CipherLab User Guide

Wireless Mobile Deployment System

For Android™ 6.0 and later

9700A

RS30

RS31-C

RS35

RS50

RS51

HERA51

RK25(P)

RK95

Version 1.04



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Release Notes

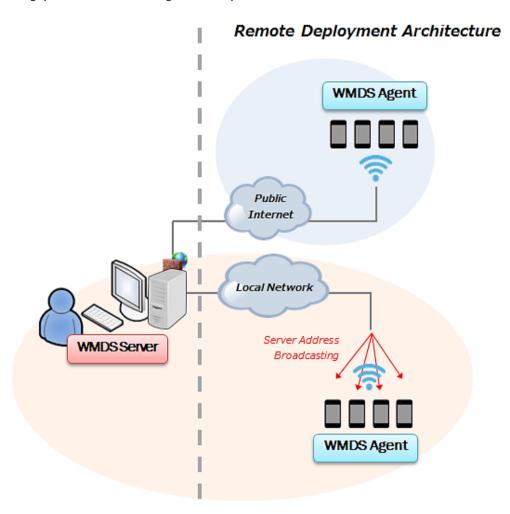
Version	Date	Notes
1.04	Sep. 10, 2020	Modified: RK95/RS35 included
		Modified: Descriptions & screenshots updated
		Modified: 1.1.2 Key Registration – up to 100 devices allowed
		Modified: 3.3 Monitoring Enrolled Devices – description for battery health
1.03	Oct. 4, 2019	Update the figure of "Change the Interface Language" in Section 2.3.1: Toolbar
		Update Section 3.2: Deploy a Task.
1.02	May 23, 2019	Update all figures. RS51 mobile computer is supported.
1.01	May 16, 2018	Update the figure in section 1.2.2 "Update WMDS Agent"
1.00	Apr 28, 2017	Initial release

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Introduction

Wireless Mobile Deployment System (hereafter referred to as **WMDS**) is a windows-based server program that can deploy the configuration projects (created by **Android Deployment Configurator**) to Android devices through wireless network. With the aim of optimizing the process of large-scaled device deployment, WMDS can deploy multiple Android mobile computers simultaneously within one task as well as monitoring all the devices' status. With **WMDS**, device deployment can't be more efficient.

As its name suggests, **WMDS** empowers you with a wireless solution which can perform device deployment not only within your intranet but over the Internet. What's more, **WMDS** Server can keep broadcasting its address to the devices within your private network, allowing the devices with **WMDS Agent** installed to automatically get connected with Server, saving your labor to configure every device for the initial server-client connection.



Getting Started

This chapter helps you get ready for using this program.

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1.1	WMDS Server	. 8
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1.1 WMDS Server Installation



- Install WMDS Server on PC
- Register for free license

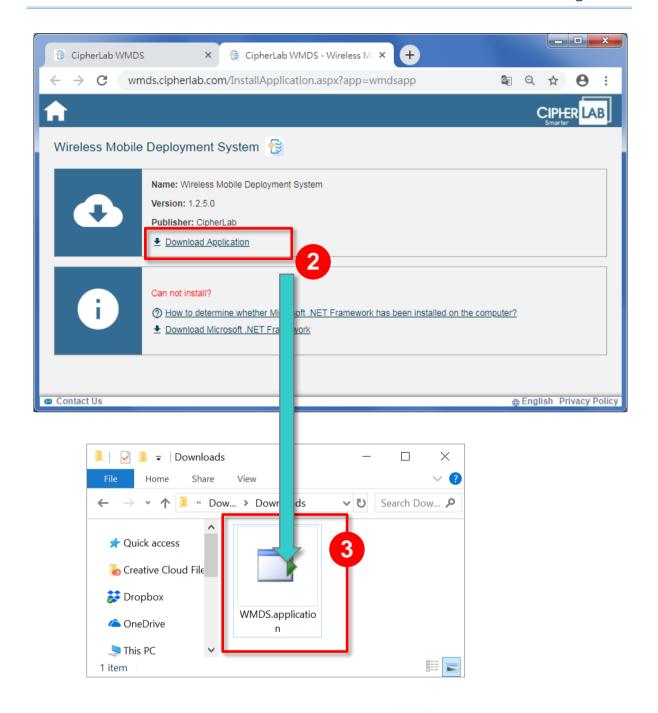
Note:

During installation and registration, please make sure your computer has access to the Internet.

1.1.1 Installing WMDS Server Program on PC

- 1) Make sure the operating system is Windows 7 or above.
- 2) Obtain the latest version of WMDS server program from http://wmds.cipherlab.com/ and install the program.





3) When installation is complete, WMDS program icon will appear on Windows Start Menu; in the meantime, a shortcut is added to your Desktop.

1.1.2 Key Registration

The free license gives **one** connected device by default; you can obtain a key for **more** connected devices through online registration.

- 1) Launch WMDS Server.
- 2) In the Registration window, the value of **Maximum device allowed** is **1** before the registration key is applied. Click "**Please click here to register**" to go to registration webpage.



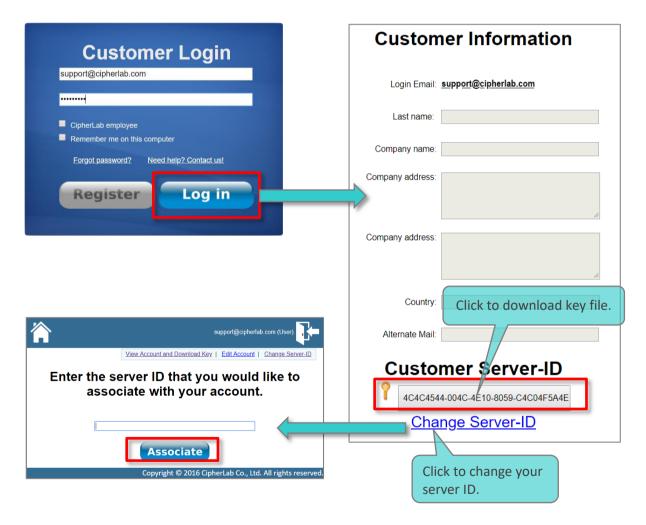
3) You will be directed to the registration form. Fill in the required fields and click the "**Register**" button. Please do provide a valid email address for the system to send a verification code.



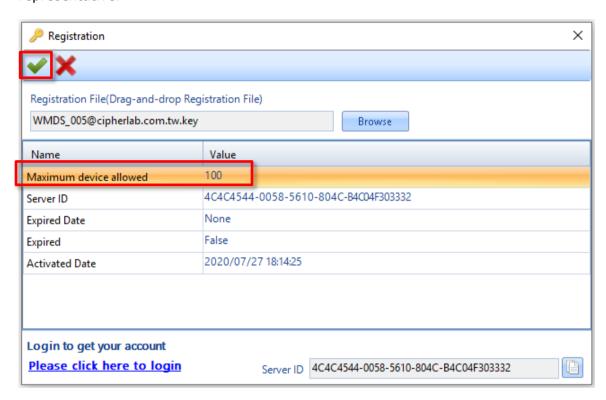
4) On verification page, input the verification code provided in the Customer Sign-up notice email sent by the WMDS developer and then click "**Activate**".



5) Login and enter your Server ID. Click your server ID button to download key file.



6) Return to WMDS program; in the Registration window, click "Browse" to locate the key file (WMDS_your email address.key) you just downloaded. The value of Maximum device allowed has been increased to 100. Click to save and exit this page. If you need more allowed deployment devices than 100, please contact the local sales representative.



1.2 Installing WMDS Agent on Your Mobile Device



- Install WMDS Agent on your mobile device
- Update WMDS Agent version

Note:

During installation, please make sure your computer has access to the Internet.

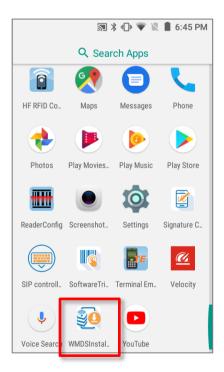
Your mobile device is already preloaded with the **WMDS-installer** provideing the following services that are essential for your device deployment.

- 1. Automatically launches your WMDS Agent when this device is powered up.
- 2. Provides an automated process where downloading, updating and device rebooting are completed in a row without your extra effort.

1.2.1 Installing WMDS Agent

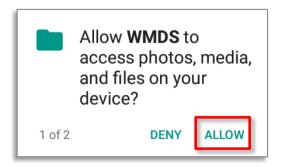
1) For the first time you enter the device's OS, WMDS Agent is not installed yet. Go to App

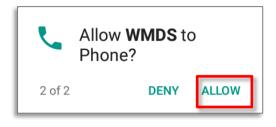
Drawer (**All Apps**) and execute **WMDS-Installer** . The installer will fetch the latest version of WMDS Agent over the Internet and then perform auto-installation.



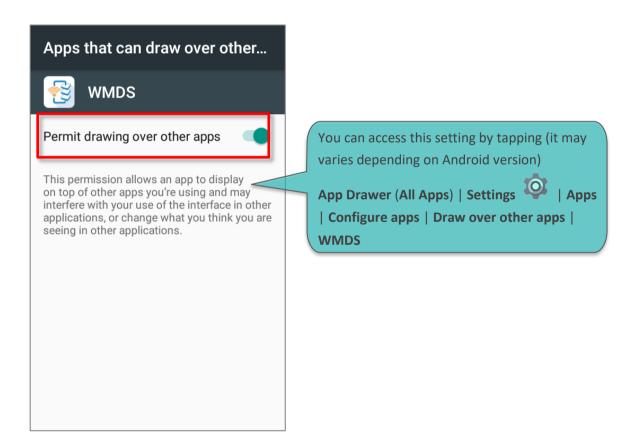


2) Then dialogs show up prompting you to tap **ALLOW** before you can proceed.

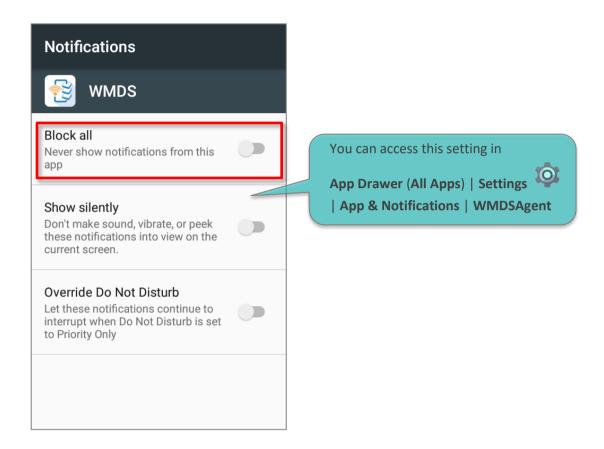




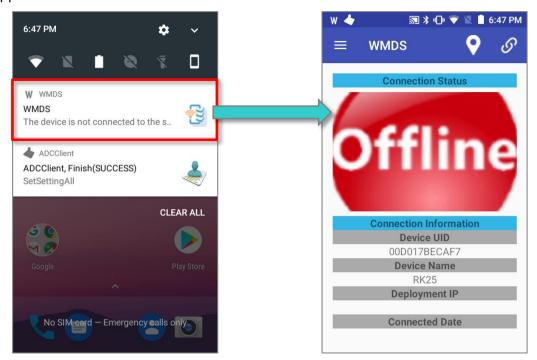
3) When prompted for changing the security settings, please enable "**Permit drawing over other apps**" allowing WMDS server to push instant messages to WMDS devices. Please refer to <u>Pushing Messages to Devices</u> for details about push messages. When you finish setting, tap **Back** button to proceed.



4) When prompted for changing the App notification settings, you can choose to enable "Block all" if you would like to hide all notifications from WMDS Agent on status bar. When finished, tap the Back button to proceed.



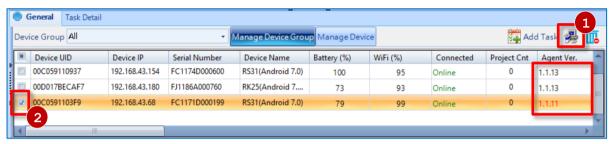
5) After installation, this agent will automatically run along with the device's starting up. On Homescreen, swipe down from the status bar and tap "WMDS" to enter the application.



1.2.2 WMDS Agent Update

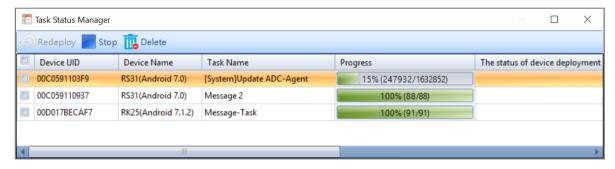
As the mobile deployment system is widely adopted, WMDS program and WMDS Agent are hence being enhanced on a regular basis to cater to new requirements from various industries.

On WMDS Server program, you can check out the version number of current agent installed on each device. Version number appearing in red in the **Agent Ver.** Column means the agent needs upgrading.



To perform a batch update:

- 1) Click Install WMDS-Agent on Device Panel.
- 2) Select the devices which are to undergo WMDS Agent upgrade. A Task Status Manager will pop out to display this task progress.



3) The task will be completed followed by an auto-reboot of the device.

You can also update the WMDS Agent on a single device by executing WMDS-Installer

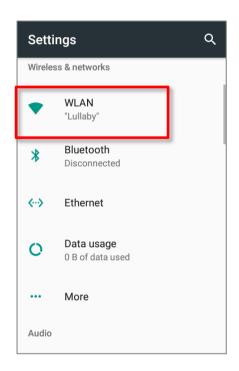


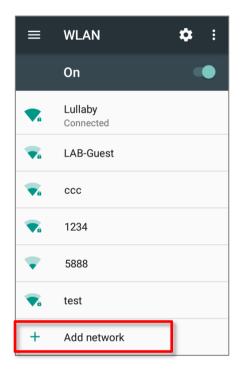
1.3 Wireless Connection between Devices and Server

Once a device is successfully connected to WMDS server, it immediately becomes an enrolled device whose status is displayed on the Device Panel on WMDS server interface. The $1^{\rm st}$ time client-server connection involves the following two stages: connecting to network and connecting to Server.

1.3.1 Connecting to Network

To have this device connected to the network segment of WMDS server, you can search and add the network in **App Drawer** (**All Apps**)| **Settings** | **Wi-Fi** on the device.





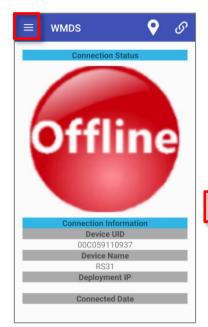
OR

Generate a set of barcodes from WMDS Server as a Wi-Fi profile (See <u>Generate Printable Wi-Fi Profile Barcode</u>) and print it out.

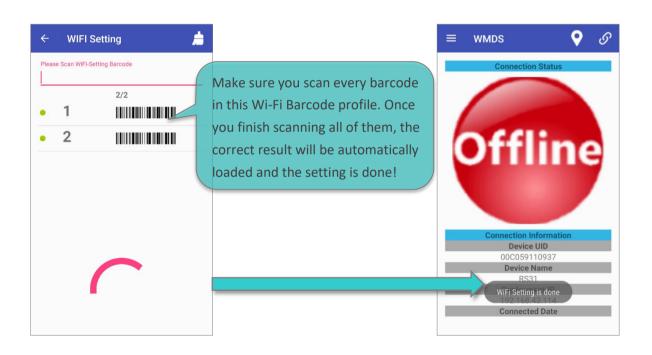
1) On your device, open WMDS Agent screen; select "Wi-Fi Setting" from menu



2) Use your device to <u>scan EVERY barcode in the profile</u> so that WMDS Agent can load necessary information and immediately start connecting to the network.







1.3.2 Connecting to Server

Depending on your deployment system architecture, we recommend different methods for you to build up client-server connection.

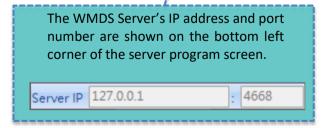
Device and Server Are Located in Different Network Segments

You can manually input the WMDS Server address in WMDS Agent (See <u>Server IP</u> <u>Information</u> for where to obtain the server IP/domain name address):

1) On your device, open WMDS Agent and tap on on the right top of the screen, fill in the Server connection properties and then tap on "**CONNECT TO SERVER**".



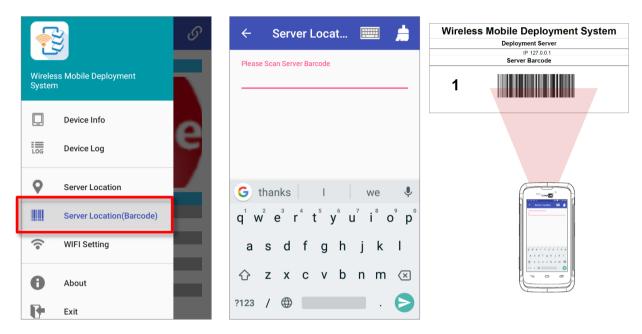




OR

Generate a set of barcodes from WMDS Server as a Server IP profile (See <u>Generate Printable Server Info Barcode</u>) and print it out. On your <u>de</u>vice, open WMDS Agent

screen, select "Server Location (Barcode)" from menu . Use your device to scan EVERY barcode in the profile so that WMDS Agent can load enough information and immediately start connecting to server.

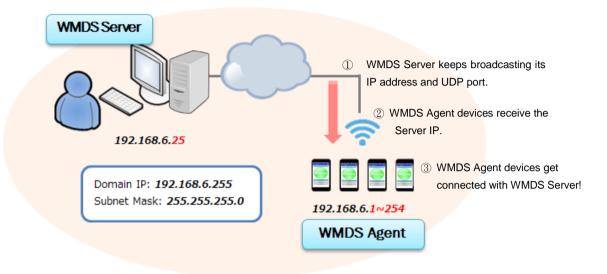


2) Once your device is successfully connected to WMDS server, the status ball displays in green. You can tap the toggle switch on the top right corner to connect/disconnect this device to/from the WMDS server, or enter app menu to check out **Device Info** or **Device Log**.

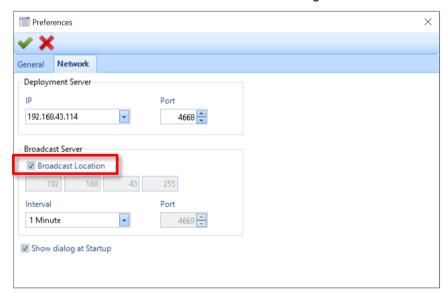


Device and Server Are Located in the Same Network Segment

Designed with broadcasting function, WMDS Server keeps broadcasting its IP address/port number to WMDS Agent devices, allowing the devices to automatically connect to WMDS Server while saving much of your maintenance labor.



If there is more than one WMDS server in a network, you may have to consider disabling Broadcast Server in **Main Screen** > **Preferences** > "**Preferences**" > **Network** tab lest the devices should connect themselves with the wrong server.



Note:

The PC where WMDS Server is running must connect to the same network segment to which WMDS Agents connect. The PC should be discoverable by WMDS Agents on the connected network.

User Interface Introduction

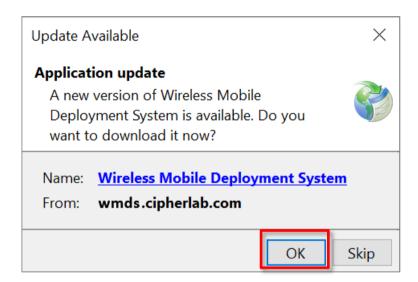
This chapter walks you through the basics of WMDS Server user interface.

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2.1 Automated Server Program Update

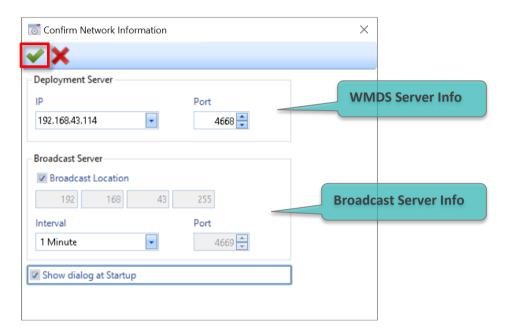
The program is equipped with an automatic update mechanism, ensuring that your copy of WMDS server is always up-to-date with the latest improvements. When you launch the program, this mechanism checks for the latest updates from CipherLab's server (which means your WMDS server PC is required to have access to the Internet) and prompts you to confirm the downloading of available newer version.



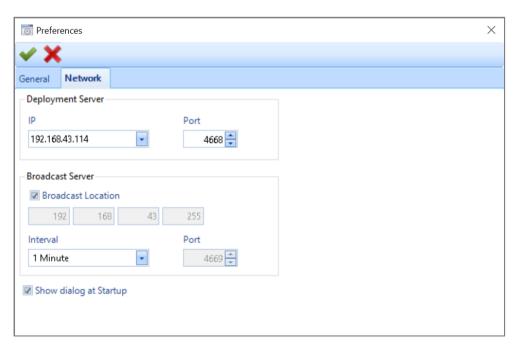
2.2 Server IP Information

Every time you launch this program, you will be prompted with a dialog window to confirm the server's network information. Confirm the Deployment Server IP and Port info shown here and click "**OK** "" to exit this dialog.

By default, the server will keep broadcasting its location, allowing the mobile devices to get connected automatically to Server. You can modify the broadcasting interval time or disable this function.

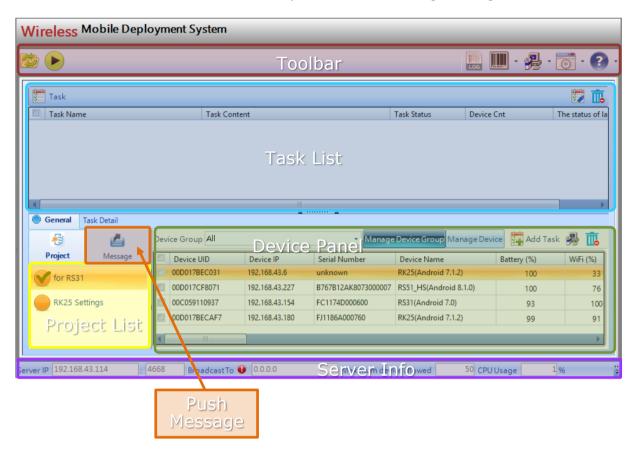


If you disable the "Show dialog at startup" function, you can still access this window through Main Screen > Preferences > "Preferences" > Network tab.



2.3 Main Screen

The main screen of WMDS Server is composed of the following building blocks:



Item	Description			
Toolbar		Synchronize Projects	If an existing project has been modified by the ADC program, you can have the task that employs this project updated to the latest version. Select a task from the Task List and click this button.	
		Deploy	Click to deploy the selected task.	
	LOG	Open Log	Click to open the log file which is kept in C:\CipherLab\WMDS\Log	
		Open WMDS Barcode	Click to generate printable WMDS server and Wi-Fi profile info. See <u>Generate</u> <u>Printable Server Info Barcode</u> and <u>Generate Printable Wi-Fi Profile Barcode</u> .	

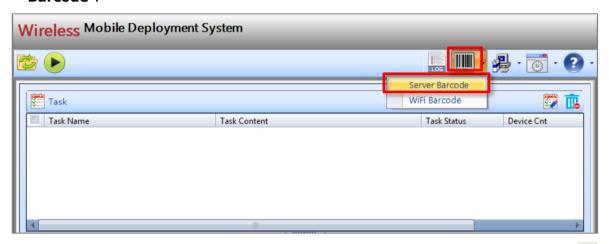
Toolbar	P	Install WMDS Agent	Click to install the latest WMDS Agent application to the selected devices.
	(i)	Preferences	Click to enter <u>Multi-Language Support</u> , <u>Password Protection</u> or <u>Key Registration</u> .
	8	About	Click to check the WMDS Server version.
Task List	Lists created tasks. See Manage Created Tasks.		
Push Message	Allows you to create a task to push to selected devices. See Push Messages to Devices.		
Project List	Lists projects created in ADC program. This list will synchronize with the project files kept in $C: \ CipherLab \ ADC$ upon WMDS server's starting up.		
Device Panel	Lists the connected mobile devices. See Manage Created Tasks.		
Server Info	Displays the current server connection info.		

2.3.1 Toolbar

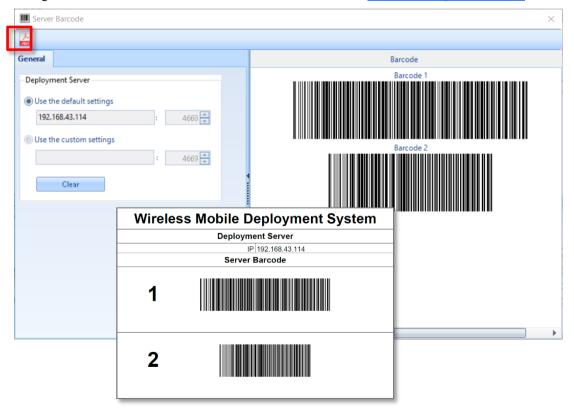
Generate Printable Server Info Barcode

With mobile devices' barcode scanning capability, WMDS Server makes managing multiple devices more efficient by providing auto-generated printable barcodes of its own server info.

1) On Main Screen, click "Open WMDS Barcode "on Toolbar and then "Server Barcode".



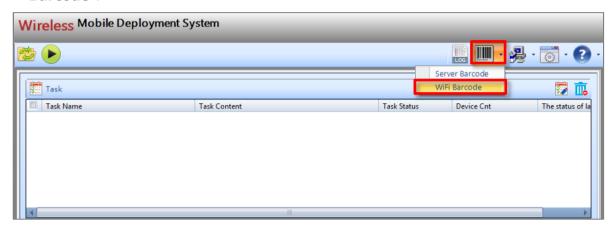
2) On Server Barcode window, define your server settings and then click "**Open PDF** to generate a printable PDF file. Use your device to scan this barcode into its WMDS Agent in order for the first –time connection. See **Connecting to Server**.



Generate Printable Wi-Fi Profile Barcode

With mobile devices' barcode scanning capability, WMDS Server makes managing multiple devices more efficient by providing an auto-generated printable barcode of Wi-Fi profile info.

1) On Main Screen, click "Open WMDS Barcode on Toolbar and then "Wi-Fi Barcode".



2) On the Wi-Fi Barcode window, define your network settings and then click "Open PDF

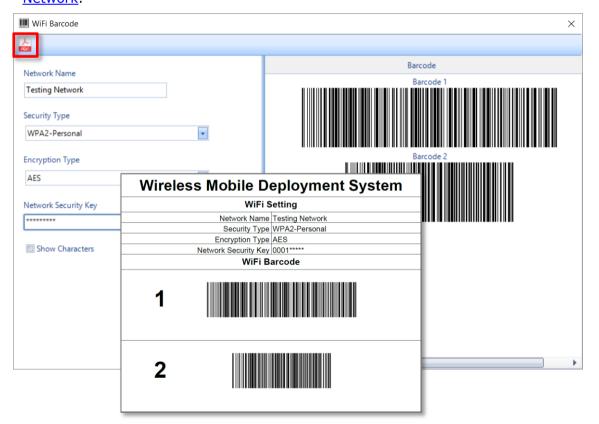
To generate a printable PDF file. Use your device to scan EVERY barcode in the

profile until WMDS Agent screen shows a

Network.

WiFi Setting is done

message. See Connect to

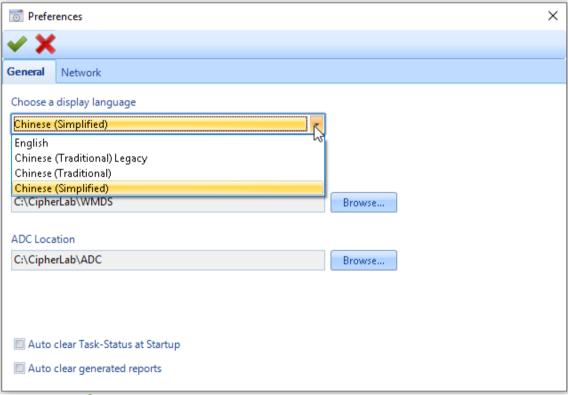


Multi-Language Support

On Main Screen, click "**Preferences**" on Toolbar and then select "**Preferences**". On **General** tab, choose a display language other than English if any. By selecting a language other than the current one, WMDS server program will restart to have the new display language take effect.

Change the Interface Language

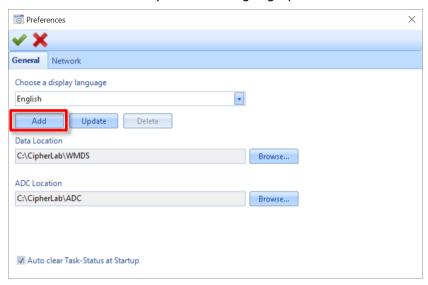
1) Select a desired language from the drop-down list.



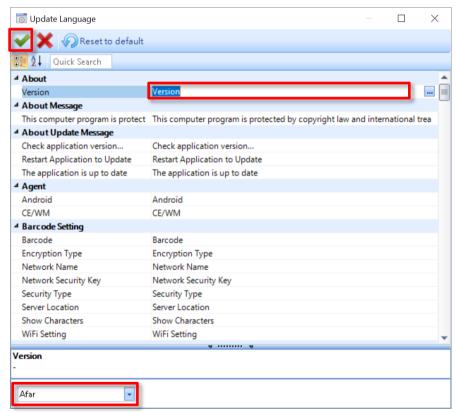
2) Click "**OK** " to confirm the setting.

Create Your Own Language File

1) Click "Add" to create your own language profile.



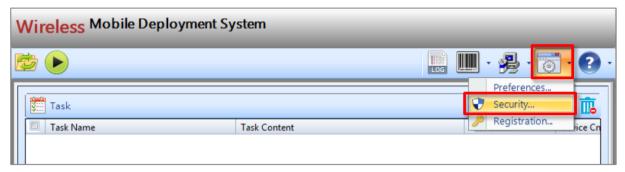
2) On the **Update Language** window as shown below, each label item displays in English on the left column. Please click the right column field to translate into our language.



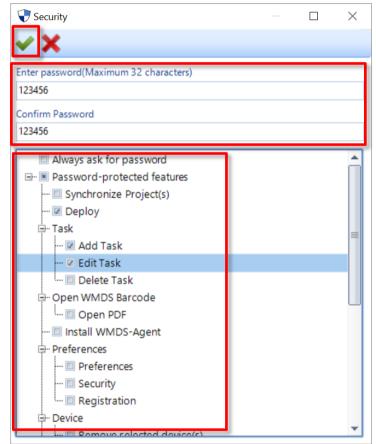
3) Select a language from the drop-down menu on the bottom-left and click "**OK** " to confirm the settings.

Password Protection

1) On Main Screen, Click **Preferences** on the toolbar and then select "**Security**".



2) Enter and confirm your password if you want to enable password protection.



- 3) Select features to apply password protection.
- 4) Click "**OK** "" to save the setting. This setting will be immediately applied.

Tasks

This chapter provides all you need to know from creating a task and deploying tasks to enrolled devices.

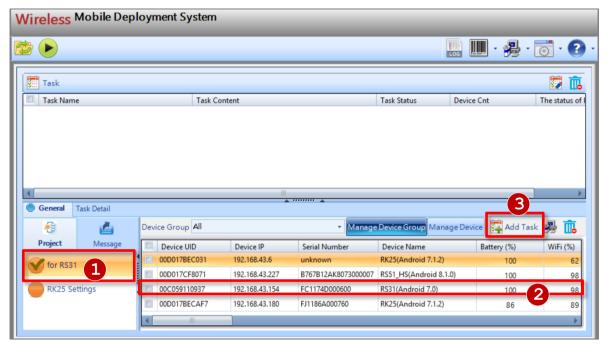
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3.1 Creating a New Task

To create a new task:

- 1) Select a project from Project List. If this panel does not show the projects you created with ADC program, please go to **Preferences** > "**Preferences**" > **General** tab, and relocate the ADC location.
- 2) Select the devices that are to be deployed with this task from Device Panel.
- 3) Click **Add Task** on the top right corner of Device Panel.



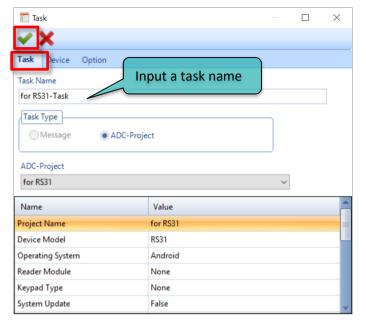
4) In the **Task** window, you can switch between **Task**, **Device**, and **Options** tabs to make further modifications. When finished, click to save the settings.

Task tab

Task Name: Specify the task name in the text field.

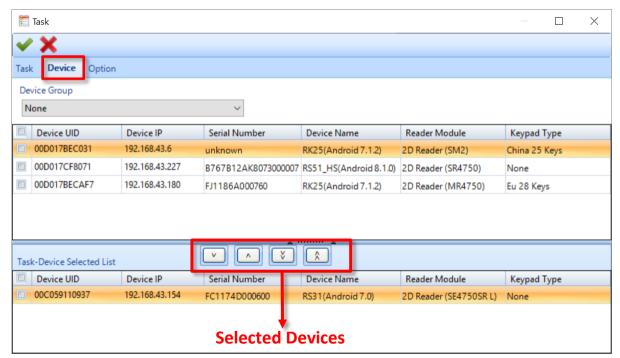
Task Type: The radio buttons indicate the task type (message or ADC project).

ADC-Project: Click the drop-down menu to select an ADC project.



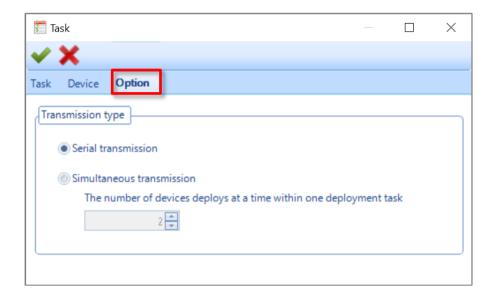
Device tab

On the **Device** tab, click the **Device Group** drop-down menu to select a device group. Use the arrow buttons to select the devices for this task.



Option tab

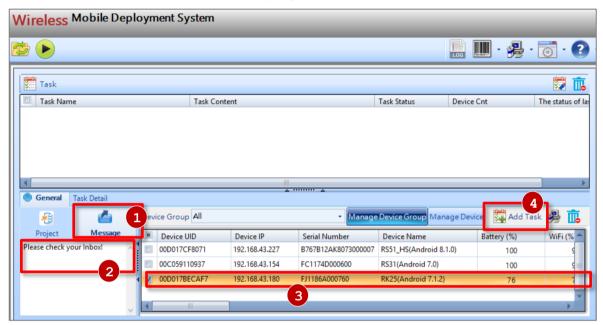
On the **Option** tab, define if this task will perform configuration deployment to one device after another or to all at the same time. It is suggested that you use the default "**Serial transmission**" lest vast amounts of data transmission should consume too much of your network bandwidth.



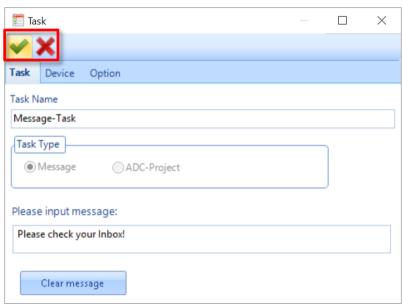
3.1.1 Pushing Messages to Devices

You can push a message to selected devices.

- 1) On Main screen, click "Message".
- 2) In the edit text box, input your message (up to 2000 alphanumeric characters).
- 3) From the Device Panel, select the devices that are to be deployed with this task.
- 4) Click **Add Task** Add Task on the top right corner of Device Panel.



5) In the **Task** window, make further modifications on **Task**, **Device**, and **Options** tabs. After finish modifying, click "**OK**" to save the settings.



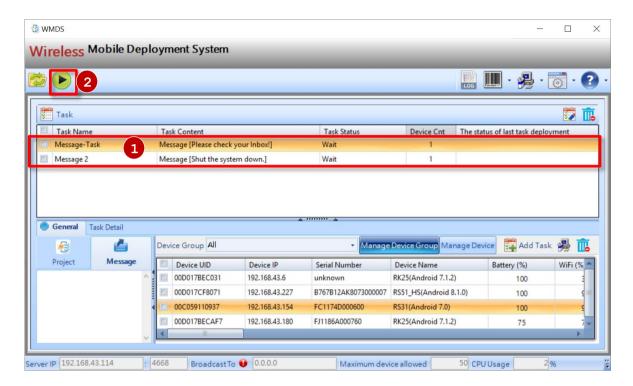
Message Sent to Mobile Devices

Once your message task is successfully deployed, the message dialog will pop up on all the mobile devices' screens. Please tap "**OK**" to confirm and close it.

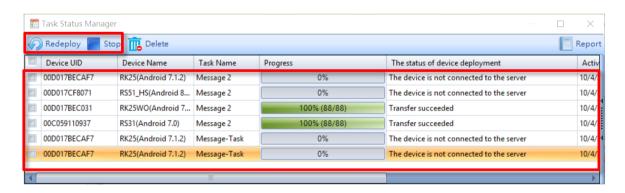


3.2 Task Deployment

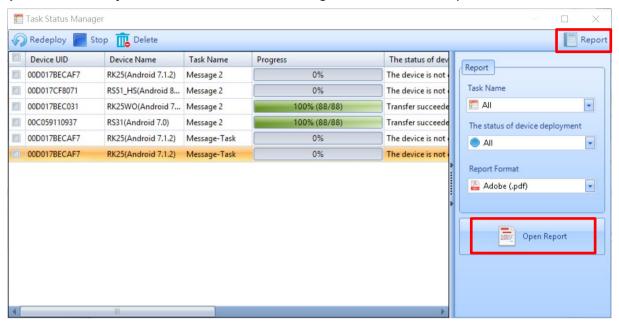
- 1) On the Task List, first select one or more tasks.
- 2) Click "**Deploy** on the Toolbar.



3) A **Task Status Manager** window will pop up listing the deployment progress as well as results. You can have certain tasks performed on selected devices again by clicking the **Redeploy** icon or simply stop a deployment task by clicking the **Stop** icon.



4) Click " Report" to reveal the sidebar to generate the task report.



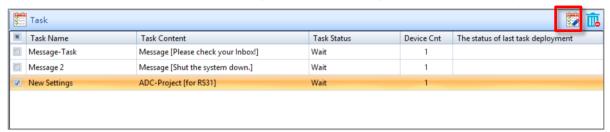
In the report sidebar, you can:

ltem	Description	
Task Name	Click the drop-down menu to select the task you would like to export and generate a report.	
The status of device deployment	Designate the status (of the task deployment on your devices) to generate. Options are: All Transfer succeeded Transfer failed Others	
Report Format	Select the file format of the report to be generated: Adobe (.pdf) Excel (.xls) Note: The report format "Excel (.xls)" is only available for the PC with Microsoft Excel installed.	
Open Report	Click "Open Report" to complete the above selections and generate a report at the same time.	

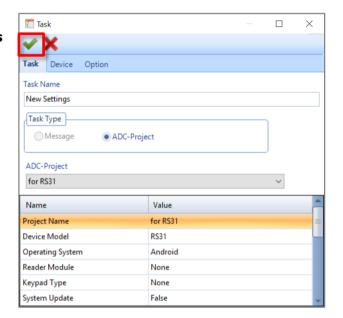
3.2.1 Task Management

You can modify the task name or the target device it refers to

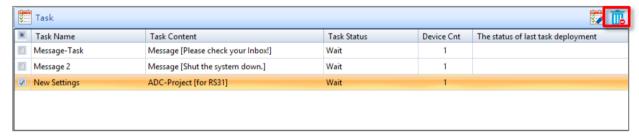
- 1) Select a task from the Task List.
- 2) Click "Edit Task on the top right corner to bring up the Task dialog.



 In the Task dialog, you can switch between Task, Device, and Options tabs to make further modifications.
 When finished, click to save the settings.

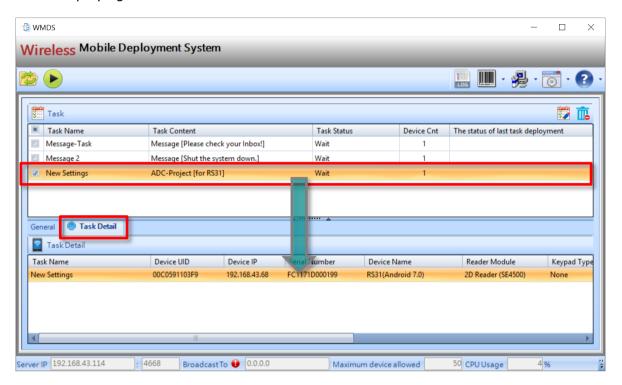


4) To delete a task, simply select it and click "**Delete Task** "on the top right corner.



3.2.2 Checking Task Detail

Click the "**Task Detail**" tab and then click a specific task from the Task List to check its details displaying below.



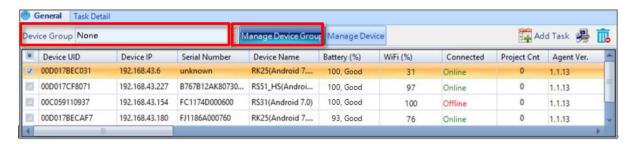
3.3 Monitoring Enrolled Devices

The Device Panel lists devices which have been enrolled in to WMDS Server. You can have a glance of the devices' current status including Device IP, Serial Number, remaining power level (battery health) as well as their connection status. If a device appears to be **Offline**, you will need to bring it back to **Online** status before deploying a task to it.



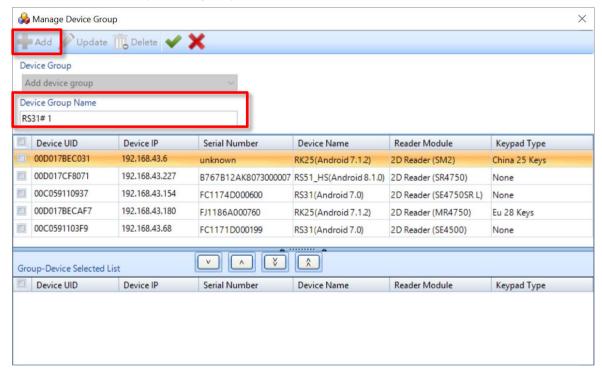
3.3.1 Grouping Devices

You may group multiple devices to avoid hassles and save time when managing a number of devices. On Device Panel, by default, a group named "None" already exists on the **Device Group** drop-down menu and contains all the ungrouped devices. Click "Manage Device Group" to bring up the window.

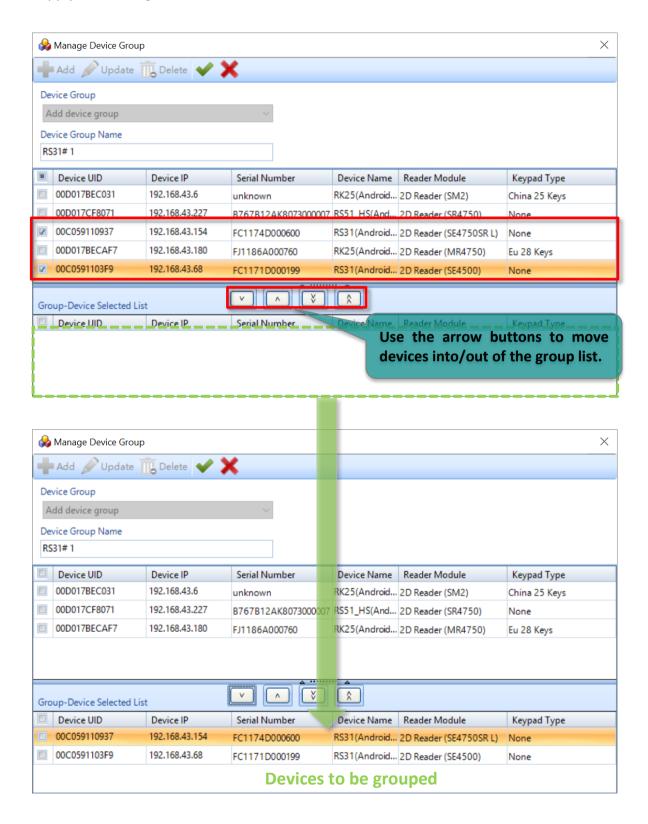


Create a Device Group

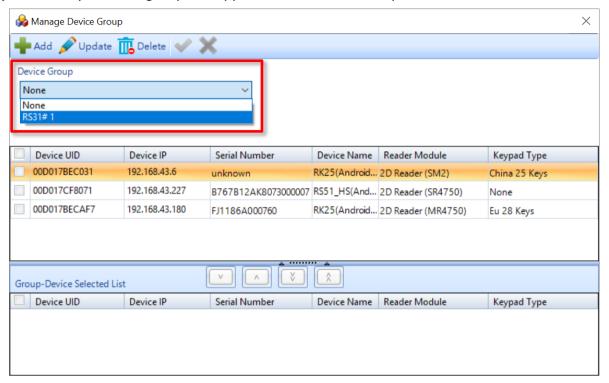
1) In the **Manage Device Group** window, click the Add button to show the Device Group Name text field. Input the group name in the text field and click "**OK** ".



2) Select the devices listed in the upper grid and click the **Down** arrow button to move them down into the lower grid to include them in this group. Click "**OK** " again to apply the settings.



3) The newly-created group will appear in the Device Group list.



4) By selecting the group, you can click "**Update**" to modify the name and member devices or click "**Delete**" to delete it. After you finish settings, click "**OK** " to save and exit this window.

