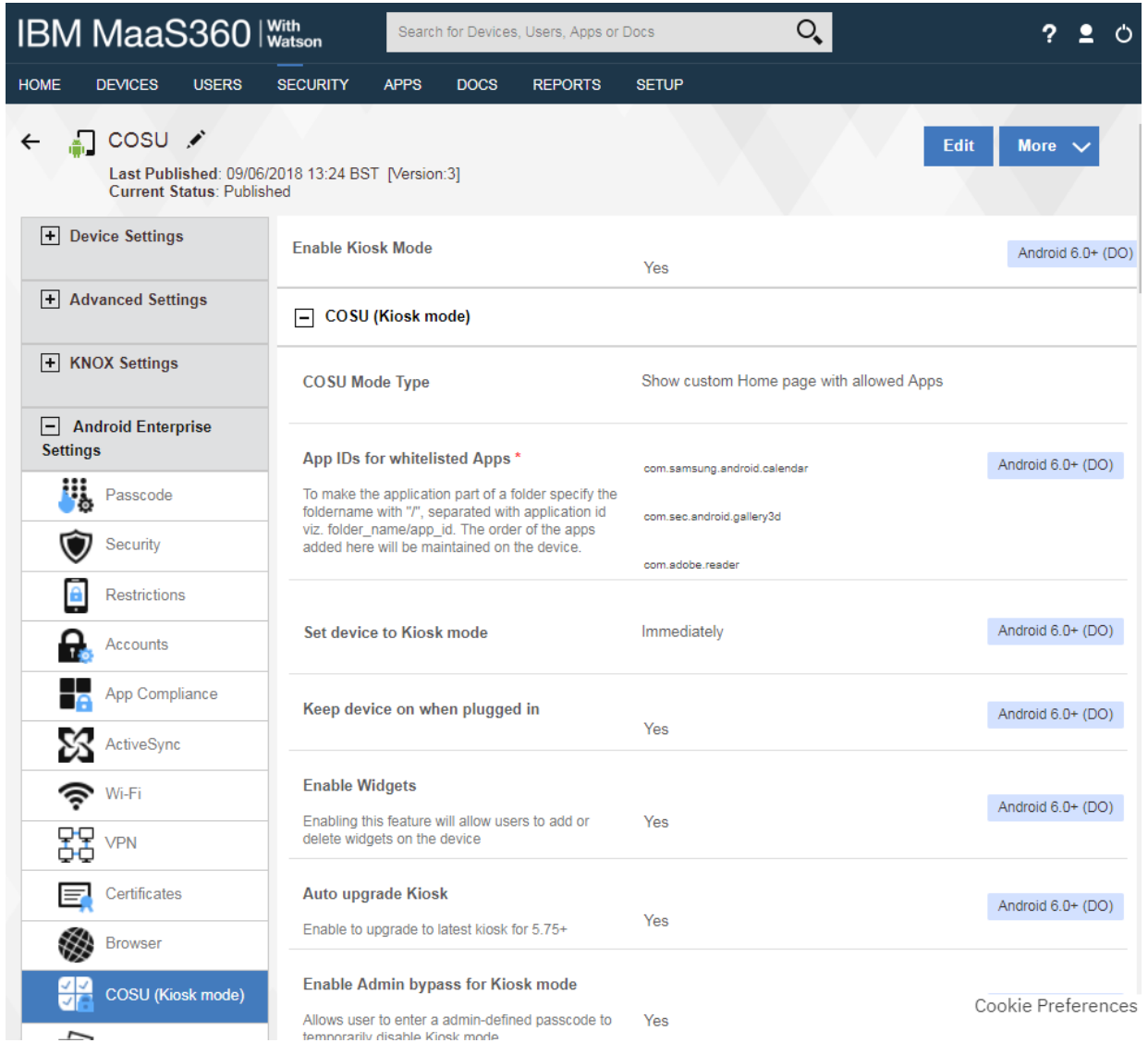
Android Enterprise Dedicated Device Deployment

This should be possible and will be documented when time permits.

A COSU policy should be selected within the Android Enterprise Settings

Key policies are

1. Enable Kiosk Mode
2. Enable Admin Bypass for Kiosk mode
3. App package names should be added to the whitelist



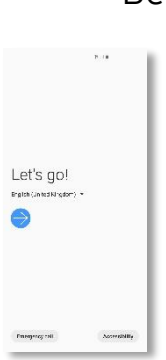
Android Enterprise: Dedicated Device (COSU)

Android Enterprise Company-owned Device Deployment

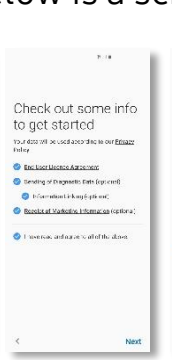
To enroll your device as an Android Enterprise Company-owned device, you need to ensure the device is factory reset and at the welcome screen. From here, there are 3 ways you can enroll your device into Workspace ONE UEM as an Android Enterprise Company-owned device.

1. DPC Identifier [Also known as the hashtag method] **afw#maas360**
2. QR Code Enrollment / NFC Enrollment –
   - `scan QR code (MaaS360 Portal -> Devices -> Enrollments -> Other Enrollment Options -> QR Code for Android Enterprise DO Provisioning)`
3. Knox Mobile Enrollment `(MaaS360 Portal -> Devices -> Enrollments -> Other Enrollment Options -> KNOX Mobile Enrollment)`

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



Click Start arrow



Accept T's & C's

Skip Import of Old Data

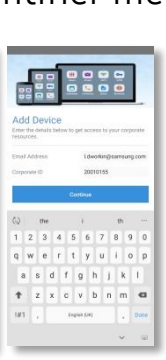
Enter **afw#maas360** and click next

Install MaaS360 MDM app

Install MaaS360 MDM app

Accept & Continue

Setting Up Work Device



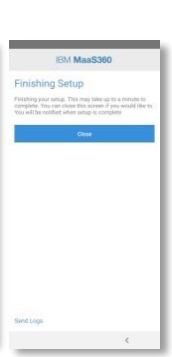
Enter email and Corporate ID

Enter Credentials

Review Steps And Continue

Accept Terms and Continue

Configure Google Account - Continue



Setup Finished Click Close

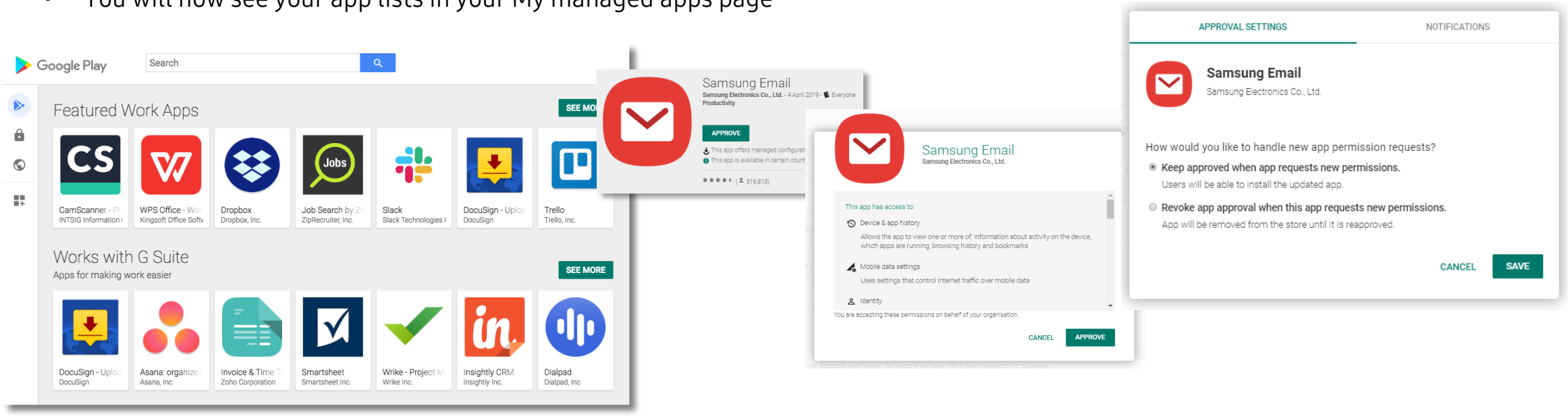
Device Enrollment Successful!

←----------Kiosked

Managed Google Play Configuration

In the Configuring Android Enterprise section of this document, we completed the majority of the work needed to configure applications to be used for Managed Google Play. All we have left to do is the following:

- Navigate to https://play.google.com/work and log in with the Gmail account you bound to IBM MaaS360 in the Configuring Android Enterprise Section.
- 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 My managed apps page

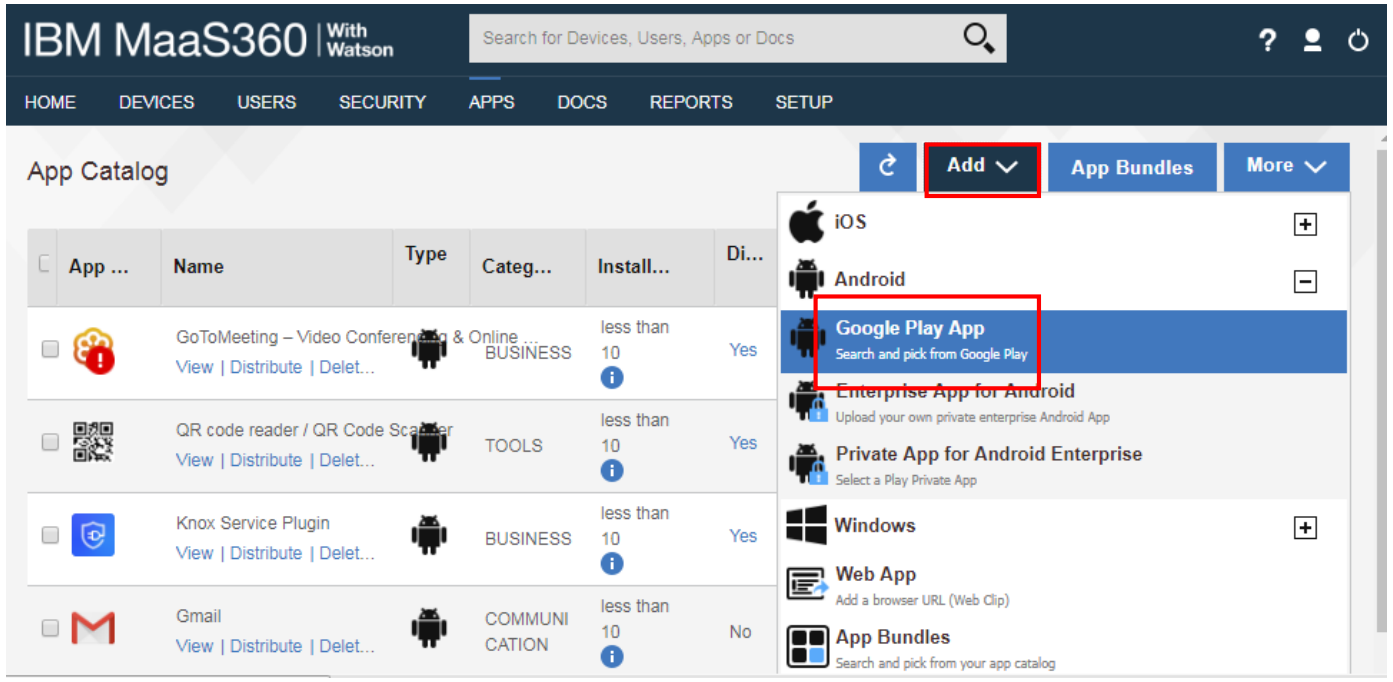


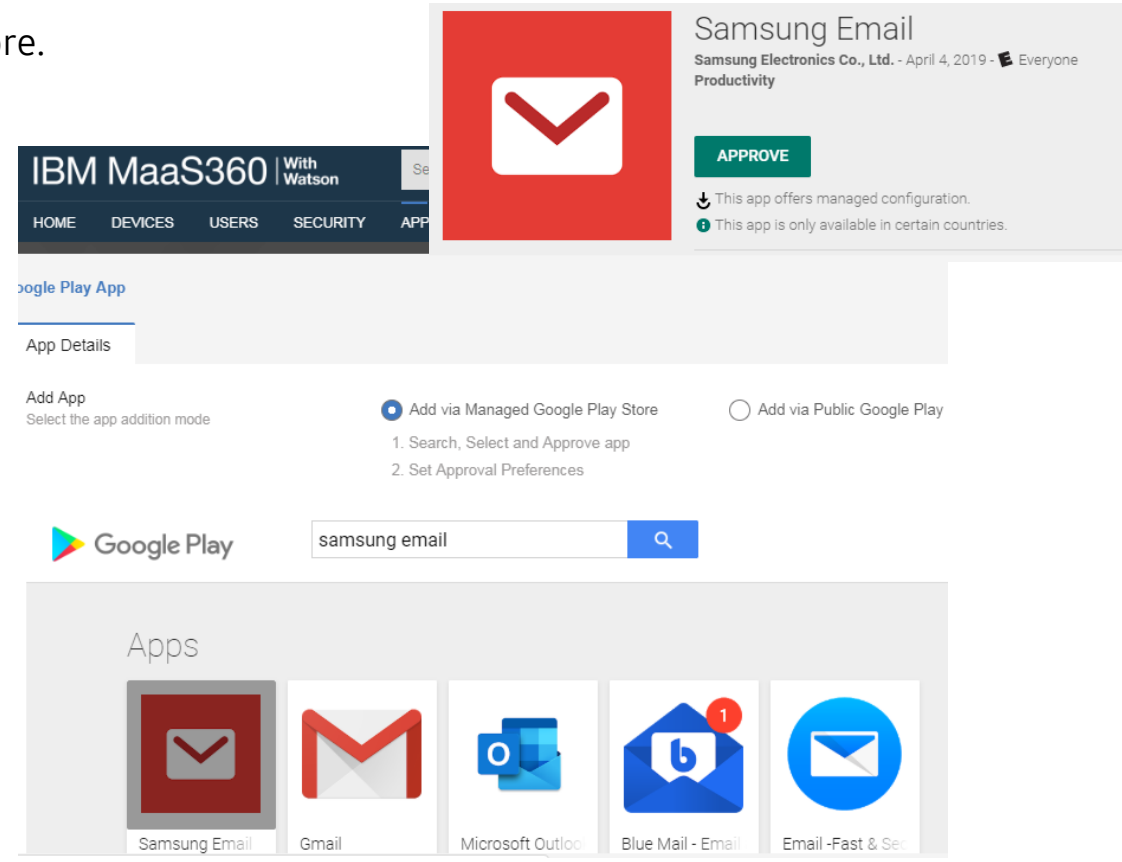
Managed Google Play Configuration

Managed Google Play Configuration

Now we have approved an application we would like to distribute in IBM MaaS360.

- Log in to your IBM MaaS360 Console and navigate to the tenant you have configured Android Enterprise
- Navigate to **APPS->Catalog** and click **Add->Android->Google Play App**
- Click **Add via Managed Google Play Store**
- Select the Samsung Email app we approved in our Managed Google Play Store.
- Click **APPROVE**

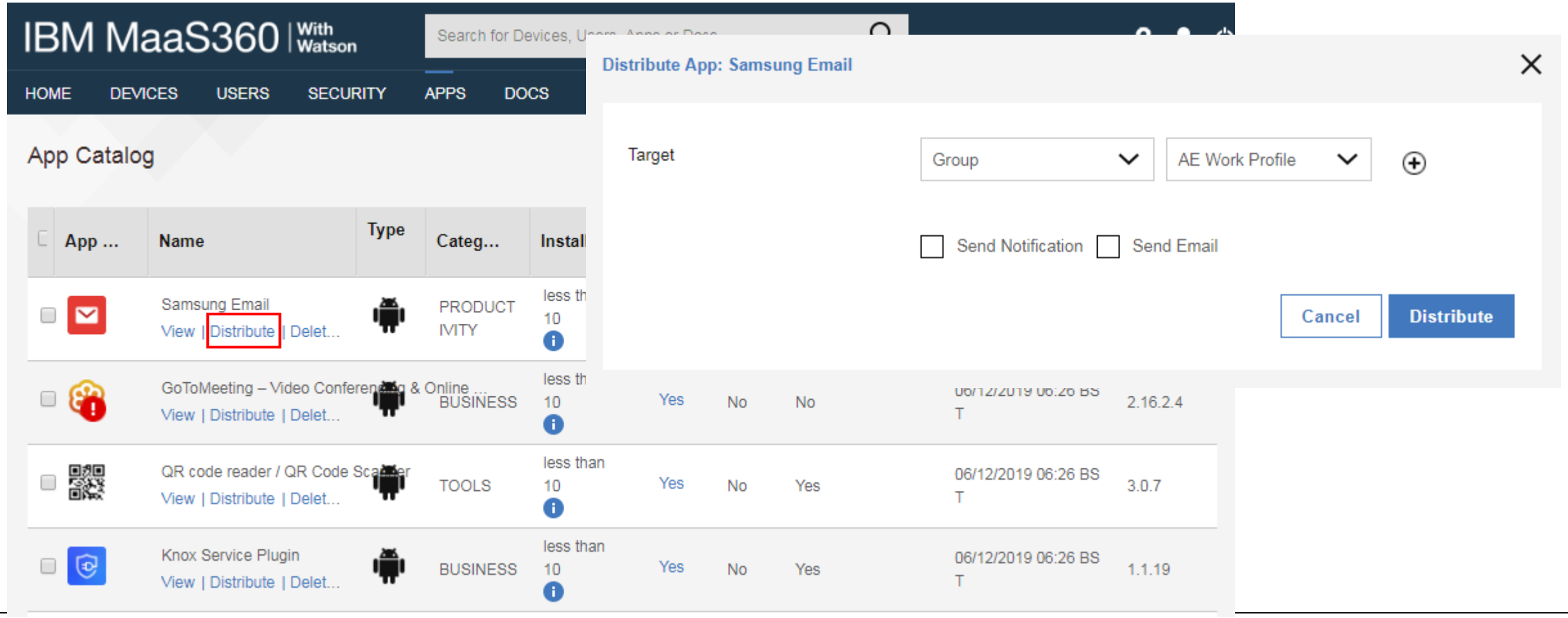




Managed Google Play Configuration

Managed Google Play Configuration

- You will now see the apps you approved imported into the App Catalog.
- Now we have imported the app, next we need to assign it to our users.
- Select the Distribute button under the app you wish to distribute and select a relevant group of users and Click **Distribute**.

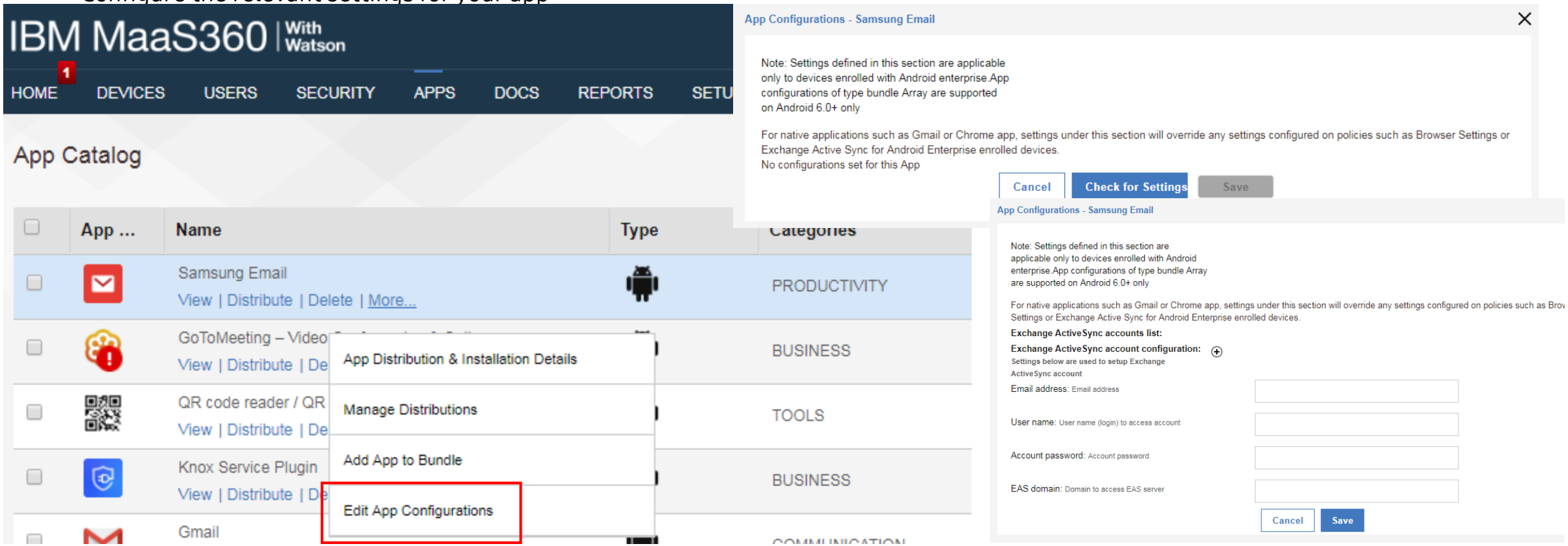


AppConfig on IBM MaaS360

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 IBM MaaS360, follow the below instructions.

- Navigate to **Apps Catalog** and choose **More->Edit App Configurations** for the app you wish to send down a configuration for.
- Configure the relevant settings for your app



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 advanced 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 Enterprise on Oreo or above.

Configure Knox Platform for Enterprise : Standard Edition

Knox

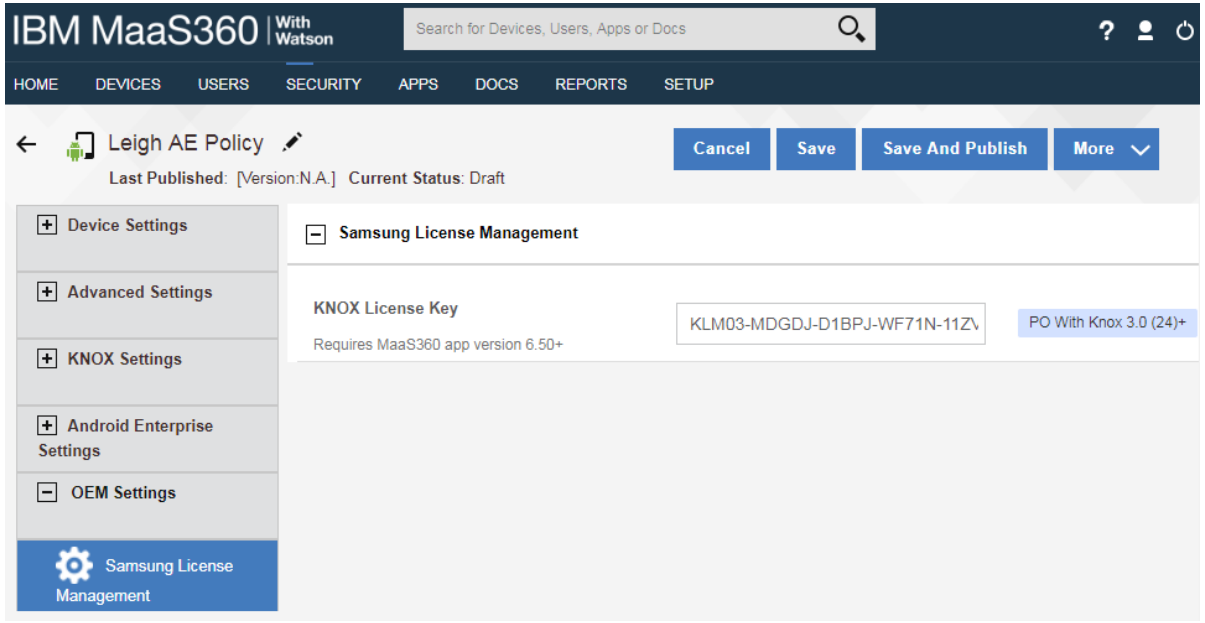
Configure KPE : Standard Edition on IBM MaaS360

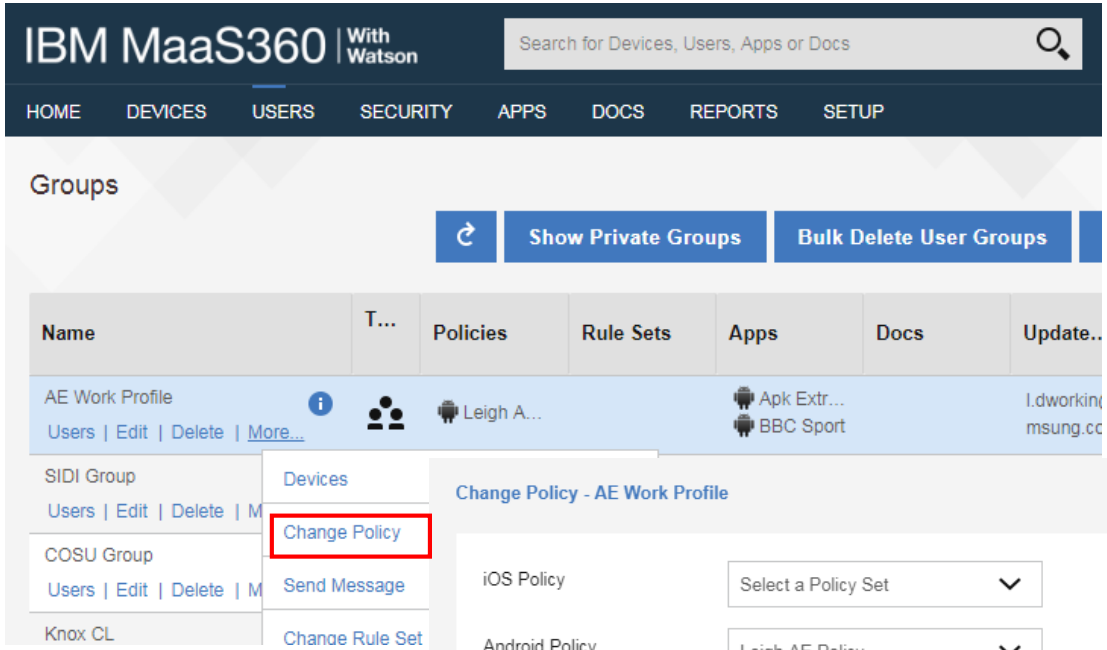
- This is on by default with Android Enterprise on a Samsung Device

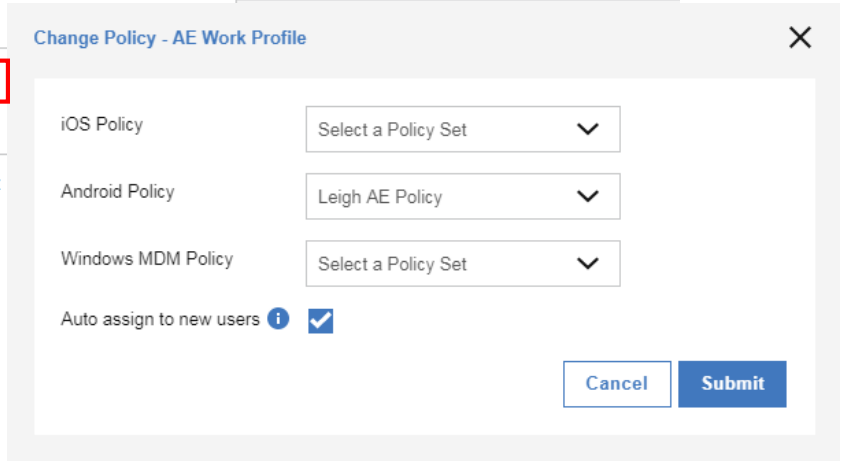
Knox Platform for Enterprise : Premium Edition

IBM MaaS360 fully supports Knox Platform for Enterprise Premium Edition.
It does this by just adding in a Knox license key.

- Simply add the Knox license key to OEM Settings->Samsung License Management and Save





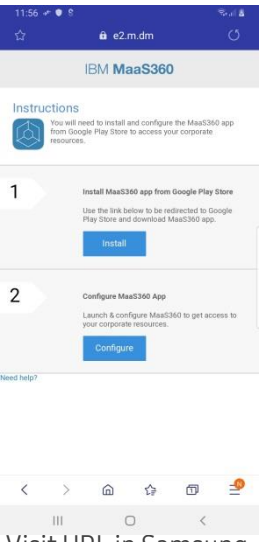


- Then in Users->Groups choose More... and assign the new Policy to the group

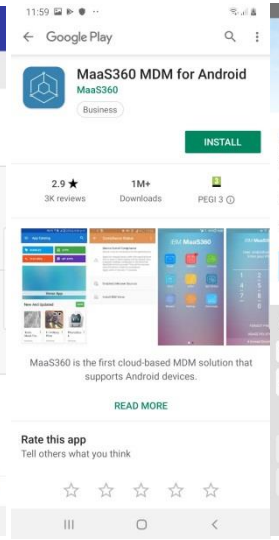
Android Enterprise BYOD Deployment with a KPE license key policy

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

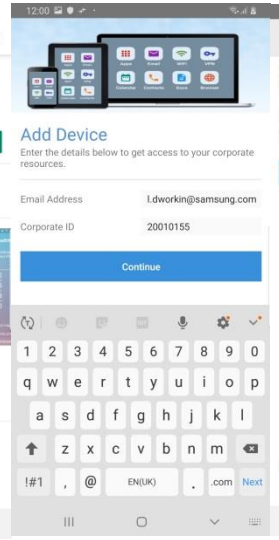
- On your device, go to the Google Play Store, download the IBM MaaS360 agent, and enroll your device into your tenant.
- Alternatively, in a browser on the device, visit the URL from the Email invitation for the device:



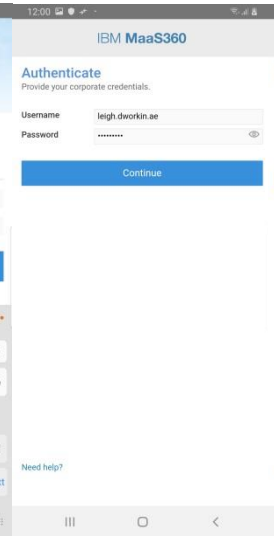
Visit URL in Samsung Browser from Email invitation. Click Install



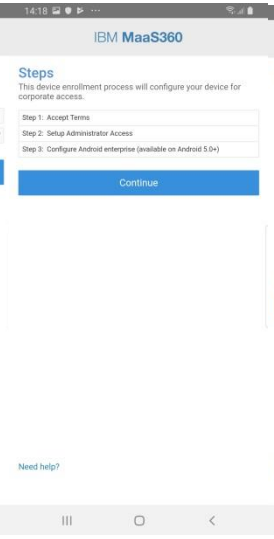
Install MaaS360 agent from Google Play Store



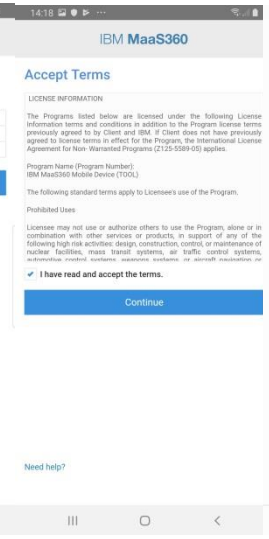
Check email and hit Continue



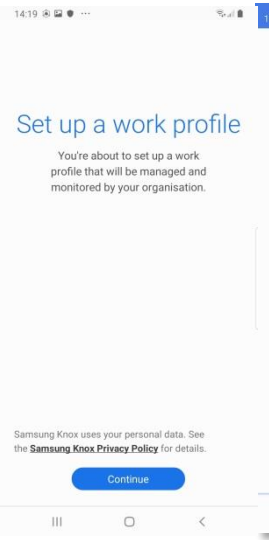
Enter user credentials & hit Continue



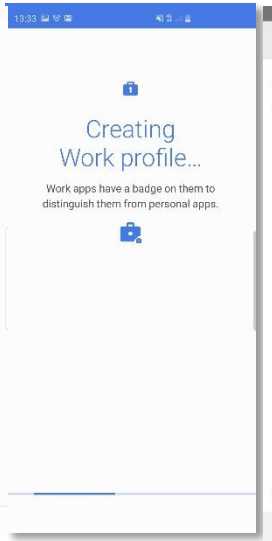
Review Steps & hit Continue



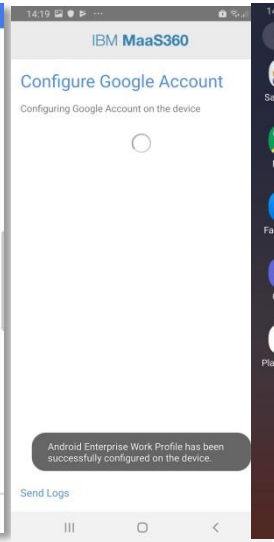
Accept terms and conditions



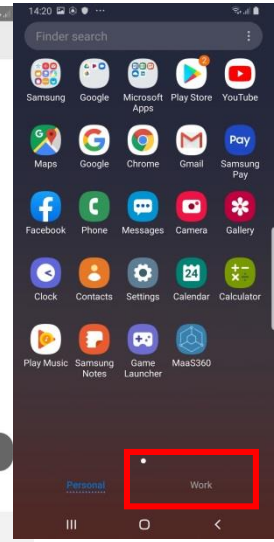
Click Continue to create Work Profile



Creating Work Profile

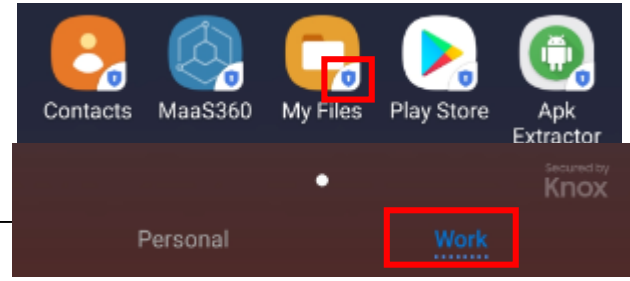


Device Enrollment Successful!



Work Tab Created

*You can also enroll your device using the alternative IBM MaaS360 methods. For example QR Code.

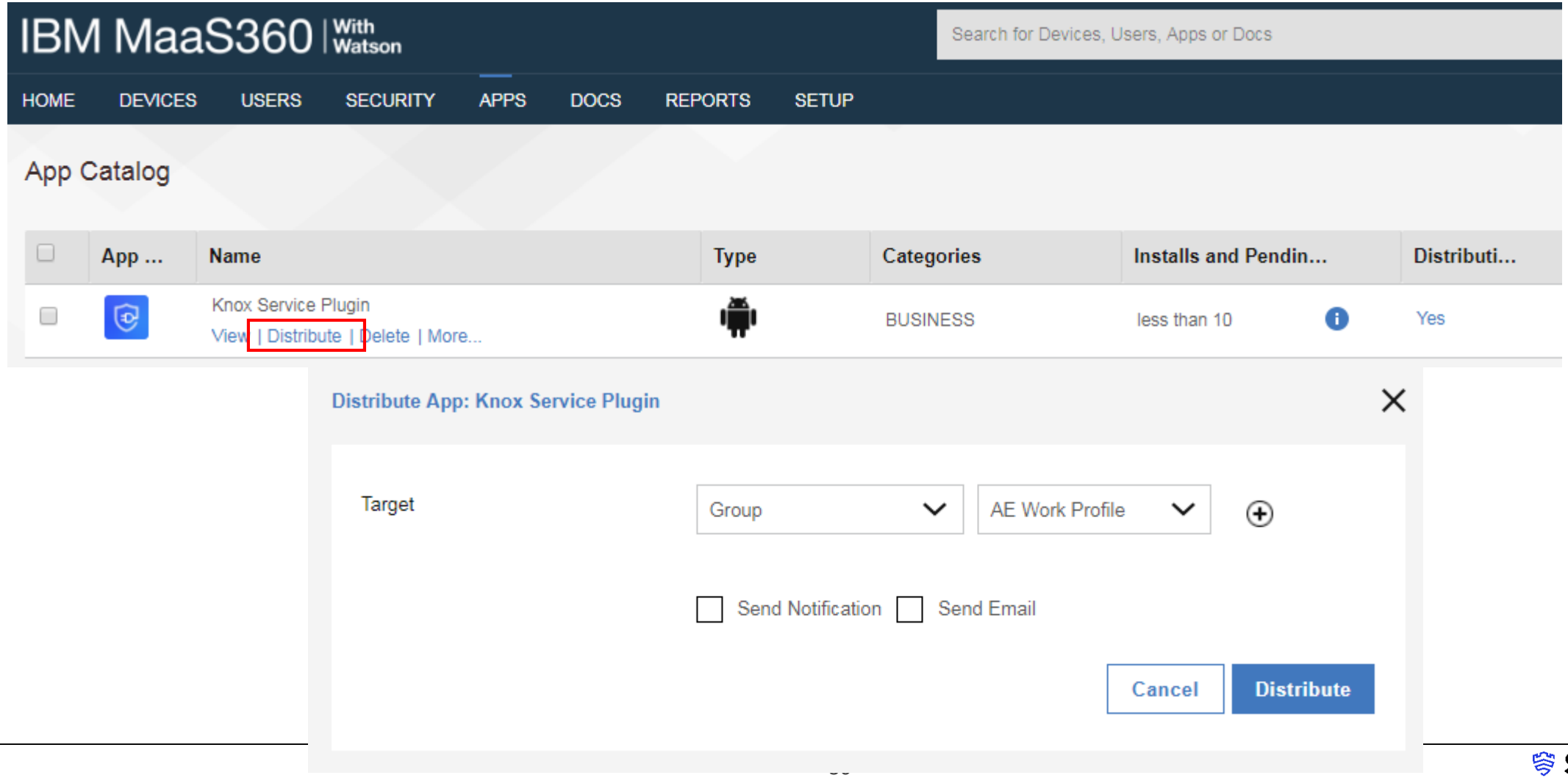


What to look out for in the Work Tab

Knox Service Plugin [KSP]

Knox

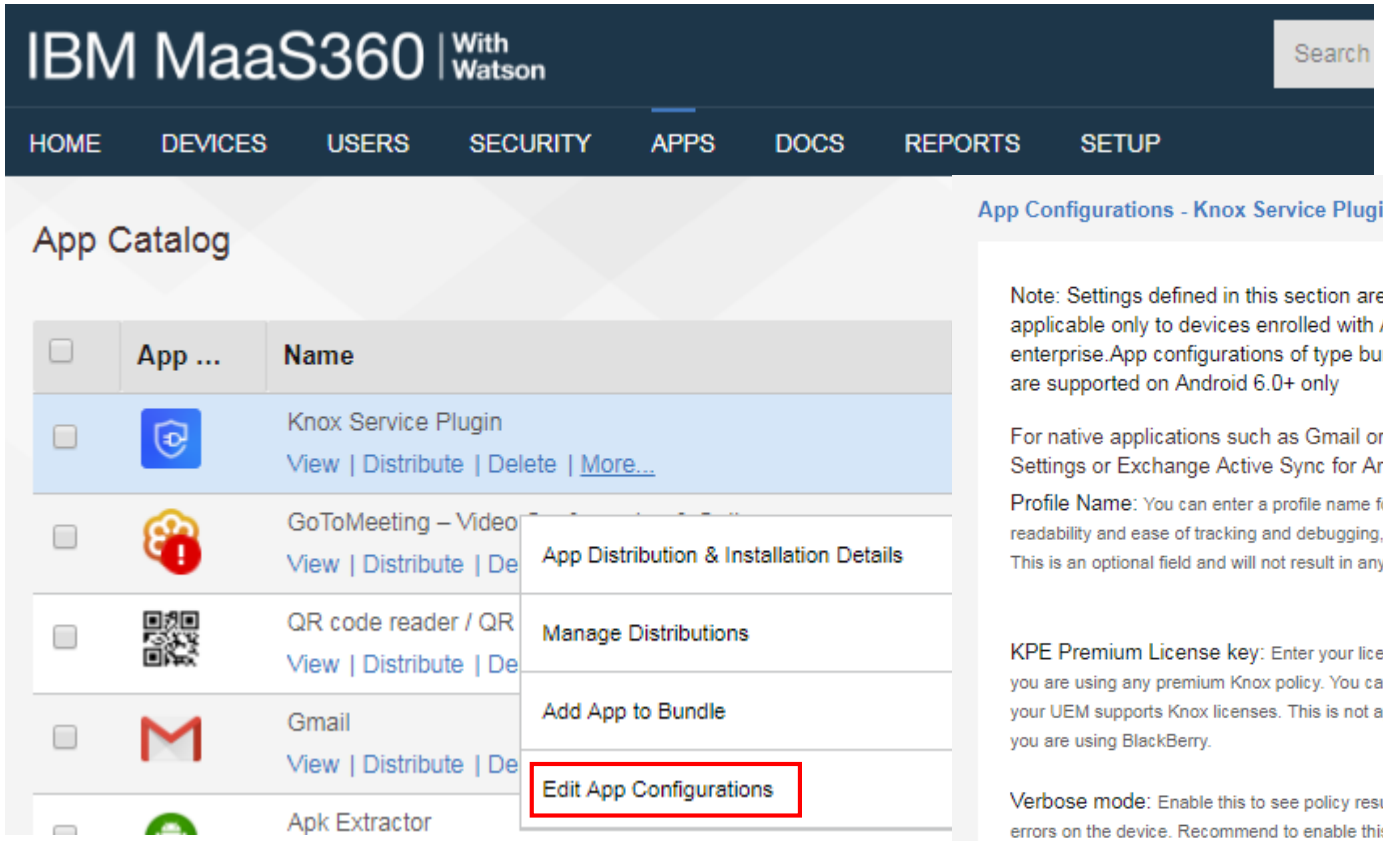
IBM MaaS360 fully supports Knox Service Plugin.

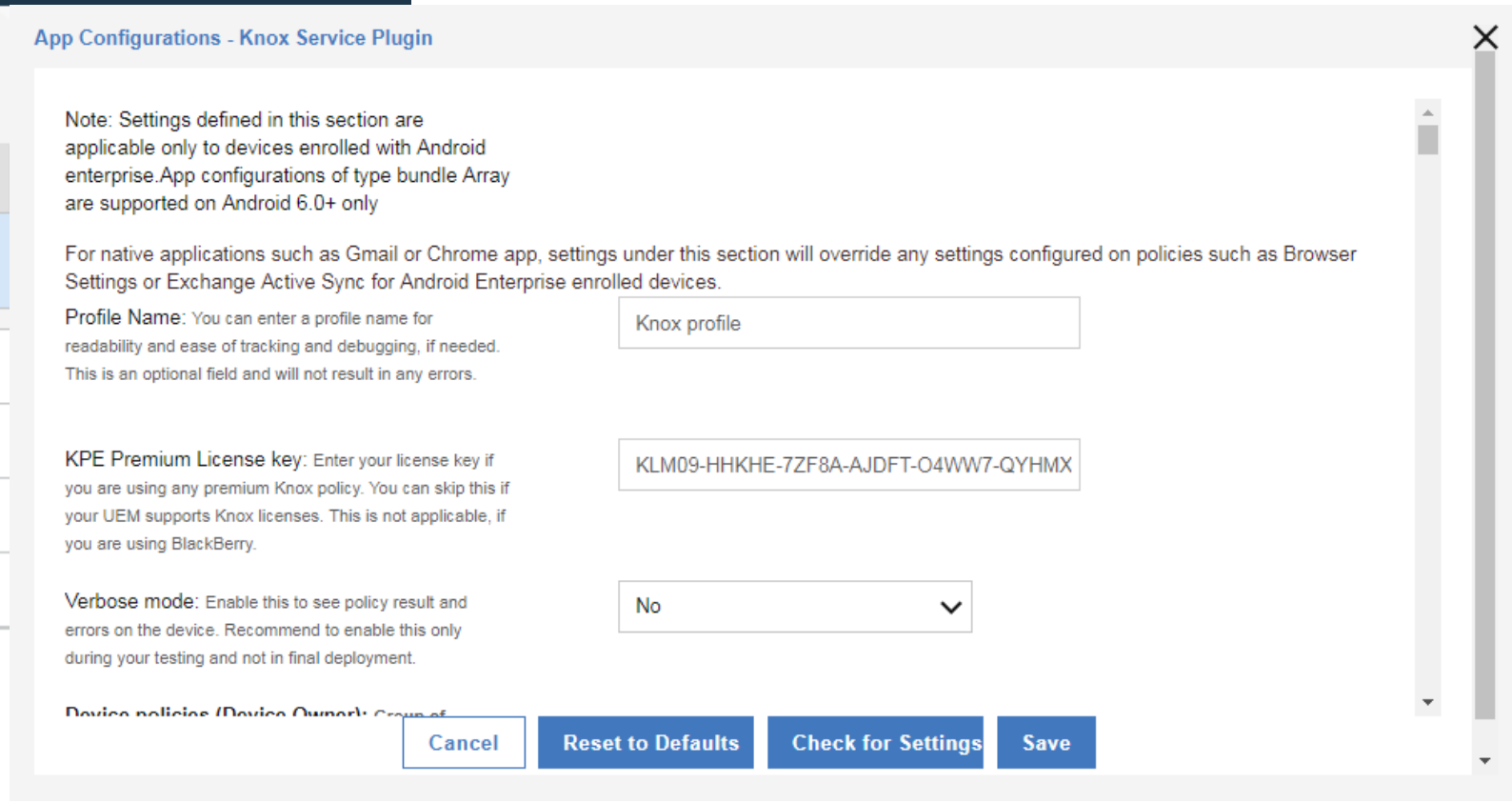


Knox Service Plugin [KSP]

Knox

IBM MaaS360 fully supports Knox Service Plugin.





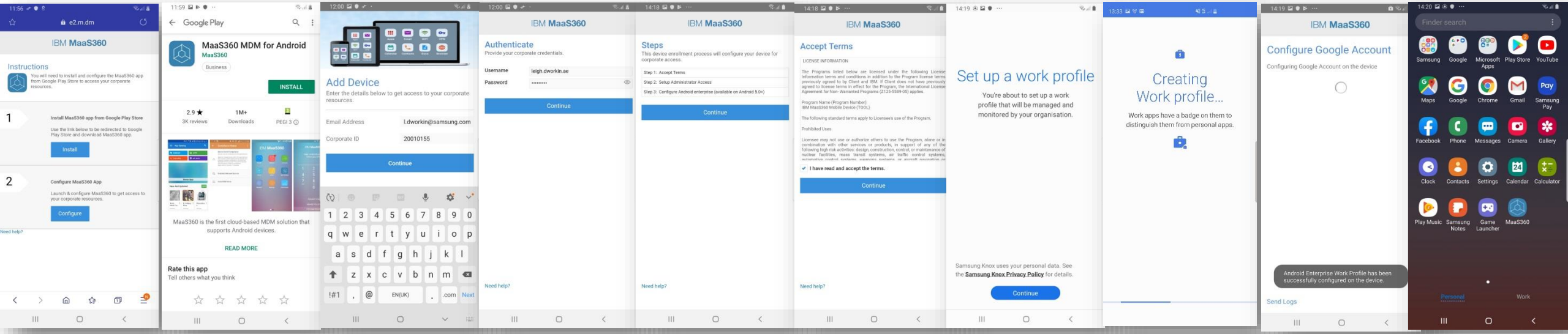
Secured by Knox

Android Enterprise: KSP

Android Enterprise BYOD Deployment with Knox Service Plugin

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 IBM MaaS360 agent, and enroll your device into your tenant.
- Alternatively, in a browser on the device, visit the URL from the Email invitation for the device:



Visit URL in Samsung Browser from Email invitation. Click Install

Install MaaS360 agent from Google Play Store

Check email and hit Continue

Enter user credentials & hit Continue

Review Steps & hit Continue

Accept terms and conditions

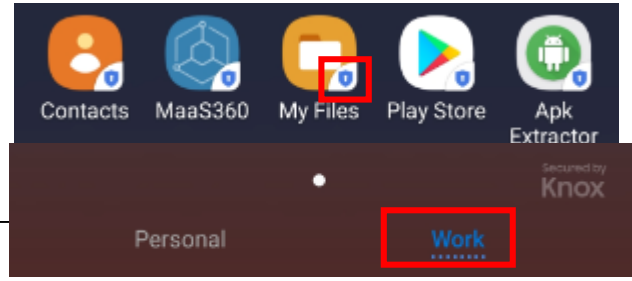
Click Continue to create Work Profile

Creating Work Profile

Device Enrollment Successful!

Work Tab Created

*You can also enroll your device using the alternative IBM MaaS360 methods. For example QR Code.



What to look out for in the Work Tab

Document Information

This is version 3.0 of this document.

Thank you!

Knox