

CipherLab

Instruction Manual

CipherLab OS Upgrade

RK25 (Android 9)
RS35 (Android 10)
RK95 (Android 9)

Version 1.1



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Website: <http://www.CipherLab.com>

RELEASE NOTES

Version	Date	Notes
1.0	Jan. 6 th , 2022	Initial release
1.1	Aug. 4 nd , 2023	Add the description about “RK95 OS Upgrade from Android 9 to Android 12” and simplify the architecture of the manual to improve user’s reading efficiency.

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INTRODUCTION

CipherLab OS Upgrade is a handy application for upgrading the OS of CipherLab mobile computers.

It's simple and convenient, and it can be used to work with ADC, WMDS, and ReMoCloud for upgrading multiple devices.

FEATURES

- Supports CipherLab RK25 mobile computer (**Android 9**) to upgrade to Android 11.
- Supports CipherLab RS35 mobile computer (**Android 10**) to upgrade to Android 11.
- Supports CipherLab RK95 mobile computer (**Android 9**) to upgrade to Android 12.
- Works with ADC, WMDS, and ReMoCloud for multiple devices upgrade.

Chapter 1

PREREQUISITE

This chapter guides you all the things need to be done before upgrading the OS image of your mobile computers.

1.1 PREREQUISITE FOR UPGRADING OS IMAGE

To upgrade the OS of your mobile computer, the following items are demanded.

1.1.1 ACTIVATION KEY

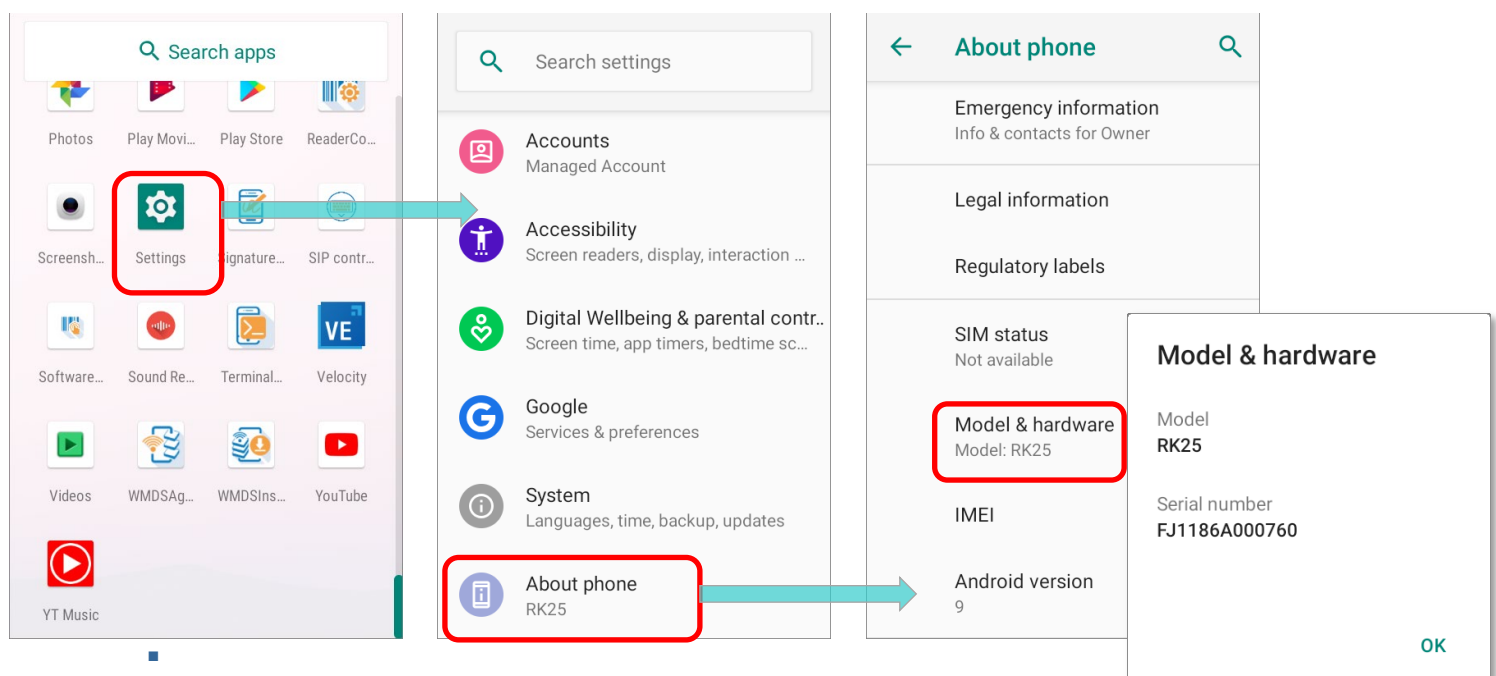
To acquire the activation key, please contact the sales representative and provide the below information to the representative:

- 1) Device Serial Number
- 2) Software Part Number

DEVICE SERIAL NUMBER

In the following illustration, we take RK25 mobile computer for example to demonstrate how to check the **Serial Number** of your device. The process may vary slightly upon different models of your mobile computers.

Go to **App Drawer** | **Settings**  | **About phone** , swipe to find **Model & hardware**, and tap on it. The "**Serial Number**" is shown on the popup.



SOFTWARE PART NUMBER

Please confirm the software part number of your RK25/RS35/RK95 mobile computer:

- RK25 Mobile Computer (Android 9):

-

Model	Part Number
LTE GMS	A90W025GL0301
WIFI only GMS	A90W025GW0301
LTE Non-GMS	A90W025NL0301
WIFI only Non-GMS	A90W025NW0301
LTE GMS RUSSIA	A90W025RL0301
WIFI only GMS RUSSIA	A90W025RW0301

- RS35 Mobile Computer (Android 10):

-

Model	Part Number
LTE GMS / WIFI only GMS	A90W035GL0401
LTE GMS RUSSIA / WIFI only GMS RUSSIA	A90W035RL0401
LTE Non-GMS / WIFI only Non-GMS	A90W035NL0401

- RK95 Mobile Computer (Android 9):

-

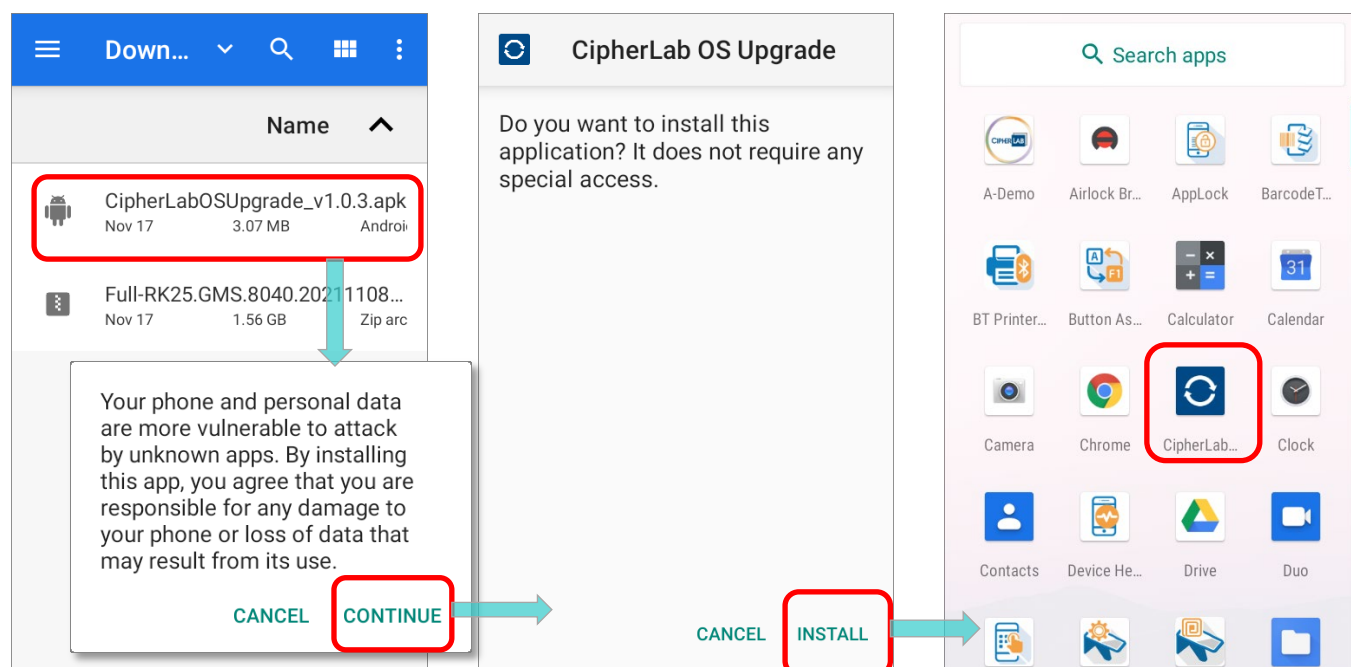
Model	Part Number
WHEECARE-RK95-AN9/12 -GMS-WIFI	A90W095GW0601
WHEECARE-RK95-AN9/12 -GMS-WIFI-RU	A90W095RW0601

WHEECARE-RK95CC-AN9/ 12-GMS-WIFI	A90W95CGW0601
WHEECARE-RK95CC-AN9/ 12-GMS-WIFI-RU	A90W95CRW0601

1.1.2 CIPHERLAB OS UPGRADE APK

Once the information (device serial number, software part number, etc.) you provide is confirmed, you will get the upgrade package which contains CipherLab OS Upgrade APK from CipherLab.

To manually upgrade the device OS, please copy this .apk file to your device(s) and install it. As the figures below shows, we take RK25 mobile computer (Android 9) for example to demonstrate how to manually upgrade the OS of your mobile computer.



1.1.3 DEDICATED OS IMAGE

The dedicated OS image is also in the upgrade package. You can obtain the upgrade package after the provided serial number and software part number are confirmed.

To manually upgrade the device OS, please copy the dedicated OS image to your device(s) or a removal SD card.

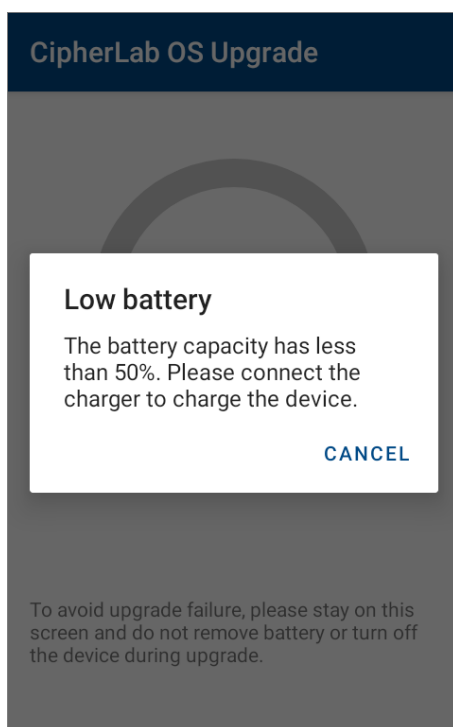
1.2 IMPORTANT NOTICE

Please read this section carefully before you start to proceed OS upgrade.

1.2.1 BATTERY POWER LEVEL

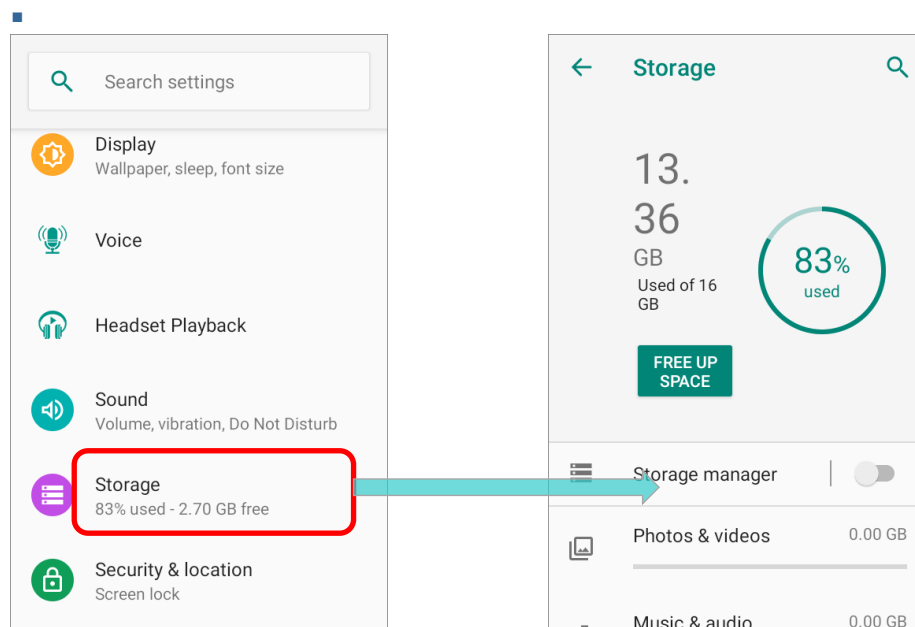
The main battery power level of the mobile computer should be more than 50%. If it is lower than 50%, make sure to connect your device with the charger during the upgrade process.

The application CipherLab OS Upgrade will prompt you to connect with the charger for charging if the battery power is lower than 50% and without connecting the device with a charger.



1.2.2 DEVICE STORAGE

It requires at least 5GB free storage for proper OS upgrade process. In the following illustration, we take RK25 mobile computer for example to demonstrate how to check your remaining storage space on the device to be upgraded by accessing **AppDrawer | Settings | Storage** to check your free storage, and free up space if necessary.



The application "**CipherLab OS Upgrade**" also checks whether the device free storage space is enough once you start to upgrade the device OS. A warning message pops up to remind you if the storage is insufficient for OS upgrade.

Insufficient storage results in OS upgrade process stops. Please tap on **EXIT** to leave and close "**CipherLab OS Upgrade**", and free up your device storage before you proceed OS upgrade again.

Storage space not enough

The free space of storage in this device is not enough for system upgrade. Please free up space first before starting upgrade.

EXIT

1.2.3 2G/16G SKU OF RK25 MOBILE COMPUTER

If your RK25 mobile computer is with **2GB RAM/ 16GB ROM**, make sure that its remaining RAM is more than **300MB** after running all applications.

1.2.4 DATA BACKUP

The device data won't be deleted after the OS upgrade, however, it is suggested that back up the critical data on the device in case of upgrade failures.

In order to restore the settings on your device, make sure to back up your important information stored on your device before proceeding OS upgrade.

1.2.5 ADC/ WMDS

To upgrade OS by through **ADC** (Android Deployment Configurator) or **WMDS** (Wireless Mobile Deployment System), please confirm the followings:

- The program (**ADC** or **WMDS**) is already installed on your PC.
- For working properly, your PC must have at least **8 GB RAM** or greater.
- The **ADC** program version should be **1.2.8** or later.
-

Note:

For the details about Android Deploy Configurator and Wireless Mobile Deployment System, please refer to the latest “ADC User Guide for Android” and “WMDS User Guide for Android” which can be downloaded from:

(1) **ADC:**

<http://wmds.cipherlab.com/ADC/UserGuide/Latest>

or

<https://www.cipherlab.com/en/download-c2223/ADC-Android-Deployment-Configurator.html>

(2) **WMDS:**

<http://wmds.cipherlab.com/WMDS/UserGuide/Latest>

or

<https://www.cipherlab.com/en/download-c2223/WMDS-Wireless-Mobile-Deployment-System.html>

1.2.6 REMOCLOUD

ReMoCloud is a cloud-based web system for enterprise user to manage CipherLab mobile computers. If you would like to upgrade multiple devices by **ReMoCloud**, make sure that you have a ReMoCloud account.

To apply a ReMoCloud account, please contact your local sales representative for account application via the page: <https://remocloud.cipherlab.com/AccountRequestForm>



The image shows a screenshot of the ReMoCloud Account Request Form. At the top left is a '< Back' button. In the center is the ReMoCloud logo, which includes the text 'verified by Google EMM'. Below the logo is the title 'ReMoCloud Account Request Form'. The form contains several input fields: 'E-mail' (a single text box), 'Job Title' (a single text box), 'Name' (split into 'First Name' and 'Last Name' text boxes), 'Phone' (a single text box), 'Company' (a single text box), and 'Country' (a dropdown menu currently showing 'Afghanistan'). At the bottom left, there is a red warning message: '*Warning: Please do not use a personal email or an email tied to one individual. Once the account has been set up it is locked to the activation email and can not be changed.' At the bottom right is a blue 'Submit' button.

Note:

To learn more about ReMoCloud, please refer to [ReMoCloud User Guide for Android](#).

Chapter 2

MANUAL/AUTOMATIC UPGRADE

This chapter will walk you through the steps of upgrading the OS image by the application “**CipherLab OS Upgrade**”.

2.1 COPY FILES TO THE DEVICE

To upgrade the OS of your device, the .apk file of “**CipherLab OS Upgrade**” and the OS image file need to be deployed to the device(s) to be upgraded in advance.

You may copy CipherLab OS Upgrade apk file and the dedicated OS image file to the device(s) by:

- **USB File Transfer:**

Please connect your device with PC by the supplied USB cable or snap-on cable depending on your device model to read the device internal storage.

- **The Removable SD Card:**

Copy the files to a removable SD card and install the SD card to the device.

Note:

As to how to install SD card onto your device, please refer to the reference manual:

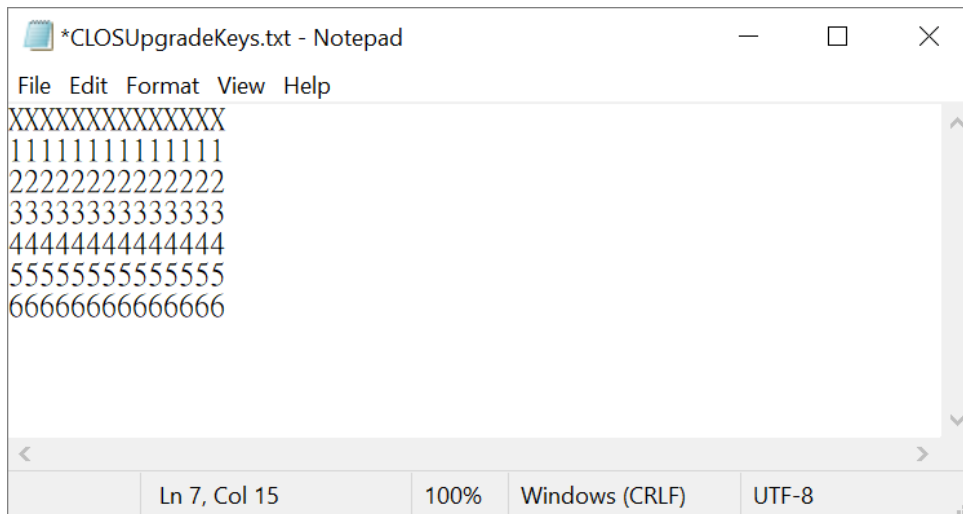
- 1) [RK25 Mobile Computer Reference Manual for Android Pie](#)
 - 2) [RS35 Mobile Computer Reference Manual](#)
 - 3) [RK95 Mobile Computer Reference Manual](#)
-

AUTOMATIC UPGRADE ON MULTIPLE DEVICES

To upgrade multiple devices automatically, except of **CipherLab OS Upgrade apk file** and **the dedicated OS image file**, the activation keys file named **CLOSupgradeKeys.txt** should be copied to the device(s) as well.

All of the three files can be copied and transferred to the root path of internal storage through USB, or save them to the root path of a removable SD card and install the SD card to the device.

For using **CLOUpgradeKeys.txt** to upgrade multiple devices, the content of the text file should be each activation key per each line as the below figure shows:

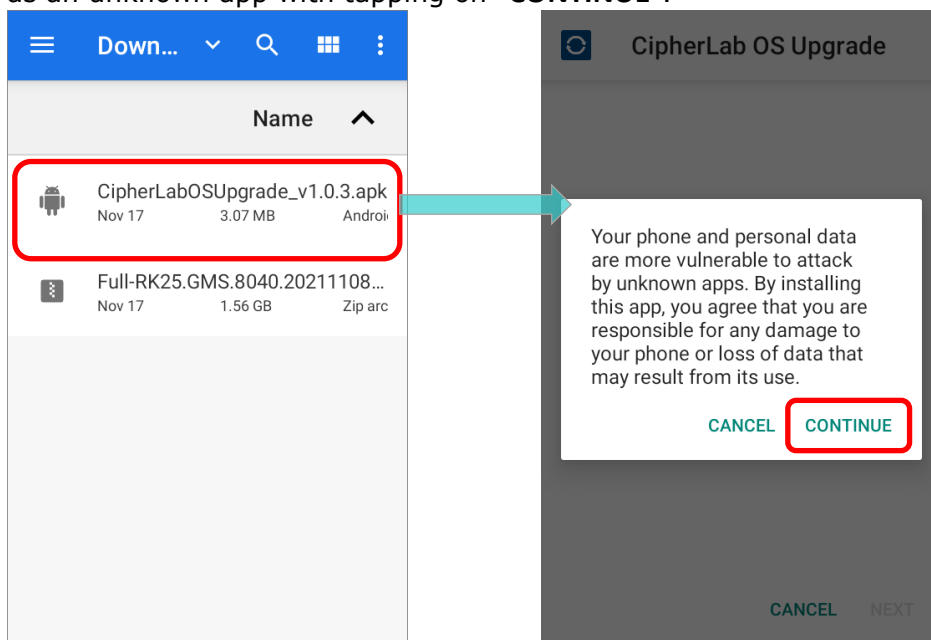


2.2 INSTALL CIPHERLAB OS UPGRADE

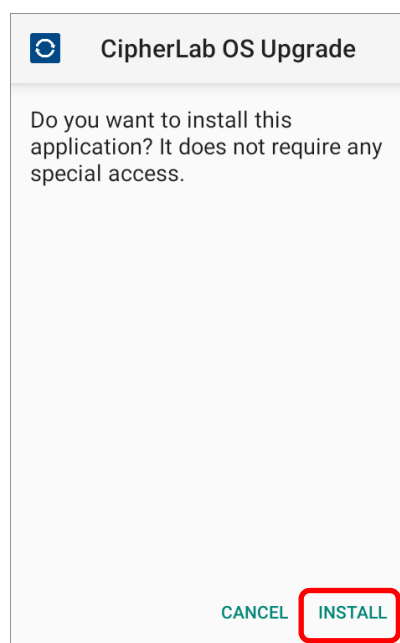
On your device to be upgraded, please locate **CipherLab OS Upgrade** file named **CipherLabOSUpgrade_vx.x.x.apk**, and tap on it to start the installation. In the following section, we take RK25 mobile computer for example to demonstrate how to install **CipherLab OS Upgrade**. Also follow the same procedures to proceed the installation of **CipherLab OS Upgrade** on different models of your mobile computers.

2.2.1 FOR RK25 MOBILE COMPUTER

Step 1: Confirm to manually install the application **CipherLab OS Upgrade** which is regarded as an unknown app with tapping on **"CONTINUE"**.

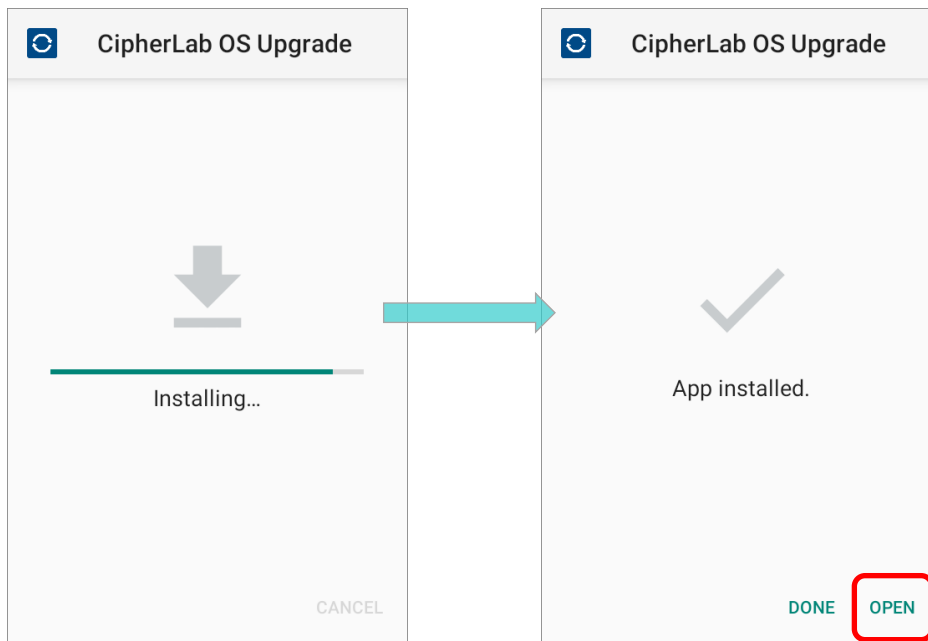


Step 2:
Tap on **"INSTALL"** to carry out the installation.

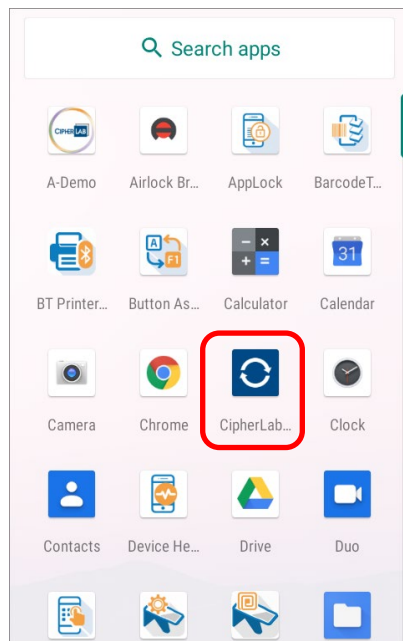


Step 3:

It takes a few seconds to complete the installation. After the installation is done, tap on **"OPEN"** to launch the application **CipherLab OS Upgrade**.



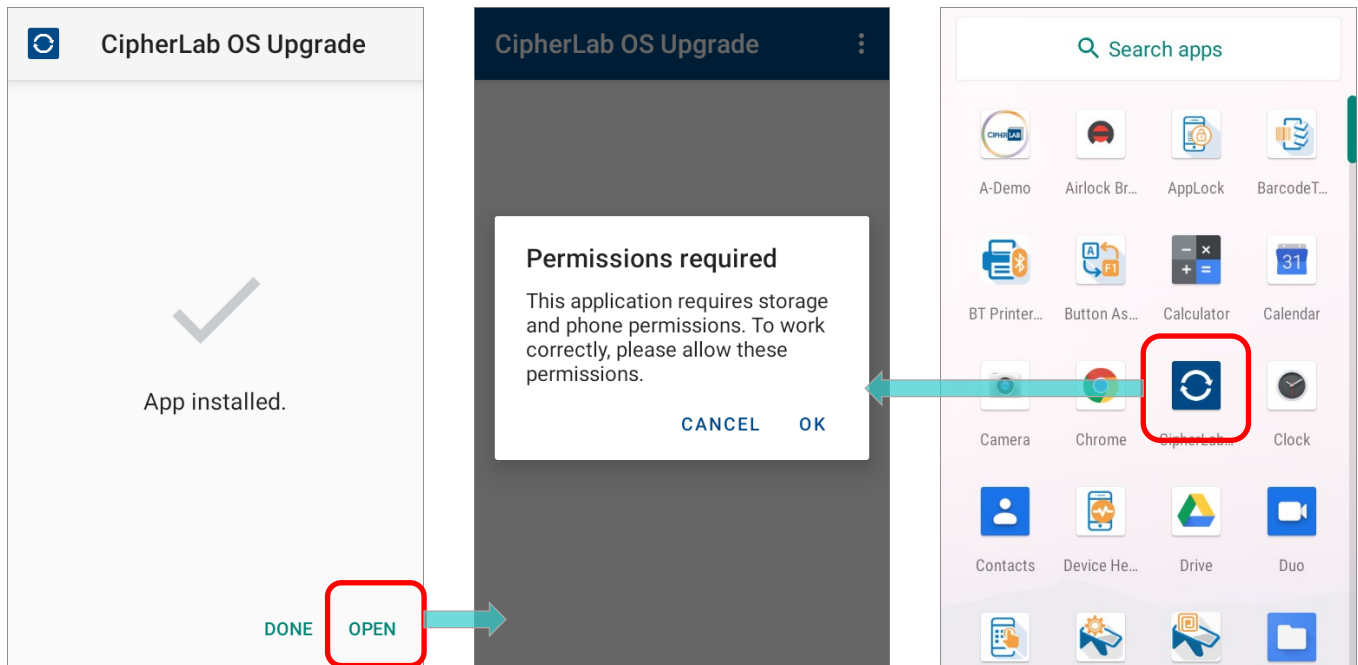
Or go to **App Drawer** and find the app **CipherLab OS Upgrade**. Tap to launch it.



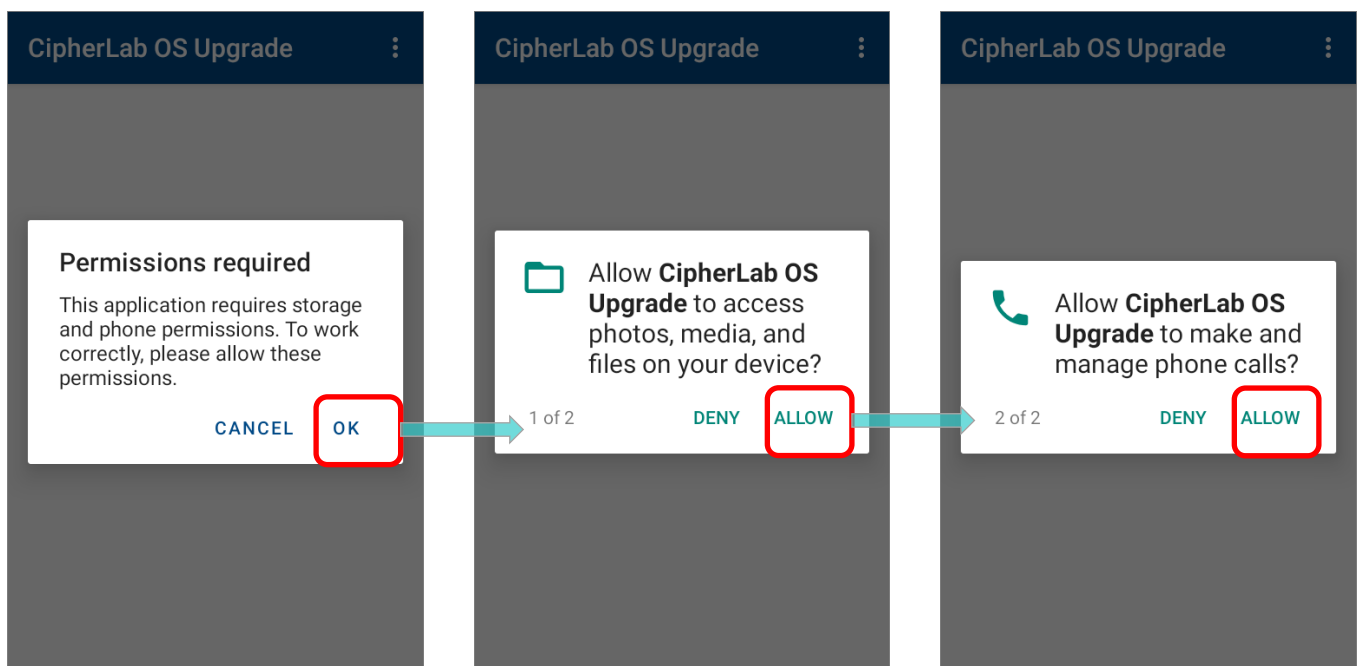
2.3 LAUNCH CIPHERLAB OS UPGRADE

After successfully installing **CipherLab OS Upgrade**, launch it by tapping on **"OPEN"** on app installed page, or tapping on the app in App Drawer.

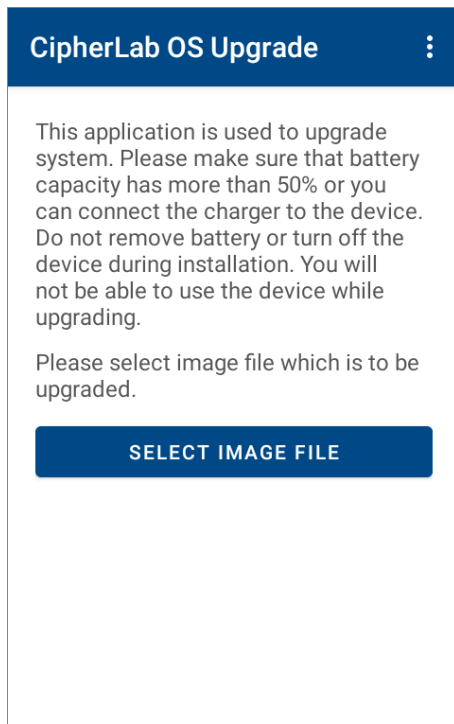
In the following illustration, we take RK25 mobile computer for example to demonstrate how to launch **CipherLab OS Upgrade** you installed.



You may see several on-screen dialogs prompt for permissions. In order to work properly in CipherLab OS Upgrade, you have to tap **"ALLOW"** button to grant related permissions.




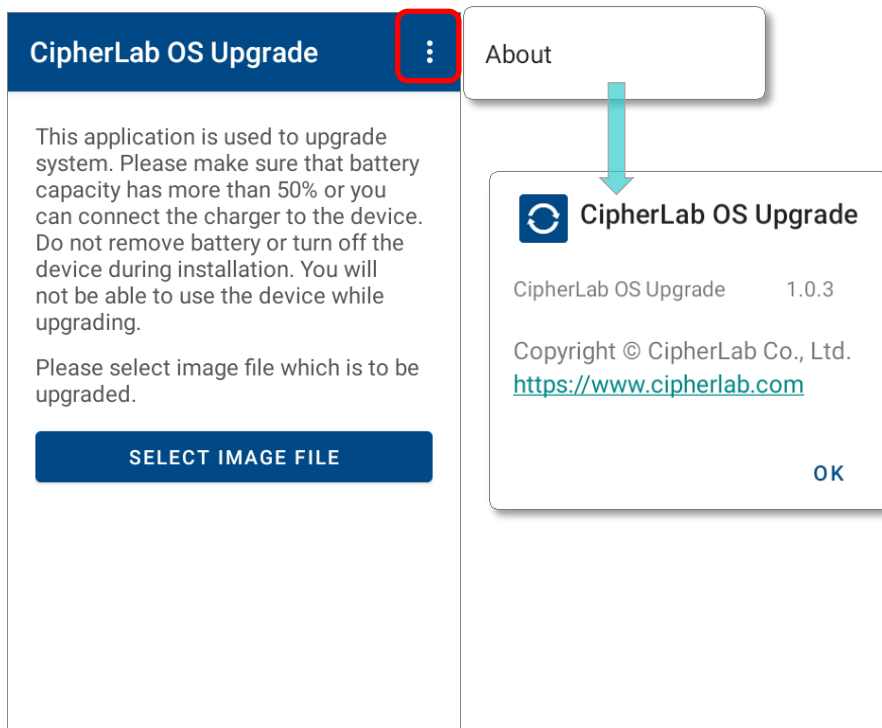
You are now enter the main screen of **CipherLab OS Upgrade**.



2.3.1 MAIN SCREEN OF CIPHERLAB OS UPGRADE

On main screen, it gives the precautions about the required battery power level of the device and a “**SELECT IMAGE FILE**” button for you to select the dedicated OS image. Make sure you follow the precautions and then start to carry out the upgrade.

To check the app version information, please tap on the more button  on the action bar.



2.4 UPGRADE

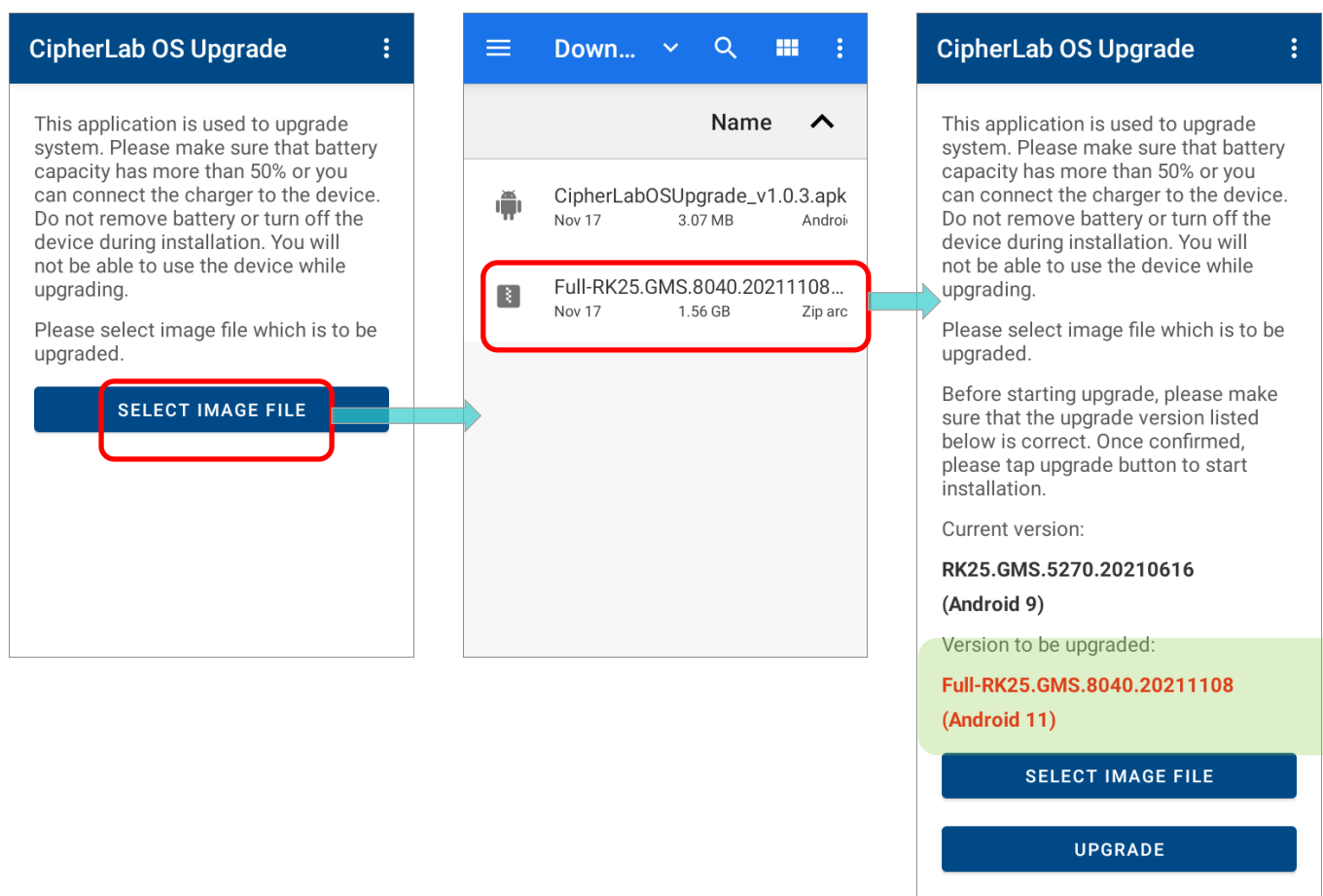
Before you start to upgrade your device, be sure to back up the critical data in case of upgrade failures.

2.4.1 MANUAL UPGRADE

Follow the steps to upgrade the device manually:

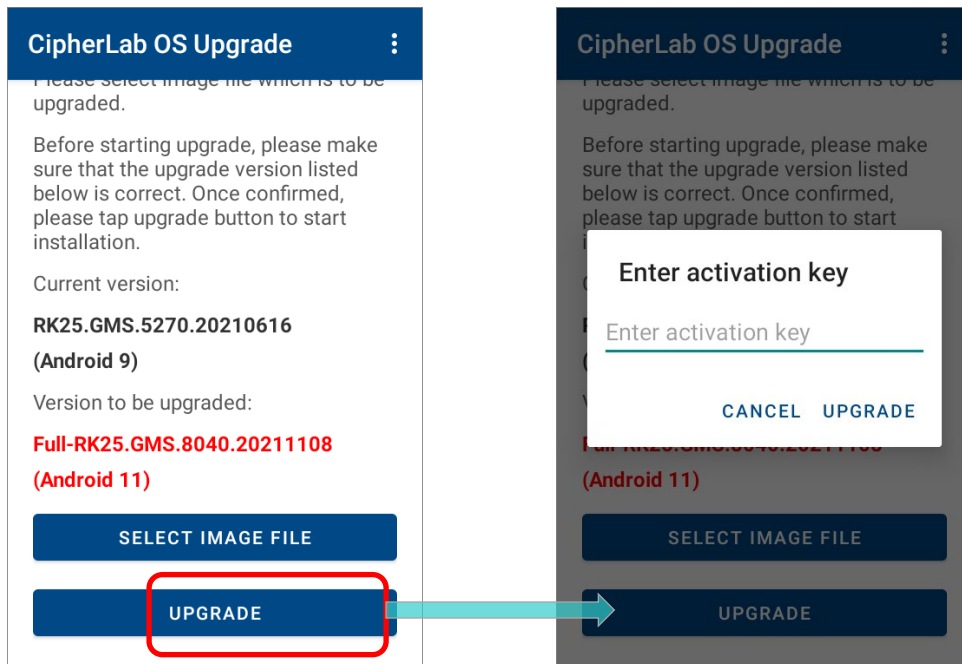
- 1) On **CipherLab OS Upgrade** main screen, tap on **"SELECT IMAGE FILE"** to choose the dedicated OS image stored on the device/ SD card.

After selecting image file, the main screen shows the device current OS version and the OS version you choose for upgrade. Confirm the OS version is the one you'd like to upgrade.

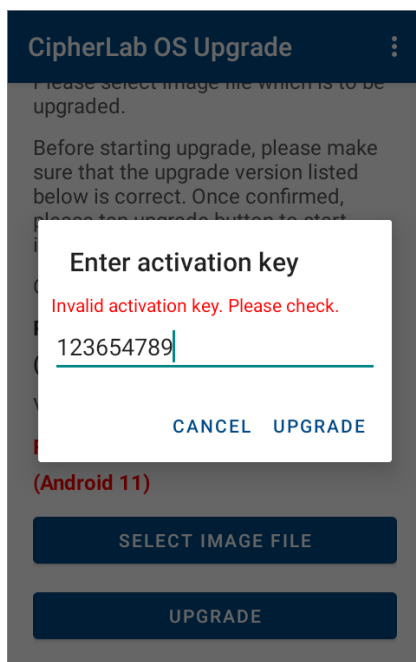


2) Confirm the OS image and then tap on “**Upgrade**” to start.

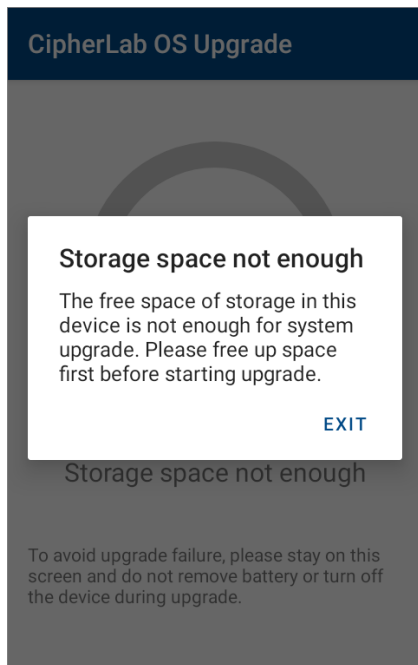
A dialog appears for the activation key. Manually input the activation key for this device and confirm by tapping on **UPGRADE**.



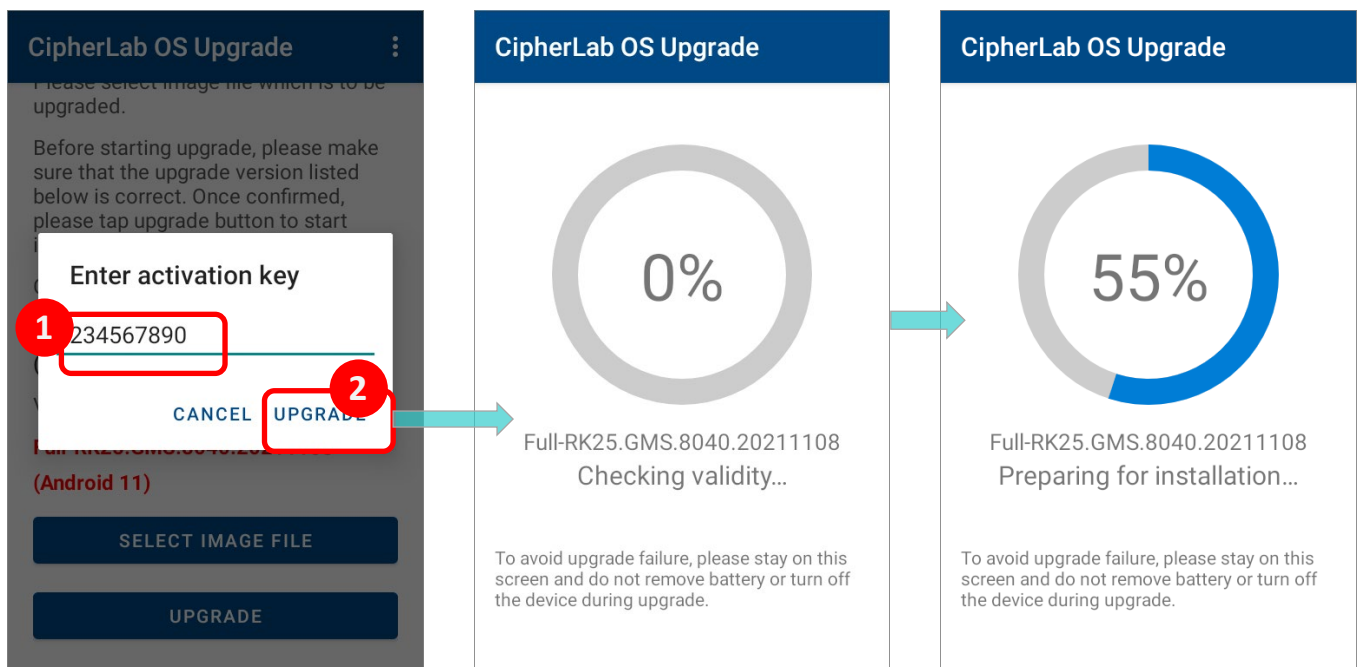
If the activation key you entered is incorrect, it shows “**Invalid activation key. Please check.**” Please check the activation key and enter again.



3) **CipherLab OS Upgrade** checks whether the device free storage space is enough for OS upgrade. If it doesn't fulfill the minimum storage requirement (5GB free storage space), **CipherLab OS Upgrade** prompts a warning message and stops the OS upgrade process.

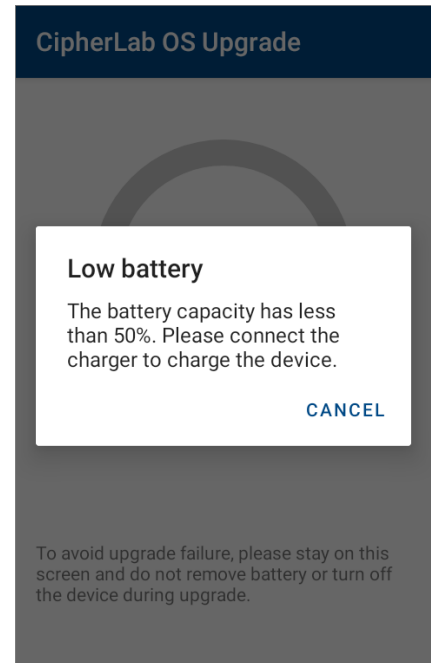


- 4) The upgrade automatically starts after you enter the activation key and tap on **"UPGRADE"** button. It will take a while to complete the progress.



Please note that the upgrade will not start if the device battery power level is lower than **50%**.

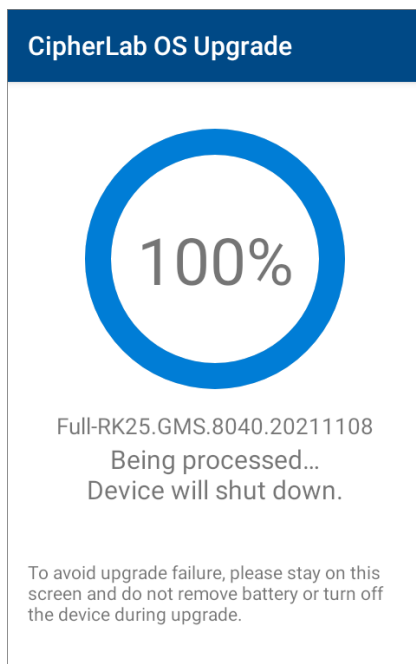
A warning message prompts to remind you to connect your device with a charger for charging. The upgrade automatically starts once the device is being charged.



Note:

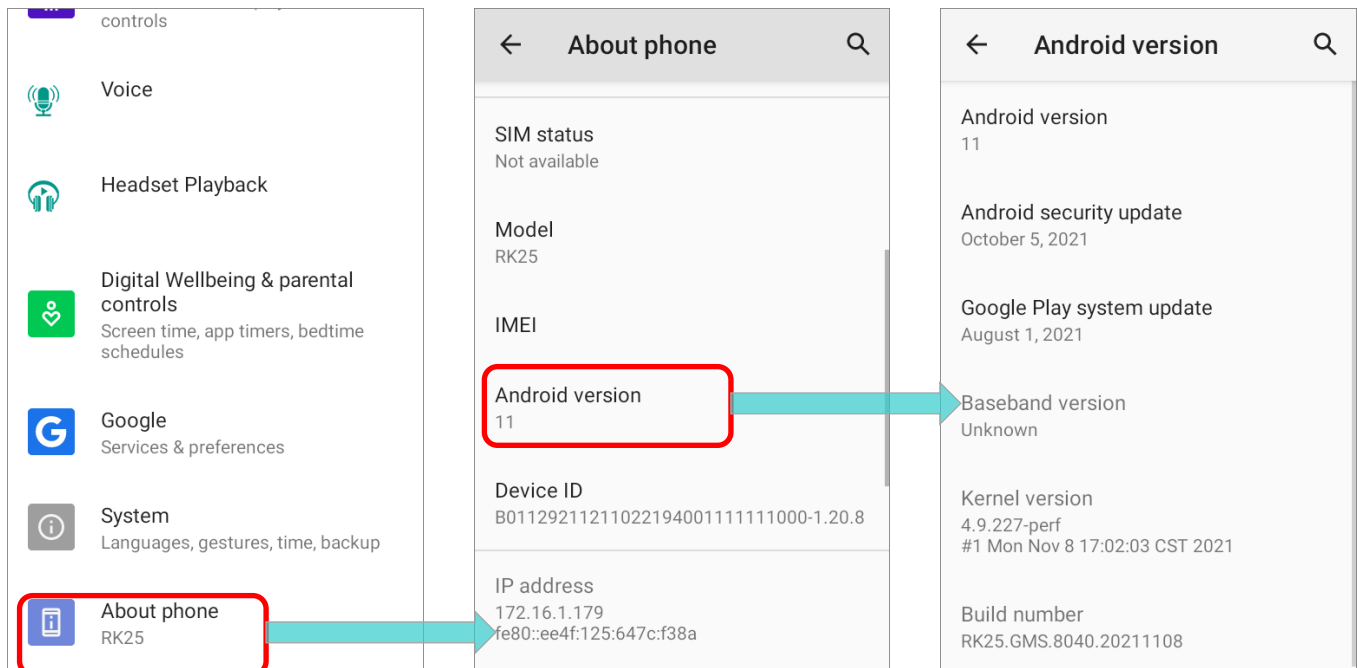
Once the upgrade starts, stay on CipherLab OS Upgrade main screen. DO NOT switch to another app or screen.

- 5) The device will install the necessary packages, shut down, update system, and then reboot automatically after the installation is completed.



SUCCESSFULLY UPGRADED

The device restarts after the installation. The upgrade is completed, and the OS of your device is now the version you would like to upgrade. For example, if your device is upgraded to Android 11, then you can check it by accessing **App Drawer** | **Settings** | **About Phone** | **Android version** (see the figure below). Different device models may have a little different accesses.

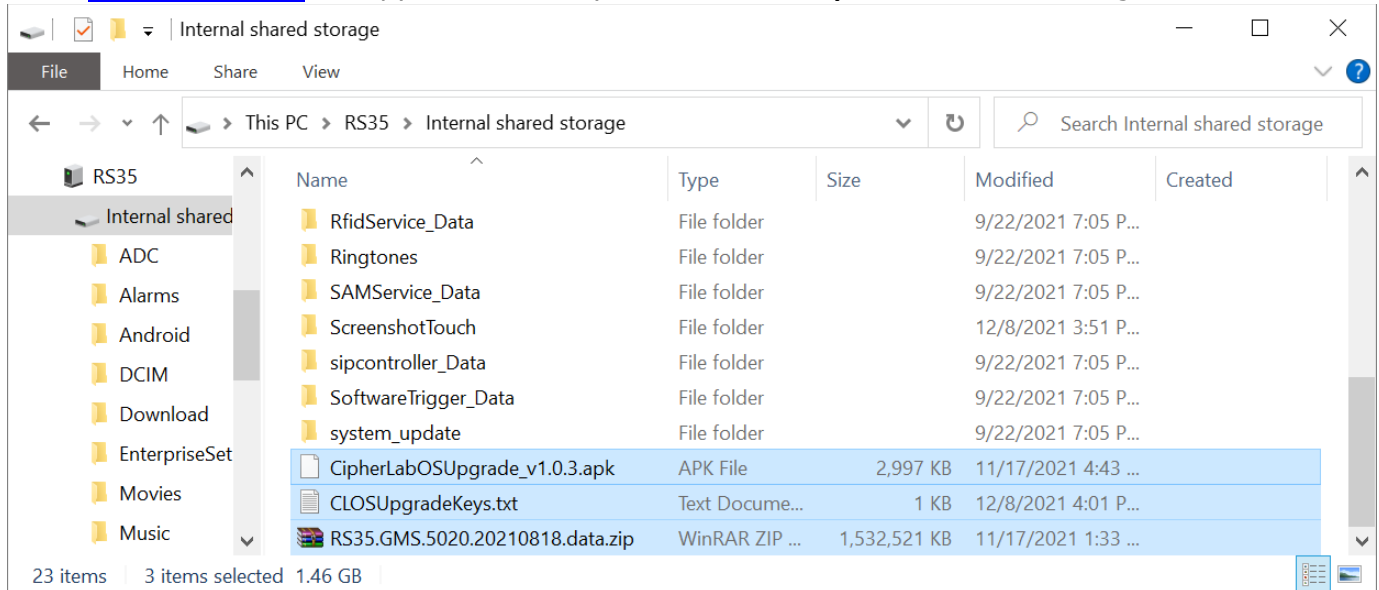


Note:

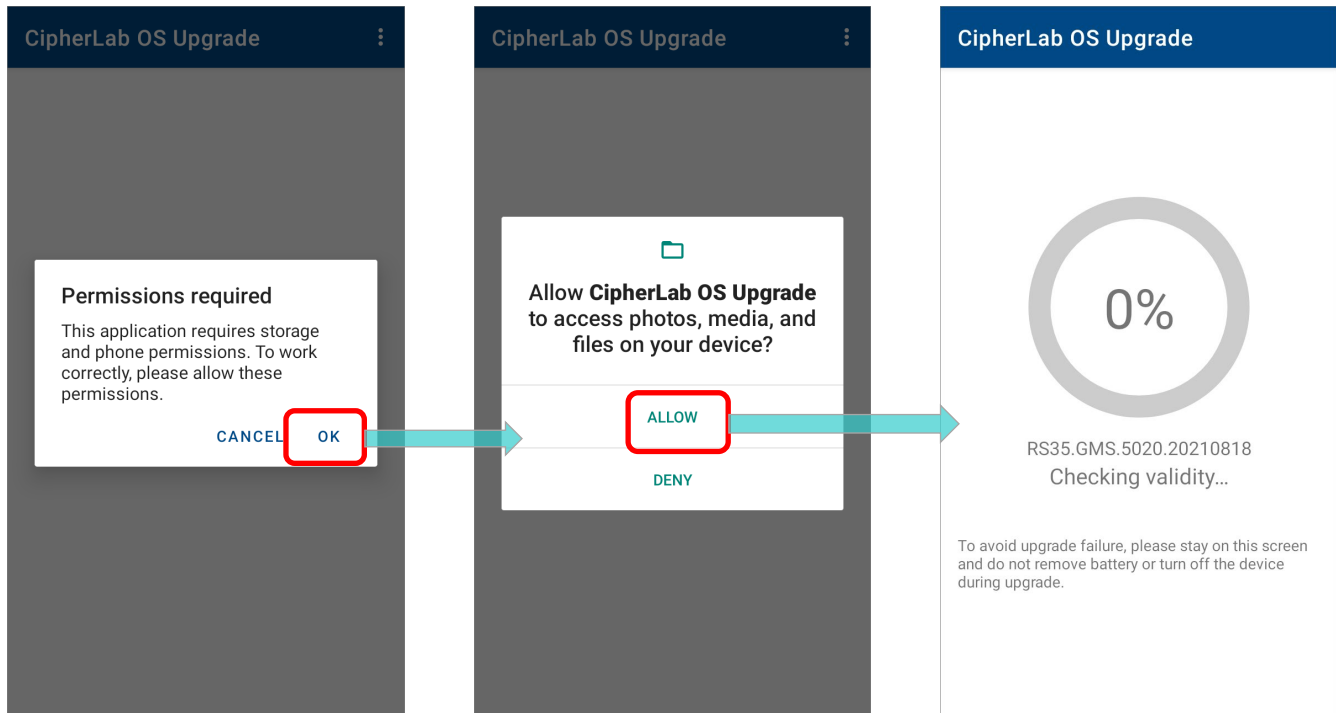
After successfully upgrading the device by manual upgrade, the dedicated OS image for upgrade you stored on the device will be removed to free up the space.

2.4.2 AUTOMATIC UPGRADE

For automatic upgrade, make sure that you follow the instructions of [Automatic Upgrade on Multiple Devices](#) to copy the necessary files to the **root path** of internal storage/ SD card.



[Install](#) the app **CipherLab OS Upgrade** on your device to be upgraded and [launch](#) it. The upgrade will automatically start right after you launch it and allow the permissions.



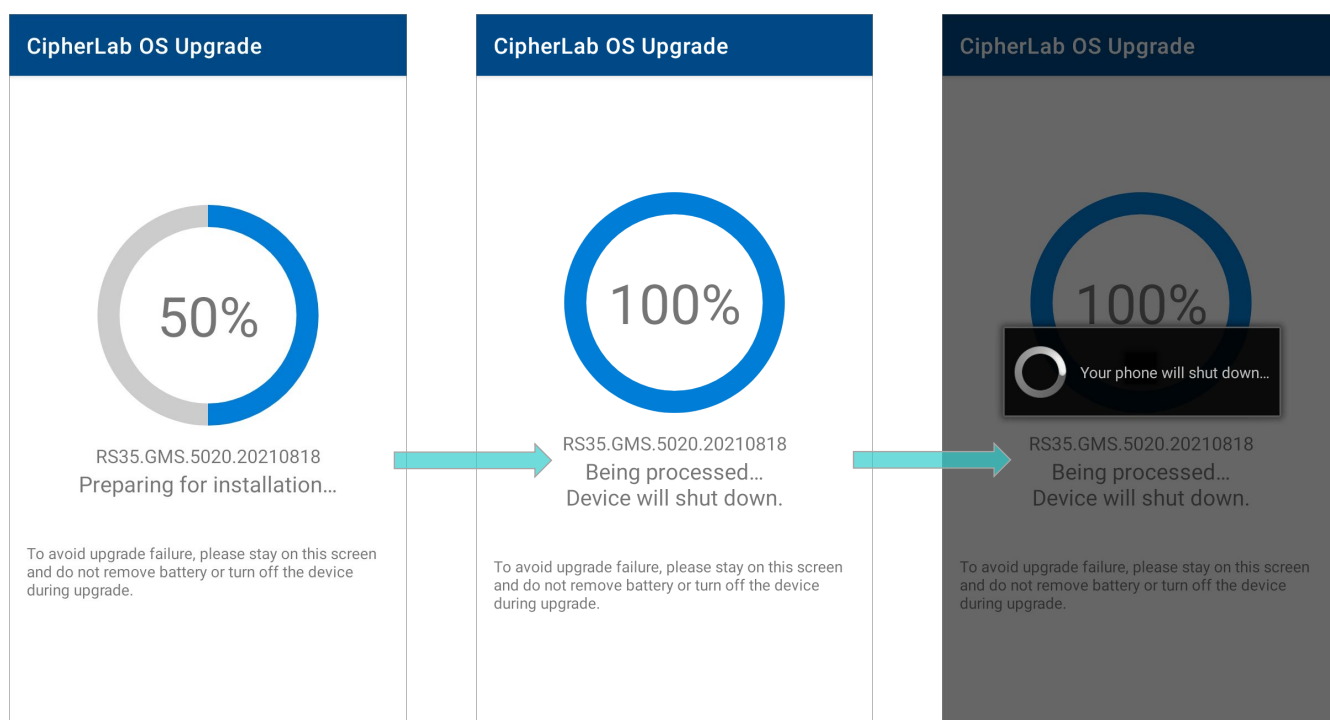
If the device free storage space is less than **5GB**, a warning message appears and the OS upgrade process stops. Please free up the storage space to fulfill the minimum storage requirement before you start to upgrade the OS again.

Storage space not enough

The free space of storage in this device is not enough for system upgrade. Please free up space first before starting upgrade.

EXIT



The upgrade process takes a while to install the necessary packages, shut down, update system, and then reboot automatically after finishing installation.

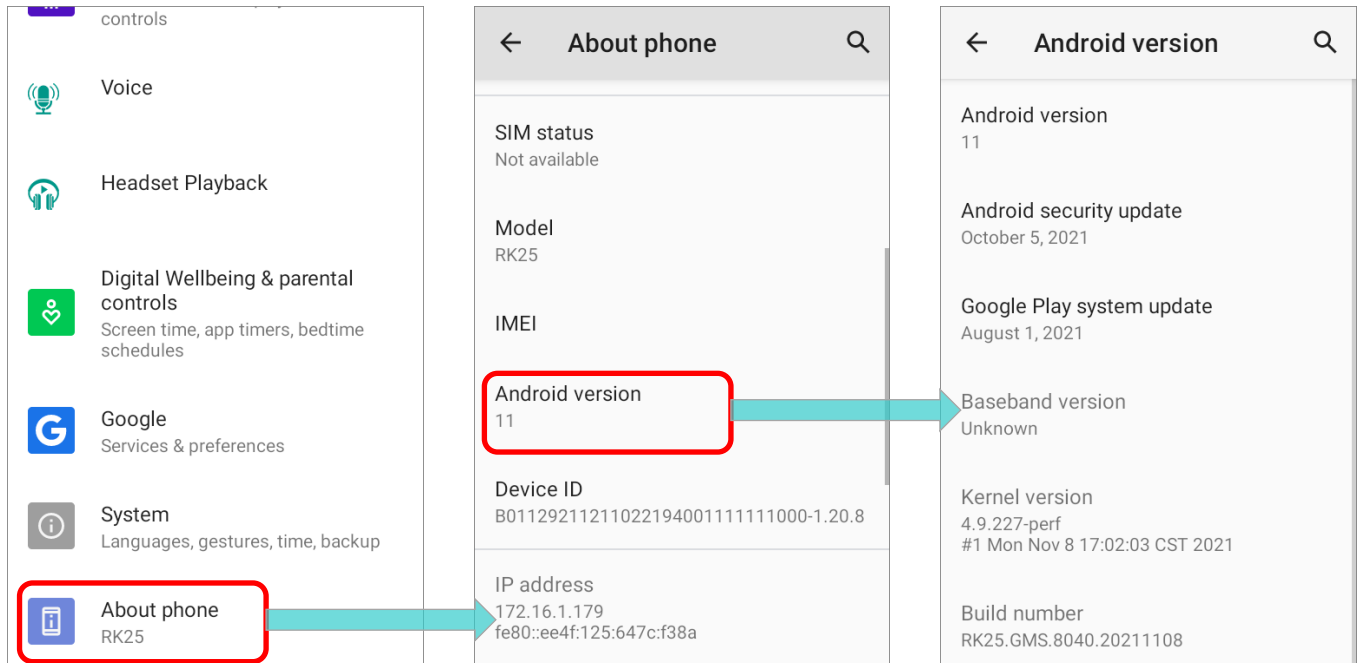


Note:

Once the upgrade starts, stay on CipherLab OS Upgrade main screen. DO NOT switch to another app or screen.

SUCCESSFULLY UPGRADED

The device restarts after the installation. The upgrade is completed, and the OS of your device is now the version you would like to upgrade. For example, if your device is upgraded to Android 11, then you can check it by accessing **App Drawer** | **Settings**  | **About Phone**  | **Android version** (see the figure below). Different device models may have a little different accesses.



Note:

If you choose "Automatic Upgrade" to upgrade the device, the dedicated OS image file will still exist on the device/ SD card for later use.

Chapter 3

UPGRADE BY ADC PROJECT

This chapter specifies how to upgrade the device OS image through **ADC** (Android Deployment Configurator) project.

3.1 PRELIMINARY

ADC (Android Deployment Configurator) is a computer program for users to create configuration projects and deploy the projects to their CipherLab mobile computers. With **ADC**, you can create a project which contains the **activation keys**, the **dedicated OS image file**, and **CipherLab OS Upgrade apk file**, and deploy this project to the devices to be upgraded. The device(s) will automatically carry out the upgrade once it applies the project.

To upgrade your device OS to Android 11 through ADC, the followings are required:

- ADC Program

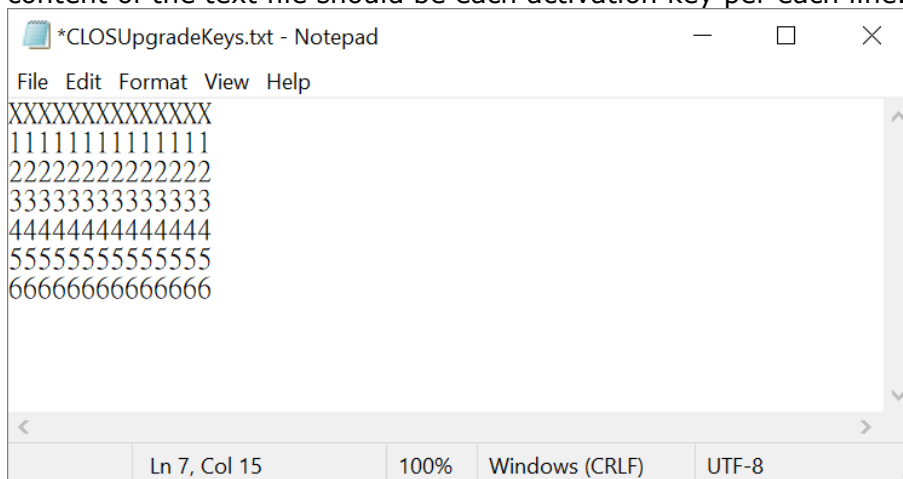
Make sure that you've installed ADC on your PC, and the version of your ADC program must be **1.2.8** or later.

The latest version of ADC program and the user guide can be downloaded from:

<https://wmds.cipherlab.com/ADC>

- CLOSupgradeKeys.txt

Create a .txt file named **CLOSupgradeKeys** to save all your activation keys, and the content of the text file should be each activation key per each line.



- CipherLab OS Upgrade apk file

The file is in the upgrade package. You can get the upgrade package after your device serial number and software part number is confirmed.

- The dedicated OS image file

The file is in the upgrade package.

Note:

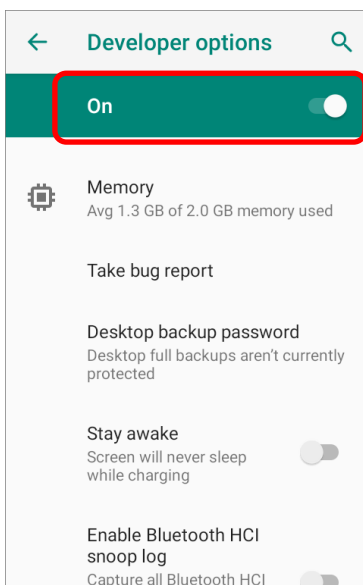
- (1) You don't have to manually transfer the activation keys, the dedicated OS image file, and CipherLab OS Upgrade apk file to your devices in advance. All these files will be transferred to your devices through ADC, and the application CipherLab OS Upgrade will be automatically installed onto your devices.
 - (2) The ADC program version and the supported device model and OS can be checked from: <https://wmds.cipherlab.com/ADC/Application>
Please check your ADC version and device OS version before executing OS upgrade by ADC.
-

3.2 DEVICE SETTINGS

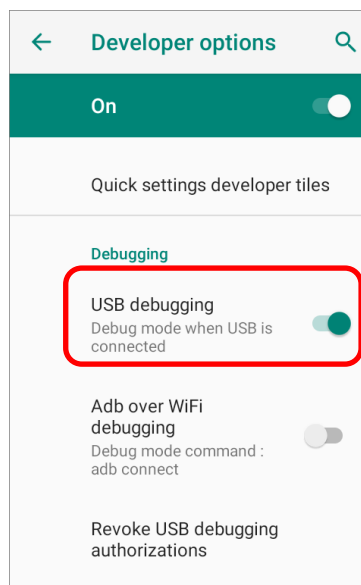
For the device to be upgraded, **Developer Options**, **USB debugging** and **File Transfer** three settings on the device need to be enabled before you start the OS upgrade by ADC.

In the following sections, we take RK25 mobile computer for example to demonstrate how to configure the aforementioned settings. Also follow the same procedures to proceed **CipherLab OS Upgrade** by ADC on different models of your mobile computers.

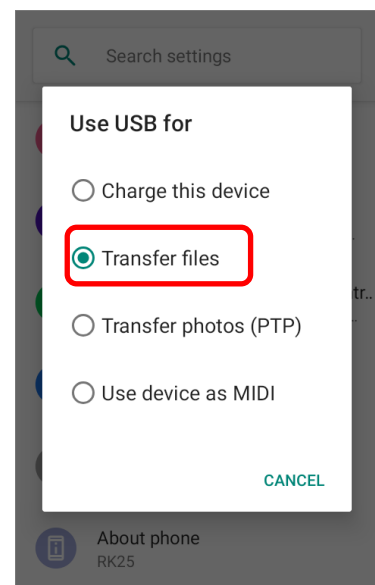
Developer Options



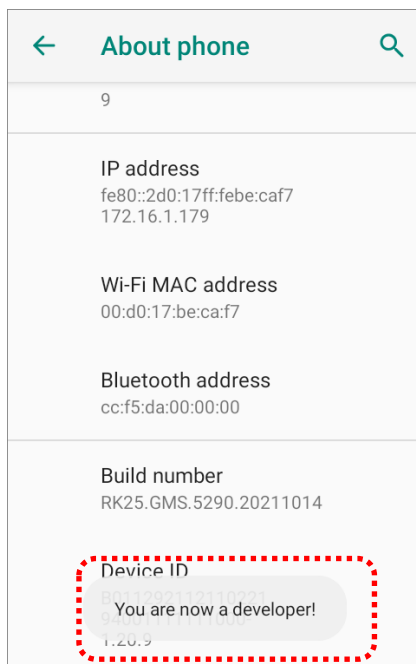
USB Debugging



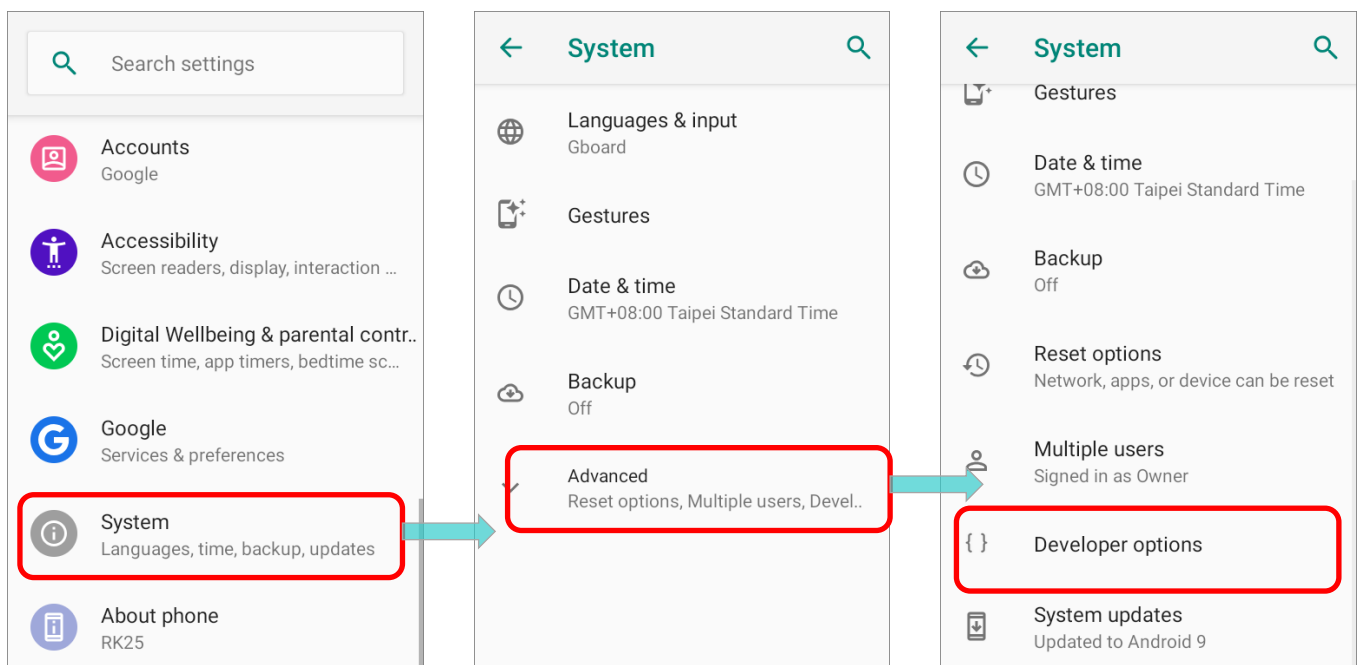
File Transfer



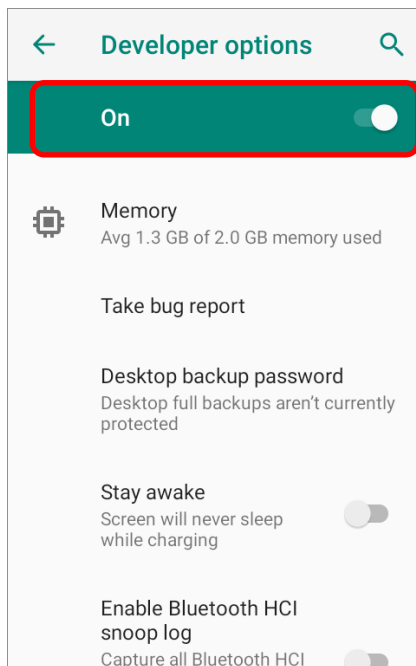
- 3) Once the prompt **"You are now a developer!"** showing up, you have succeeded in entering developer mode.



- 4) You can find **Developer options** { } is now enabled in **System** ⓘ page.



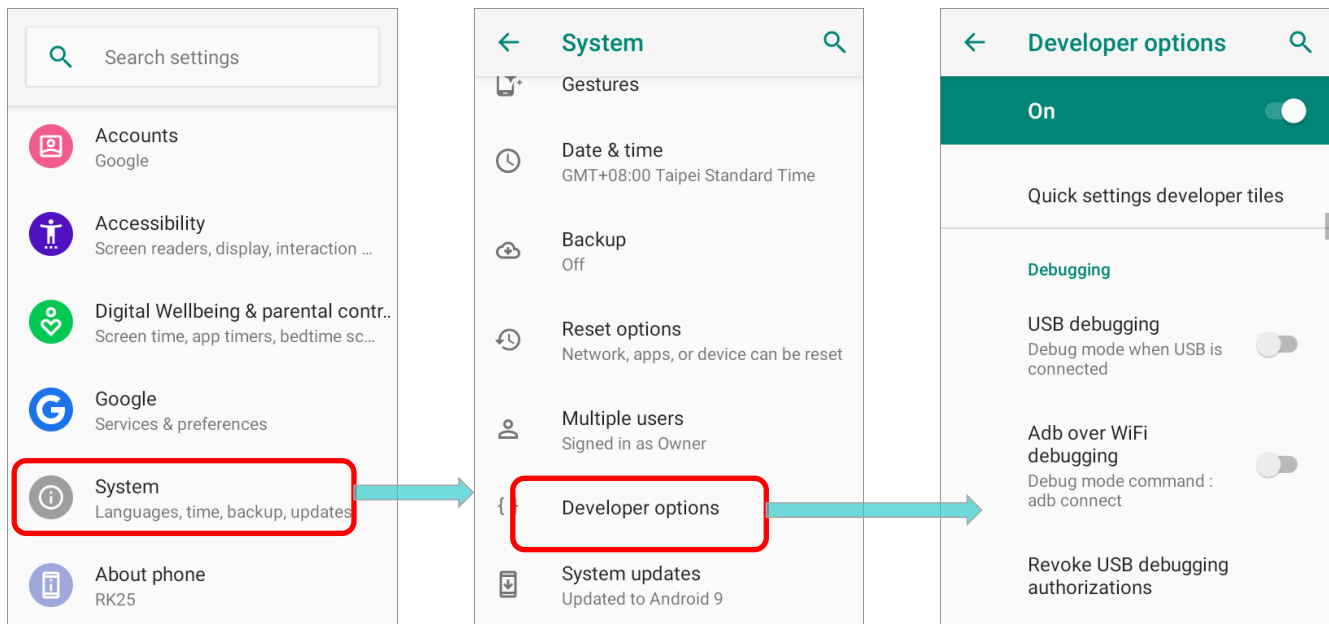
5) Enter **Developer options** { } and make sure it's **On**.



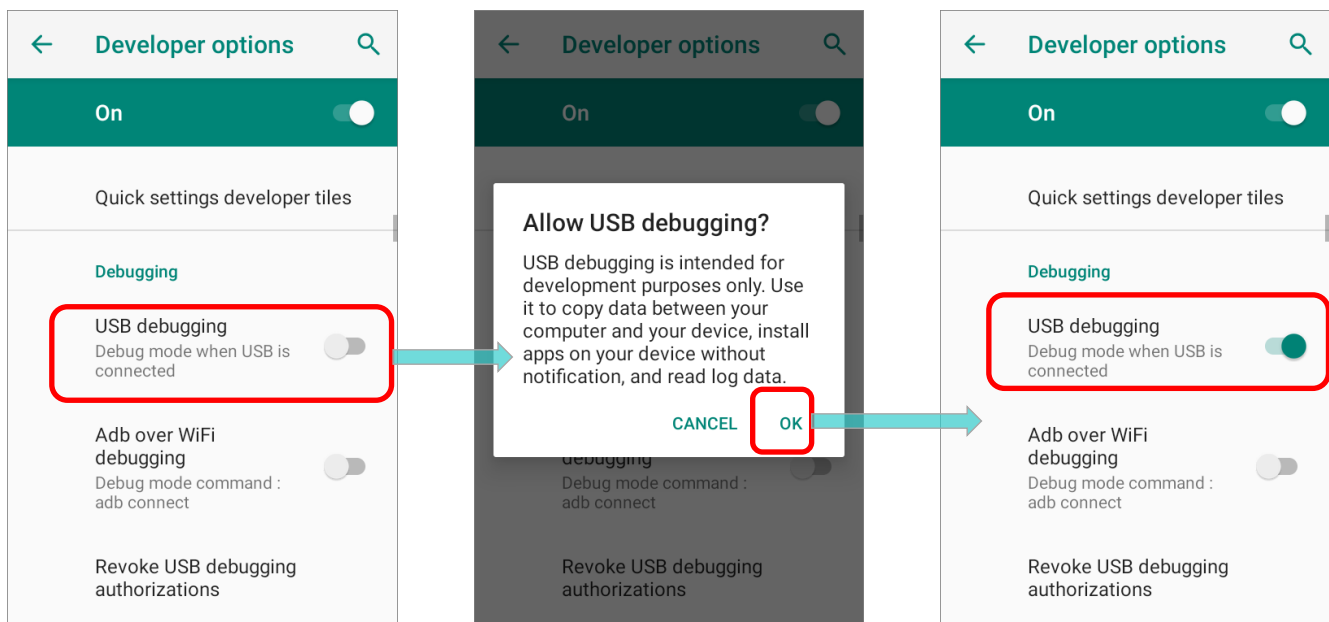
3.2.2 USB DEUGGING

To enable “USB debugging” mode, you have to enable “[Developer options](#)” in advance.

1) Go to App Drawer (All Apps) | Settings  | System  | Developer options { }.

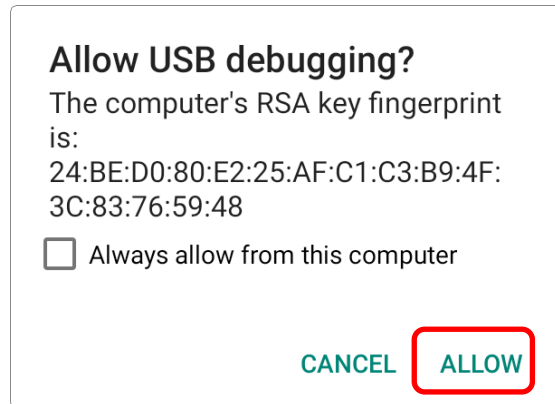


2) Swipe to find “USB debugging” which is under “Debugging” and switch it on. Tap on “OK” on the confirmation window.

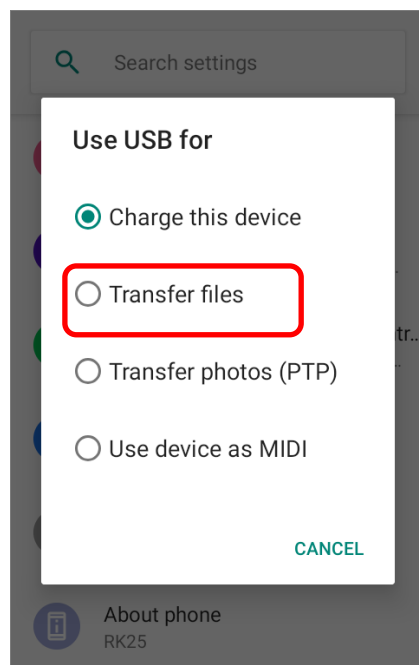


3.2.3 TRANSFER FILES

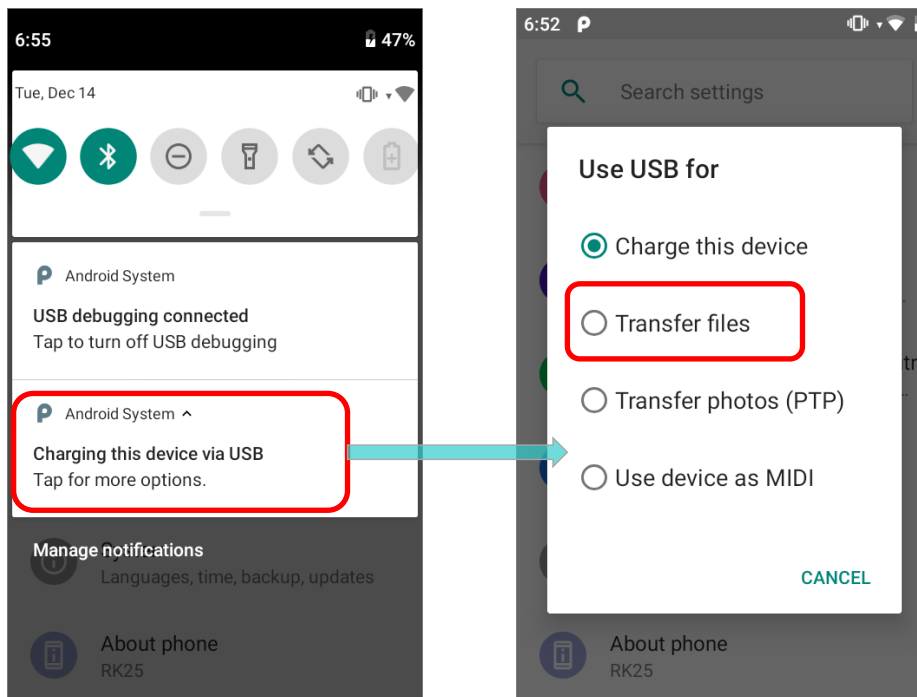
- 1) Connect your device with PC by a USB cable or the supplied snap-on cable, and you may see a dialog prompt for confirmation about USB debugging permission. Please confirm by tapping on **"ALLOW"**.



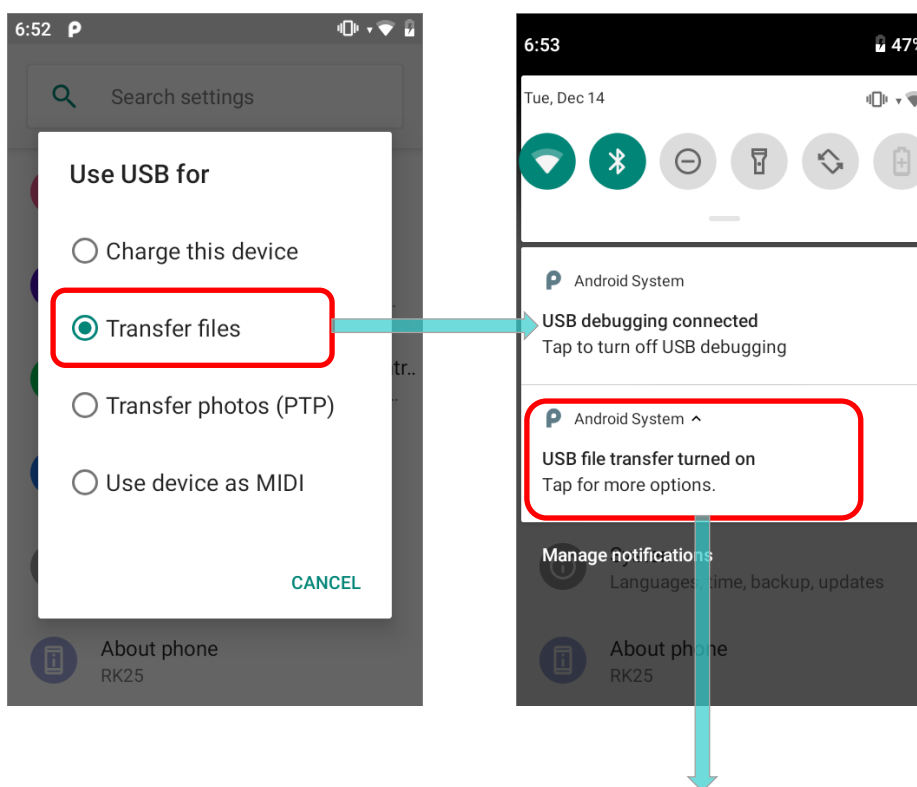
Then, the **USB options menu** shows up.

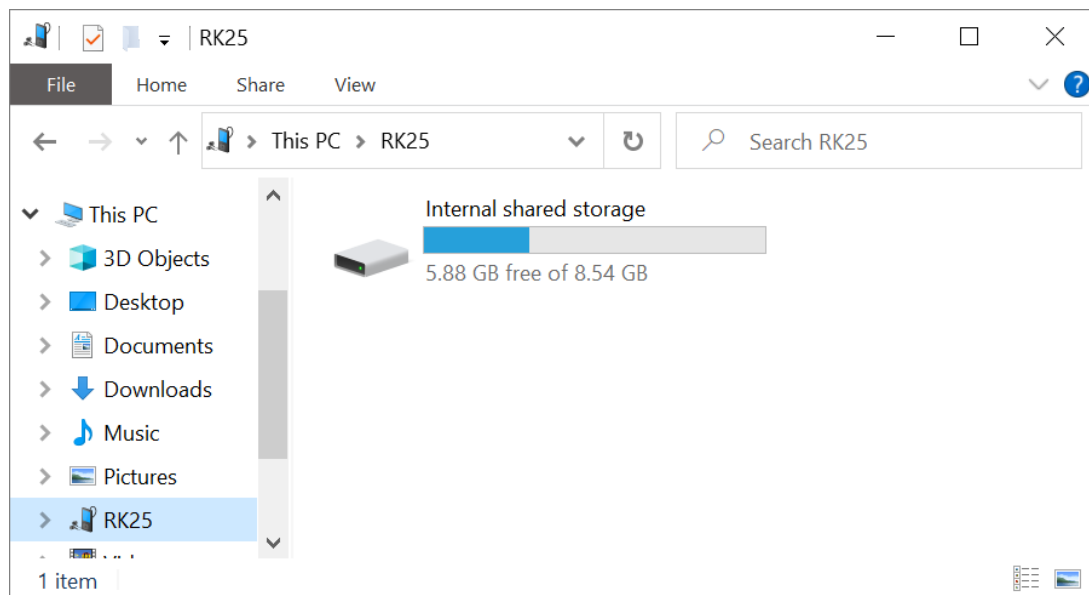


You may also swipe down from the status bar to reveal **Notifications Drawer**, and tap on the Android System notification **"Charging this device via USB"** to enter **USB options menu**.



Choose **"Transfer files"**, and now you will find the disk content is readable from PC client. Please make sure the USB cable is properly connected while transferring files over USB connection.

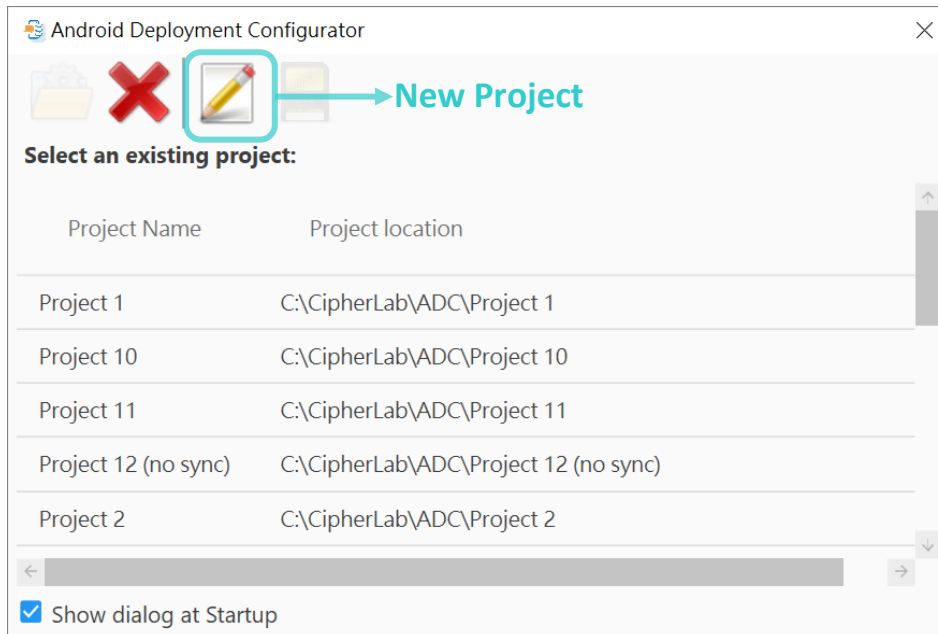




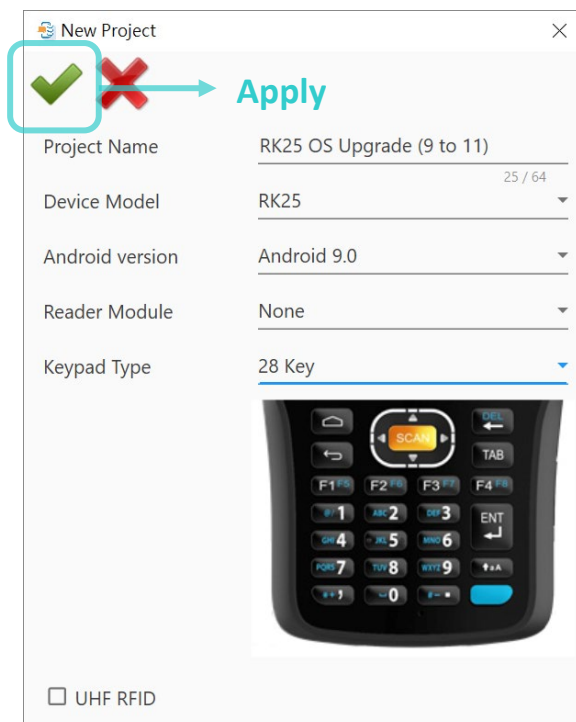
3.3 CREATE A NEW ADC PROJECT

Please follow the steps to create a new project for OS upgrade:


- 1) Launch ADC program, and on the startup dialog, click on **"New Project"** to start devising a project.

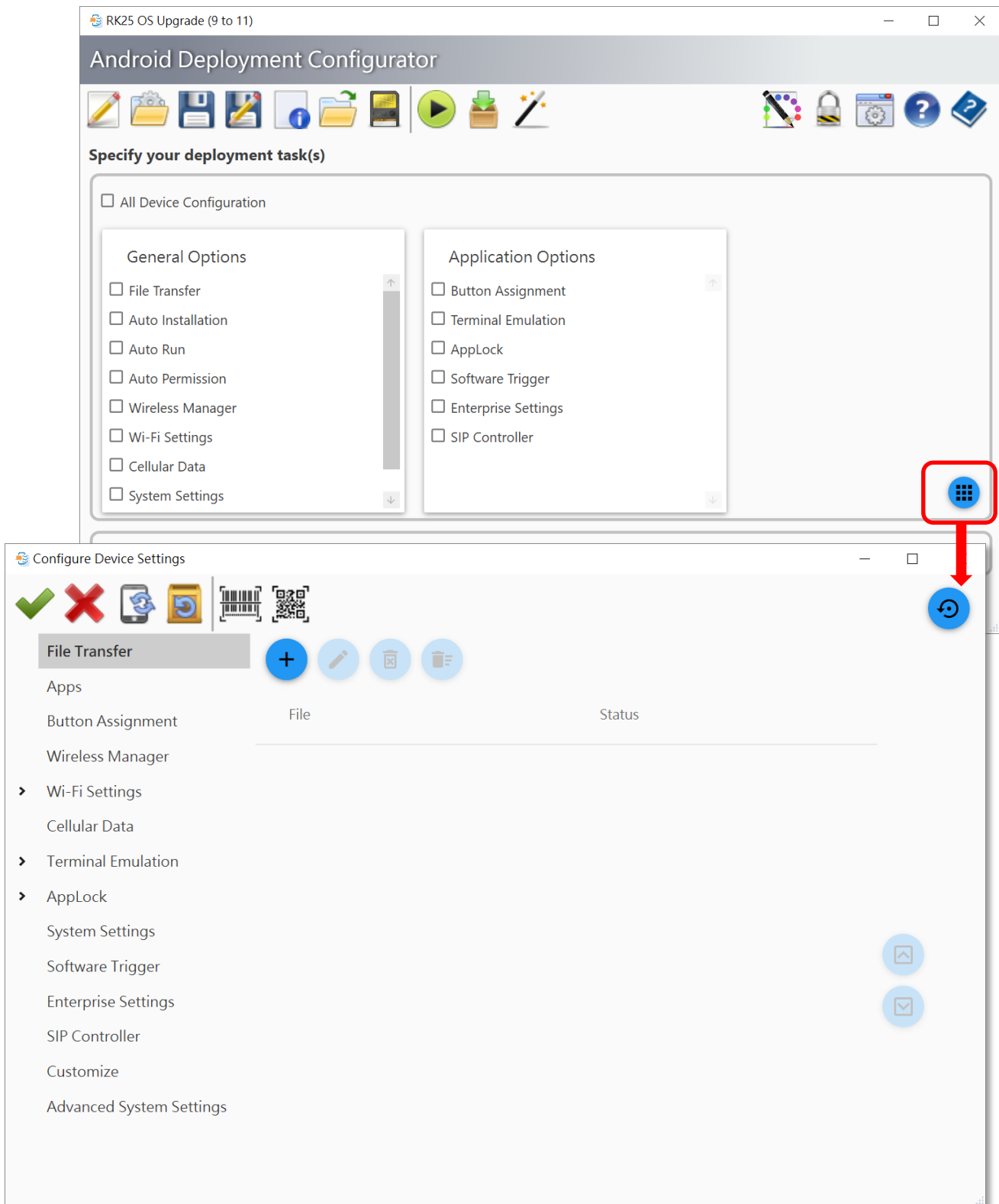


- 2) Enter the project name, select all the necessary fields (Device Model, Android version, Reader Module, & Keypad Type), and click on **"Apply"** ✓.




3.4 ADC: CONFIGURE DEVICE SETTINGS

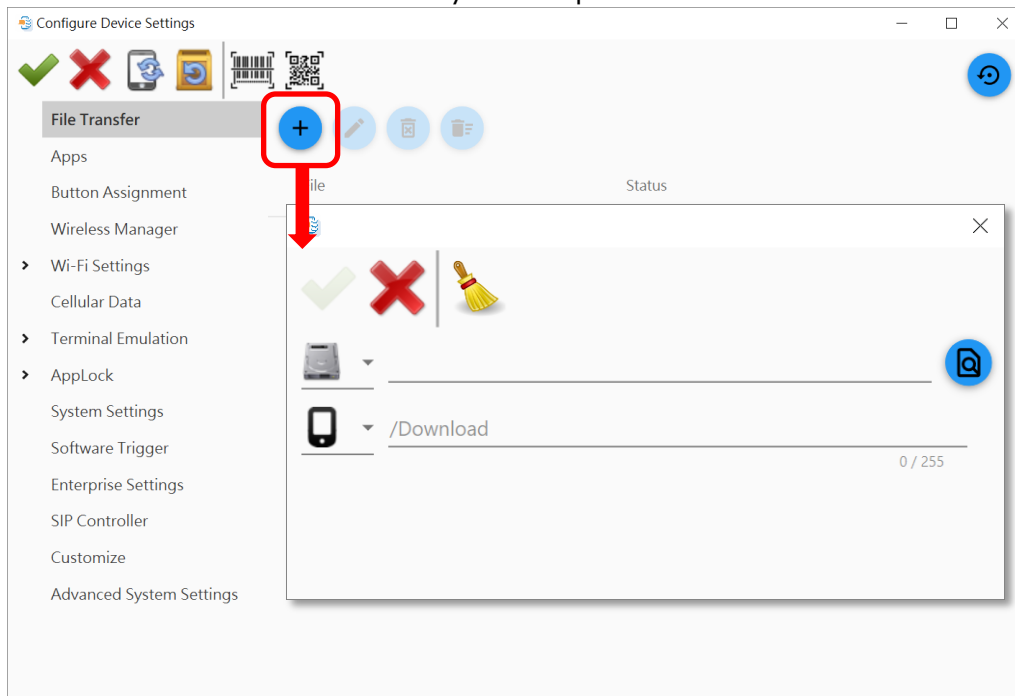
Once the new project is created, you will enter ADC main screen. Click on “**Configure...**”  to open “**Configure Device Settings**” window.





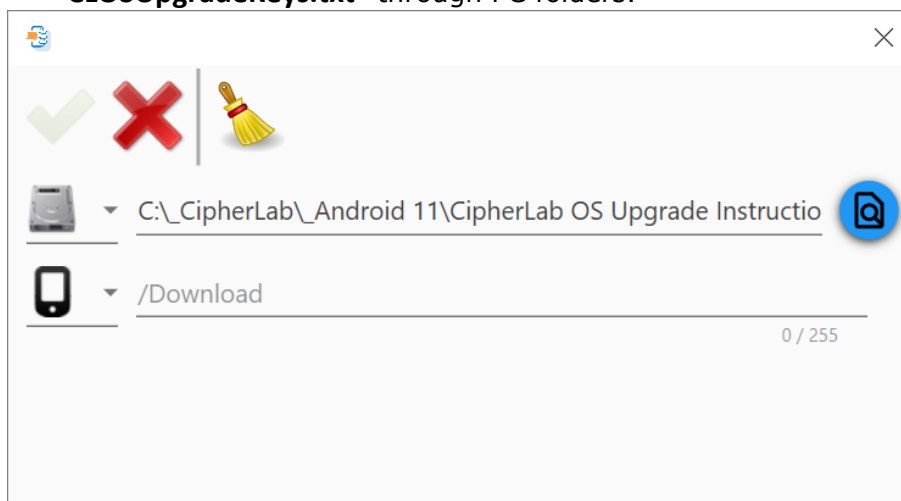
3.4.1 FILE TRANSFER


On “**Configure Device Settings**” window, click to enter “**File Transfer**” page. In this step, the files **CLOSupgradeKeys.txt** and **the dedicated OS image** will be uploaded to this project.


- 1) Directly drag-and-drop the file to be uploaded to “**File Transfer**” page, or click on the button “**Add**  ” to browse your computer to locate the file.

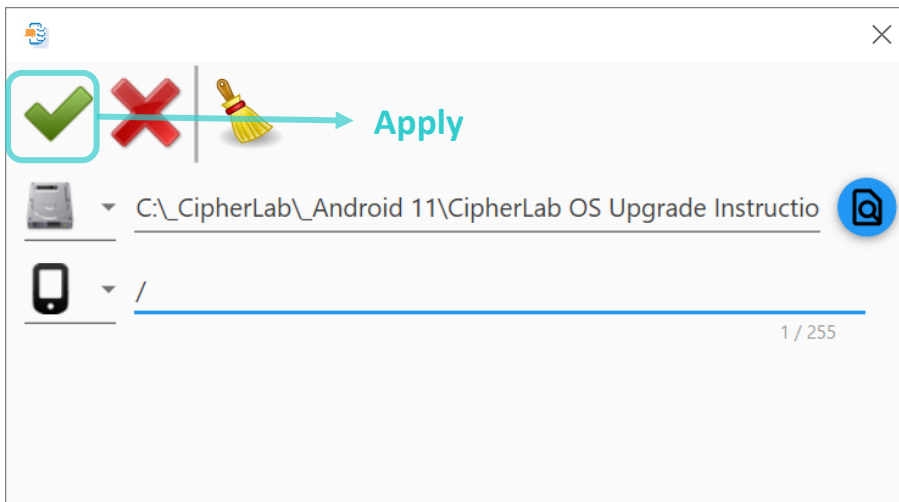


- 2) Select  for your file path, and click on “**Browse...**  ” button to find the file “**CLOSupgradeKeys.txt**” through PC folders.

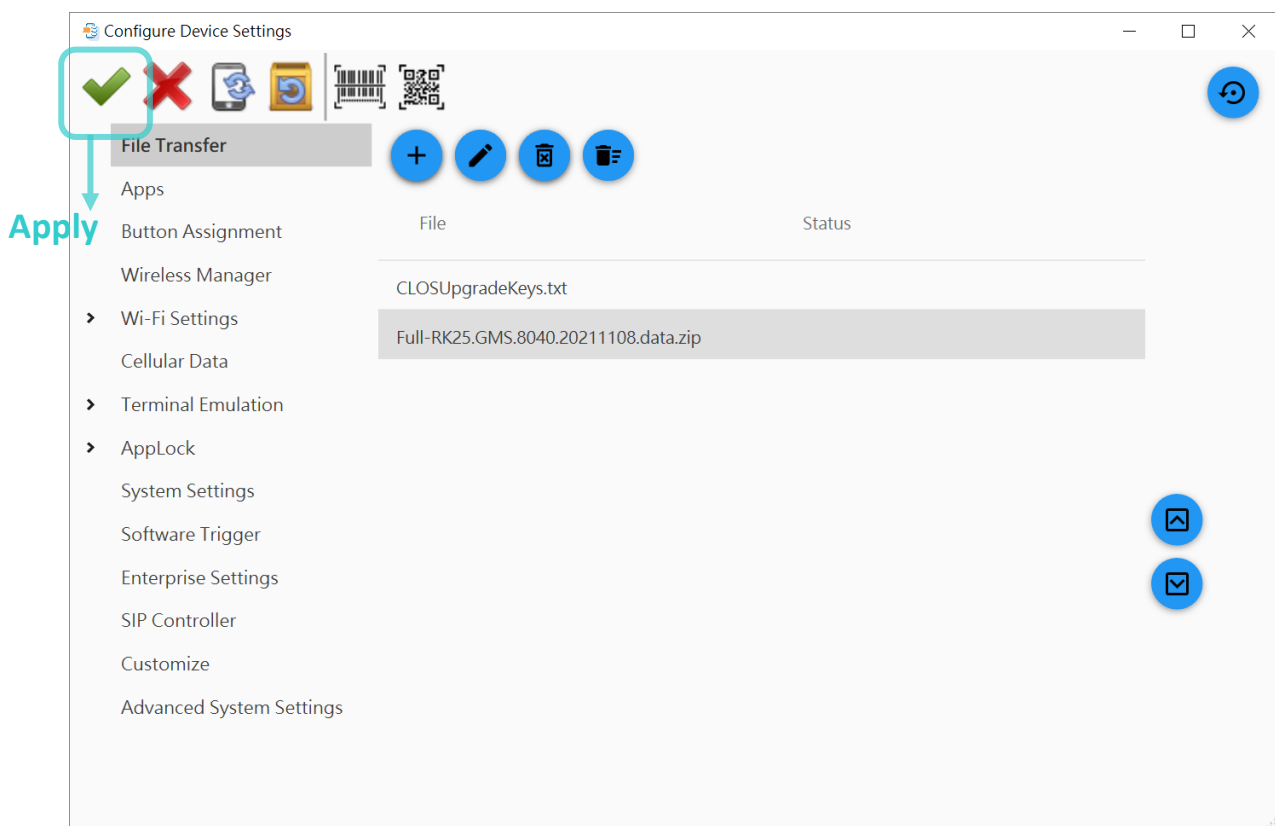


- 3) For device path , input a slash “**/**” into the field.

4) Click on "Apply"  to add this file to your file transfer list.



5) Repeat the aforesaid steps to add **the dedicated OS image file** to your file transfer list.

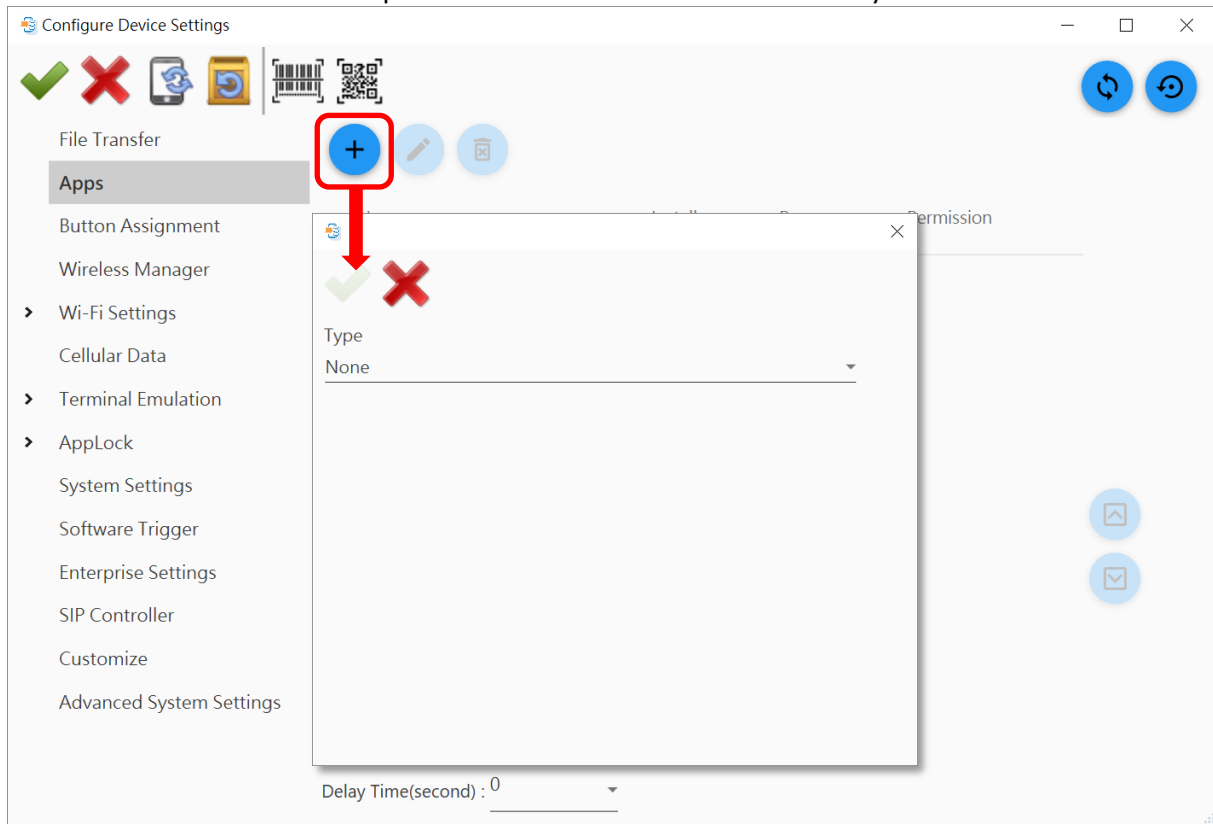


6) Click on "Apply"  before you close the **Configure Device Settings** window.

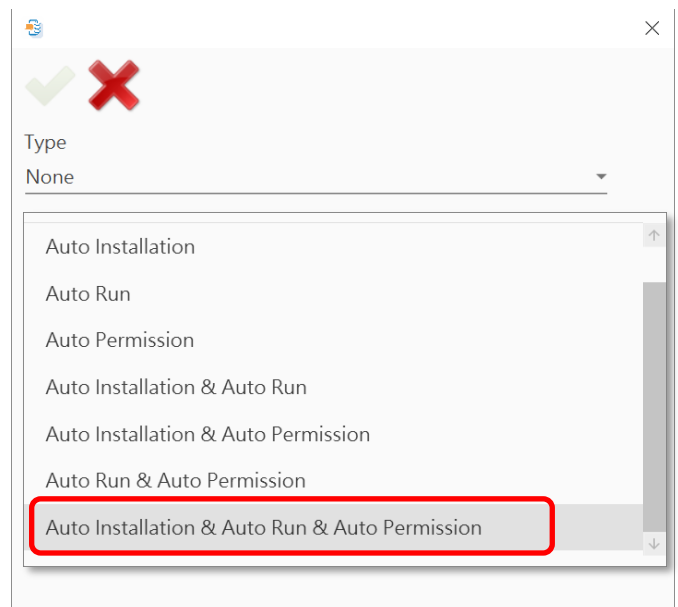
3.4.2 APPS

To add "CipherLab OS Upgrade apk file" to your project for OS upgrade:

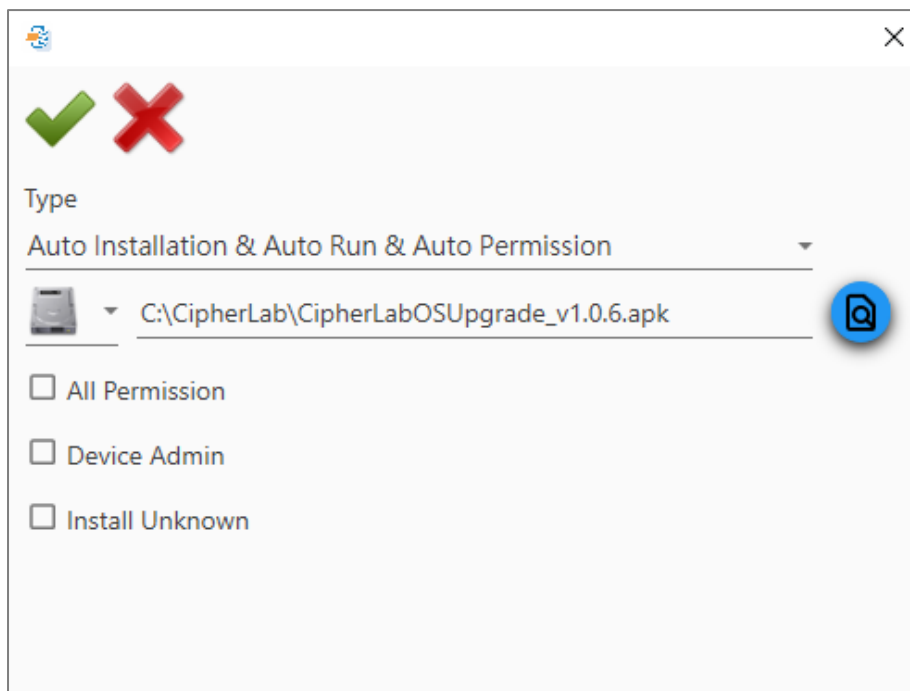
- 1) On "Configure Device Settings" window, click to enter "App" page, and then click the button "Add + " to open the window to select the action you'd like to dictate.



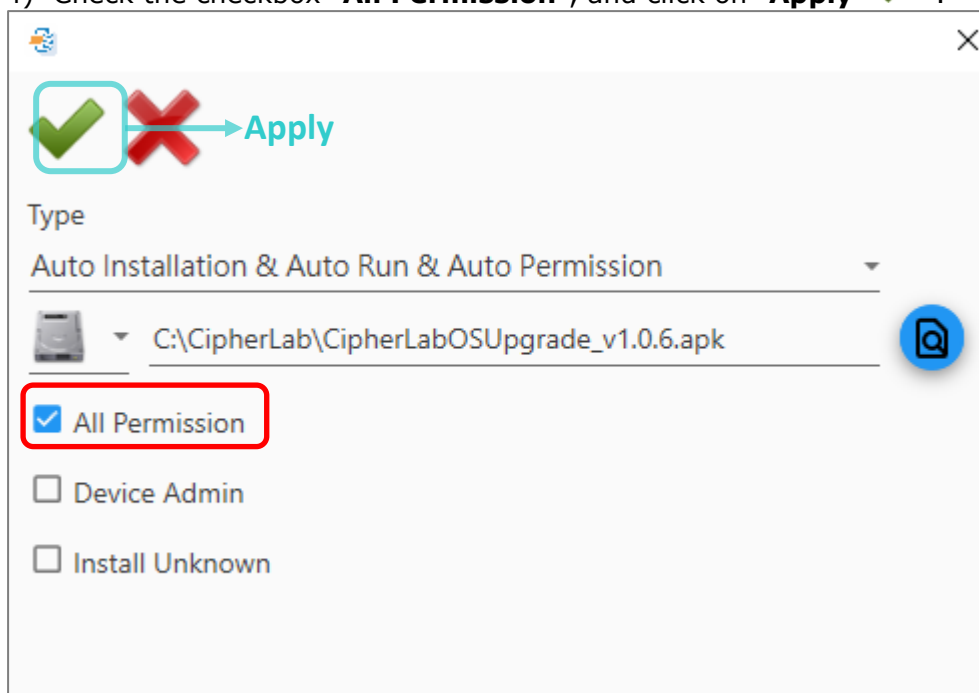
- 2) For "Type" field, select "**Auto Installation & Auto Run & Auto Permission**" from the drop-down menu.



- 3) Select  for file path, and click on "**Browse...** 
- button to locate "
- CipherLab OS Upgrade apk file**
- ".



- 4) Check the checkbox "**All Permission**", and click on "**Apply** 
- ."



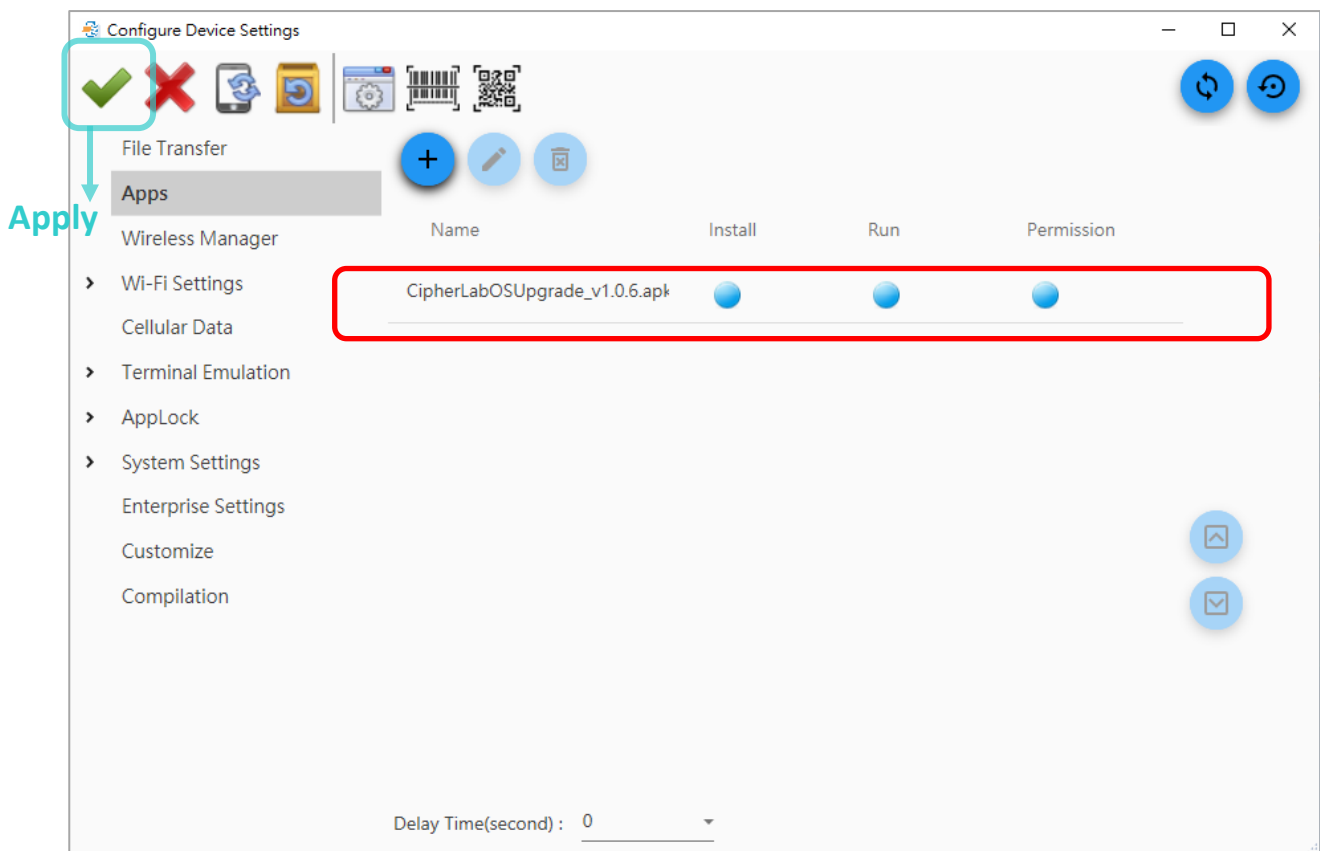
ATTENTION: If the version of your ADC is 1.3.0 or later, you must set "**Execution Conditions**" as **Device Reboot** and check the checkbox "**Execute Once**".

Execution Conditions Device Reboot


☒ Execute Once

- 5) Now **CipherLab OS Upgrade apk file** is on the app list, and all its settings "**Auto Installation**", "**Auto Run**", and "**Auto Permission**" are enabled.

Make sure to save your changed settings by clicking "**Apply** ✓" before closing the **Configure Device Settings** window.



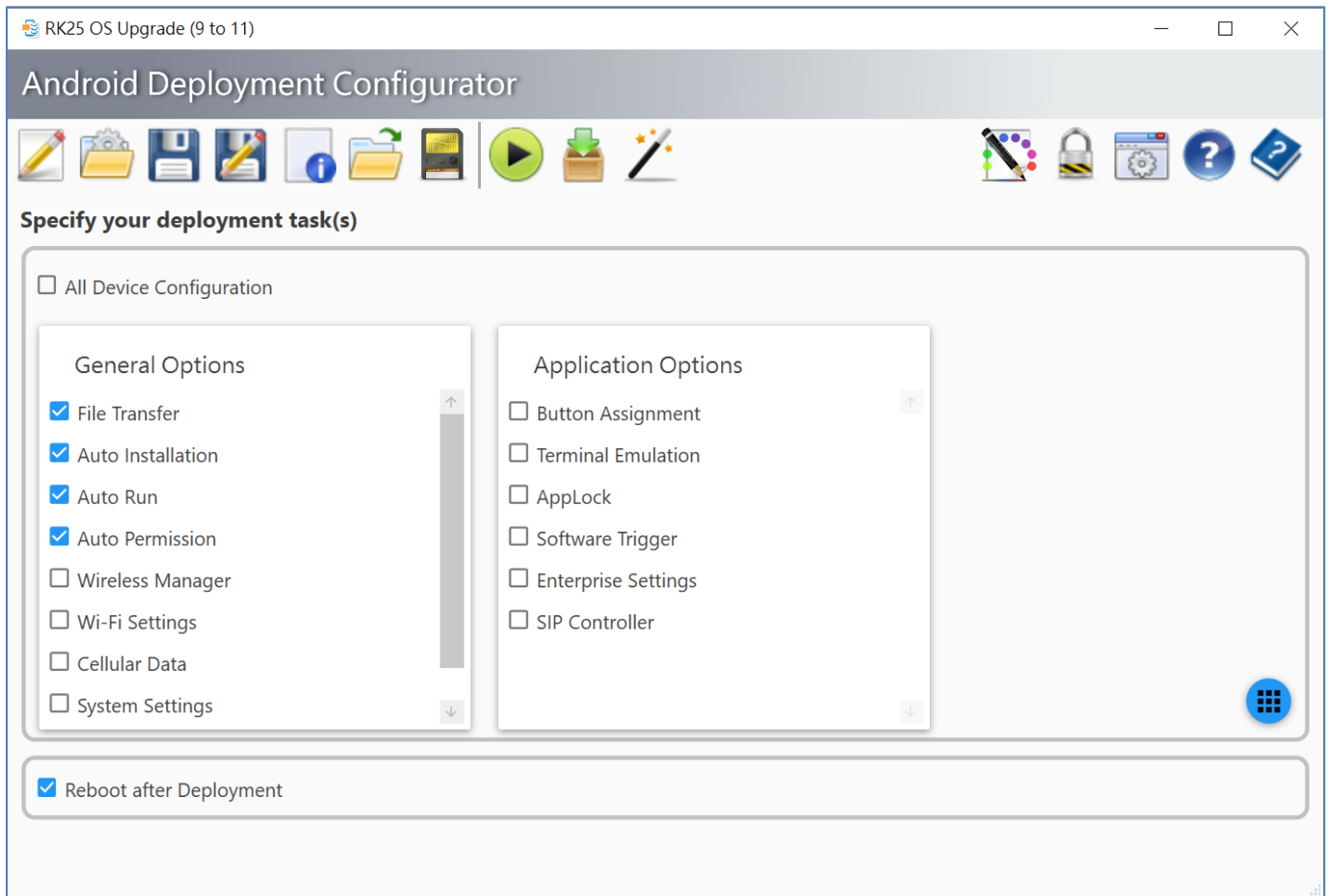
3.4.3 SAVE YOUR CONFIGURATION

After completing [File Transfer](#) and [Apps](#) settings, click on “**Apply** 

The image shows two windows from the CipherLab OS Upgrade application. The top window, titled "Configure Device Settings", has a sidebar with various settings categories. A red circle with the number "1" highlights the "Apply" button (a green checkmark icon) in the top-left corner. The main area shows the "Apps" settings, with a table listing installed applications. A red circle with the number "2" highlights the "Yes" button in an "Update" dialog box that appears in the center. The dialog box asks, "Do you want to close the window after updating the changes?". A red arrow points from the "Yes" button to the bottom window. The bottom window, titled "RK25 OS Upgrade (9 to 11)", is the "Android Deployment Configurator". It has a toolbar with various icons and a main area with checkboxes for "Specify your deployment task(s)". Under "General Options", there are checkboxes for File Transfer, Auto Installation, Auto Run, Auto Permission, Wireless Manager, Wi-Fi Settings, Cellular Data, and System Settings. Under "Application Options", there are checkboxes for Button Assignment, Terminal Emulation, AppLock, Software Trigger, Enterprise Settings, and SIP Controller. At the bottom, there is a checkbox for "Reboot after Deployment".

3.5 SETTINGS ON ADC MAIN SCREEN

On ADC main screen, please check the checkbox of the following items:

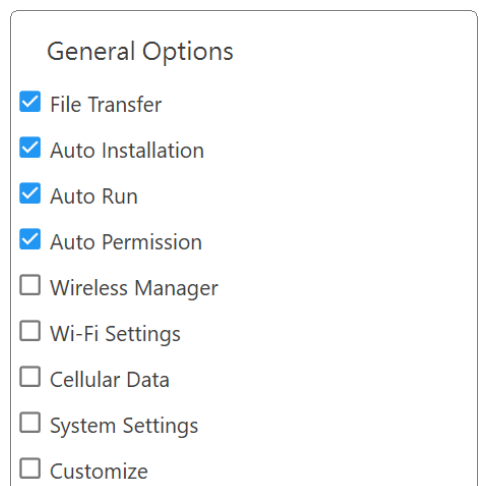


GENERAL OPTIONS

For “**General Options**” in “**Specify your deployment task(s)**” area, make the selections by checking the checkbox:

- **File Transfer**

By checking “**File Transfer**”, the files (**CLOUpgradeKeys**, the **dedicated OS image file**, and **CipherLab OS Upgrade apk file**) will be copied to the device while deploying.



- Auto Installation

The apk file of **CipherLab OS Upgrade** will be copied to device while deploying and **CipherLab OS Upgrade** will be automatically installed upon completion of deployment.

- Auto Run

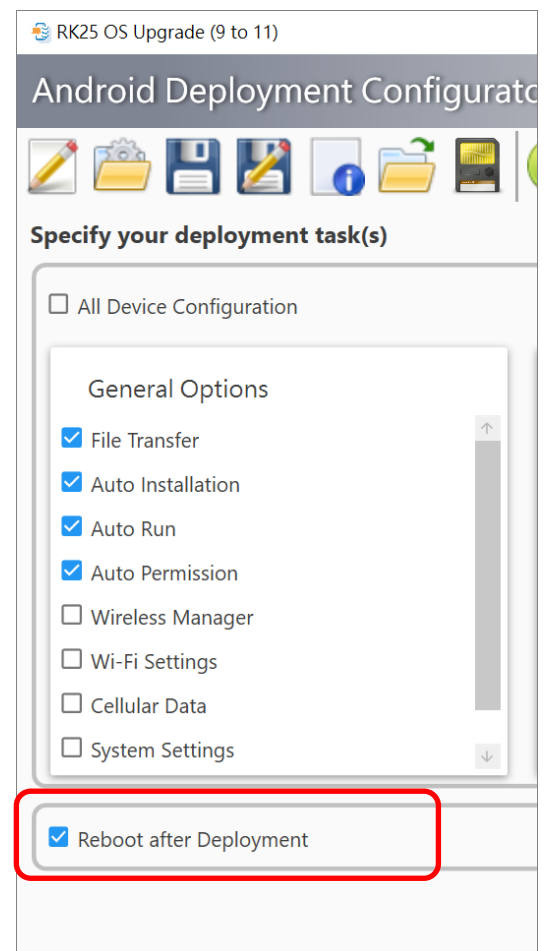
The application **CipherLab OS Upgrade** will be executed automatically when the device restarts.

- Auto Permission


To control over what is allowed to do and access for the application **CipherLab OS Upgrade**.

REBOOT AFTER DEPLOYMENT

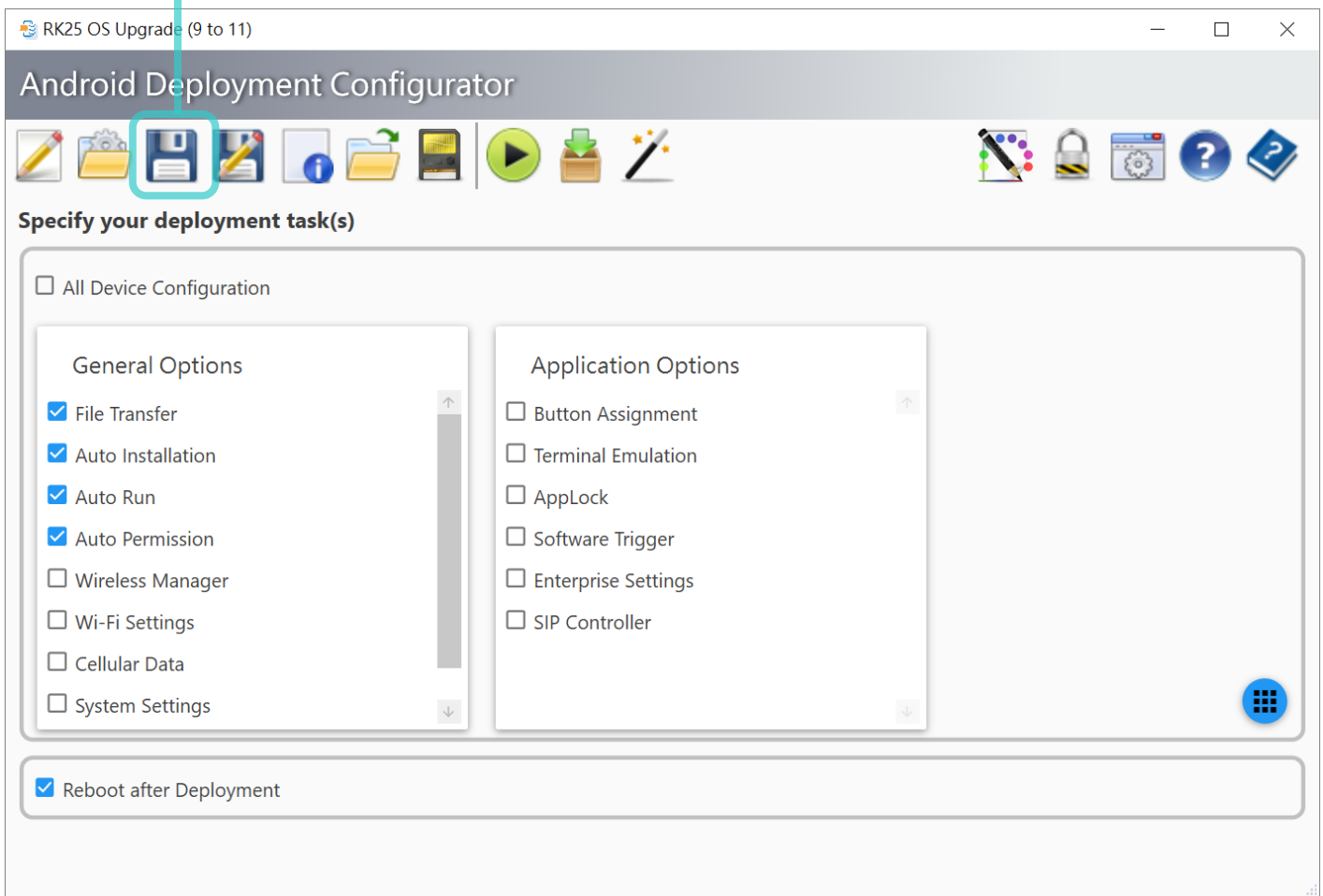
By enabling “**Reboot after Deployment**”, the devices will automatically start the reboot process upon completion of the deployment.



SAVE PROJECT

After completing configuring the settings details on **Configure Device Settings** window and ADC main screen, remember to click on "**Save Project**  " on toolbar to save your project.

Save Project




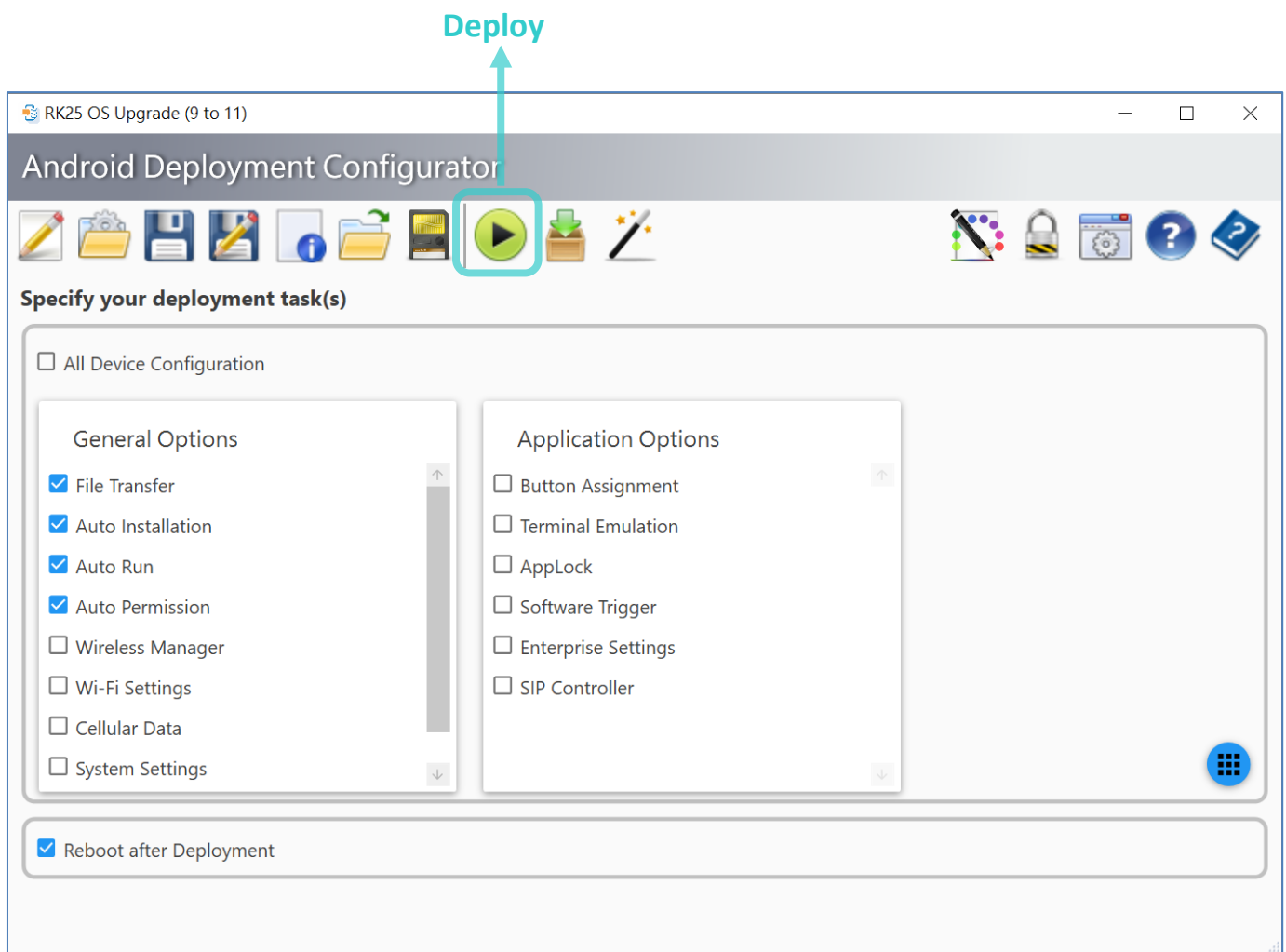
3.6 UPGRADE OS BY DEPLOYING THE ADC PROJECT

Before deploying this project, make sure that the settings on your device are done:

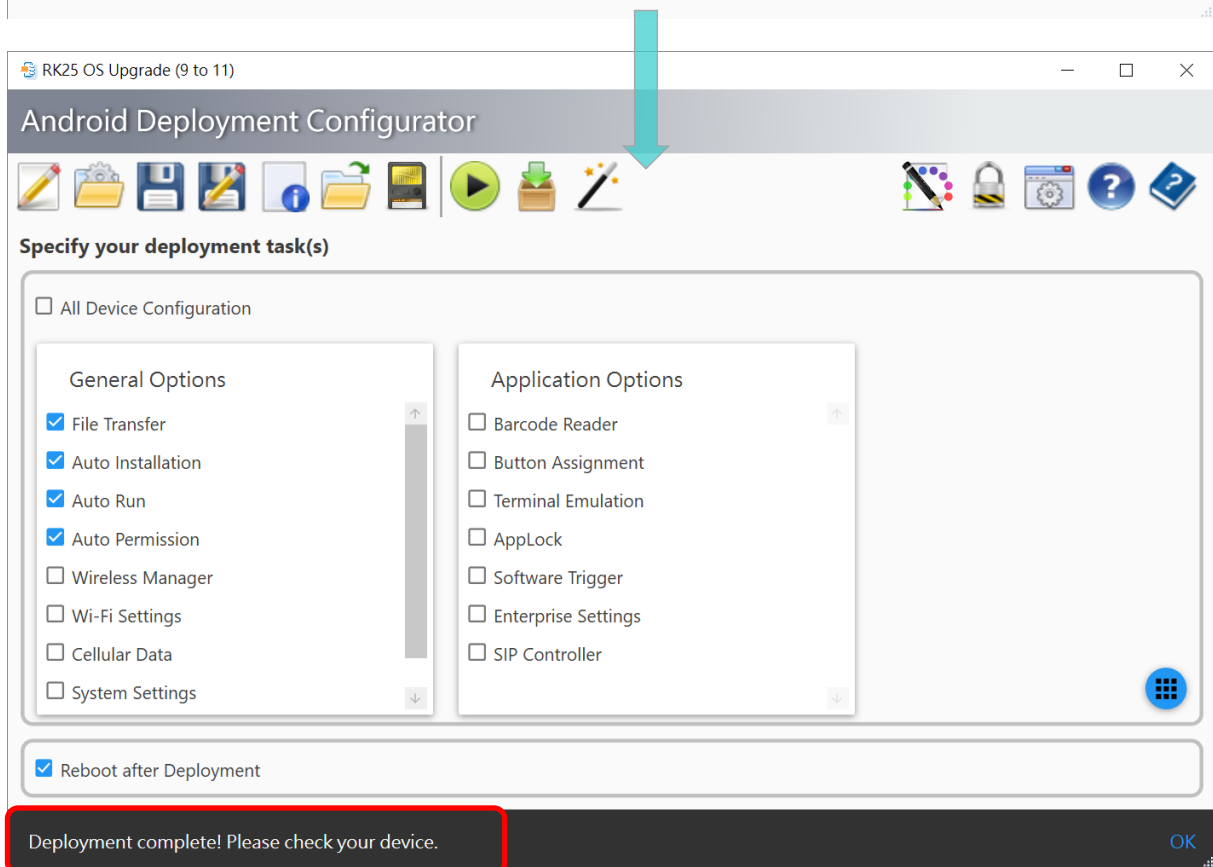
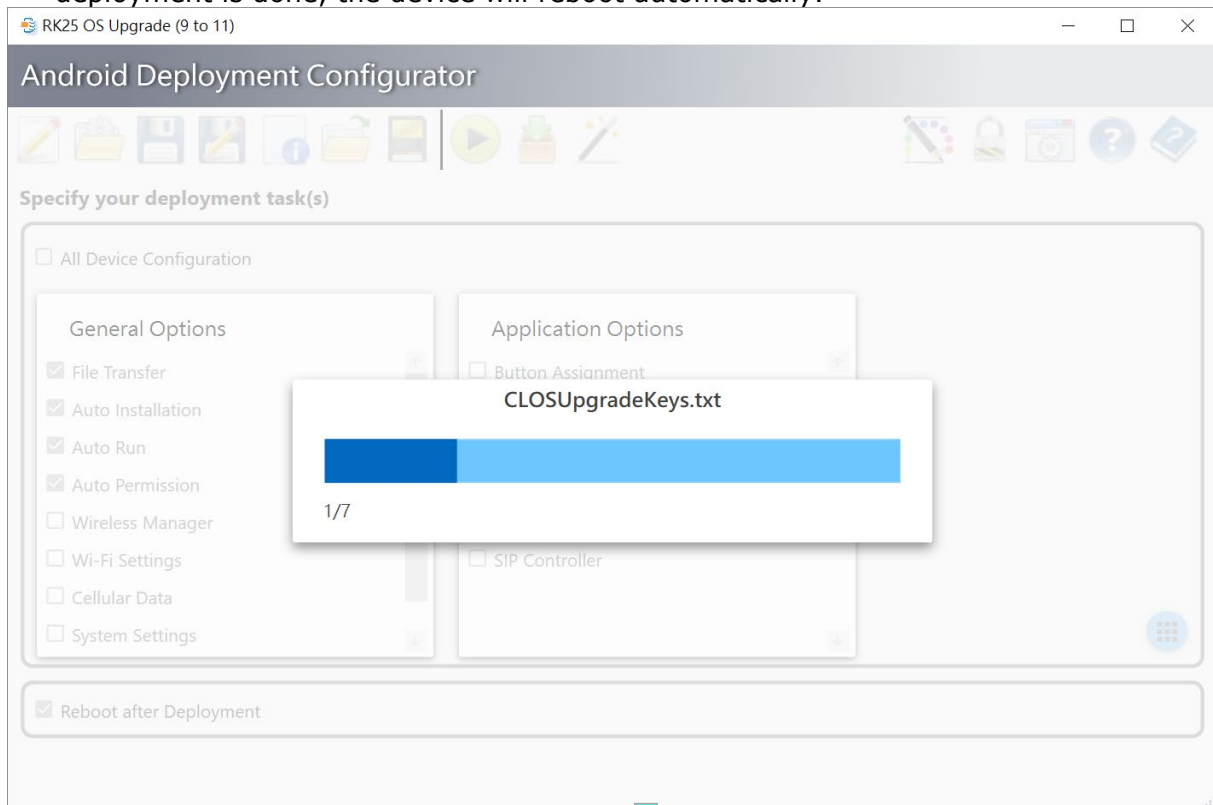
- [Developer options](#)
- [USB debugging](#)
- [Transfer files](#)

After completing your project configurations and enable the necessary settings on your device to be upgraded, confirm that the USB connection between your PC and device is proper, and then you can start to upgrade the device OS by deploying the ADC project. The below figures take RK25 mobile computer as example:

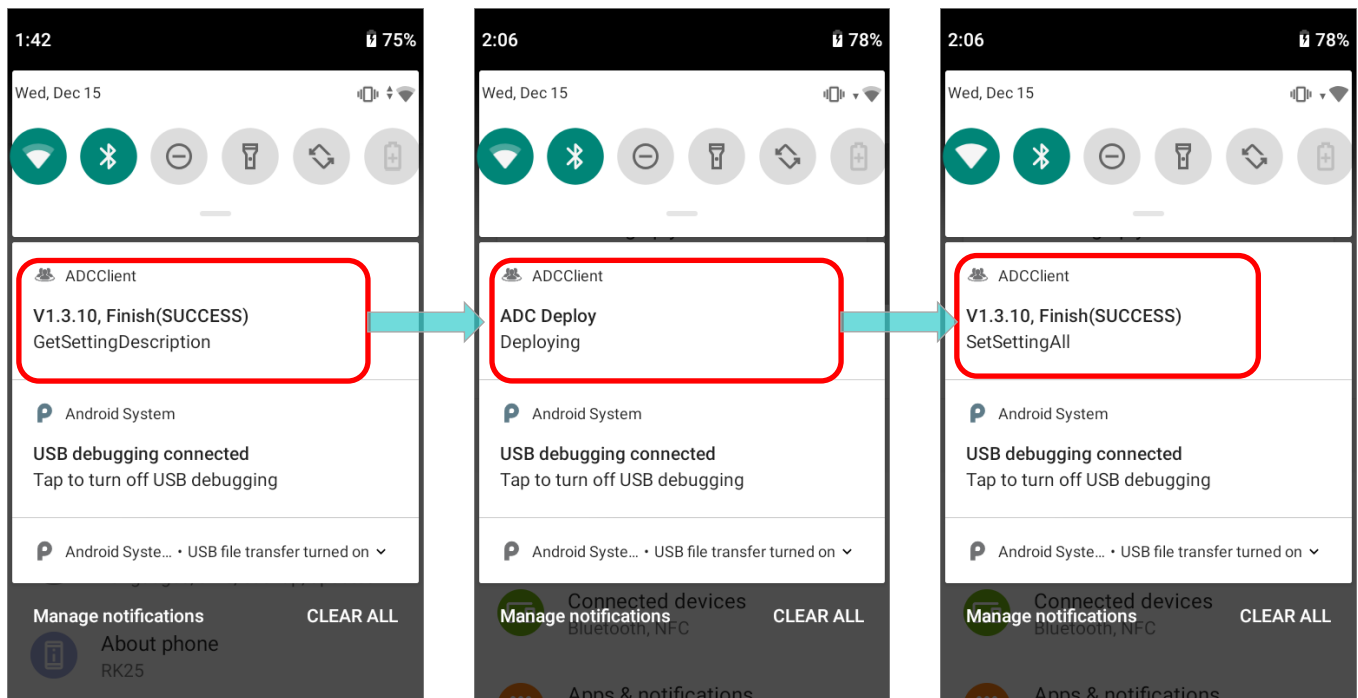
- 1) Click on the button "Deploy"  to deploy the current project to the connected device via USB connection.



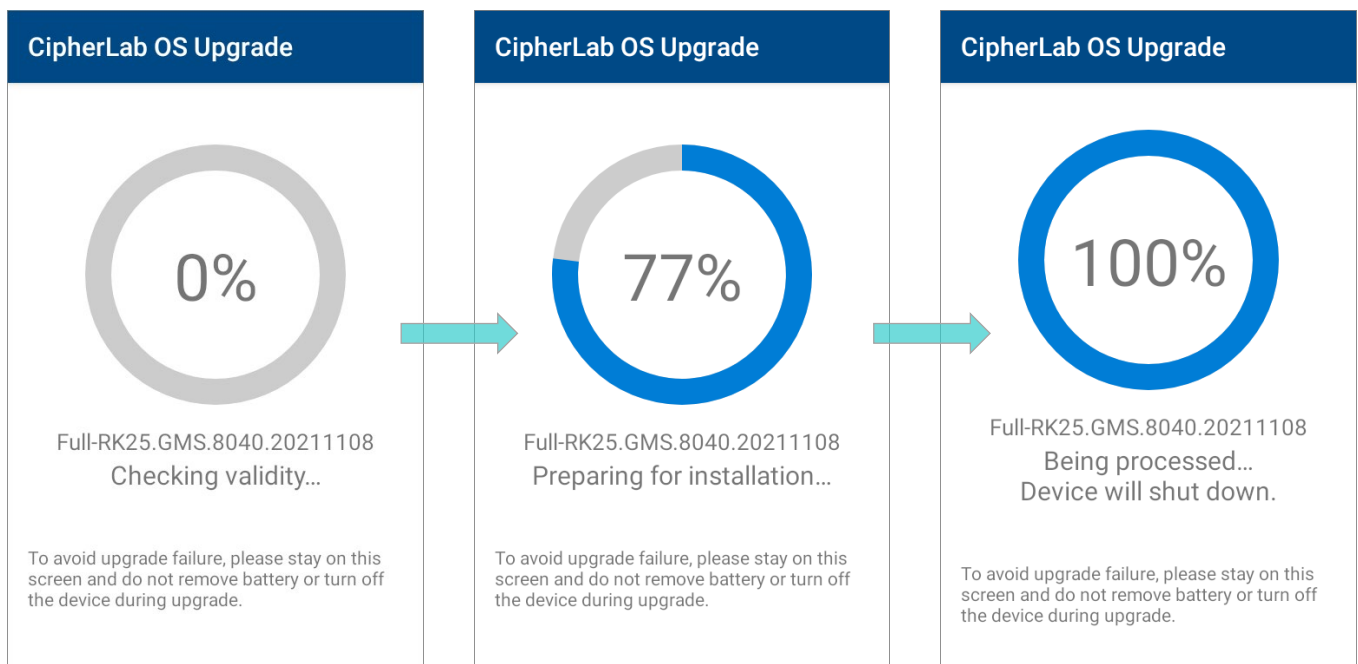
- 2) It takes a while to deploy the necessary files and configurations to the device. Once the deployment is done, the device will reboot automatically.



- 3) On your device, swipe down from the status bar to reveal **Notifications Drawer**, and you will see the notification from **ADCCClient** which indicates the deployment status. The device will reboot upon ADCCClient notification shows "**SetSettingAll**".



- 4) The device boots up and the application **CipherLab OS Upgrade** automatically launches to start the upgrade process.



Note:

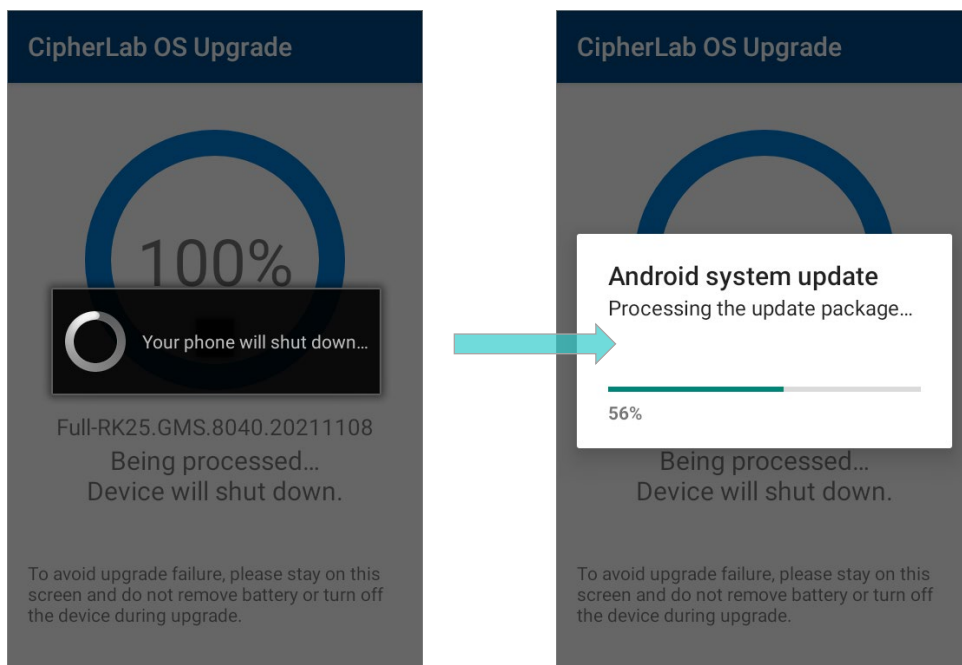
- (1) Once the upgrade starts, stay on CipherLab OS Upgrade main screen. DO NOT switch to another app or screen.
- (2) The app "CipherLab OS Upgrade" checks for the device free storage space at the very beginning. if it doesn't meet the minimum storage requirement (5GB free storage space), a warning message appears and the OS upgrade process stops. Free up the space before launching "CipherLab OS Upgrade" for OS upgrade again.

Storage space not enough



The free space of storage in this device is not enough for system upgrade. Please free up space first before starting upgrade.

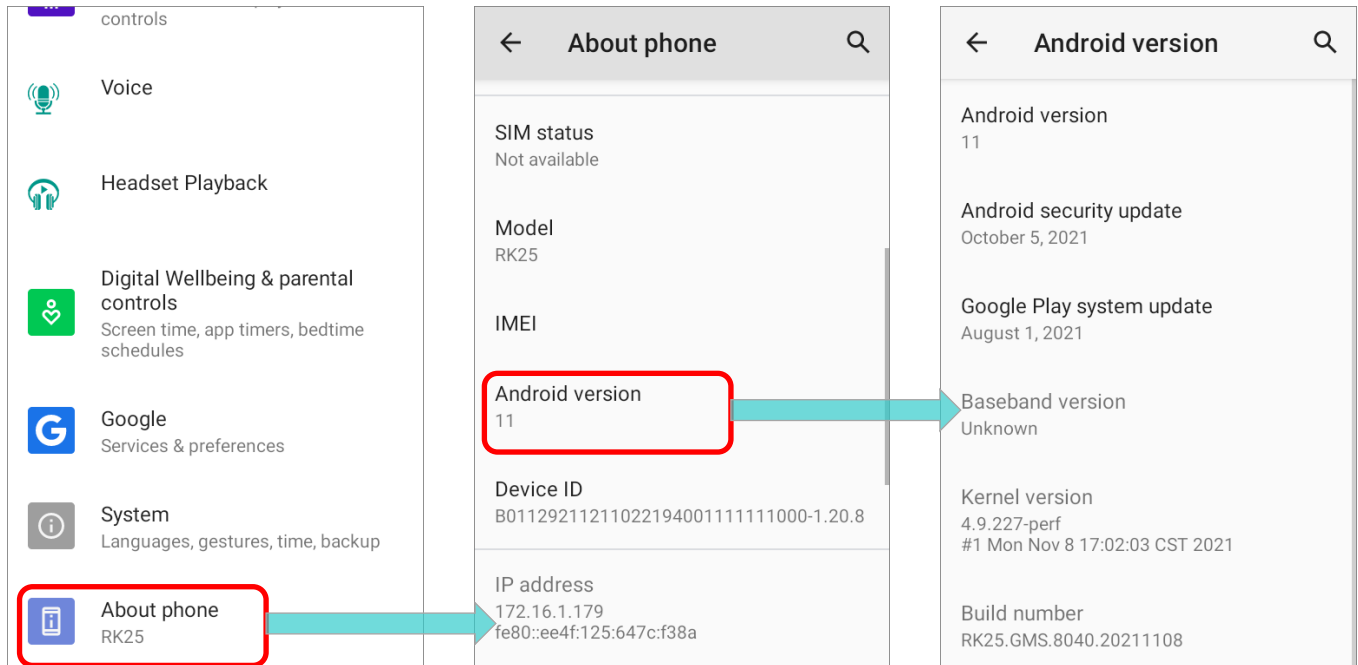
EXIT

- 5) The upgrade process takes a while to install the necessary packages, shut down, update system, and then reboot automatically after finishing installation.



SUCCESSFULLY UPGRADED

he device restarts after the installation. The upgrade is completed, and the OS of your device is now the version you would like to upgrade. For example, if your device is upgraded to Android 11, then you can check it by accessing **App Drawer** | **Settings**  | **About Phone**  | **Android version** (see the figure below). Different device models may have a little different accesses.



Chapter 4

UPGRADE THROUGH WMDS TASK

This chapter gives the detailed description about the steps of OS upgrade by **WMDS** (Wireless Mobile Deployment System).

4.1 PRELIMINARY

WMDS (Wireless Mobile Deployment System) is a windows-based server program that can deploy the configuration projects created by **ADC** (Android Deployment Configurator) to Android devices through wireless network.

The followings are required if you'd like to upgrade the device OS through WMDS:

- WMDS Program

Please install the latest version of WMDS program on your PC, and confirm that your PC have at least **8 GB RAM** or greater for WMDS to properly work.

Download the latest version of WMDS program and the user guide from:

<https://wmds.cipherlab.com/WMDS>

- ADC Program

Make sure that you've installed ADC on your PC, and the version of your ADC program must be **1.2.8** or later.

The latest version of ADC program and the user guide can be downloaded from:

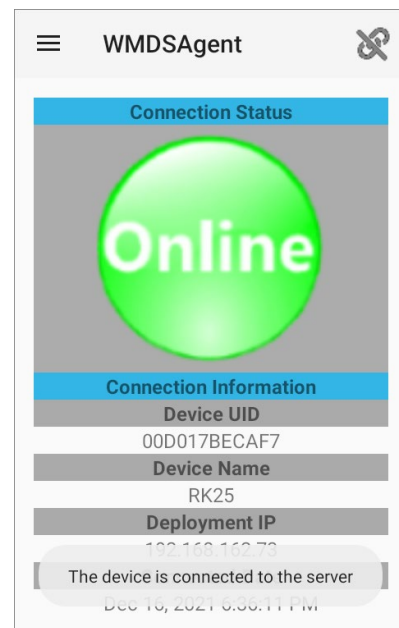
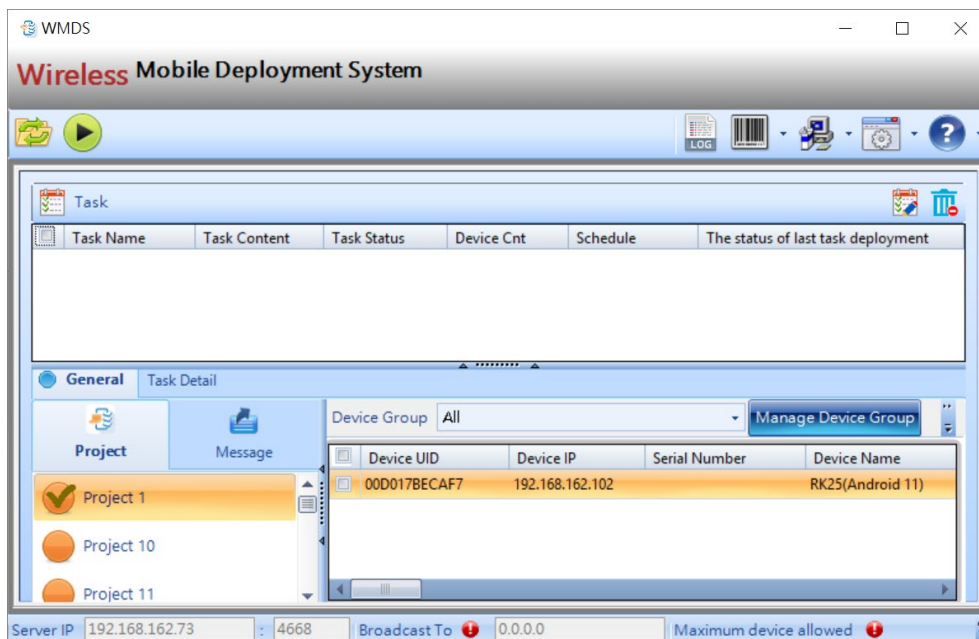
<https://wmds.cipherlab.com/ADC>

- ADC Project for OS Upgrade



The ADC project for OS upgrade must contains **CLOUpgradeKeys.txt**, **CipherLab OS Upgrade apk file**, and **the dedicated OS image file**. Please refer to [Creat a New ADC Project](#), [Configure Device Settings](#), and [Settings on ADC Main Screen](#) for how to configure an ADC project for OS upgrade.

4.2 CONNECT THE DEVICES TO WMDS SERVER

To successfully upgrade the device OS to Android 11 through WMDS task, you need to build up the connection between WMDS server with the devices to be upgraded.




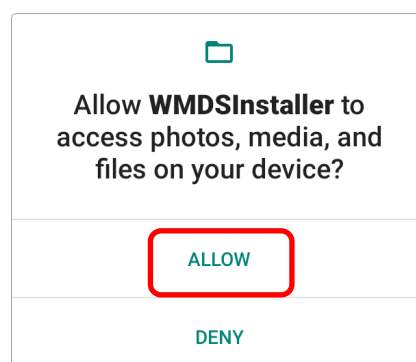
4.2.1 WMDS APPLICATIONS ON DEVICE

Through the app "**WMDSAgent**"  on the device, the connection to WMDS server can be established. Please check whether the version of your **WMDSAgent** is up-to-date by "**WMDSInstaller**"  in advance.

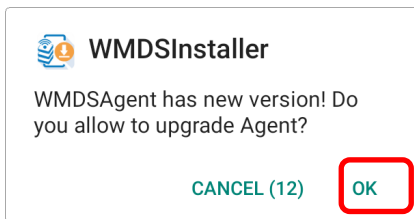
WMDS INSTALLER

The built-in application "**WMDSInstaller**" is for obtaining the latest WMDS Agent version over the Internet and then perform auto-installation of "**WMDSAgent**":

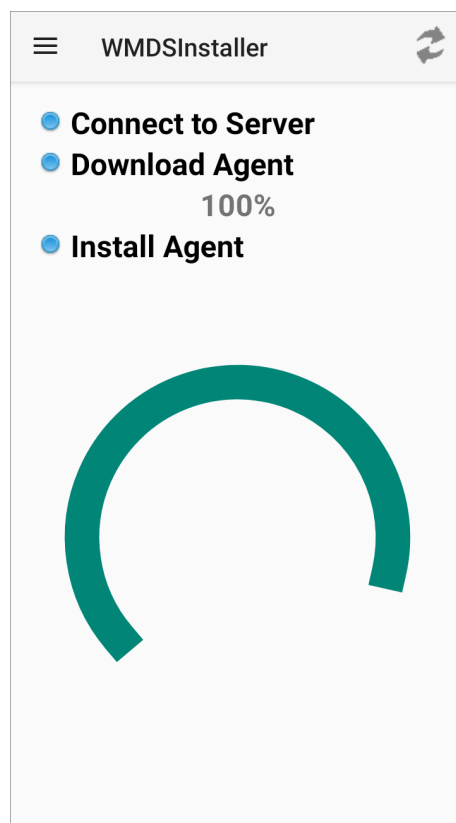
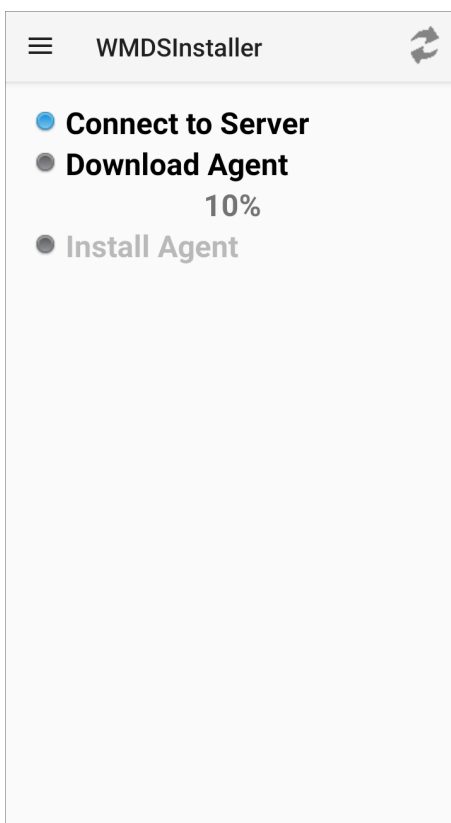
- 1) Launch the built-in app "**WMDSInstaller**"  and allow the permission request.




- 2) Allow **WMDSInstaller** to update **WMDSAgent** by tapping on “**OK**” within the countdown time limit.

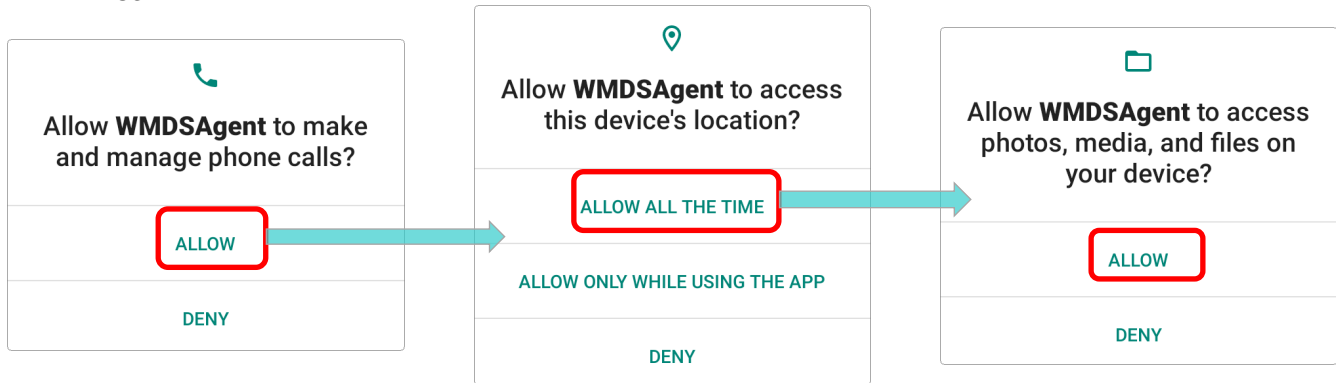


- 3) The update process starts, and your device will automatically restart right after the update.

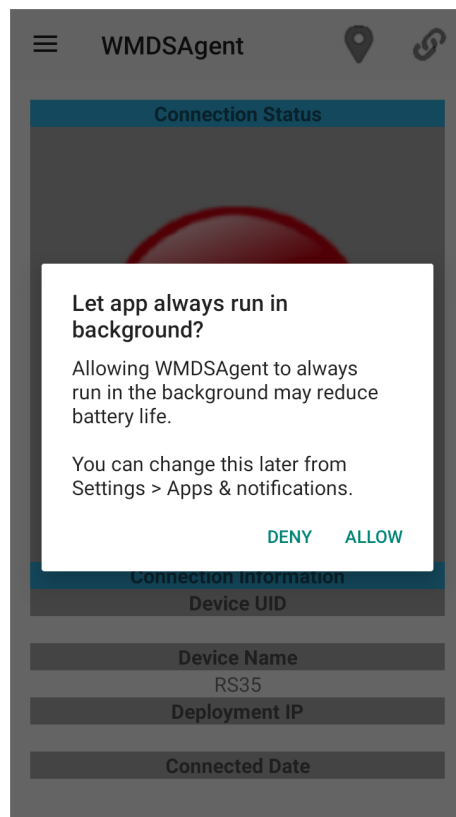
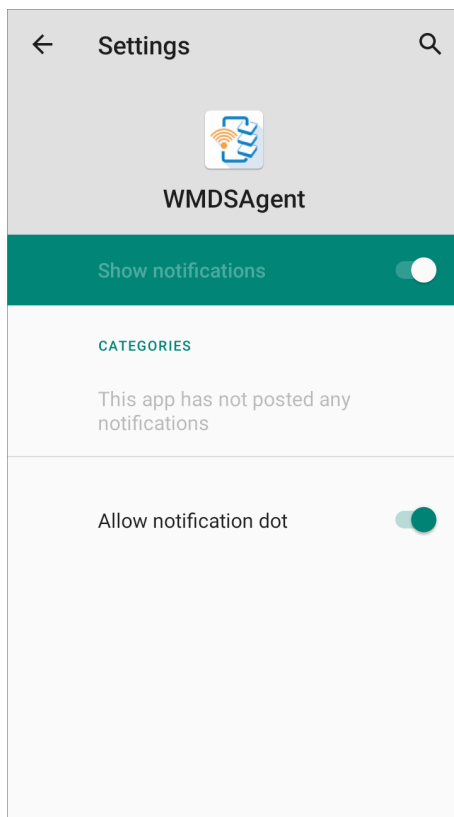


WMDS AGENT

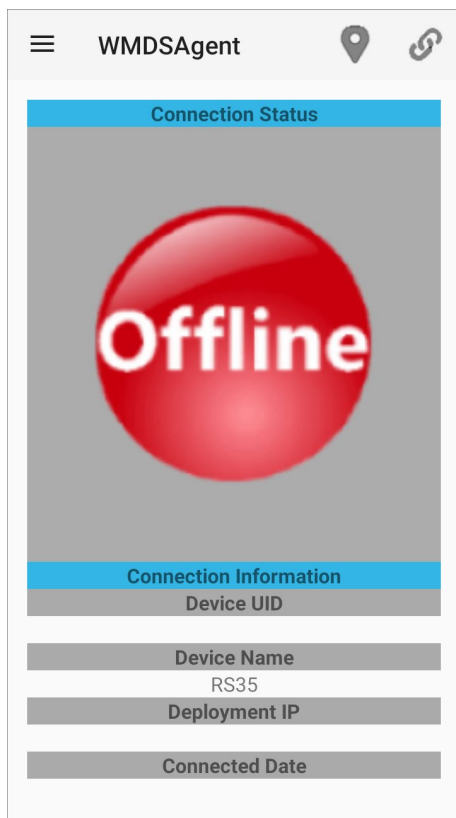
Launch the app "WMDSAgent"  after its update. You may have to grant the permission first.



Please enable the notification settings of **WMDSAgent**, and allow **WMDSAgent** to run in the background.



Now you enter the main screen of **WMDSAgent**, and the connection status shows as **Offline**. The status turns to be **Online** once you establish the connection to WMDS server by setting **Server Location** and **Wi-Fi Setting**.



4.2.2 CONNECT TO NETWORK

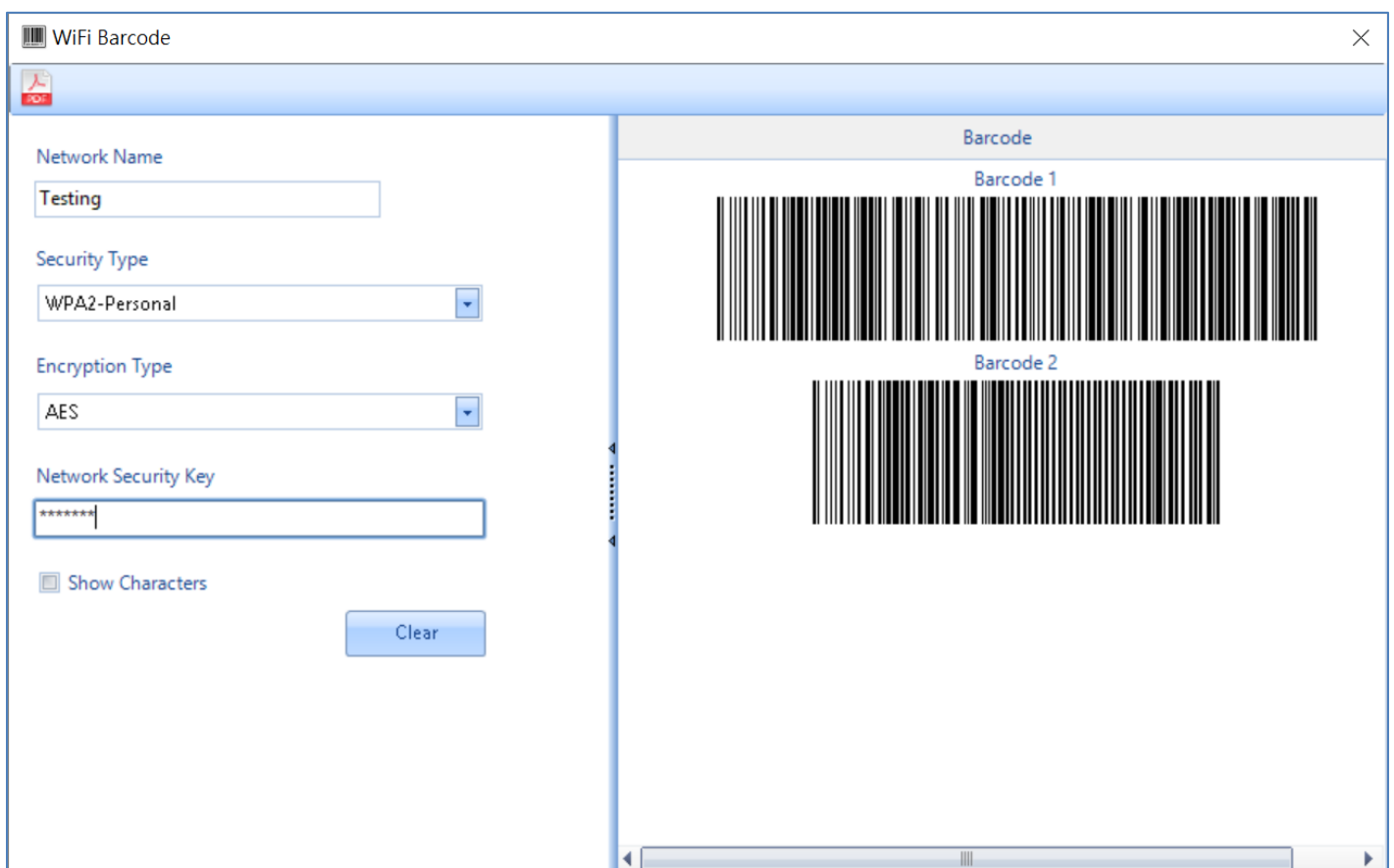
To connect the device to the network segment of WMDS server, you can search the Wi-Fi network on your device and add the network.

The path to Wi-Fi network configuration on RK25 mobile computer is as follows. Different device models may have a little different accesses.

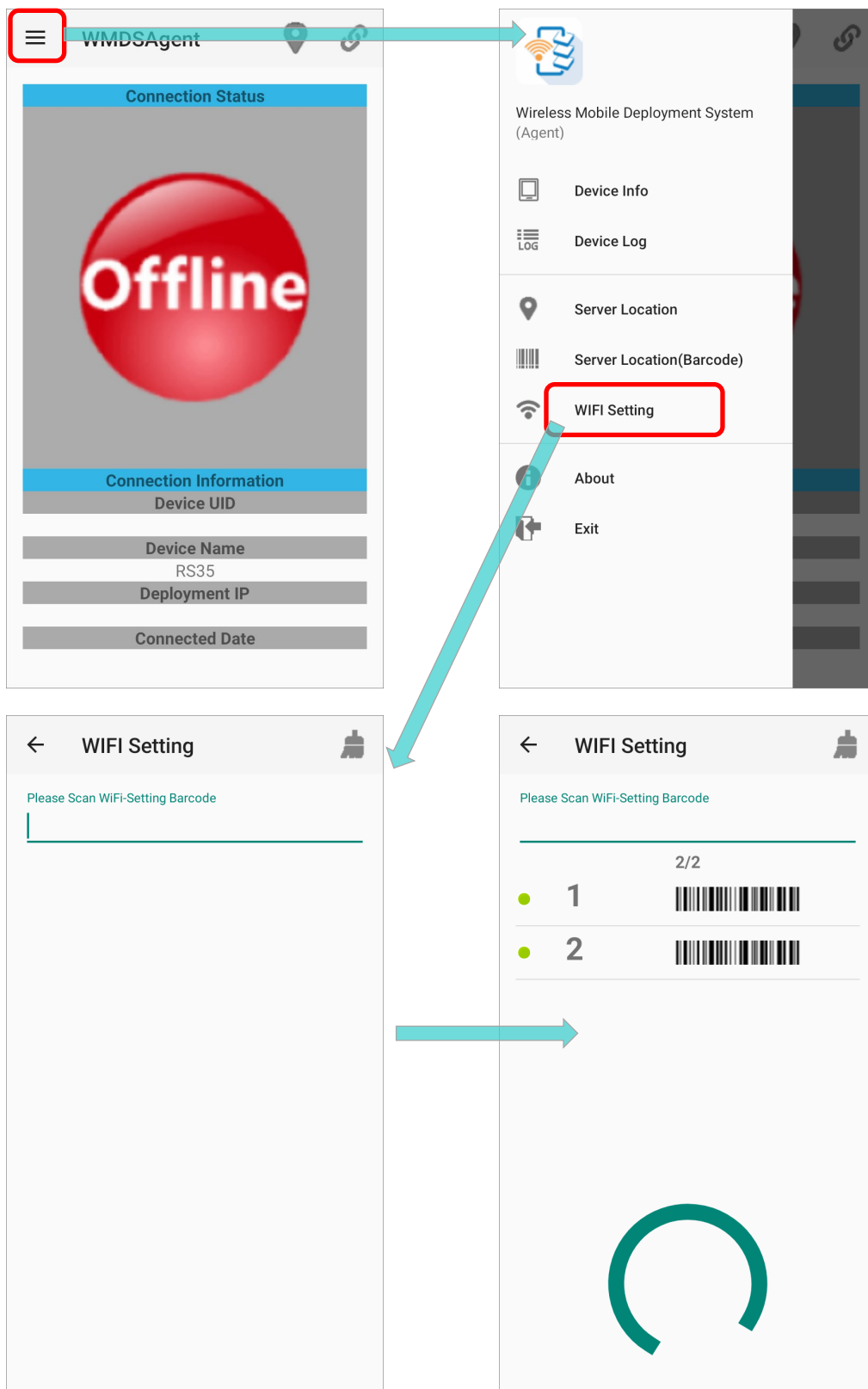
App Drawer (All Apps) | Settings  | Network & internet  | Wi-Fi 

OR

1) Generate a set of barcodes from **WMDS Server** as a **Wi-Fi profile**.



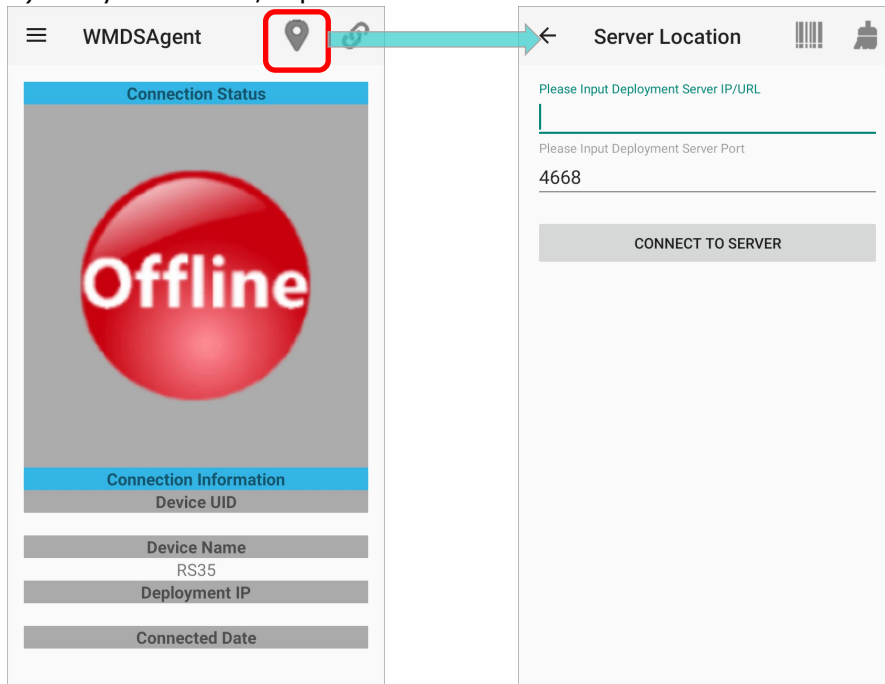
- 2) Tap to open **WMDSAgent** menu and select **"WIFI Setting"**. Scan the Wi-Fi profile barcodes to get the Wi-Fi settings done.



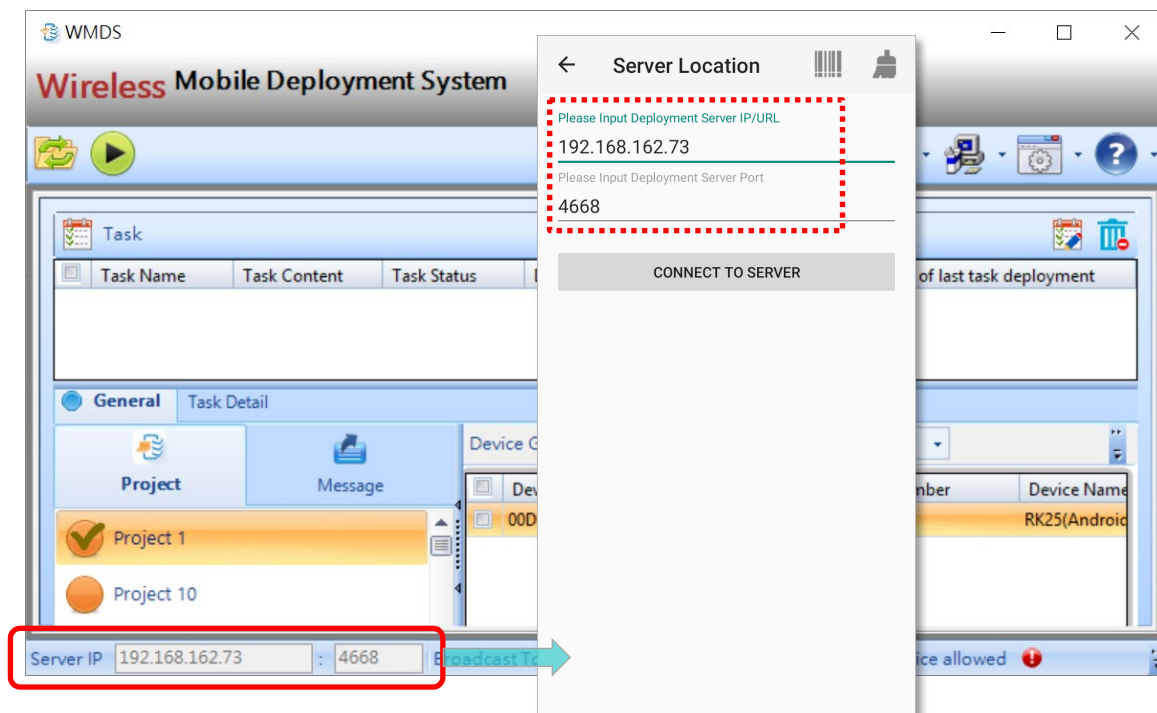
4.2.3 CONNECT TO SERVER

To manually input the WMDS Server address in **WMDSAgent**:

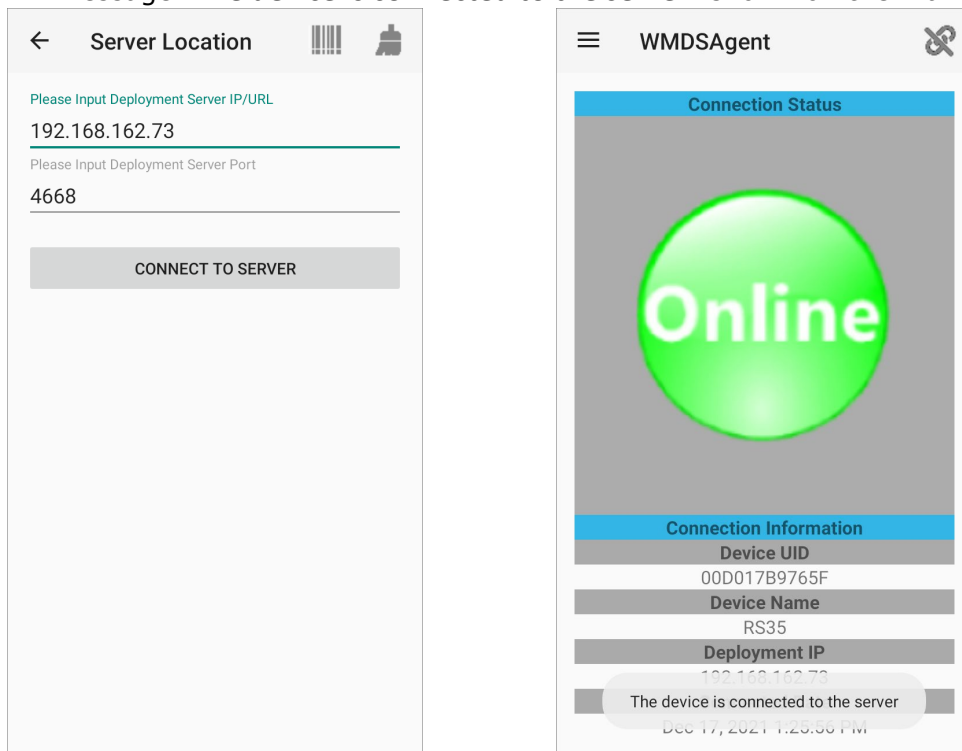
- 1) On your device, tap on the button  on the action bar to enter **Server Location** page:



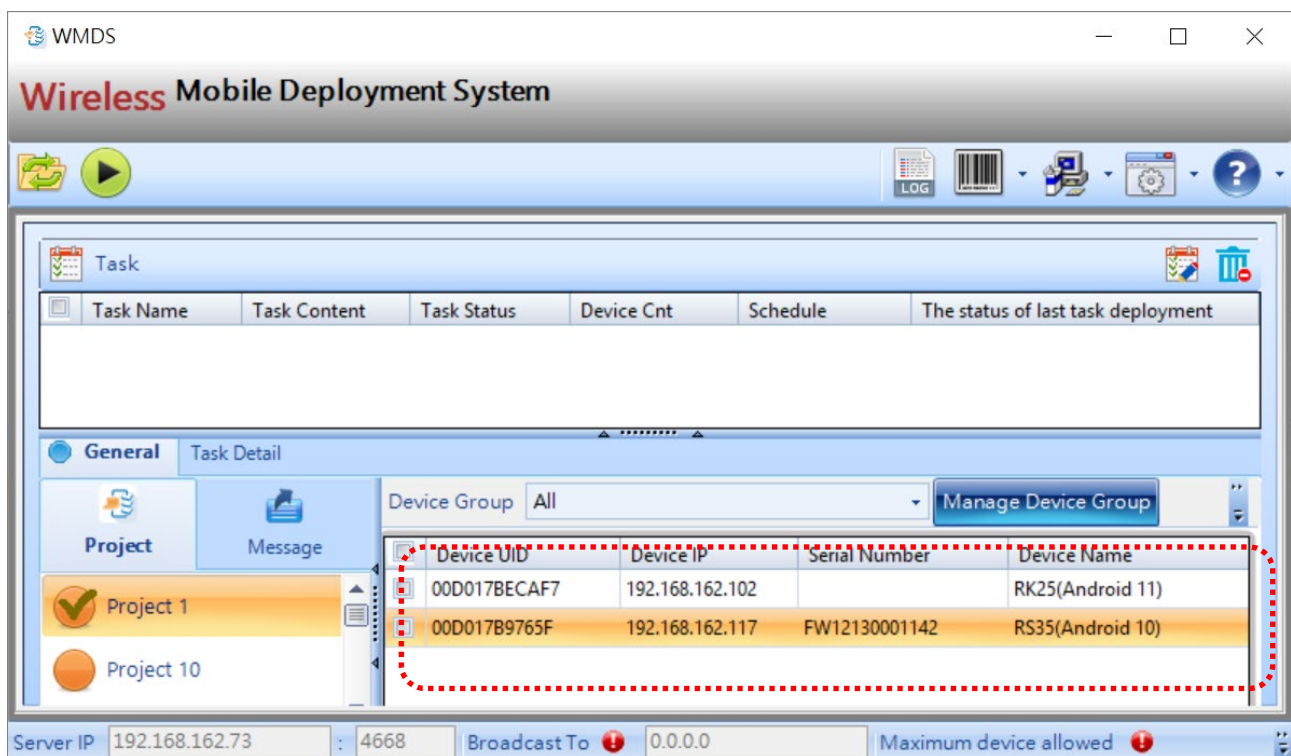
- 2) Check "Server IP" on the bottom left corner of **WMDS** program screen, input the server IP into the fields "Please Input Deployment Server IP/URL" and "Please Input Deployment Server Port".



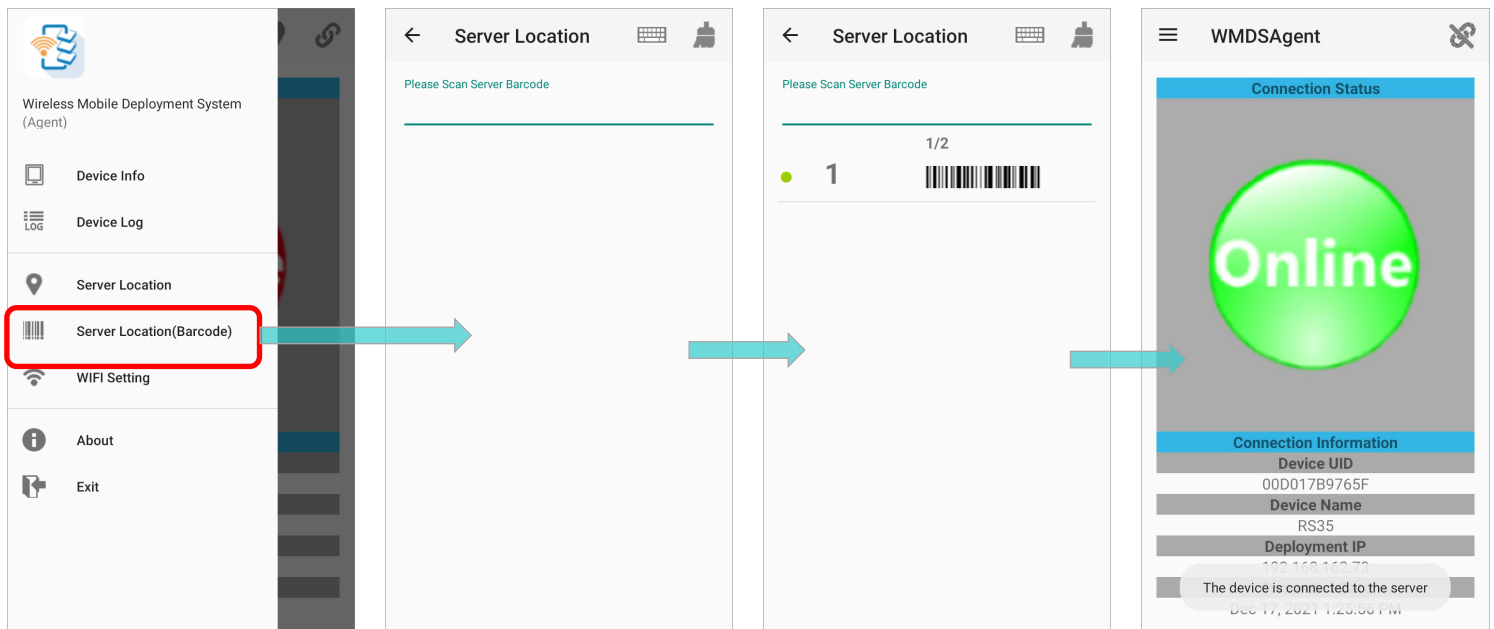
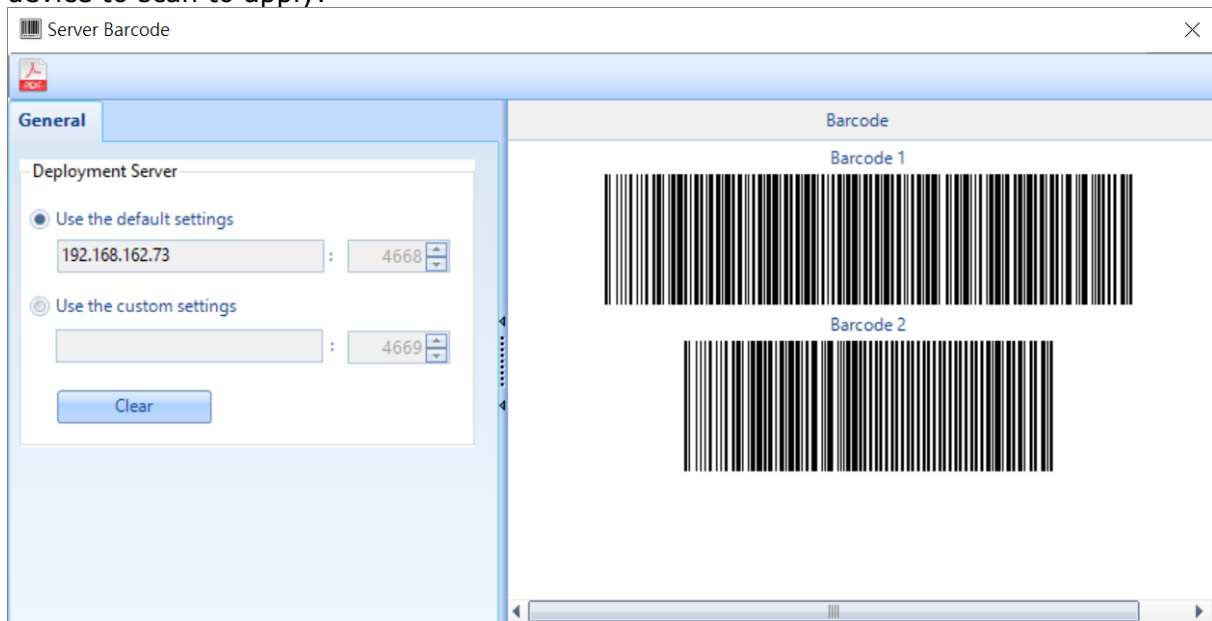
- 3) Tap on **"CONNECT TO SERVER"**, and the connection status becomes **Online** with a hint message **"The device is connected to the server"** shown on the main screen.



You can check your WMDS program on PC, and now this device is on the device list.



Also, you may generate a set of barcodes from WMDS program as a server IP profile for the device to scan to apply.



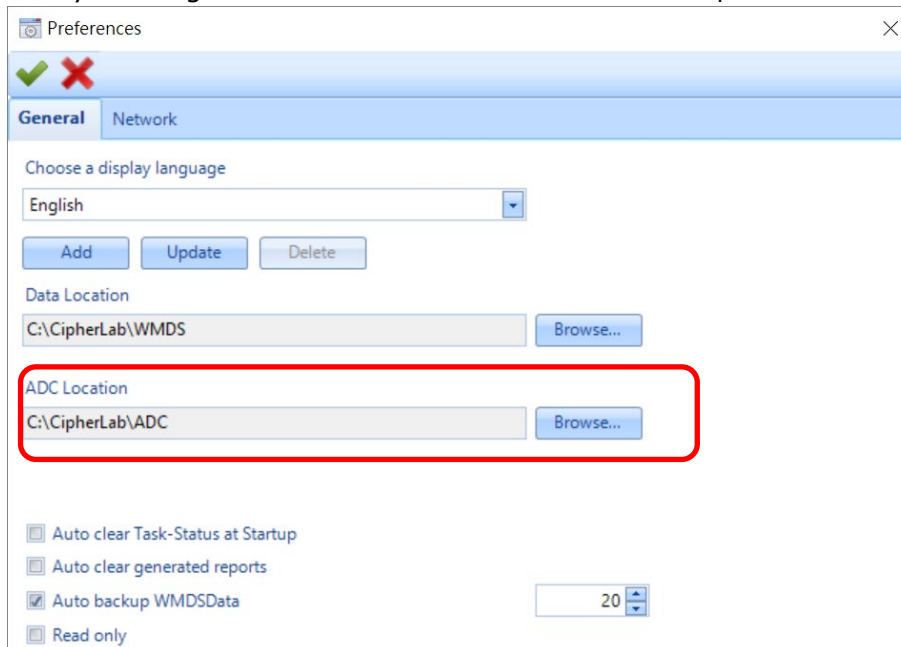
Note:

- (1) The PC where WMDS program is installed and the devices should connect to the same network and the PC should be discoverable by other devices on the connected network.
- (2) Please refer to [WMDS User Guide for Android](#) for the details about how to build up the connection between the device and WMDS server if there is more than one WMDS server in a network.

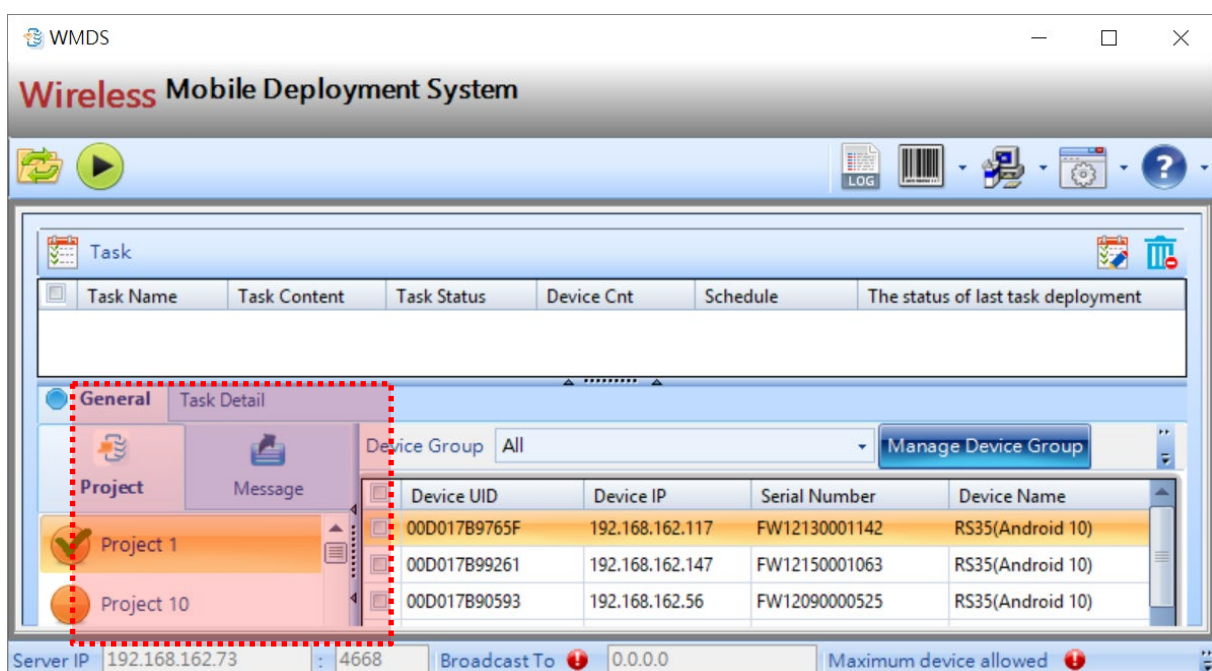
4.3 ADD A WMDS TASK

Please follow the steps below to add a new WMDS task for OS upgrade:

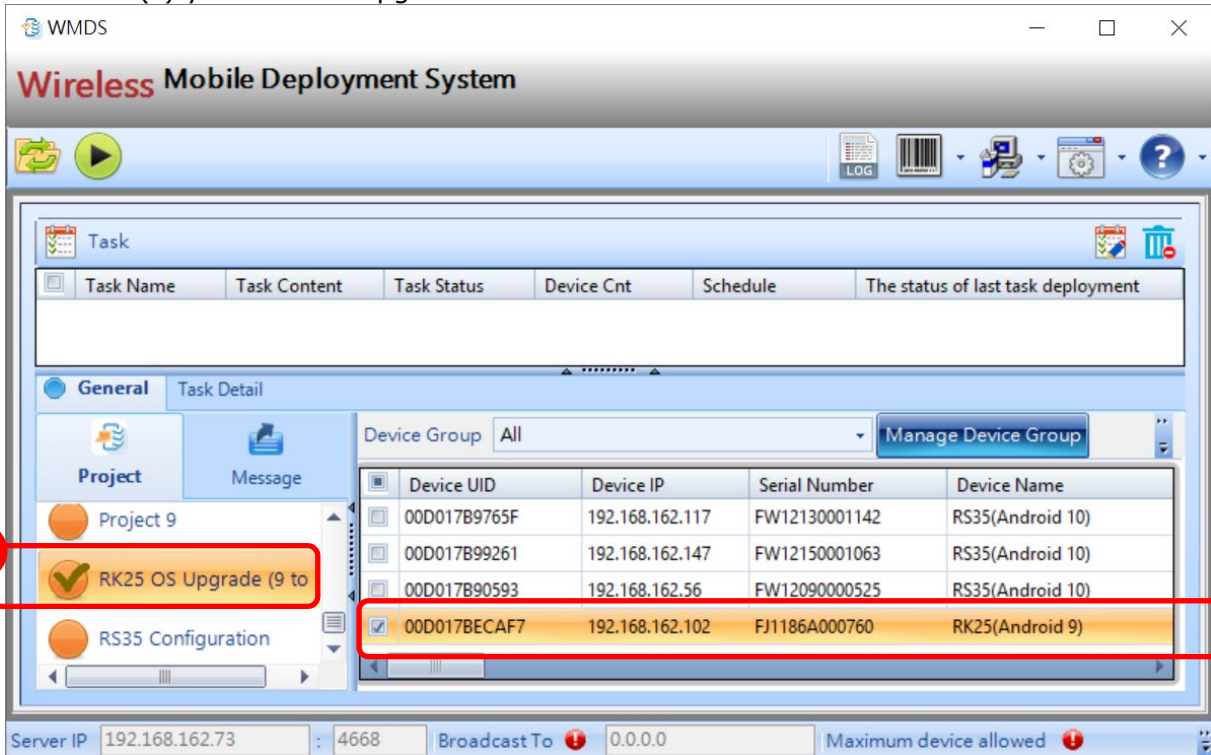
- 1) On WMDS program, synchronize your **ADC** (Android Deployment Configurator) projects by locating **ADC location** from **Preferences** | **Preferences** | **General** tab page.



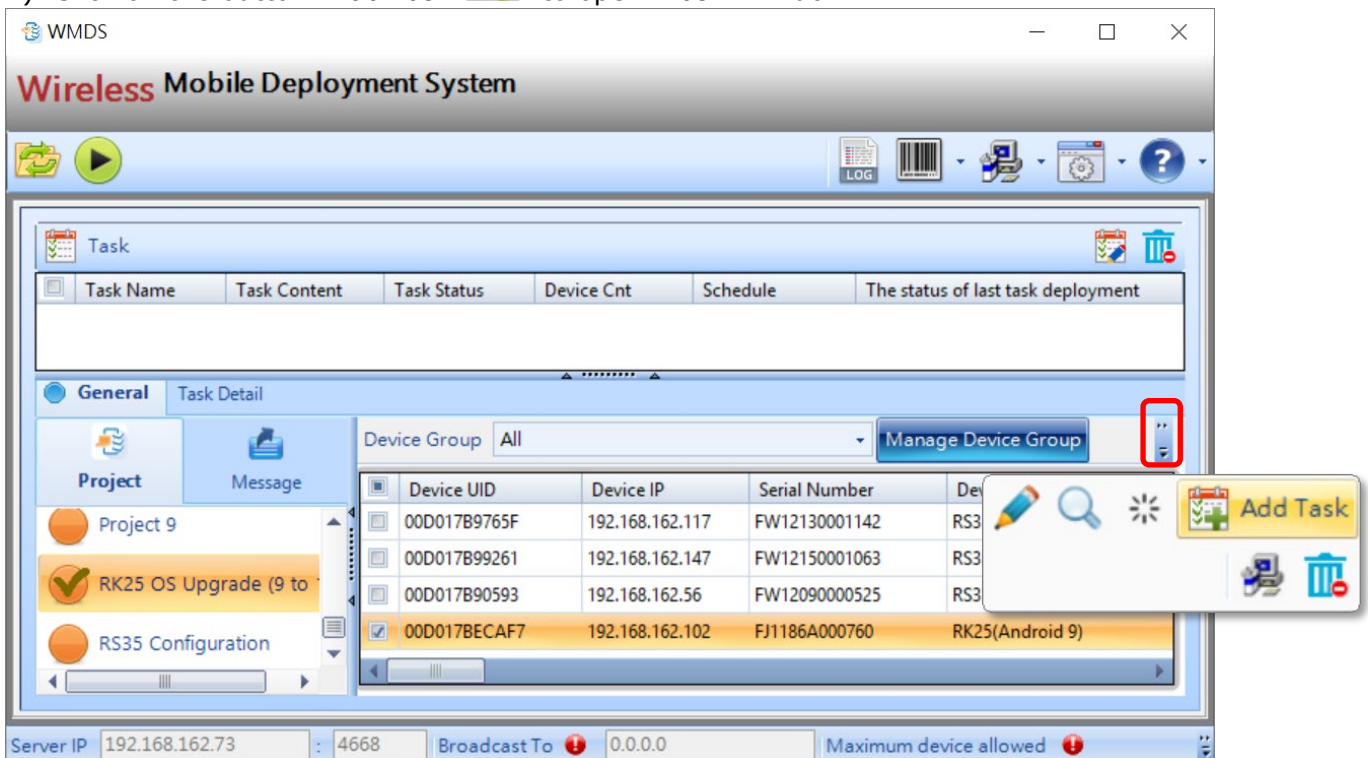
- 2) Once synchronization is completed, all your ADC projects are displayed on **Project** panel under **General**.



- 3) From Project panel, select the ADC project which is for OS upgrade, and then select the device(s) you'd like to upgrade from the device list.



- 4) Click on the button "Add Task"  to open "Task" window.



5) On **Task** tab page of “Task” window, enter the **Task Name** and select “**ADC Project**” as “**Task Type**”.

You may go through other tab pages to:

- Add more devices into **Task-Device Select List**.
- Define whether this task will perform configuration deployment to one device after another or to all at the same time.
- Arrange this task to be performed at a particular time.



Name	Value
Project Name	RK25 OS Upgrade (9 to 11)
Device Model	RK25
Operating System	Android
Reader Module	2D Reader (MR4750)
Keypad Type	Eu(28 Keys)

6) After specifying this task, click on the button “**OK** ✓” to synchronize the project. Please wait a moment while synchronization.

Warning: Synchronize Project(s)

Name	Value
Project Name	RK25 OS Upgrade (9 to 11)
Device Model	RK25
Operating System	Android
Reader Module	2D Reader (MR4750)
Keypad Type	Eu(28 Keys)

Server IP 192.168.162.73 : 4668 Broadcast To 0.0.0.0 Maximum device allowed

- 7) Synchronization is finished, and the setting buttons **"Synchronize Project(s)"**  and **"Deploy"**  on toolbar are available. Now the task is ready for deploy.

WMDS

Wireless Mobile Deployment System

LOG

Task

Task Name	Task Content	Task Status	Device Cnt	Schedule	The status of last task deployment
OS Upgrade for RK25	ADC-Project [RK25 OS Upgrade (9 to 11)]	Wait	1	No Schedule	

General Task Detail

Project Message

Device Group: All [Manage Device Group](#)

Device UID	Device IP	Serial Number	Device Name
00D017B9765F	192.168.162.117	FW12130001142	RS35(Android 10)
00D017B99261	192.168.162.147	FW12150001063	RS35(Android 10)
00D017B90593	192.168.162.56	FW12090000525	RS35(Android 10)
00D017BECAF7	192.168.162.102	FJ1186A000760	RK25(Android 9)

Project 9

RK25 OS Upgrade (9 to 11)

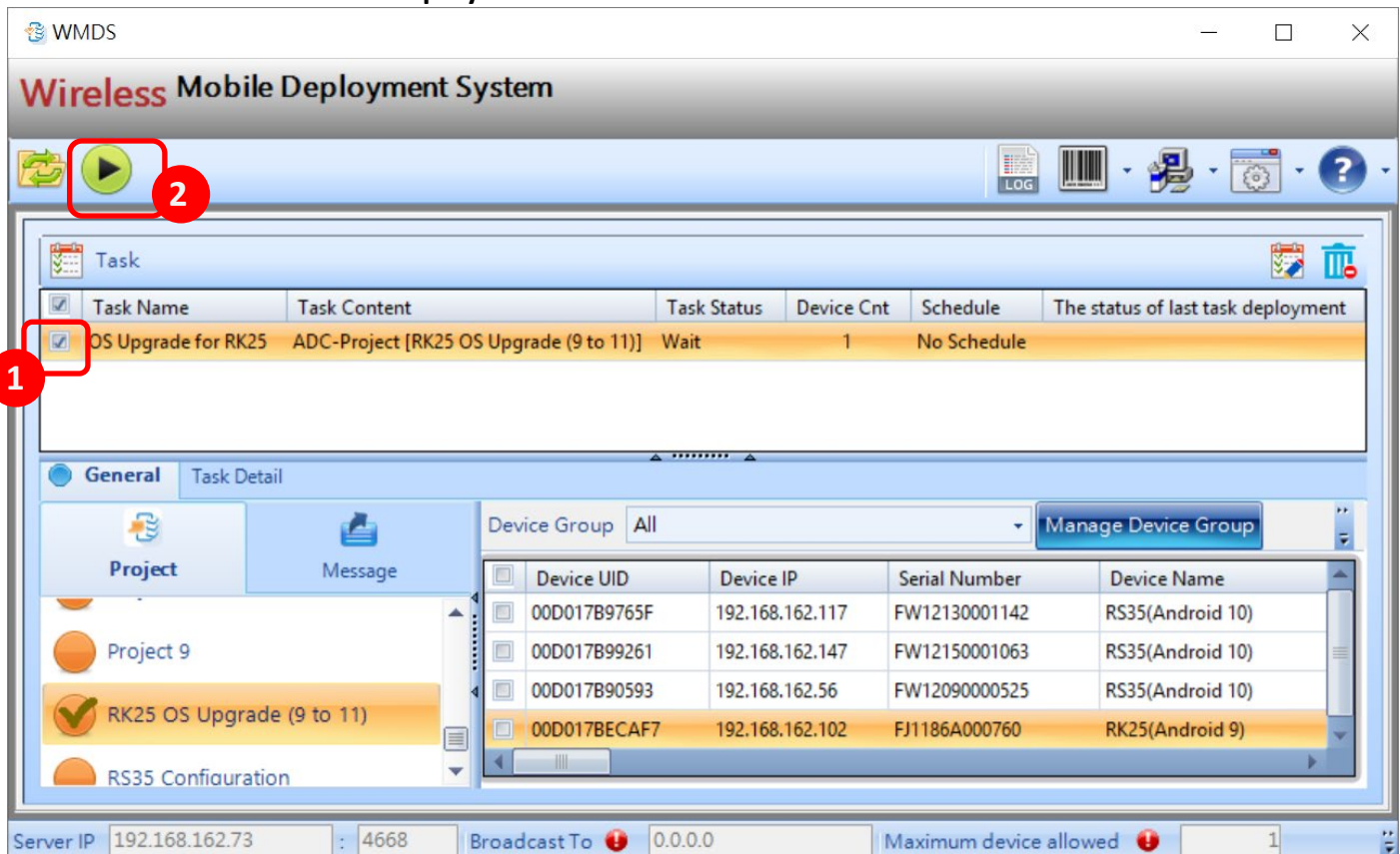
RS35 Configuration

Server IP: 192.168.162.73 : 4668 Broadcast To: 0.0.0.0 Maximum device allowed: 1

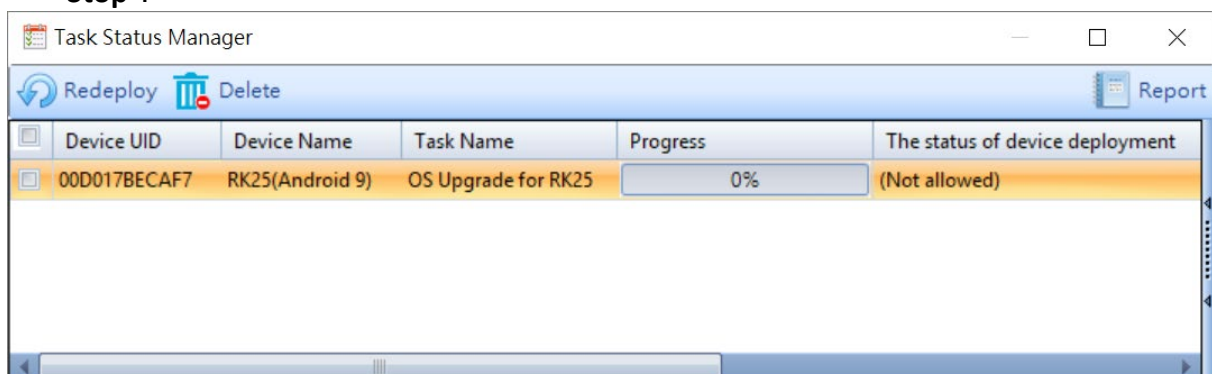
4.4 OS UPGRADE BY DEPLOYING WMDS TASK

To upgrade the device OS by deploying WMDS task:

- 1) On WMDS program, select the task which is for OS upgrade by checking the checkbox, and then click on **"Deploy"** on toolbar.



- 2) A **Task Status Manager** window pops out. This window displays the deployment progress as well as their results by device. You can have certain tasks performed on selected devices again by clicking on **"Redeploy"** or simply stop a deployment task by clicking on **"Stop"**.



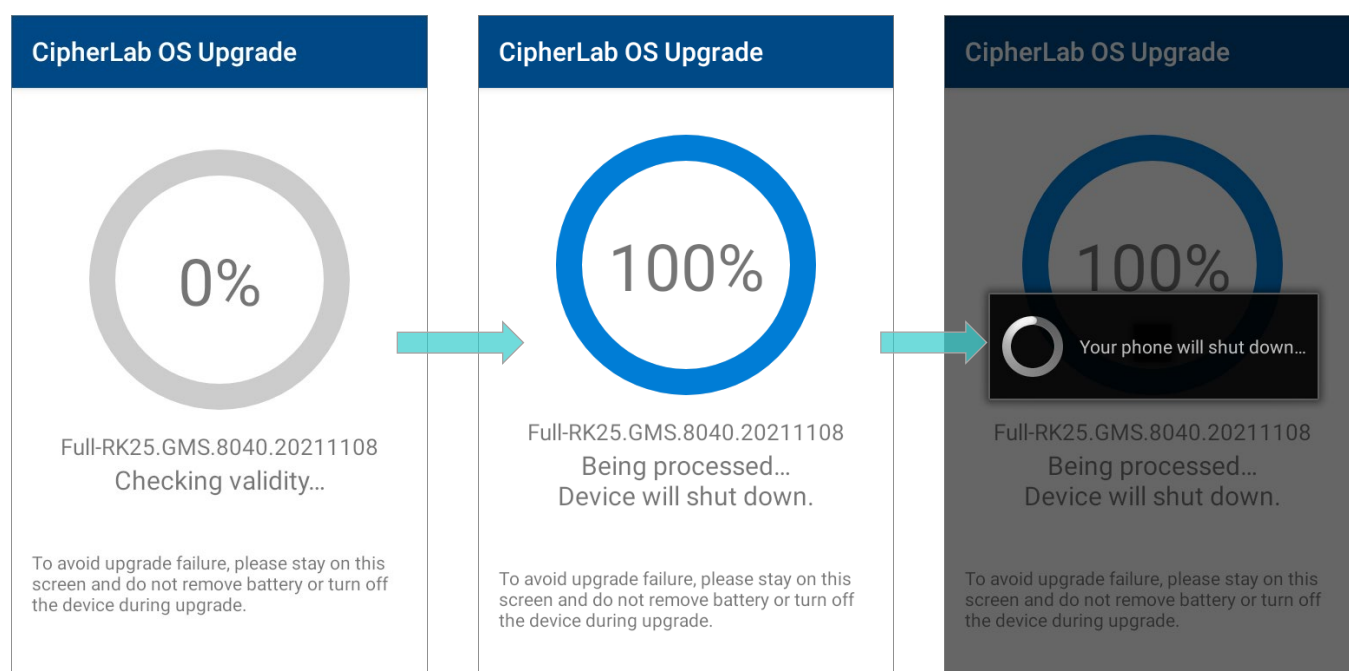
- 3) It will take some time to deploy the task. The task duration is affected by those variables:

- Task device amount
- The network bandwidth in your environment

- The hardware level of your WMDS server
- 4) The device will automatically reboot upon deployment is completed. After booting up, the application "**CipherLab OS Upgrade**" is launched for automatic OS upgrade process. Please note that **CipherLab OS Upgrade** checks for the device free storage space at the very beginning. If it doesn't meet the minimum storage requirement (**5GB** free storage space), a warning message appears and the OS upgrade process stops. Free up the space before launching "CipherLab OS Upgrade" for OS upgrade again.
- Storage space not enough**


The free space of storage in this device is not enough for system upgrade. Please free up space first before starting upgrade.


EXIT
- 5) The upgrade process takes a while to install the necessary packages, shut down, update system, and then reboot automatically after finishing installation.

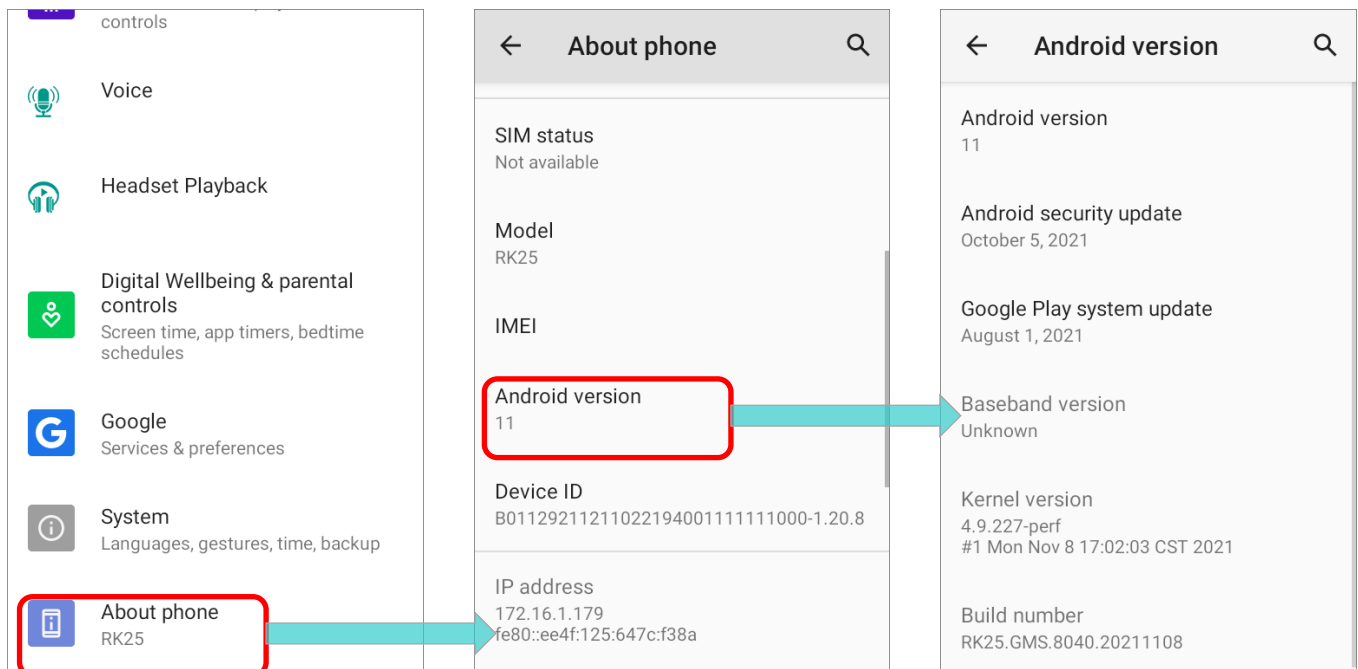
**Note:**

Once the upgrade starts, stay on CipherLab OS Upgrade main screen. DO NOT switch to another app or screen.

SUCCESSFULLY UPGRADED

The device restarts after the installation. The upgrade is completed, and the OS of your device is now the version you would like to upgrade. For example, if your device is upgraded to Android 11, then you can check it by accessing **App Drawer** | **Settings**  | **About**

Phone  | **Android version** (see the figure below). Different device models may have a little different accesses.



Chapter 5

UPGRADE WITH REMOCLOUD

This chapter introduces how to upgrade your device OS to Android 11 by deploying the ADC project through **ReMoCloud**.

5.1 PRELIMINARY

ReMoCloud is the **EMM** (enterprise mobility management) service provided by CipherLab. By enrolling your device(s) to **ReMoCloud**, the default applications "**CipherLab OEMConfig**" and "**CipherLab ADC Module**" will be installed onto your enrolled device(s). With these 2 apps, you are able to deploy the **ADC** (Android Deploy Configurator) project settings to your enrolled devices through ReMoCloud. Please refer to [ReMoCloud User Guide for Android](#) and [CipherLab OEMConfig SOP](#) for further introduction.

The necessary items for upgrading OS through **ReMoCloud** are:

- ReMoCloud Account

Please contact your local sales representative for account application via <https://remocloud.cipherlab.com/AccountRequestForm> and login to ReMoCloud website (<https://remocloud.cipherlab.com/login>) after getting your ReMoCloud account and password.

- ADC Program

Make sure that you've installed ADC on your PC, and the version of your ADC program must be **1.2.8** or later.

The latest version of ADC program and the user guide can be downloaded from:

<https://wmds.cipherlab.com/ADC>

- ADC Project for OS Upgrade

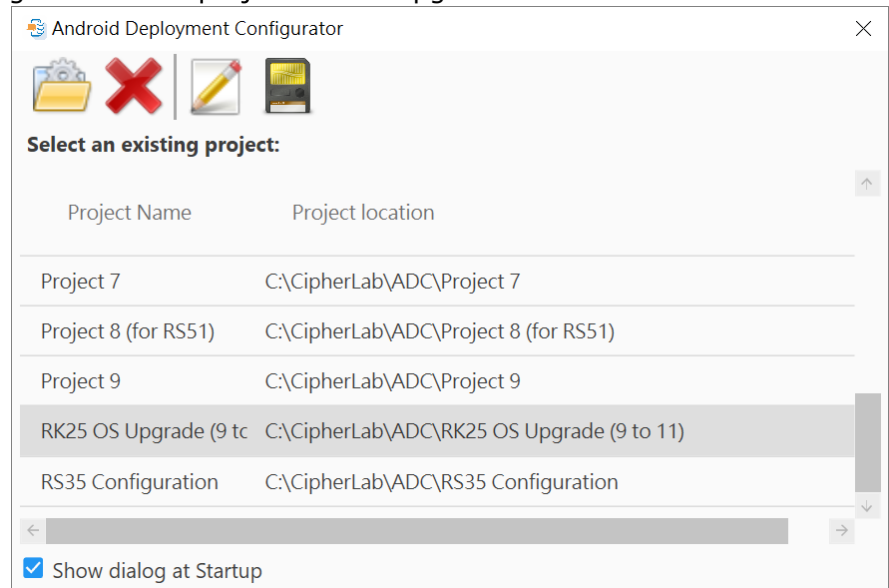
The ADC project for OS upgrade must contains **CLOSupgradeKeys.txt**, **CipherLab OS Upgrade apk file**, and **the dedicated OS image file**. This ADC project should be compressed and then uploaded to your cloud storage.

Please refer to [CipherLab OEMConfig SOP](#) for how to create the URL for downloading the zip file you uploaded to the cloud storage.

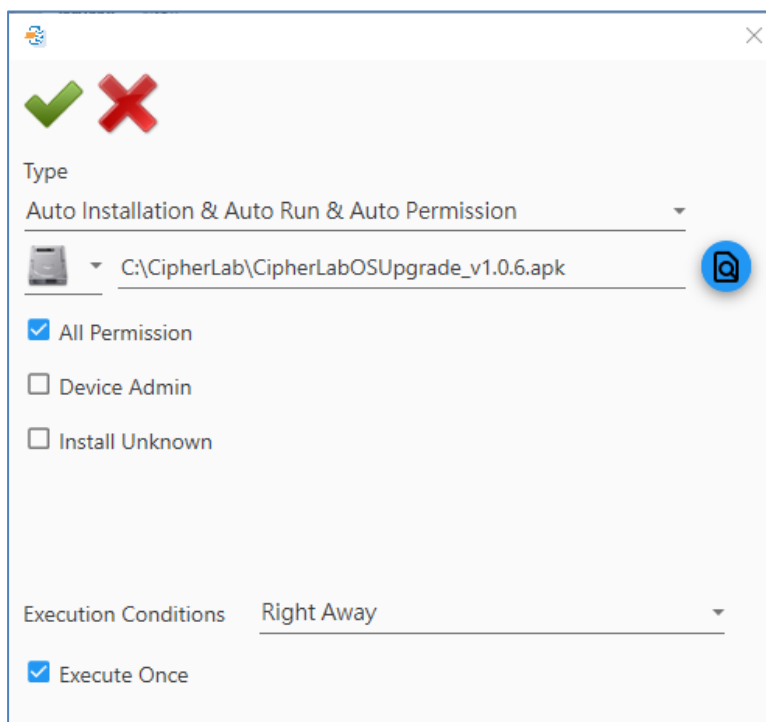
5.2 ADC PROJECT SETTINGS

Follow the steps described in [Creat a New ADC Project](#), [Configure Device Settings](#), and [Settings on ADC Main Screen](#) to configure the ADC project for OS upgrade.

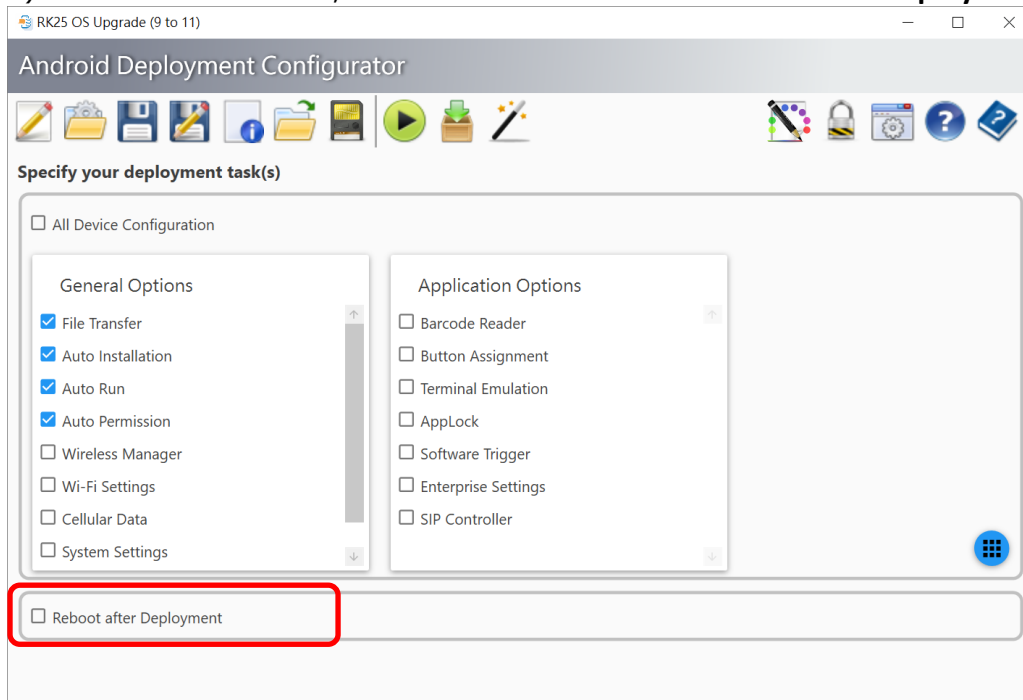
- 1) Launch your ADC program on PC and load the project for OS upgrade.





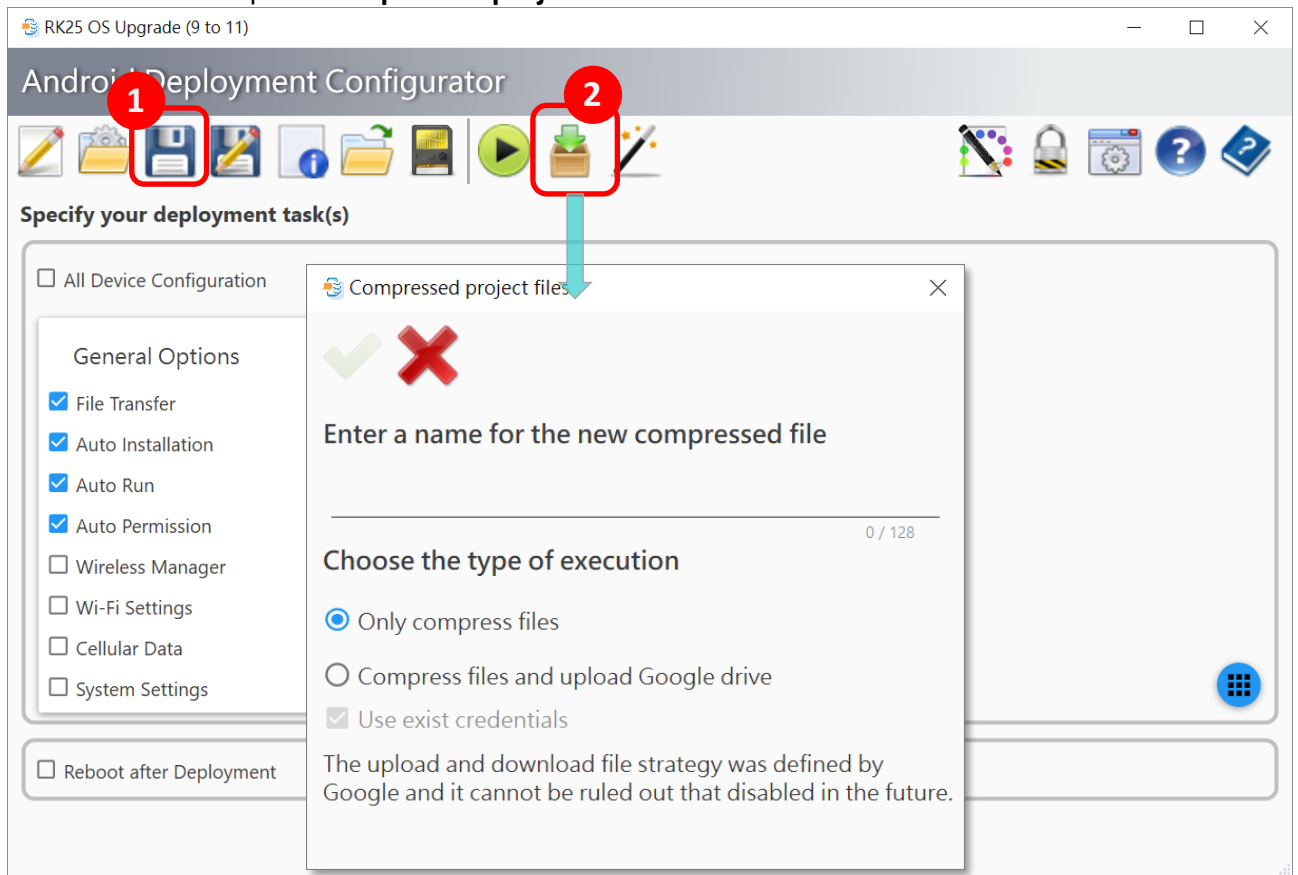
- 2) Please pay attention that if the version of your ADC is 1.3.0 or later, you must set "**Execution Conditions**" as **Right Away** and check the checkbox "**Execute Once**".




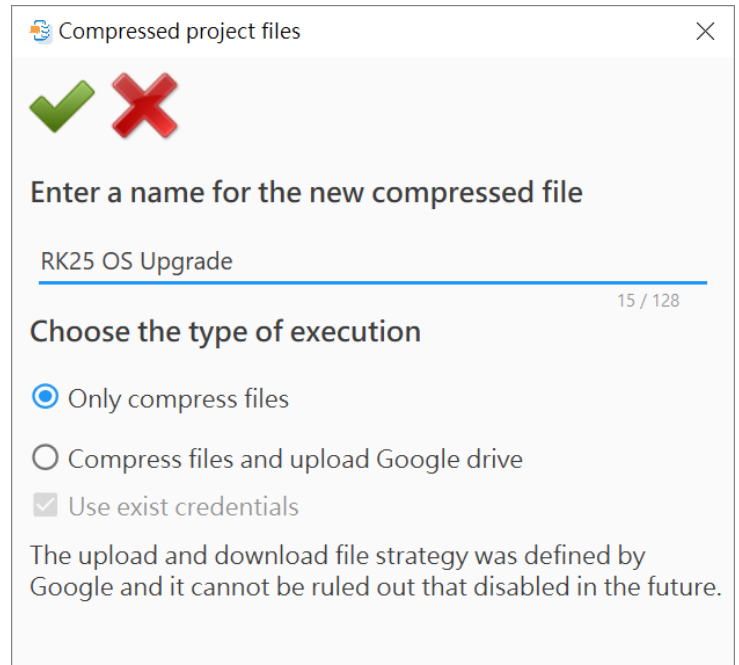
3) On ADC main screen, uncheck the checkbox of “**Reboot after Deployment**”.




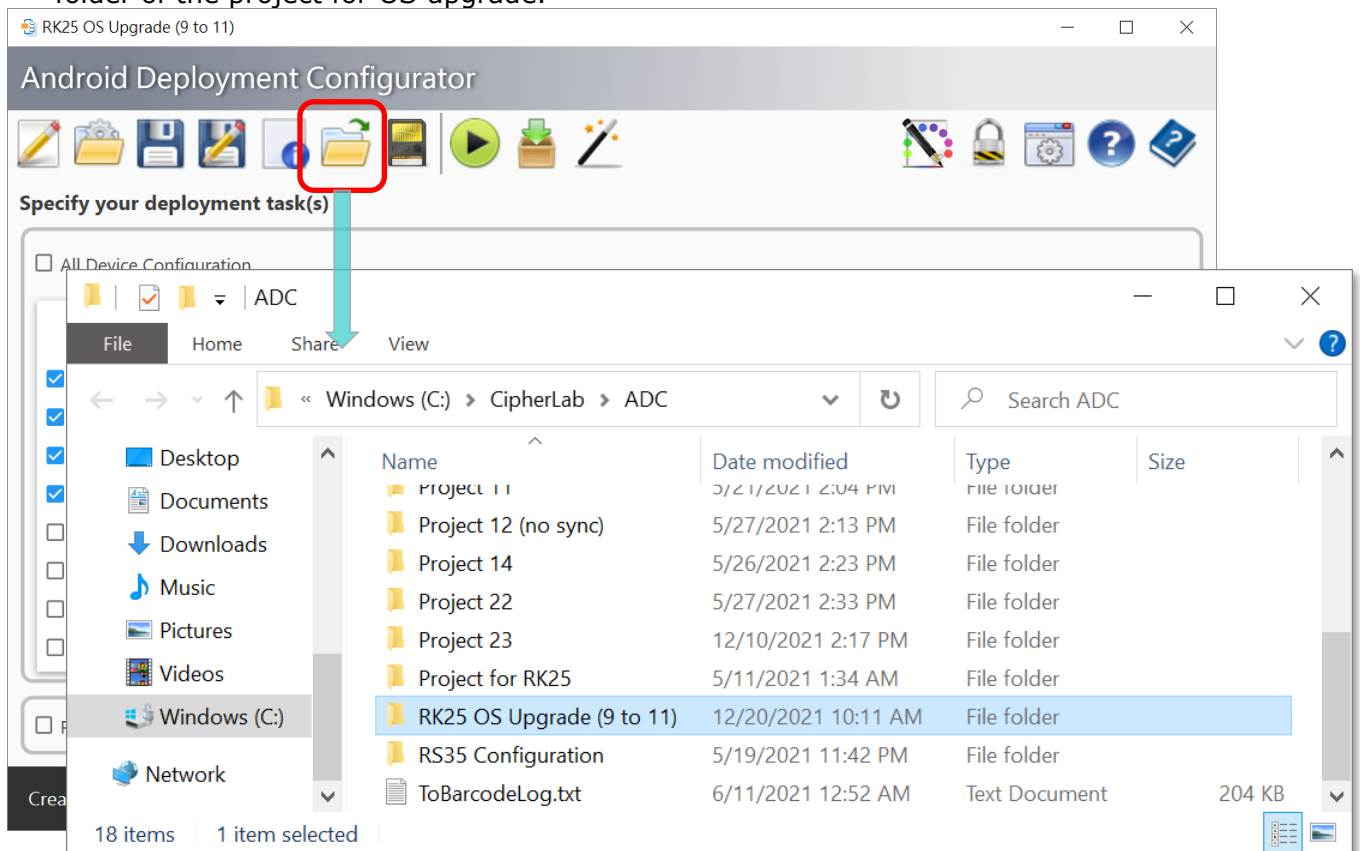
4) Save the project by clicking “**Save** ” on toolbar, and then click “**Compressed Project Files** ” to open “**Compressed project files**” window.



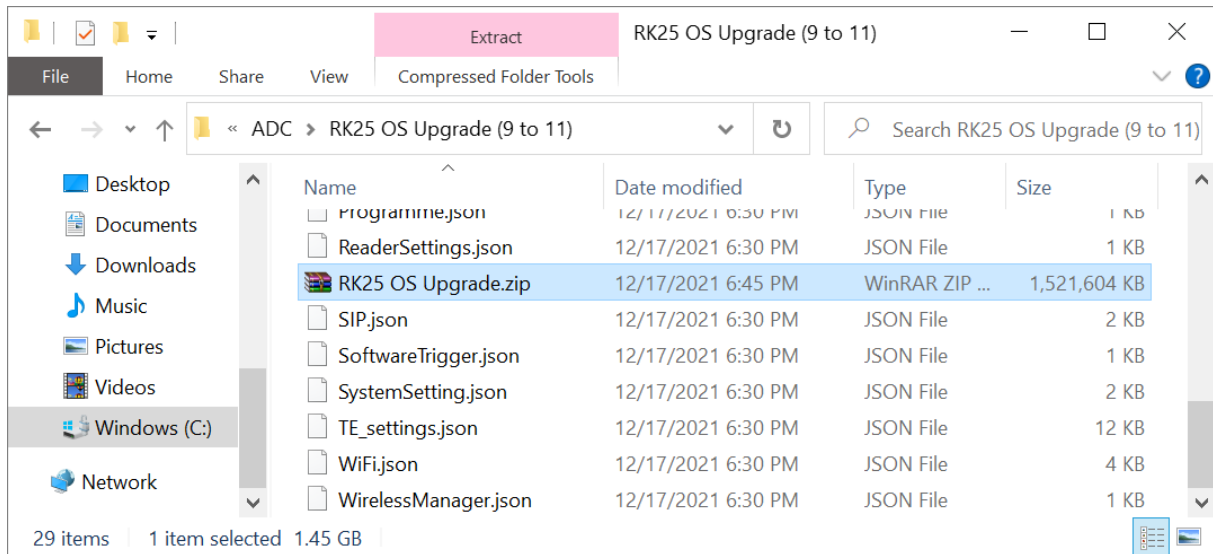
- 5) On **"Compressed project files"** window, enter the file name, choose **"Only compress files"**, and click on **"OK"** .



- 6) After the compression is done, click on **"Open ADC Folder"**  to find and access the folder of the project for OS upgrade.



- 7) The zip file you just created is in the project folder. Upload this zip file to a server where you can access it on the internet. For example, put this file to a web server and then you can access it via HTTP/HTTPS protocol.



5.3 REMOCLOUD PROFILE FOR OS UPGRADE

Log in to your ReMoCloud account and then go to **"Profile"** page to configure your profile settings or create a new profile for OS upgrade.

The image shows two screenshots from the ReMoCloud interface. The top screenshot is the login page, which features the ReMoCloud logo and a 'verified by Google EMM' badge. Below the logo is a 'Login' form with fields for 'Email' and 'Password', a 'Remember Me' checkbox, and a 'SUBMIT' button. The 'SUBMIT' button is highlighted with a red rectangle. Below the form are links for 'Request Account' and 'Forgot Password'. The bottom screenshot shows the 'Profile' management page. On the left is a sidebar menu with categories: HOME, DEPLOYMENT, ENROLL, MONITOR, and SUB ACCOUNT. The 'DEPLOYMENT' category is highlighted with a red rectangle, and the 'Profile' option is selected. The main content area shows a table of profiles with columns: Profile Name, Enroll Device Number, Status, Version, and Last Edit Time. The table contains five rows of data. Above the table are buttons for 'Add Profile', 'Assign Profile', and 'Copy Profile'.

ReMoCloud Login Page

Login

Email

Password

☐ Remember Me

By clicking SUBMIT button to login CipherLab ReMoCloud, you acknowledge that you consent to the [Terms and Conditions](#) and CipherLab's [Privacy Policy](#).

SUBMIT

[Request Account](#) [Forgot Password](#)

ReMoCloud Profile Management Page

Hi, John Smith

Profile ReMoCloud Profile List

[Add Profile](#) [Assign Profile](#) [Copy Profile](#)

	Profile Name	Enroll Device Number	Status	Version	Last Edit Time
<input type="checkbox"/>	Profile_1	2	Activated	3	2021/12/09 10:26
	Profile_2	0	Inactivated	2	2021/12/16 16:12
	Profile_3	0	Inactivated	1	2021/12/16 16:14
	Profile_5	0	Inactivated	0	
	Testing	0	Inactivated	0	

DEPLOYMENT

[Profile](#)

ENROLL

[Enroll Device](#)

MONITOR

[Device](#)

[Group](#)

[App](#)

SUB ACCOUNT

[Manage](#)

USER LOG

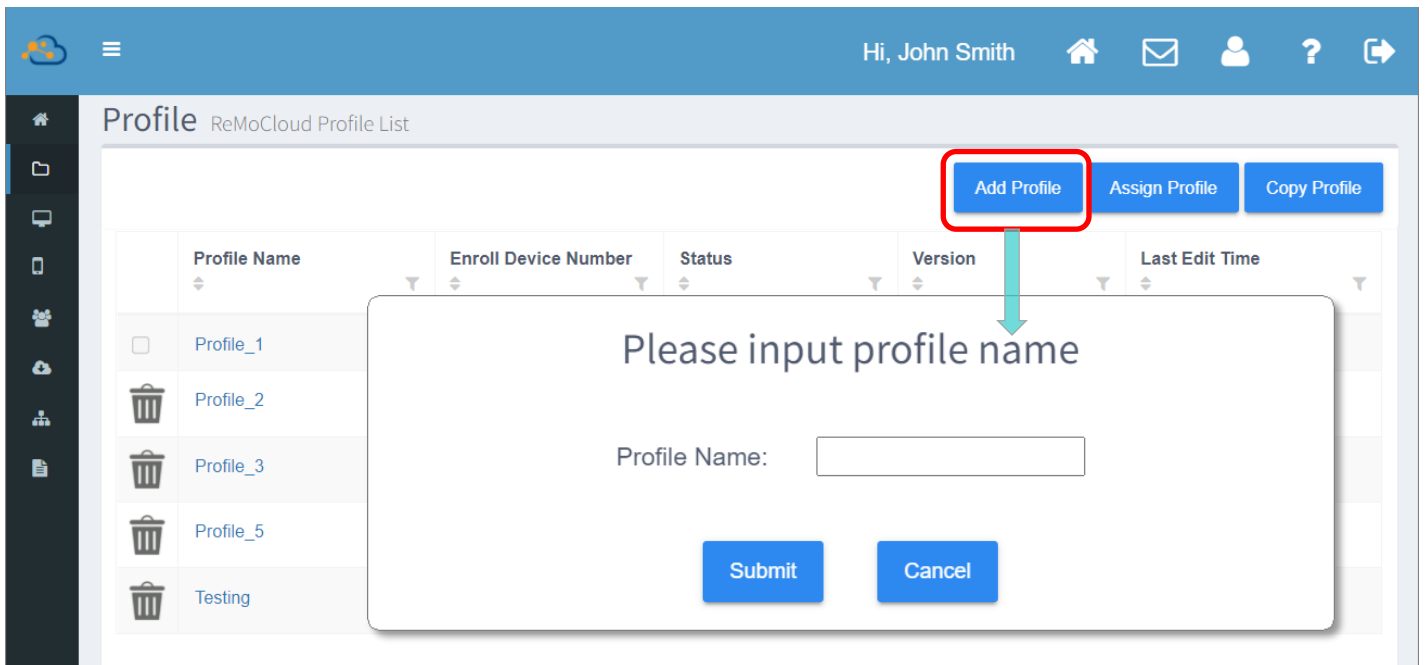
[User Log](#)

5.3.1 CREATE A NEW PROFILE

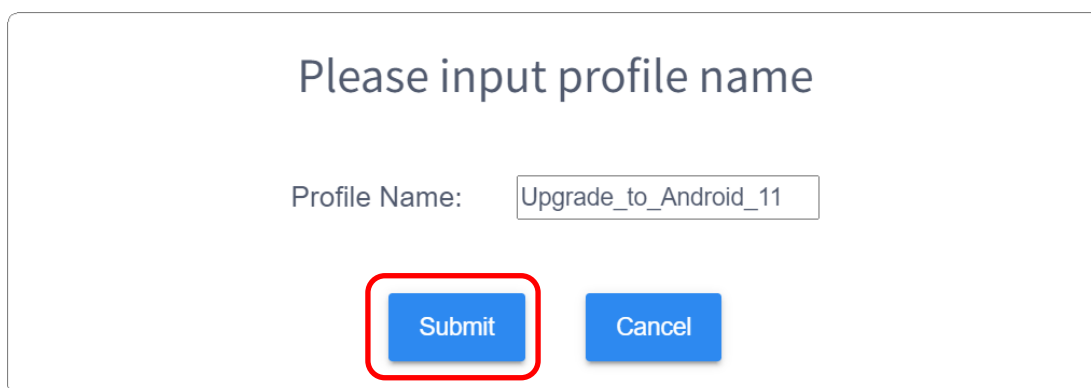
You may edit an existed profile or create a new one for OS upgrade.

To create a new profile:

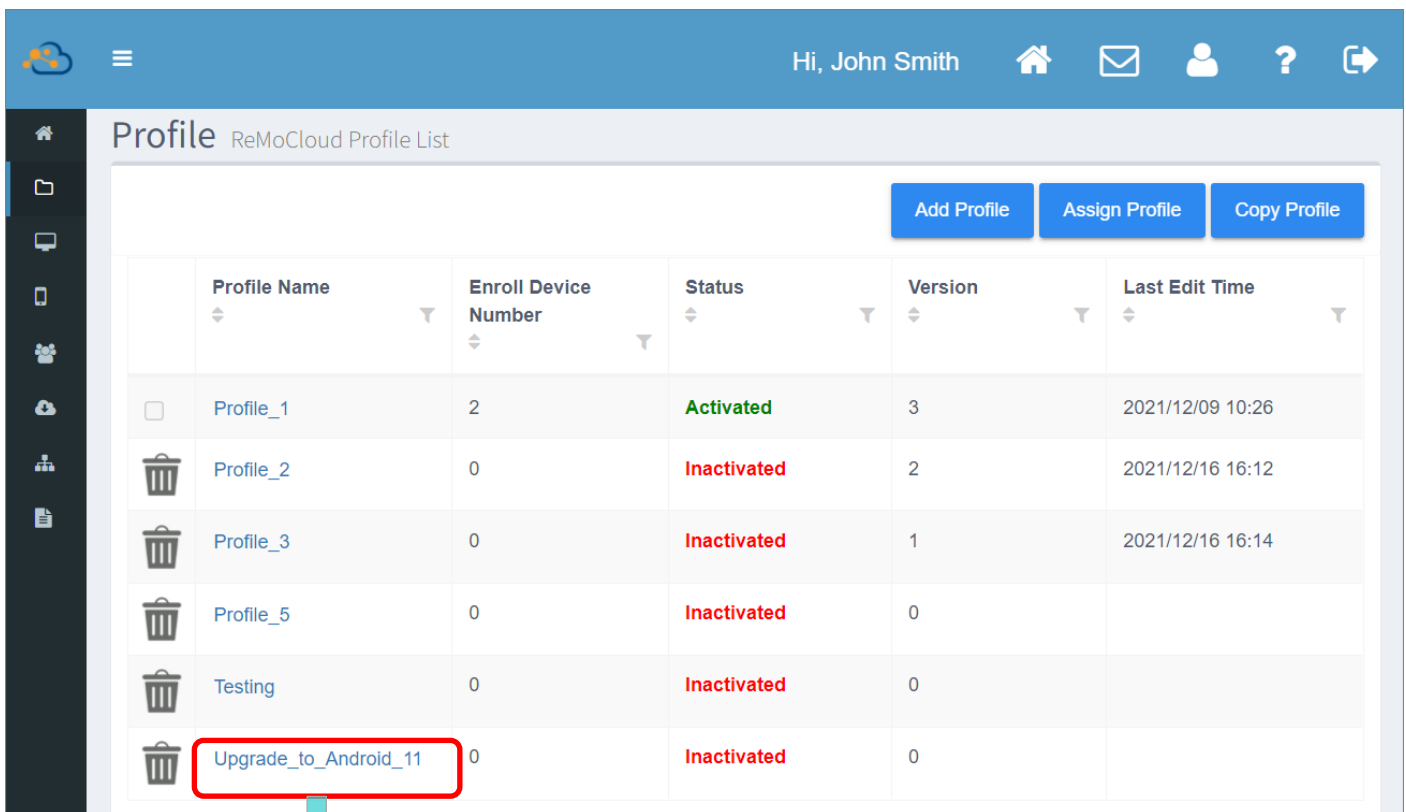
- 1) On **Profile** page, click on the setting button “**Add Profile**”:



- 2) Enter a profile name in “**Please input profile name**” pop-up window, and then “**Submit**” to create it.



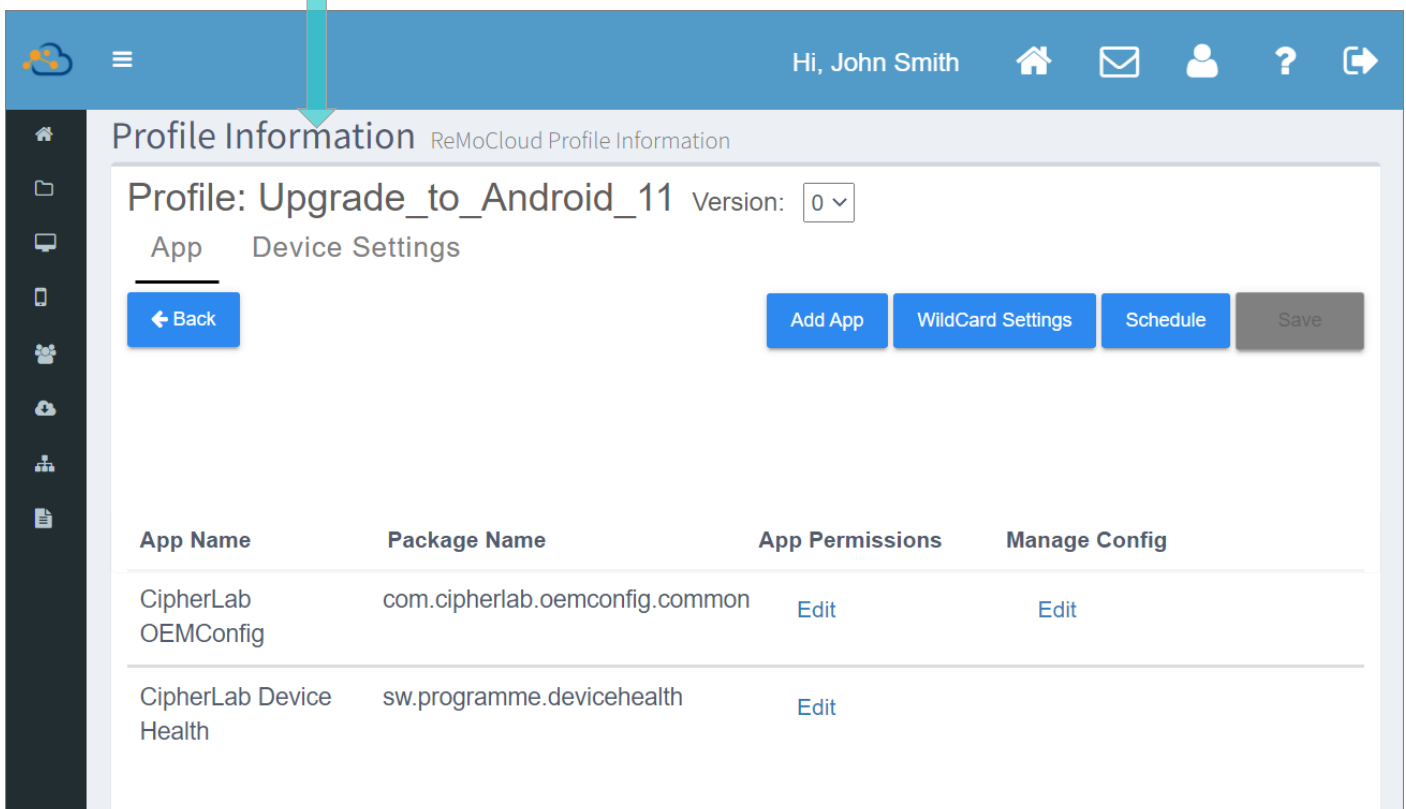
- 3) The profile is now created. Click on the profile name to enter its **"Profile Information"** page for further editing this profile.



Profile ReMoCloud Profile List

Buttons: Add Profile, Assign Profile, Copy Profile

	Profile Name	Enroll Device Number	Status	Version	Last Edit Time
<input type="checkbox"/>	Profile_1	2	Activated	3	2021/12/09 10:26
	Profile_2	0	Inactivated	2	2021/12/16 16:12
	Profile_3	0	Inactivated	1	2021/12/16 16:14
	Profile_5	0	Inactivated	0	
	Testing	0	Inactivated	0	
	Upgrade_to_Android_11	0	Inactivated	0	



Profile Information ReMoCloud Profile Information

Profile: Upgrade_to_Android_11 Version: 0

App Device Settings

Buttons: Back, Add App, WildCard Settings, Schedule, Save

App Name	Package Name	App Permissions	Manage Config
CipherLab OEMConfig	com.cipherlab.oemconfig.common	Edit	Edit
CipherLab Device Health	sw.programme.devicehealth	Edit	

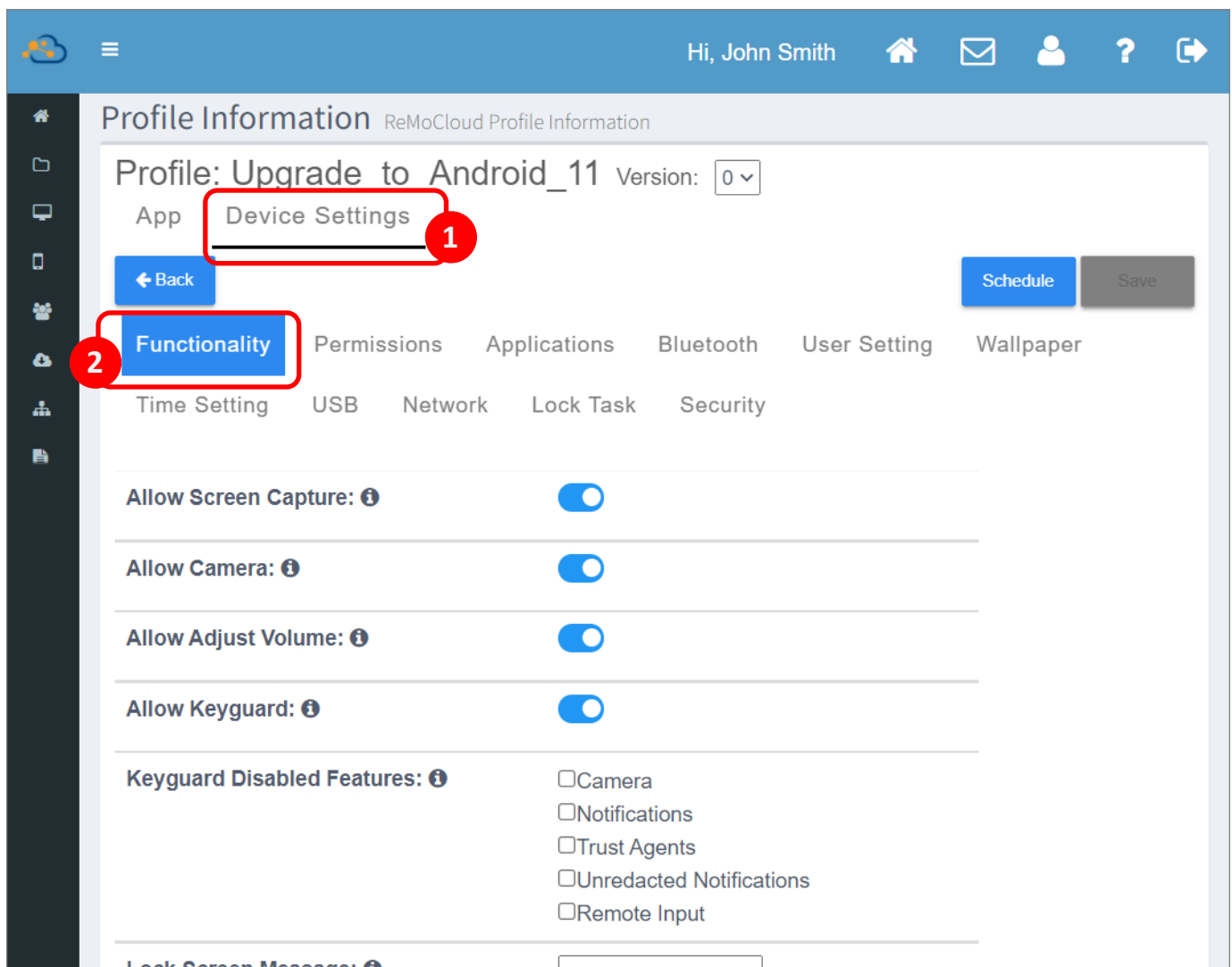
5.3.2 EDIT THE PROFILE FOR OS UPGRADE

On “**Profile Information**” page, you have to get the necessary configurations of “**Device Settings**” and the default app “**CipherLab OEMConfig**” done:

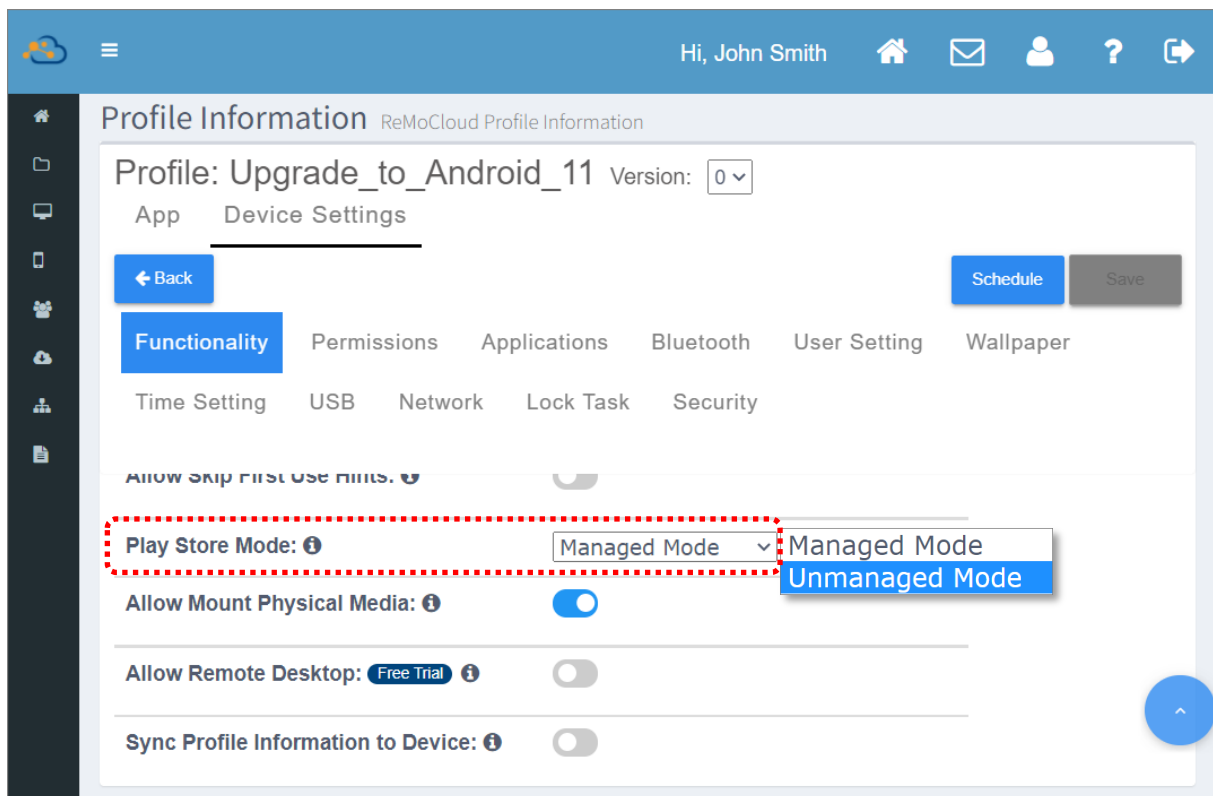
DEVICE SETTINGS

The profile should set as “**Unmanaged Mode**” for “**Play Store Mode**”, and you also have to allow the device(s) which applies this profile to install unknown apps:

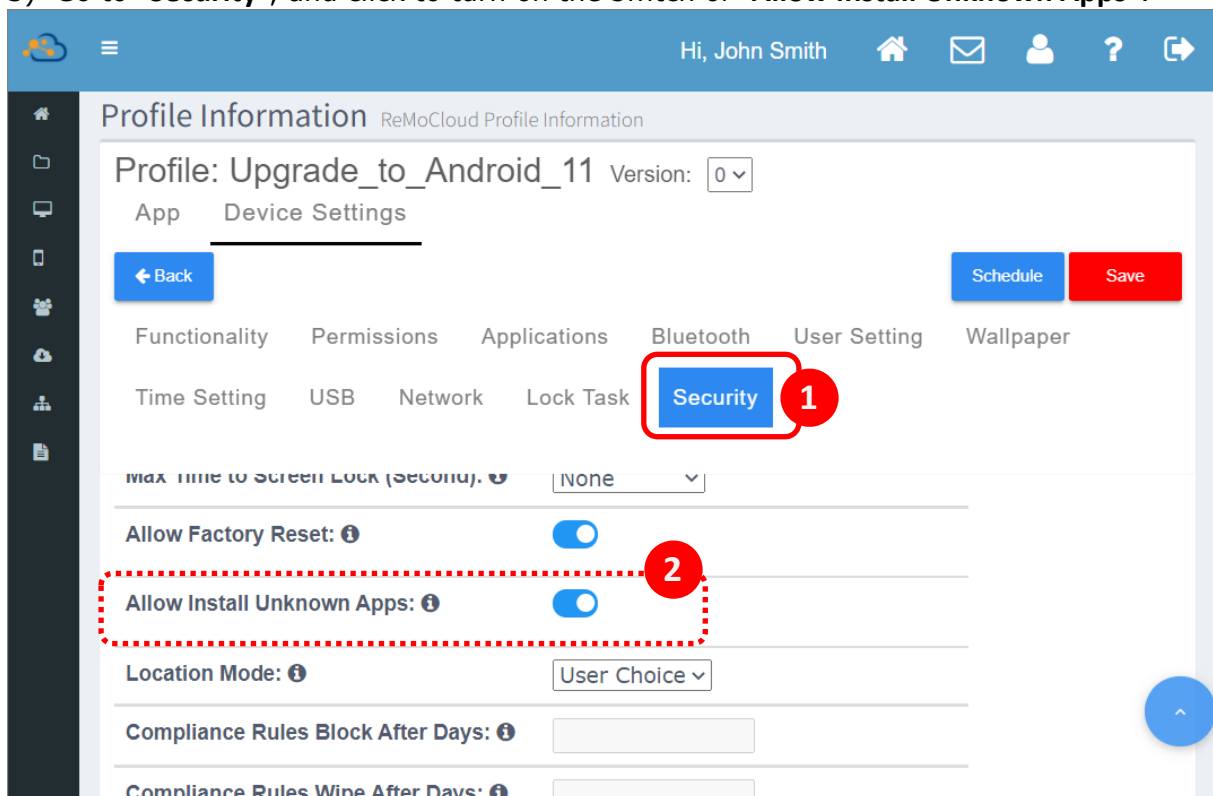
1) Click to enter Device Settings | Functionality:



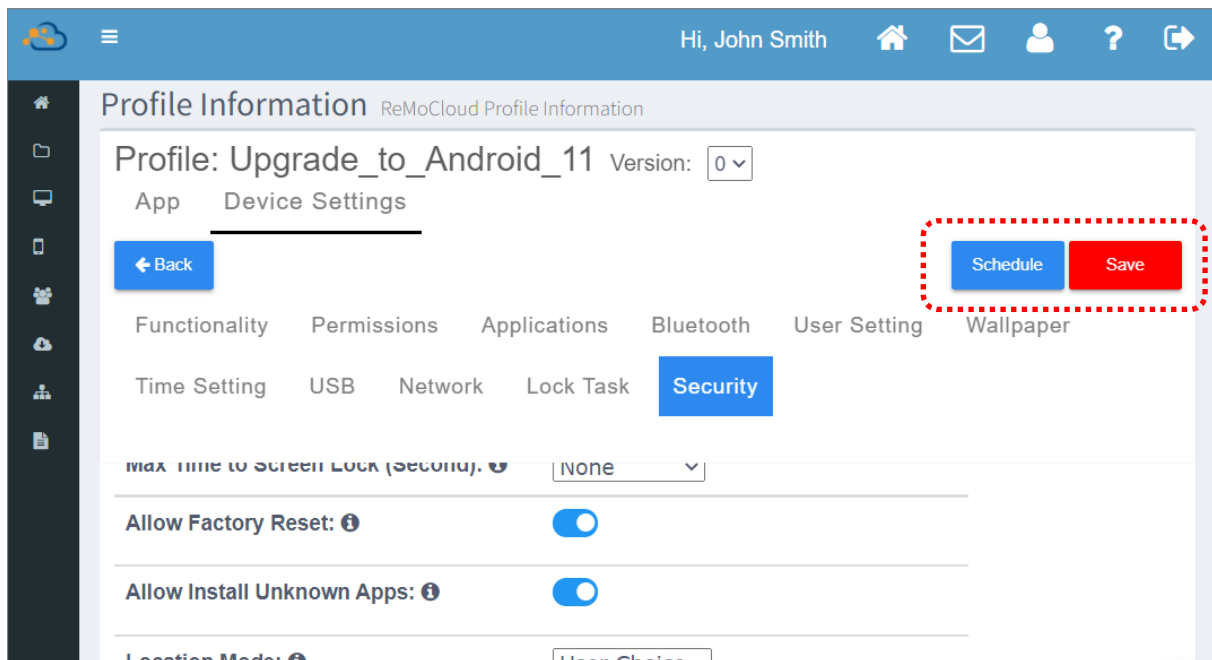
- 2) On “**Functionality**” tab page of “**Device Settings**”, scroll down to find “**Play Store Mode**”, and select “**Unmanaged Mode**” from the drop-down menu.



- 3) Go to “**Security**”, and click to turn on the switch of “**Allow Install Unknown Apps**”:



- 4) Before leaving this profile by clicking on “**Back**” button, make sure to click on “**Save**” button to save the changes, or arrange the effective time by “**Schedule**” to make the settings take effect.



OEMCONFIG

Through “**CipherLab OEMConfig**”, the derived ADC project settings can be deployed to your enrolled devices which apply this profile.



- 1) On **"App"** tab page, click on **"Edit"** under **"Manage Config"** of the default application **"CipherLab OEMConfig"** from the application list.

Profile Information ReMoCloud Profile Information

Profile: Upgrade_to_Android_11 Version: 0

App Device Settings

Back Add App WildCard Settings Schedule Save

Installed Apps Block List Apps

Notice: To hide the app and restrict its installation from Google Play Store on the enrolled device(s), please add it to "Block List App".

App Name	Package Name	App Permissions	Manage Config
CipherLab OEMConfig	com.cipherlab.oemconfig.common	Edit	Edit
CipherLab Device Health	sw.programme.devicehealth	Edit	

- 2) You will enter **"Manage App Config"** page of **"CipherLab OEMConfig"**, and here you can expand the functions for further settings.

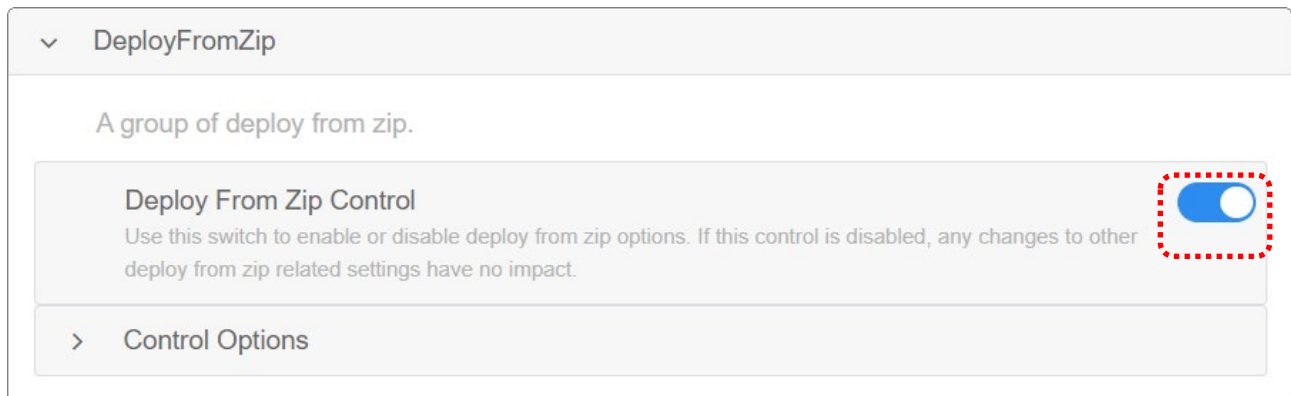
Manage App Config Manage App Config

CipherLab OEMConfig

Cancel OK

- > DeployFromZip
- > Wireless
- > Wi-Fi Advanced
- > Display
- > System Language

- 3) Expand “**DeployFromZip**”, and enable the switch of “**Deploy From Zip Control**”.



DeployFromZip

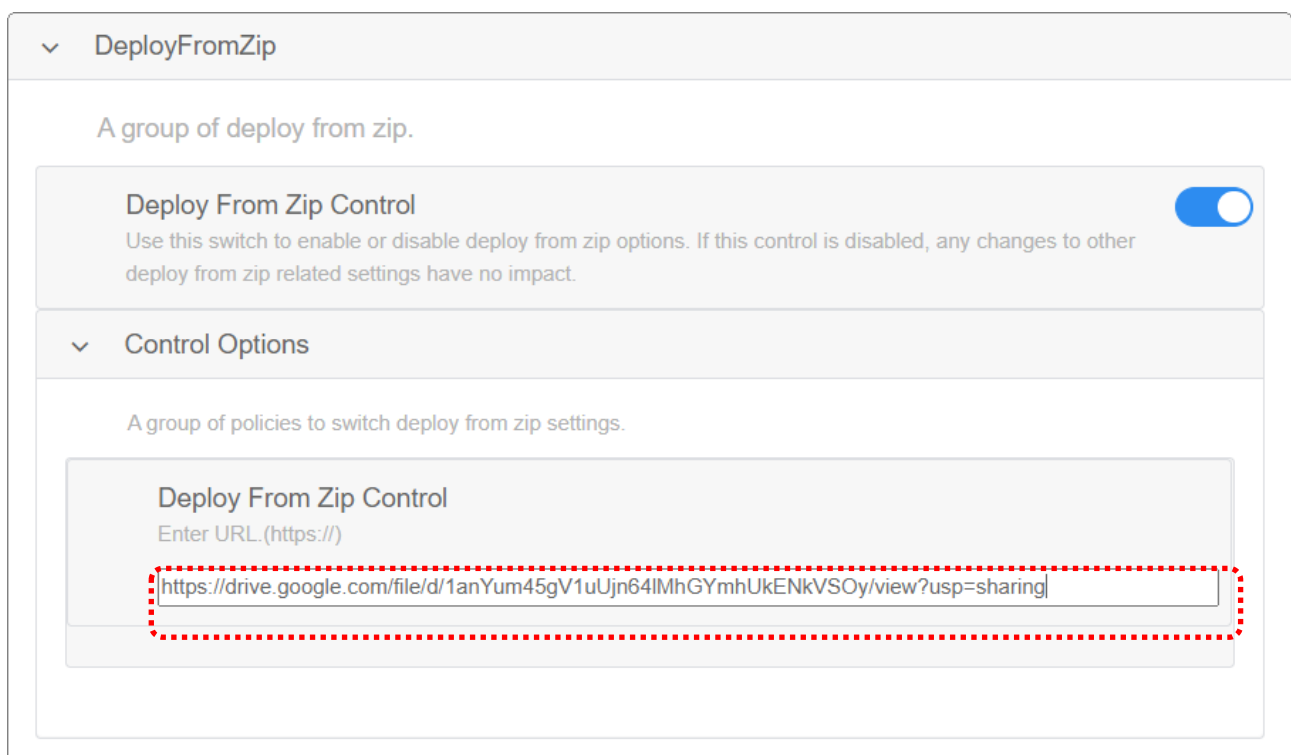
A group of deploy from zip.

Deploy From Zip Control
Use this switch to enable or disable deploy from zip options. If this control is disabled, any changes to other deploy from zip related settings have no impact.

> Control Options

The screenshot shows the 'DeployFromZip' settings panel. The 'Deploy From Zip Control' toggle switch is highlighted with a red dashed box, indicating it should be enabled.

- 4) Expand “**Control Options**” to enter the link for accessinnng [the zip file of your ADC project for OS upgrade](#) to the field “**Deploy Settings from Zip File**”.



DeployFromZip

A group of deploy from zip.

Deploy From Zip Control
Use this switch to enable or disable deploy from zip options. If this control is disabled, any changes to other deploy from zip related settings have no impact.

Control Options

A group of policies to switch deploy from zip settings.

Deploy From Zip Control
Enter URL.(https://)
<https://drive.google.com/file/d/1anYum45gV1uUjn64IMhGYmhUkENkVSOy/view?usp=sharing>

The screenshot shows the 'DeployFromZip' settings panel with the 'Control Options' section expanded. The 'Deploy From Zip Control' toggle is already enabled. The 'Deploy Settings from Zip File' field is highlighted with a red dashed box, showing the URL: <https://drive.google.com/file/d/1anYum45gV1uUjn64IMhGYmhUkENkVSOy/view?usp=sharing>.

- 5) Click on "OK" to save the settings and return to "Profile Information" page. Be sure to "Save" or "Schedule" the changes of this profile.

The screenshot shows the 'Manage App Config' dialog for 'CipherLab OEMConfig'. The dialog has a blue header bar with a home icon, a menu icon, the user name 'Hi, John Smith', and icons for home, mail, user, help, and back. The main content area has a title bar 'Manage App Config' and a subtitle 'Manage App Config'. Below the title bar are two buttons: 'Cancel' and 'OK'. The 'OK' button is highlighted with a red dashed box. A teal arrow points from the 'OK' button to the 'Save' button in the 'Profile Information' page below. The main content area is divided into sections: 'DeployFromZip' (with a dropdown arrow), 'Deploy From Zip Control' (with a toggle switch), and 'Control Options' (with a dropdown arrow). The 'Control Options' section contains a 'Deploy From Zip Control' section with a text input field containing the URL 'https://drive.google.com/file/d/1anYum45gV1uUjn64IMhGYmhUkENkVSOy/view?usp=sharing'.

The screenshot shows the 'Profile Information' page for 'Upgrade_to_Android_11'. The page has a blue header bar with a home icon, a menu icon, the user name 'Hi, John Smith', and icons for home, mail, user, help, and back. The main content area has a title bar 'Profile Information' and a subtitle 'ReMoCloud Profile Information'. Below the title bar are two tabs: 'App' and 'Device Settings'. The 'App' tab is selected. Below the tabs are two buttons: 'Back' and 'Add App'. To the right of these buttons are three buttons: 'WildCard Settings', 'Schedule', and 'Save'. The 'Schedule' and 'Save' buttons are highlighted with a red dashed box. A teal arrow points from the 'OK' button in the 'Manage App Config' dialog above to the 'Save' button. Below the buttons is a section titled 'Installed Apps' with a subtitle 'Block List Apps'. Below this section is a red notice: 'Notice: To hide the app and restrict its installation from Google Play Store on the enrolled device(s), please add it to "Block List App".' Below the notice is a table with four columns: 'App Name', 'Package Name', 'App Permissions', and 'Manage Config'.

App Name	Package Name	App Permissions	Manage Config
CipherLab Device Health	sw.programme.devicehealth	Edit	
CipherLab OEMConfig	com.cipherlab.oemconfig.common	Edit	Edit

5.4 DEPLOY CONFIGURATIONS TO DEVICE FOR OS UPGRADE

The device(s) which applies the profile makes use of the profile configurations, and therefore the profile you set for OS upgrade helps you to easily upgrade multiple enrolled devices at a time. If the device you'd like to upgrade its OS doesn't utilize the profile you set for OS upgrade, you may:

- Enroll the device:

The device to be upgraded is not on your ReMoCloud device list, and you can get this device to be enrolled in with the profile you set for OS upgrade. This device will apply this profile right after it is successfully enrolled, and the upgrade configurations will be deployed automatically.

Please note that the device to be enrolled should be reset to factory default for enrollment purpose, thus remember to back up the important information stored on your device beforehand.

- Assign the profile to the enrolled device:

For the enrolled device which doesn't apply the profile you set for OS upgrade, please assign the profile to this device, or assign the profile to the group this device belongs to. For the detailed functions and operation, please refer to [ReMoCloud User Guide for Android](#).

5.4.1 ENROLL DEVICES

If you would like to upgrade the device OS through ReMoCloud, confirm that your device to be enrolled is with GMS certificated. ReMoCloud is not applicable for non-GMS devices.

ON REMOCLOUD

You have to get the enroll code for your device to enroll. Please click to enter “**Enroll Device**” page, and follow the on-screen steps:

ReMoCloud verified by Google EMM

Hi, John Smith

Enroll Enroll Device

QR Code Generator

Step 1. Please select a profile:
Upgrade_to_Android

Step 2. Enable the default system apps:
Yes

Step 3. Select whether the device to be enrolled is with camera:
Yes

Step 4. Enable Mobile Network:
No

Step 5. With the default Wi-Fi (Only support Android 9.0+):
Yes

SSID: Testing

SECURITY_TYPE: WPA-PSK

PASSWORD: ⓘ •••••••• 🔑


HIDDEN SSID: OFF

Step 6. Click the button below to generate QR code for enrollment.
Generate


Enroll Code:

Show Enroll Barcode

- 1) Select the profile you set for OS upgrade from the drop-down menu.
- 2) Decide whether to enable the default system apps.
- 3) Choose whether the enrolled device is with camera.
- 4) Enable device mobile network if necessary. Please note that by enabling device mobile network, you cannot set up the default Wi-Fi network for the device.


Step 4.Enable Mobile Network:
 

Step 5.With the default Wi-Fi (Only support Android 9.0+):

SSID:	<input type="text"/>
SECURITY_TYPE:	<input type="button" value="WPA-PSK"/>
PASSWORD: ⓘ	<input type="password"/> 
HIDDEN SSID:	<input type="button" value="ON"/>

Step 4.Enable Mobile Network:
 

Step 5.With the default Wi-Fi (Only support Android 9.0+):

SSID:	<input type="text"/>
SECURITY_TYPE:	<input type="button" value="WPA-PSK"/>
PASSWORD: ⓘ	<input type="password"/> 
HIDDEN SSID:	<input type="button" value="ON"/>

If you choose to disable mobile network, you can decide whether to set the default Wi-Fi network. Depending on the profile you choose, the field “**SSID**” may be blank or a drop-down menu which displays all the pre-configured Wi-Fi networks set on “**Device Settings**” tab page of the profile. Please refer to [ReMoCloud User Guide for Android](#) for the detailed instructions about enrollment.

5) Click on “**Generate**” to get the enroll code to be scanned by your device(s) with the device camera.

- QR Code:

The QR Code is used for being scanned by your device camera during the enrollment.

- Enroll Code:

Instead of QR Code or “**Enroll Barcode**”, you can manually input the “**Enroll Code**” to your device for enrollment.

- Show Enroll Barcode/ Hide Enroll Barcode:



To display or conceal the barcode to be scanned by your device scanner (but not camera).

- Enroll Barcode:



The barcode which is for being scanned by your device scanner during the enrollment.

Upgrade_to_Android_11

Validity:
2022-03-20 17:05:51

  QR Code




Enroll Code:
ERAVKSCFPGYRHOYBFCRZ

  Enroll Barcode

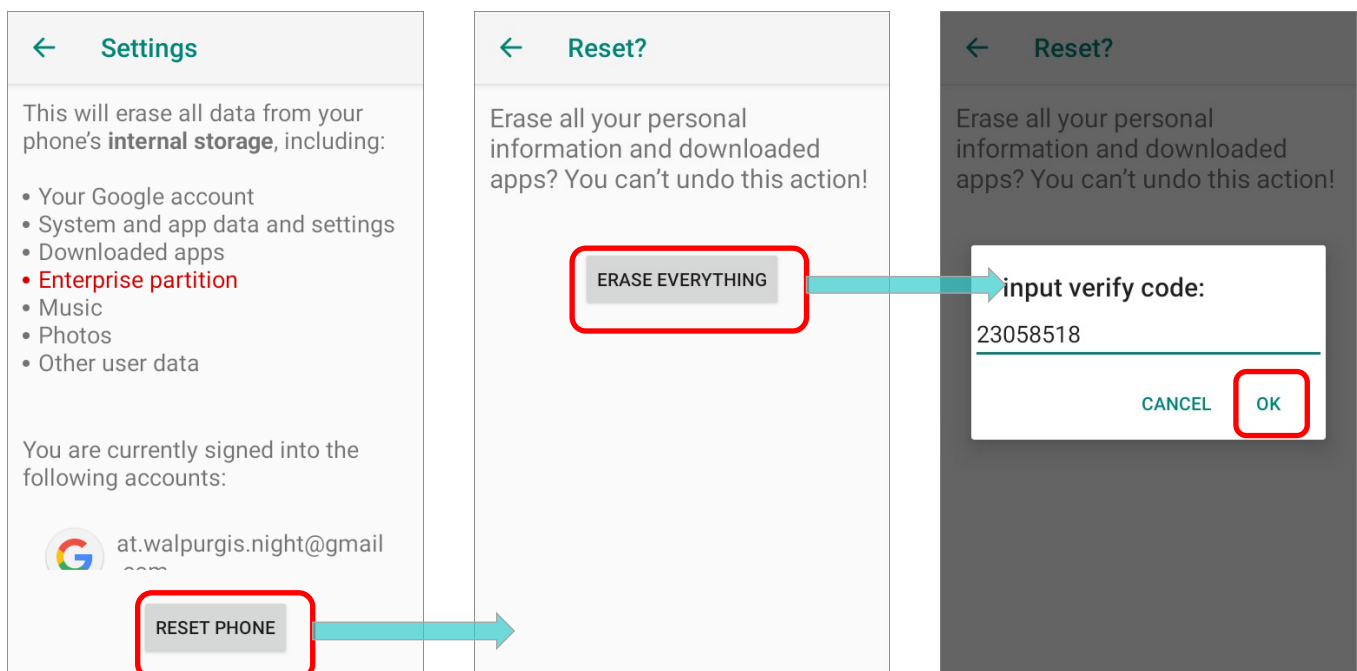
ERAVKSCFPGYRHOYBFCRZ

ON THE DEVICE

Please perform factory reset for your device to be enrolled before enrollment. In the following illustration, we take RK25 mobile computer for example to demonstrate how to perform factory reset for your device to be enrolled before enrollment. The process of the factory reset may vary slightly upon different models of your mobile computers.

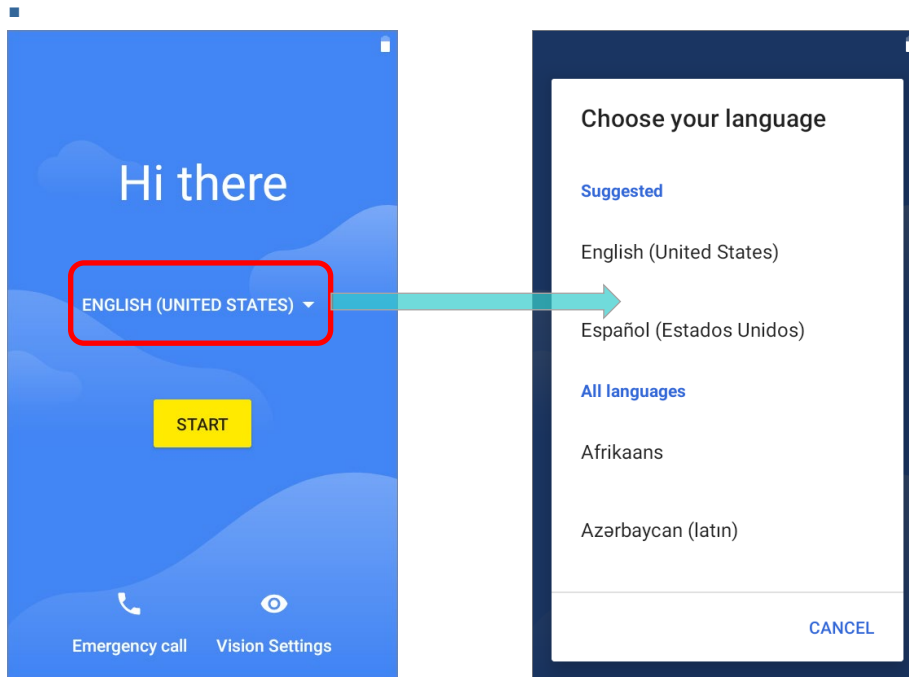
Go to App Drawer | Settings  | System  | Reset options , and tap to select "Erase all data (factory reset)" or "Erase all data (factory reset with enterprise)".

Confirm the action by tapping on the button "**RESET PHONE**" or "**Erase all data**" and input the verification code (please contact with support@cipherlab.com.tw to obtain your verification code). Finally, tap **OK** to perform a factory reset.

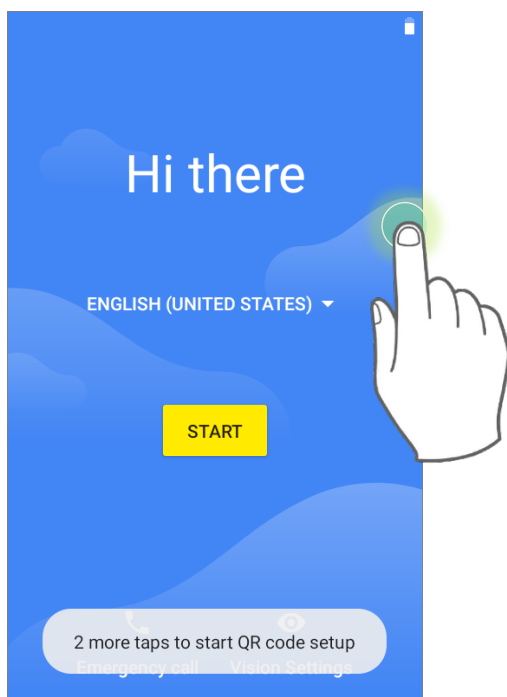


As the mobile computer boots up for the first time after the reset, the **Welcome wizard** shows up. Next up we will take RK25 mobile computer as example to walk you through the enrollment.

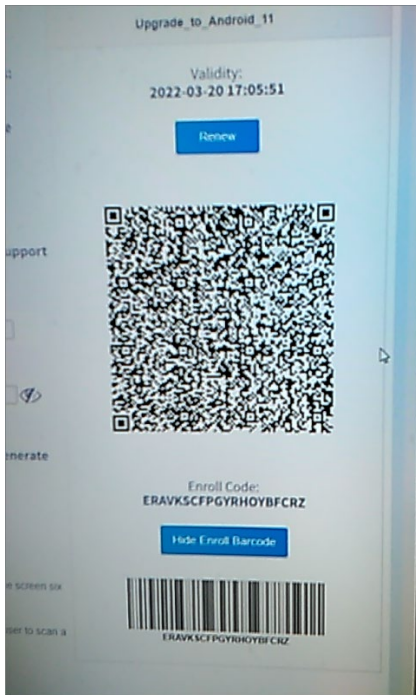
- **Step 1:** Select your desired system language.



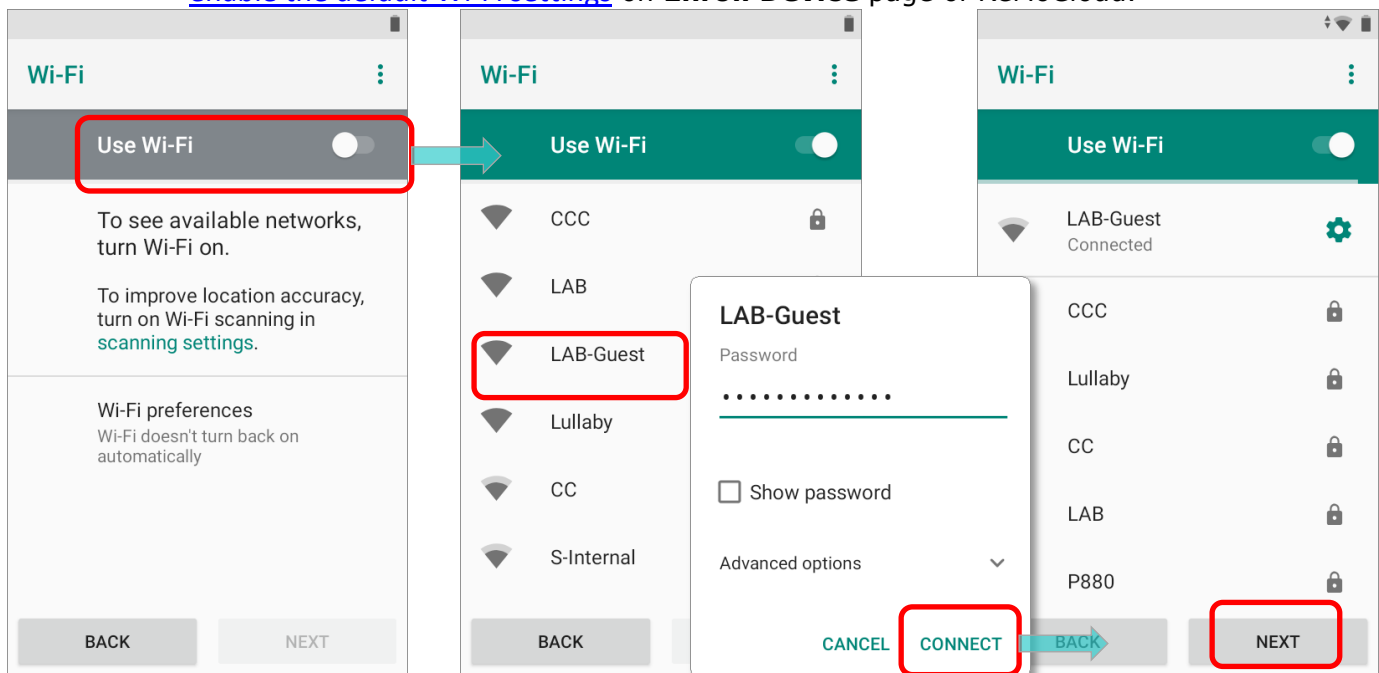
- **Step 2:**
Tap on the same spot on the screen for 6 times to enter QR code setup process.



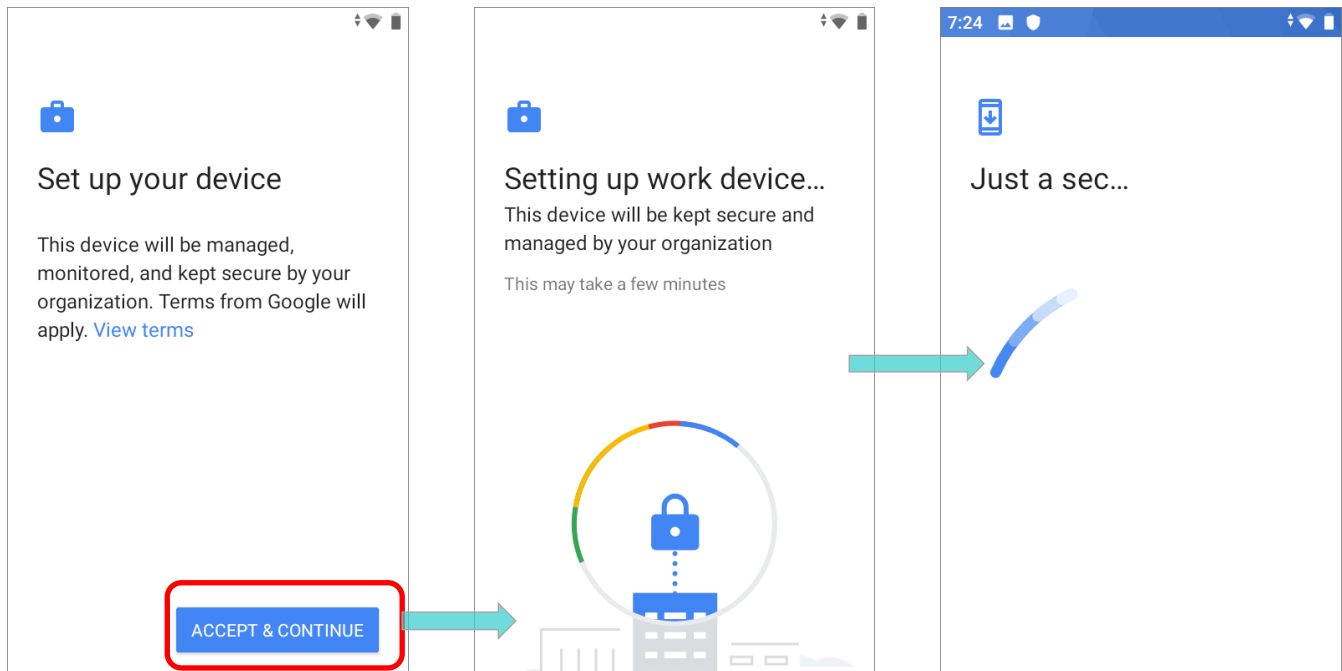
- **Step 3:**
Please aim the QR code you generate on ReMoCloud by the mobile computer camera (but not the scan window).




- **Step 4:**
Tap to turn on Wi-Fi and select the Wi-Fi network to connect. This step is absent if you [enable the default Wi-Fi settings](#) on **Enroll Device** page of ReMoCloud.

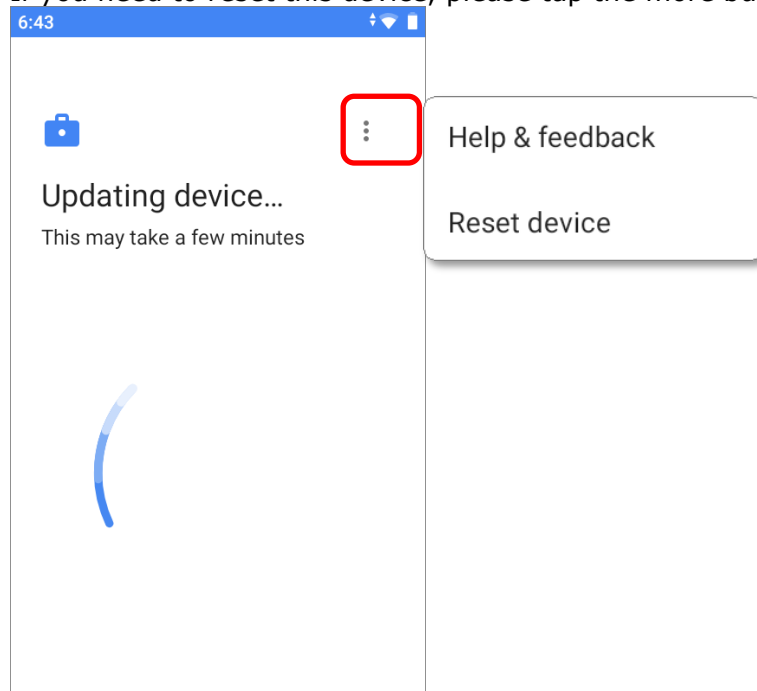


- **Step 5:**
Tap on **"ACCEPT & CONTINUE"** to confirm that this device will be controlled by your ReMoCloud administrator as a work device. Wait for a few minutes to set up work device.

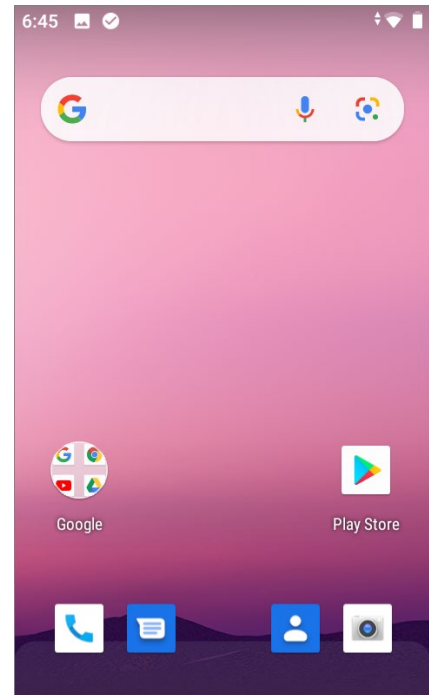


- **Step 6:**
Enrollment will be completed in the final steps.

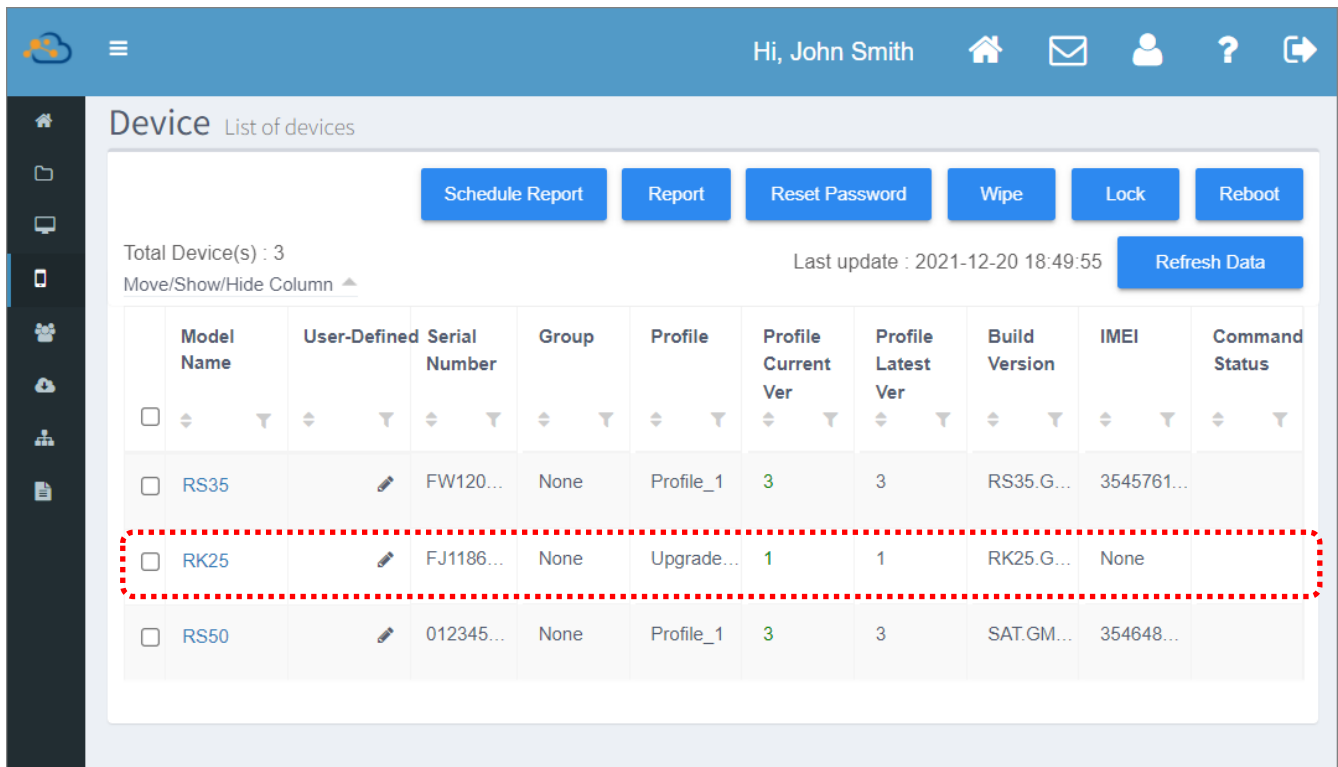
If you need to reset this device, please tap the more button  and select **"Reset Device"**.



The enrollment is done, and you will enter **the default home screen / Cipherlab Home / Multi App Mode** set by the applied profile.



Now you can find this enrolled device listed on “**Device**” tab page of “**Monitor**” on ReMoCloud. The device starts to install the apps and deploy the configurations which the applied profile contains.



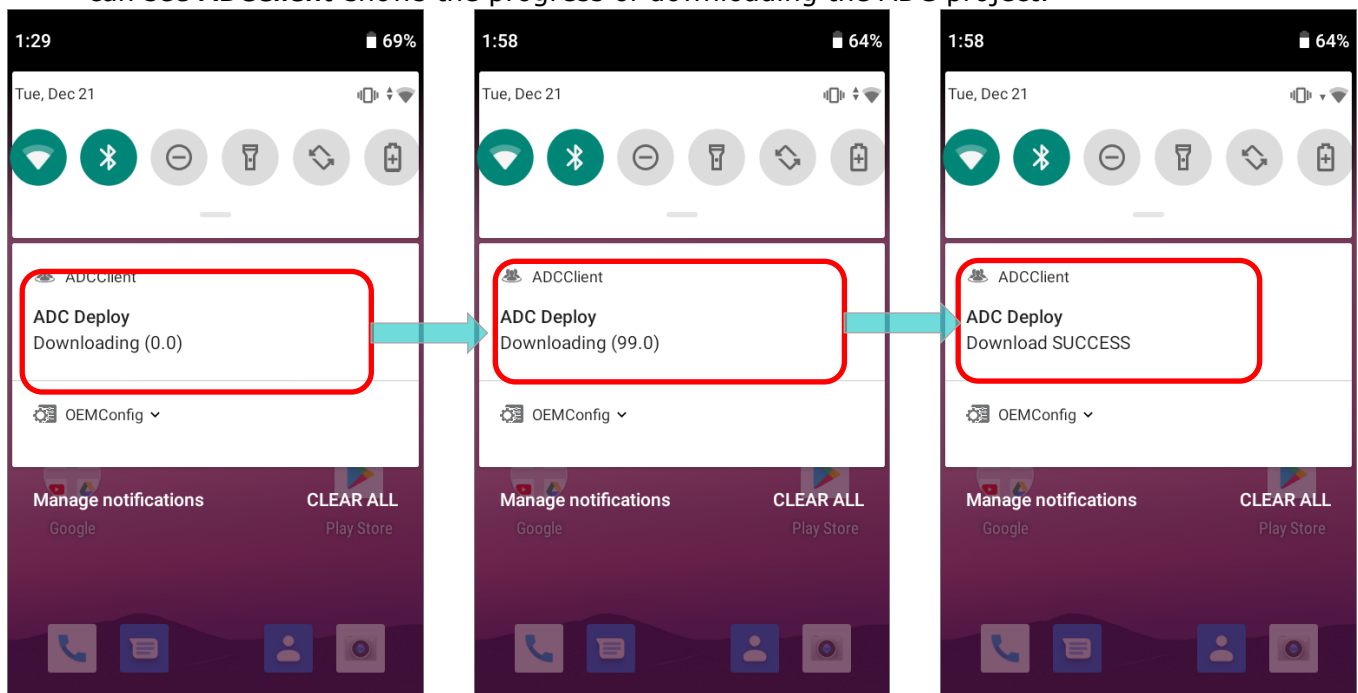
Device List of devices

Buttons: Schedule Report, Report, Reset Password, Wipe, Lock, Reboot

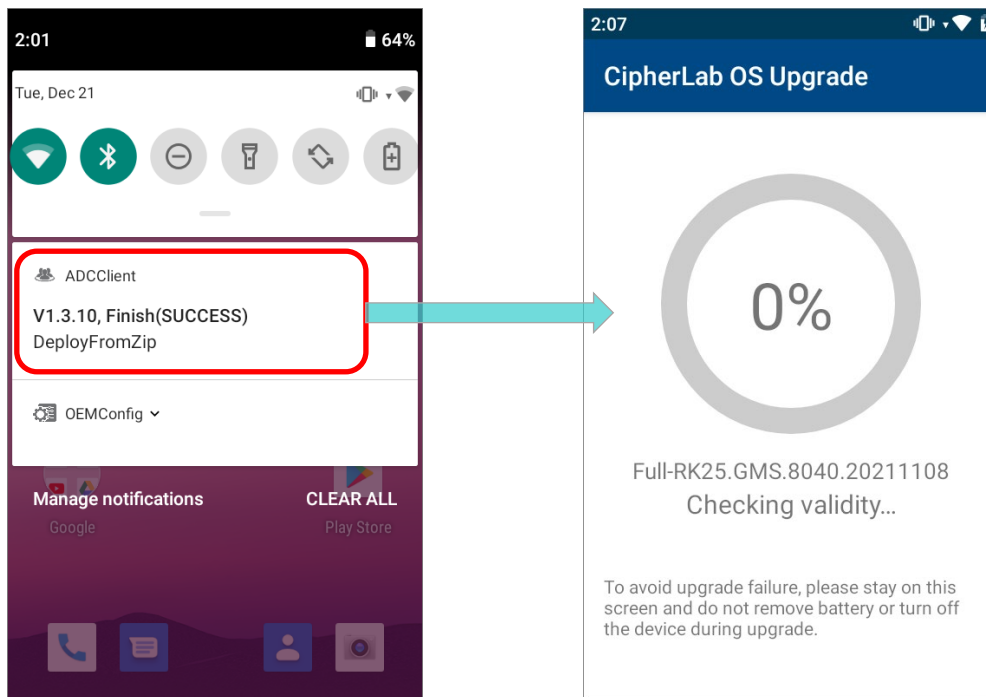
Total Device(s) : 3 Last update : 2021-12-20 18:49:55 Refresh Data

	Model Name	User-Defined	Serial Number	Group	Profile	Profile Current Ver	Profile Latest Ver	Build Version	IMEI	Command Status
<input type="checkbox"/>	RS35		FW120...	None	Profile_1	3	3	RS35.G...	3545761...	
<input type="checkbox"/>	RK25		FJ1186...	None	Upgrade...	1	1	RK25.G...	None	
<input type="checkbox"/>	RS50		012345...	None	Profile_1	3	3	SAT.GM...	354648...	

Check the notification on the enrolled device by swiping down from the status bar, and you can see **ADCClient** shows the progress of downloading the ADC project.



It takes a while to deploy the ADC project configurations, and after the deployment is done, the application “**CipherLab OS Upgrade**” will be automatically launched for OS upgrade.



5.4.2 ASSIGN THE PROFILE

For the enrolled device whose applied profile is not the one you set for OS upgrade, please assign the profile contains the OS upgrade configurations to the device, or to the group the device(s) belongs to.

ASSIGN TO A DEVICE

To assign the OS upgrade profile to the device to be upgraded:

- 1) Enter **"Profile"** page, and click on the setting button **"Assign Profile"** to open **"Please choose a group or device to assign"** window.

The screenshot displays the ReMoCloud web interface. The top navigation bar includes the ReMoCloud logo, a user greeting 'Hi, John Smith', and icons for home, notifications, user profile, help, and share. The left sidebar contains a menu with categories: HOME (Dashboard), DEPLOYMENT (Profile), ENROLL (Enroll Device), MONITOR (Device, Group, App), SUB ACCOUNT (Manage), and USER LOG (User Log). The main content area is titled 'Profile' and 'ReMoCloud Profile List'. It features three buttons: 'Add Profile', 'Assign Profile' (highlighted with a red box), and 'Copy Profile'. Below these buttons is a table with columns: Profile Name, Enroll Device Number, Status, Version, and Last Edit Time. The table contains one row with the data: Profile_1, 2, Activated, 3, and 2021/12/09 10:26. A modal dialog box is open in the foreground, titled 'Please choose a group or device to assign.' It contains three fields: 'Assign Type' with a dropdown menu set to 'Group', 'Profile Name' with a dropdown menu set to 'Profile_1', and 'Group Name' with a dropdown menu. At the bottom of the dialog are 'Submit' and 'Cancel' buttons. A green arrow points from the 'Assign Profile' button to the dialog box.

Profile Name	Enroll Device Number	Status	Version	Last Edit Time
Profile_1	2	Activated	3	2021/12/09 10:26

Please choose a group or device to assign.

Assign Type: Group

Profile Name: Profile_1

Group Name:

Submit Cancel

- 2) On "Please choose a group or device to assign" window, select "Device" for Assign Type from the drop-down menu.

Please choose a group or device to assign.

Assign Type:

Profile Name:

Group Name:

- 3) Select the profile for OS upgrade, designate the device to apply the assigned profile, and finally submit the assignment.

Please choose a group or device to assign.

Assign Type:

Profile Name:

Filter Devices

Devices:

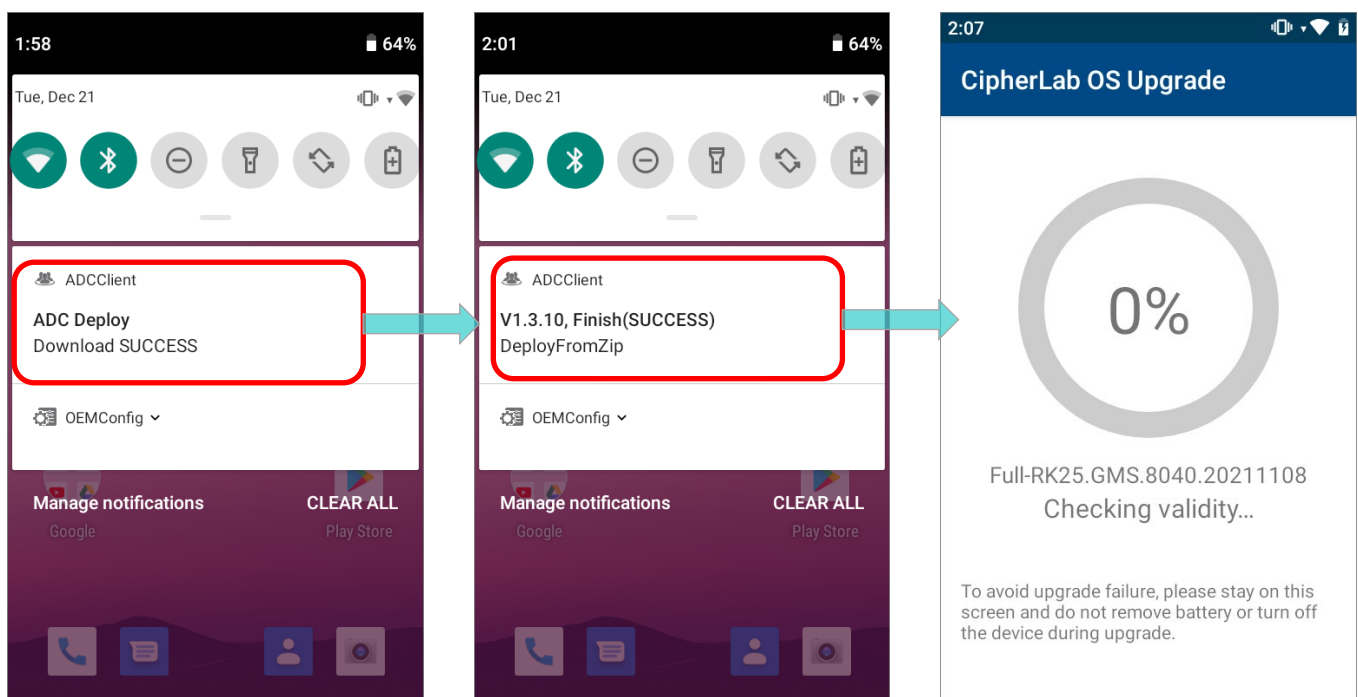
Note:

Only the devices belong to no group are listed for profile assignment.

The device will apply the assigned profile after the assignment is completed. You can check **Device** page for the designated device's profile and profile status.

	Model Name	User-Defined	Serial Number	Group	Profile	Profile Current Ver	Profile Latest Ver	Build Version	Command Status
<input type="checkbox"/>	RS35		FW120A000...	Android_11	Profile_2	2	2	RS35.GMS.2...	
<input type="checkbox"/>	RS50		0123456789...	None	Profile_2	2	2	SAT.GMS.U...	
<input type="checkbox"/>	RK25		FJ1186A000...	Android_11	Upgrade_to_...	Change	2	RK25.GMS.5...	

The notification on the device also shows the download progress. Once downloading is completed, the device starts to deploy the ADC project. The application “**CipherLab OS Upgrade**” will be automatically launched for OS upgrade after the deployment is done.



ASSIGN TO A GROUP

To upgrade a group of enrolled devices, please choose **"Group"** for **Assign Type** on **"Please choose a group or device to assign"** window.

Please choose a group or device to assign.

Assign Type:

Profile Name:

Group Name:

Choose the profile for OS upgrade and the designated group from the drop-down menu, and then click on **"Submit"**.

Please choose a group or device to assign.

Assign Type:

Profile Name:

Group Name:

Please note that the assignment fails if the designated group contains no device. After completing the assignment, the device(s) belongs to this group will apply the designated profile immediately.

You can check the group information by accessing “**Group**” tab page of “**Monitor**” and clicking the group name.

Group Setting Setting Group

Group : Android_11
Profile : Upgrade_to_Android_11

← Back Add Delete Move Wipe Lock Reboot

Total Device(s) : 2 Receiving Data... Refresh Data

	Model Name	User-Defined	Serial Number	Group	Profile	Profile Current Ver	Profile Latest Ver	IMEI	Command Status
<input type="checkbox"/>									
<input type="checkbox"/>	RK25		FJ118AA003377	Android_11	Upgrade_to_An...	Change	3	None	
<input type="checkbox"/>	RK25		FJ1186A000760	Android_11	Upgrade_to_An...	Change	3	None	

You can also swipe from the status bar to reveal **Notifications Drawer** to check the the download progress on the device. After downloading and deploying the ADC project, the application “**CipherLab OS Upgrade**” will be automatically launched for OS upgrade.

1:58 Tue, Dec 21 64%

ADCClient
ADC Deploy
Download SUCCESS

OEMConfig ▾

Manage notifications CLEAR ALL
Google Play Store

2:01 Tue, Dec 21 64%

ADCClient
V1.3.10, Finish(SUCCESS)
DeployFromZip

OEMConfig ▾

Manage notifications CLEAR ALL
Google Play Store

2:07

CipherLab OS Upgrade

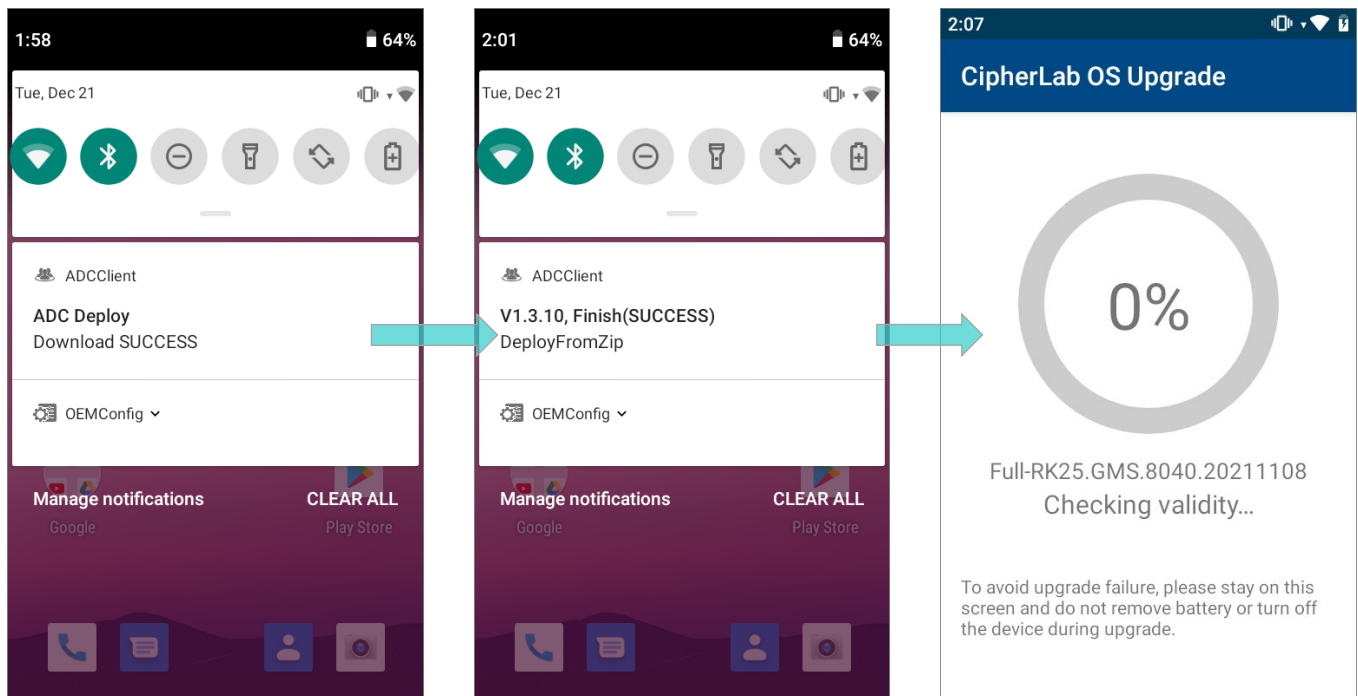
0%

Full-RK25.GMS.8040.20211108
Checking validity...

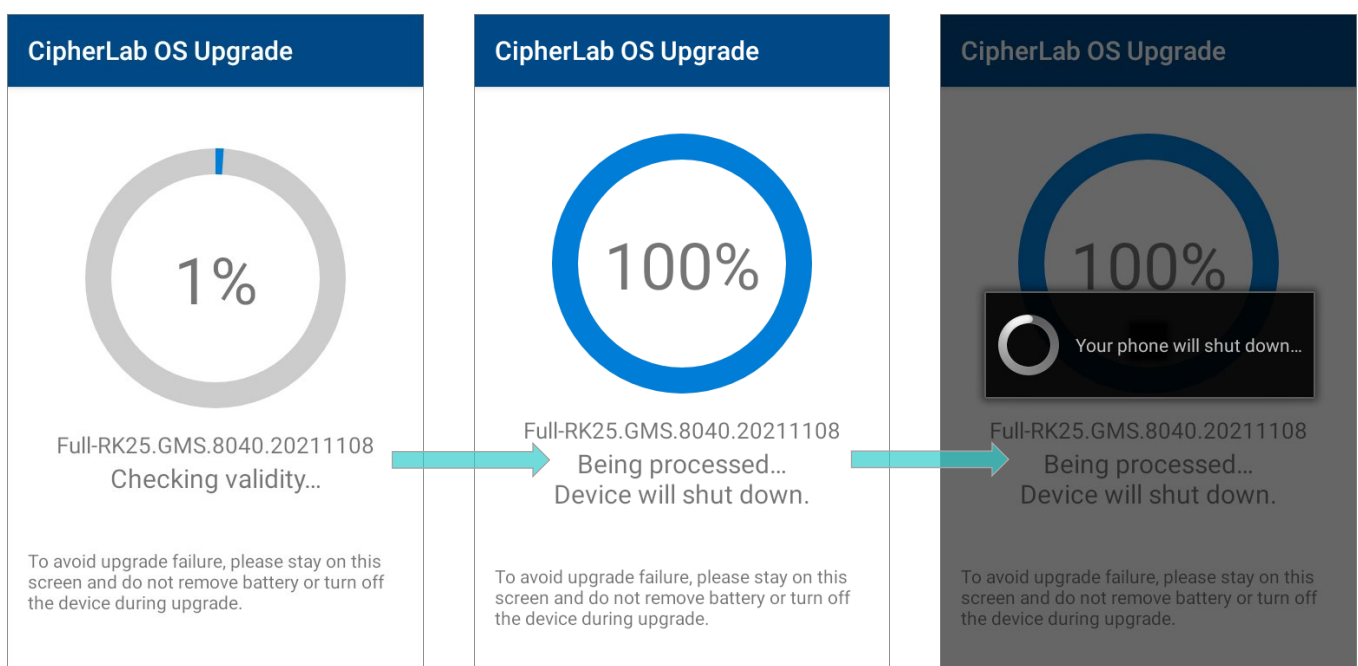
To avoid upgrade failure, please stay on this screen and do not remove battery or turn off the device during upgrade.

5.5 OS UPGRADE

Once the ADC project is downloaded and deployed to the device through **ReMoCloud**, the application "**CipherLab OS Upgrade**" on your device automatically launches for OS upgrade.



The upgrade process takes a while to install the necessary packages, shut down, update system, and then reboot automatically after finishing installation.



Note:



- (1) Once the upgrade starts, stay on CipherLab OS Upgrade main screen. DO NOT switch to another app or screen.
- (2) The app "CipherLab OS Upgrade" checks for the device free storage space at the very beginning. If it doesn't meet the minimum storage requirement (5GB free storage space), a warning message appears and the OS upgrade process stops. Free up the space before launching "CipherLab OS Upgrade" for OS upgrade again.

Storage space not enough

The free space of storage in this device is not enough for system upgrade. Please free up space first before starting upgrade.

EXIT

SUCCESSFULLY UPGRADED

The device restarts after the installation. The upgrade is completed, and the OS of your device is now the version you would like to upgrade. For example, if your device is upgraded to Android 11, then you can check it by accessing **App Drawer** | **Settings**  | **About Phone**  | **Android version** (see the figure below). Different device models may have a little different accesses.

