Commissioning Process

EVSE Commissioning Mobile Application

App Version: 1.0.5+5

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This user guide is intended to improve the operator's efficiency throughout the procedure and does not entirely absolve them of responsibility.

Change Record

Rev. No.	Date	Details	Revised By	Approved By
0	05/02/2024	Initial Release	Rajkumar Patel	Samir Bhatt
1	06/06/2024	Contact Details	Rajkumar Patel	Samir Bhatt
2	23/04/2025	Legal Entity Conversion: LLP to PVT LTD	Rajkumar Patel	Samir Bhatt
3	05/05/2026	Revised Email Address	Rajkumar Patel	Samir Bhatt

Table of Contents

1. Intended Use

Bacancy Systems designed and developed the EVSE commissioning mobile application. It allows for the configure of charger parameters, which is the initial setup of the charger to obtain optimum efficiency. The application has an outstanding user interface, providing a seamless user experience during the commissioning process.

This document, organized into two sections, gives further information about the mobile application and its configuration. Section 2.1 describes the AC charger configuration, whereas section 2.2 describes the DC charger configuration.

Furthermore, the user can contact our team to resolve their issue by using contact information provided on the last page.

WARNING!	**Risk caused by inappropriate use!**
	Any un-conventional use and/or different operation of the product can lead to hazardous situations. • Only use the Product in conventional manner.

1.1 Limitation

The product is intended for usage in an operational environment. It should not be utilised in hostile or explosive conditions.

The operator should consult local safety authorities and safety representatives before performing tasks in hazardous areas, or in similar circumstances.

1.2 Alteration and Restoration of the Product/System

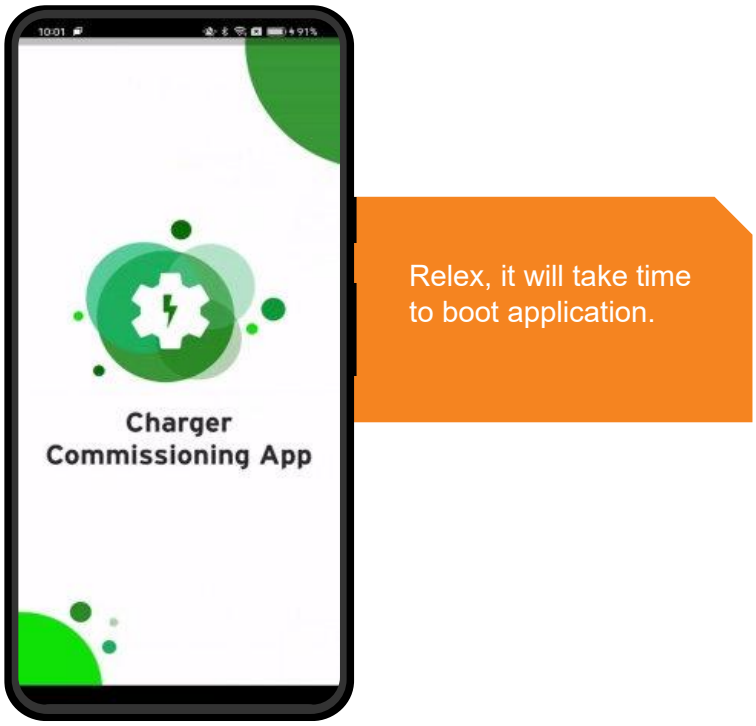
To prevent risks and make sure optimal performance, no alterations, attachments, or restoration of the product are permitted without explicit authorization of Bacancy Systems.

2. Getting Started

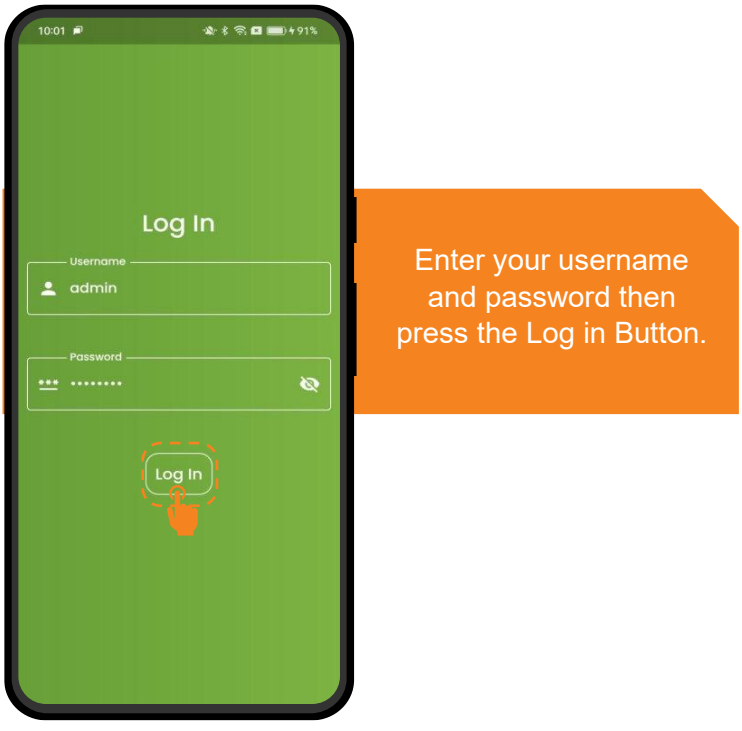
2.1 AC Charger Configuration

2.1.1 Initial Setup

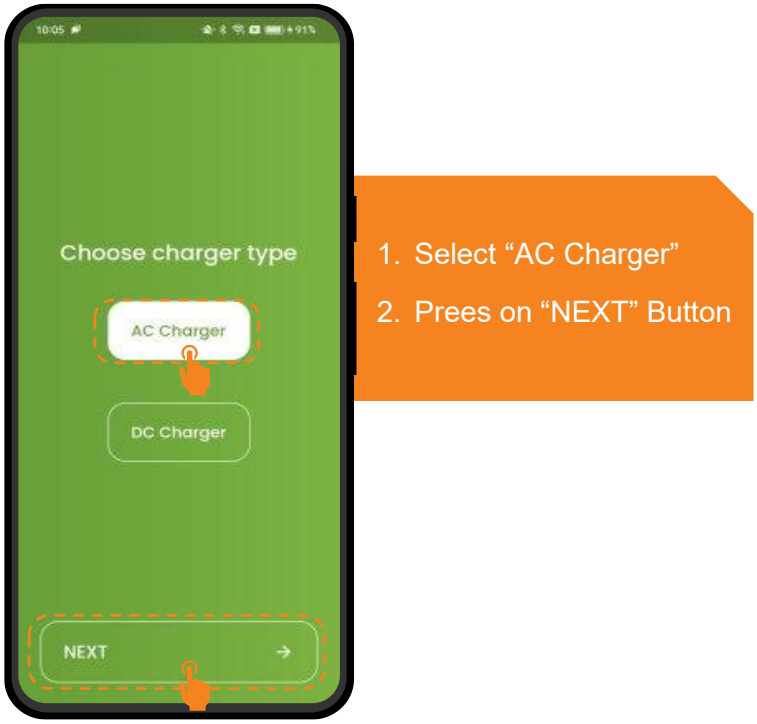
Step 1. Open the Charger Commissioning application on your mobile device. Initially, applications can take time to boot up. It will show a splash screen.



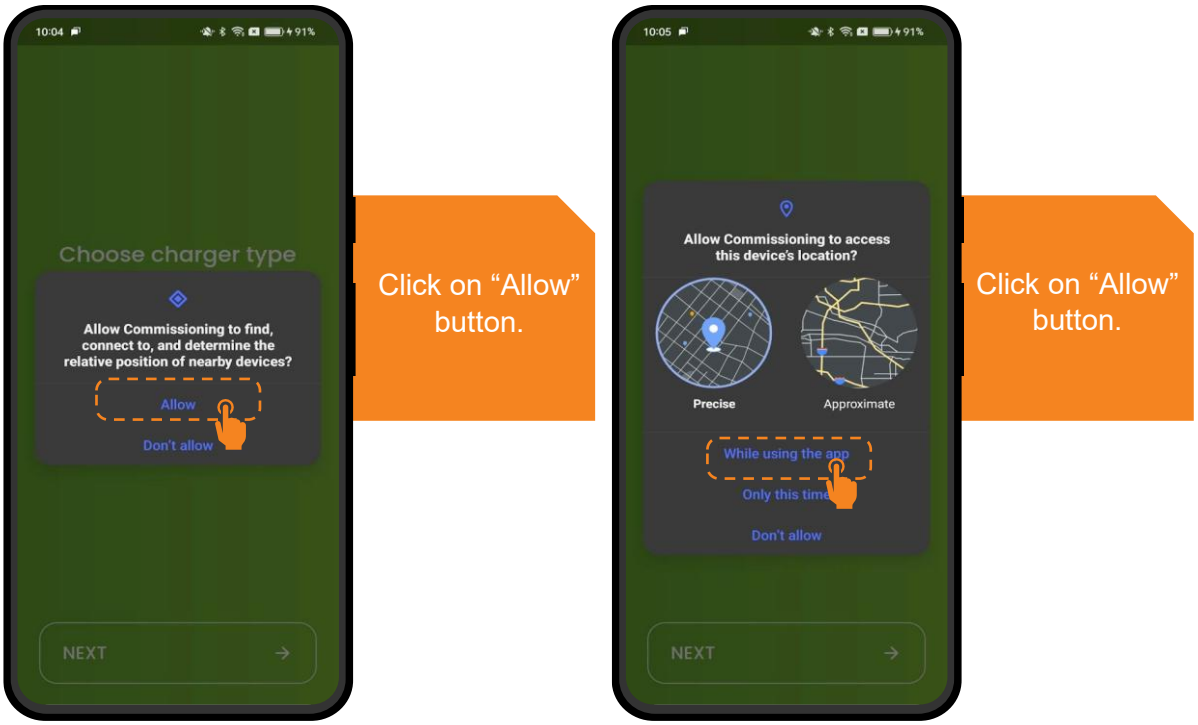
Step 2. Enter your Log-in with credentials, press the Log In login button.



Step 3. Choose AC Charger AC Charger, then press the NEXT "NEXT" button.



Step 4. Initially, to configure the application, it is necessary to Allow allow permission.



MANDATORY	Allow Permission
	The user should be obligated to allow permission in the application to determine the relative position of a nearby device and access its location. Otherwise, it shall not go further.

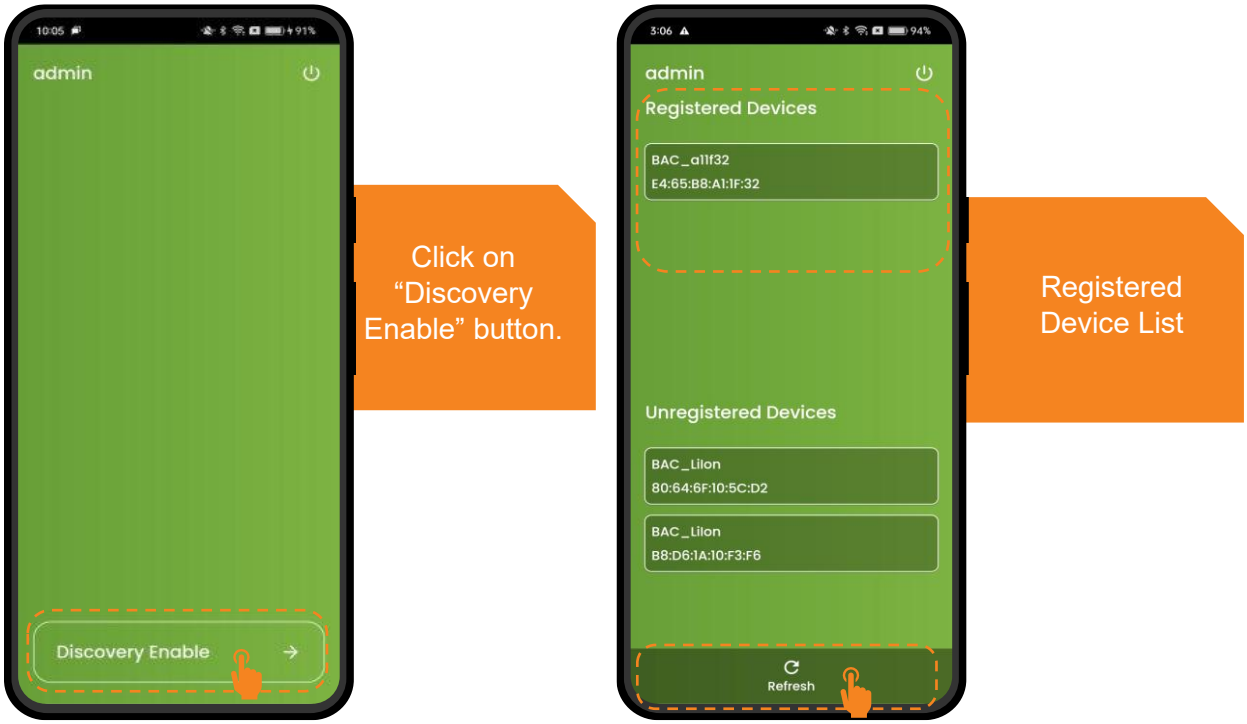
2.1.2 Admin Screen for Register Devices

Step 1. Click the Discovery Enable → "Discovery Enable" button.

Step 2. There are two types of devices. One is for registered devices, and the last one is for unregistered devices. The device list will update every 5 seconds.

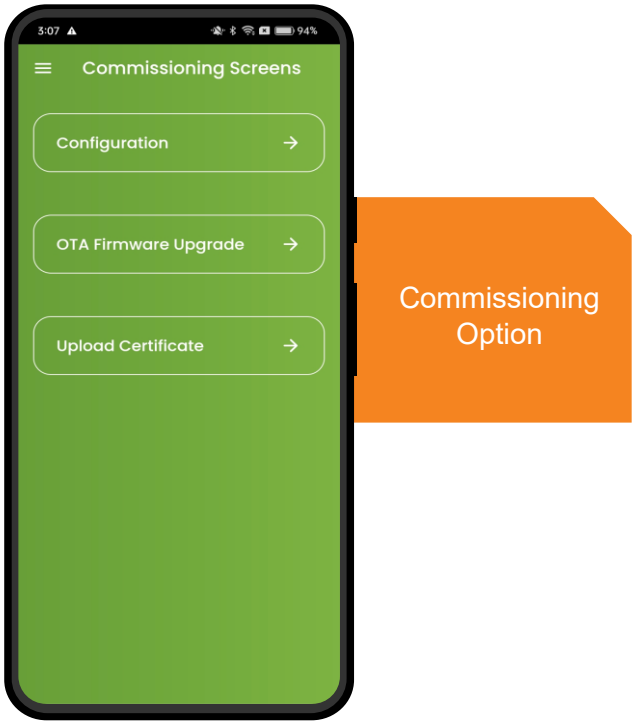
To refresh the registered list, press Refresh the refresh button.

NOTE!	Unregistered Devices
	Initially, the user should register the device on the web portal, and then it will be permissible for the mobile application.



2.1.3 Commissioning Screens

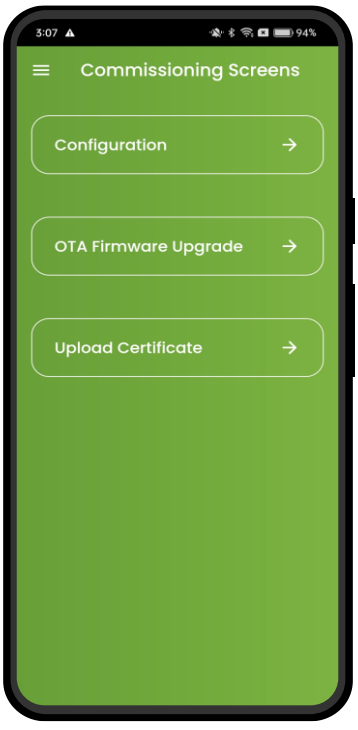
On successful registered device, the user will get the commissioning screens.



2.1.3.1 Configuration

Click on 

the configuration option. It will open the all-configuration process that is initially obligated to commissioning setup; otherwise, the user can choose other options to alter configuration as per the need of the hour.



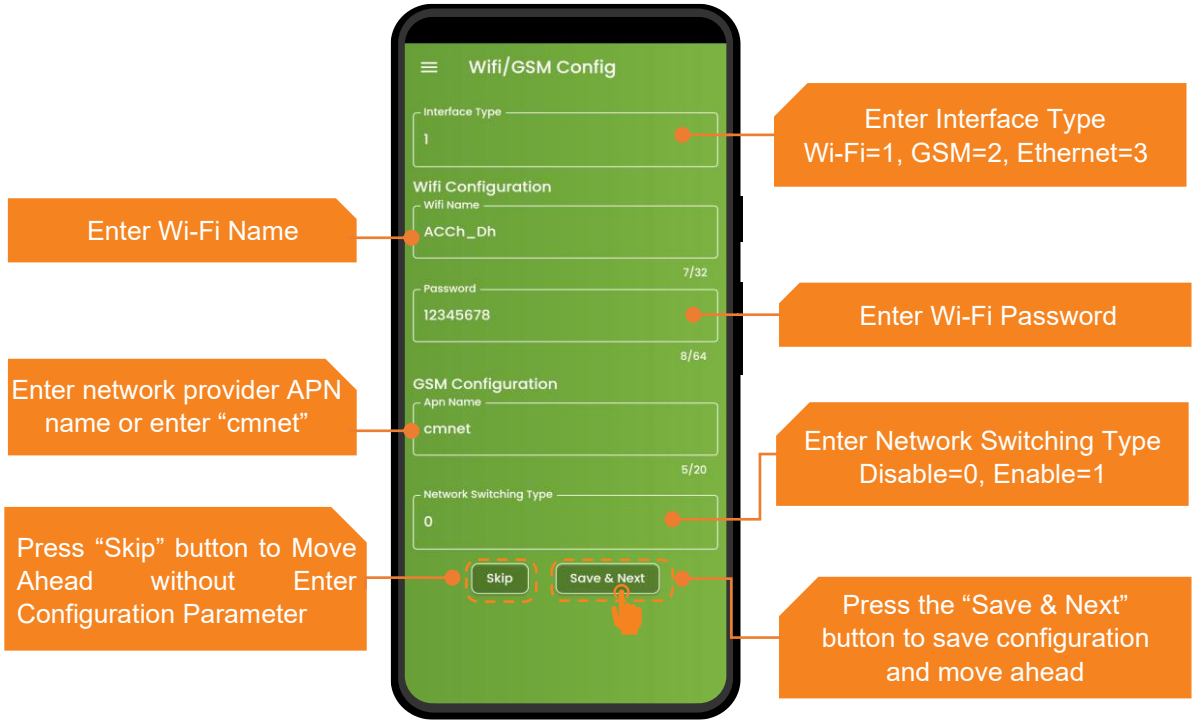
1. Wi-Fi / GSM Configuration

NOTE!	Tip for Configuration.
	• In offline mode, the user could not be obligated to configure Wi-Fi or GSM; instead, press the Skip skip button. • If the charger is in plug-and-play or offline RFID mode, Wi-Fi/GSM should not be configured. Press the Skip skip button. • If the user has access to both interface types, then network switching is only permissible; otherwise, it should be disabled. • If the internet could not be received continuously for 1 minute on the Wi-Fi interface, then the module switched from Wi-Fi to GSM. Similarly, if the internet could not be received continuously for 3 minutes in the GSM module, then the module switched from GSM to Wi-Fi. So do not forget to add both Wi-Fi and GSM configurations.

MANDATORY	GSM Configuration
	Before GSM configuration, the position of the GSM module should be on top of the EV charger, and it should have a SIM card with an active internet pack.

Step 1. Enter the Wi-Fi configuration parameters.

Step 2. Click on the Save & Next "Save & Next" button or the Skip "Skip" button to skip this configuration sections.

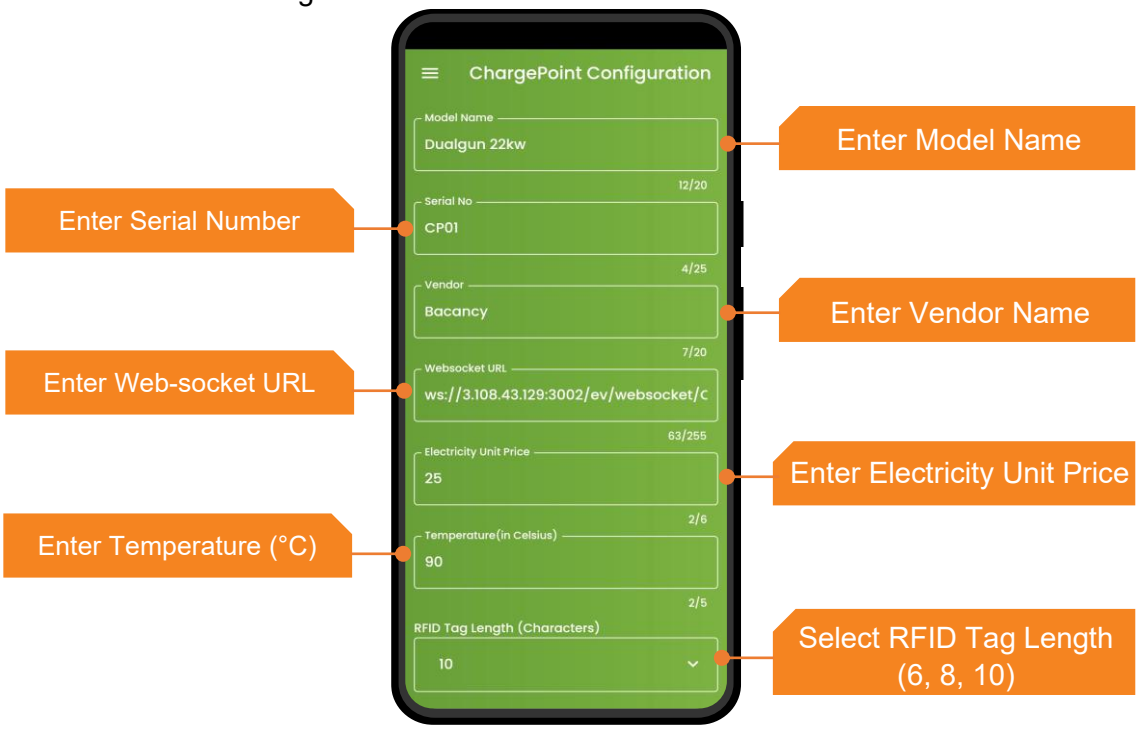


2. Charge Point Configuration

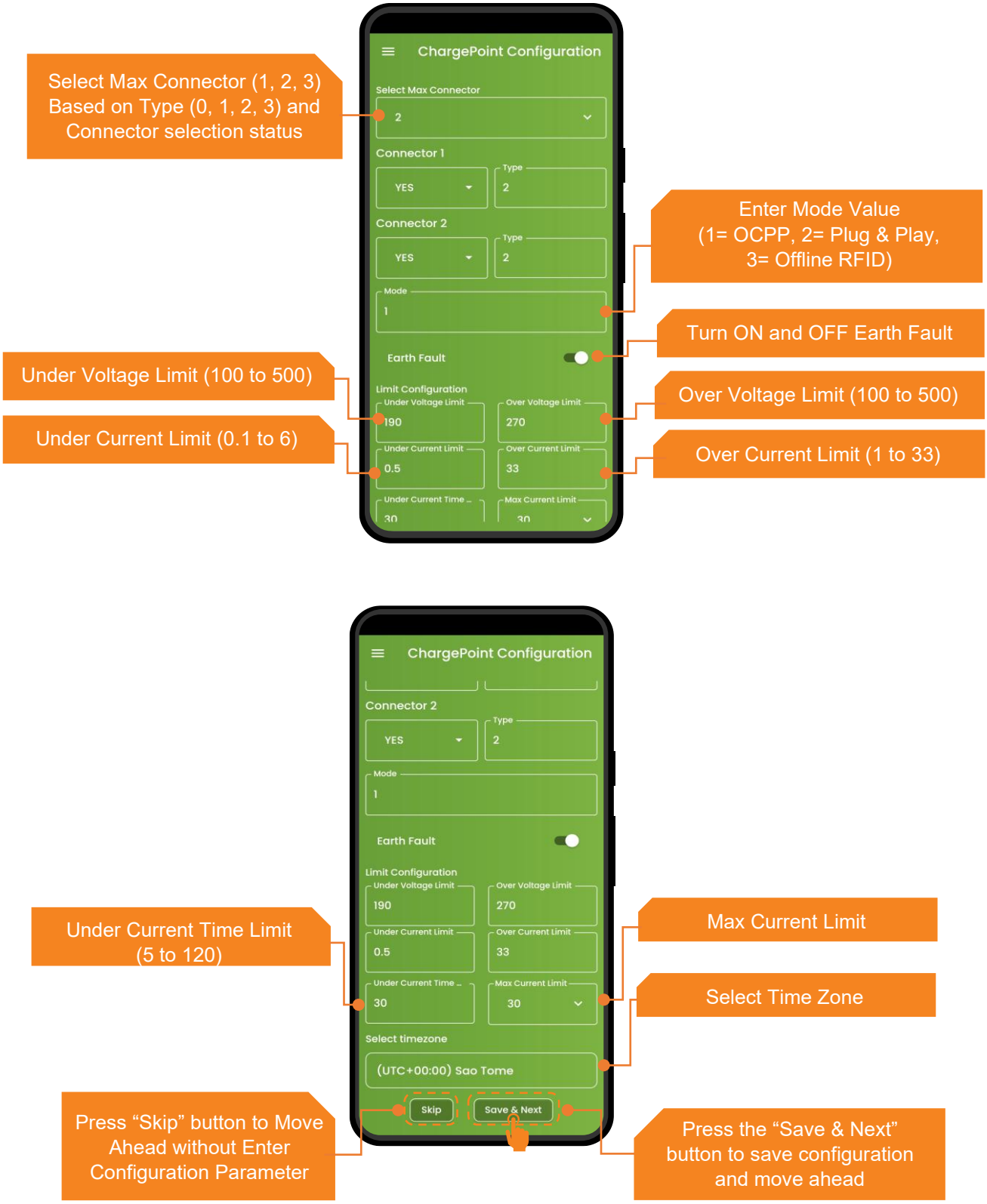
NOTE!	Tip for Configuration.
	Charge point vendor names will display LCD or GLCD. Please ensure that the URL has the WS/WSS protocol. If the URL is wrong, then the EV charger will not connect to the OCPP server.

Step 1. Enter the charger point configuration parameters.

Step 2. Click on the Save & Next "Save & Next" button or the Skip "Skip" button to skip these configuration sections.



NOTE!	RFID Mode Selection
	You have to add RFID cards via the commissioning page; otherwise, offline RFID mode does not work. (Refer to the RFID configuration section.)


Select Max Connector (1, 2, 3) Based on Type (0, 1, 2, 3) and Connector selection status
ChargePoint Configuration
Select Max Connector
2
Connector 1
YES
Type
2
Connector 2
YES
Type
2
Mode
1
Earth Fault
Limit Configuration
Under Voltage Limit
190
Over Voltage Limit
270
Under Current Limit
0.5
Over Current Limit
33
Under Current Time ...
30
Max Current Limit
30
Enter Mode Value (1= OCPP, 2= Plug & Play, 3= Offline RFID)
Turn ON and OFF Earth Fault
Under Voltage Limit (100 to 500)
Over Voltage Limit (100 to 500)
Under Current Limit (0.1 to 6)
Over Current Limit (1 to 33)
ChargePoint Configuration
Connector 2
YES
Type
2
Mode
1
Earth Fault
Limit Configuration
Under Voltage Limit
190
Over Voltage Limit
270
Under Current Limit
0.5
Over Current Limit
33
Under Current Time ...
30
Max Current Limit
30
Select timezone
(UTC+00:00) Sao Tome
Skip
Save & Next
Under Current Time Limit (5 to 120)
Max Current Limit
Select Time Zone
Press “Skip” button to Move Ahead without Enter Configuration Parameter
Press the “Save & Next” button to save configuration and move ahead

3. RFID Configuration

NOTE!	RFID Mode Selection
	Without the configuration of an RFID tag, the offline RFID will not work, so make sure the user should complete RFID configuration to use offline RFID mode.

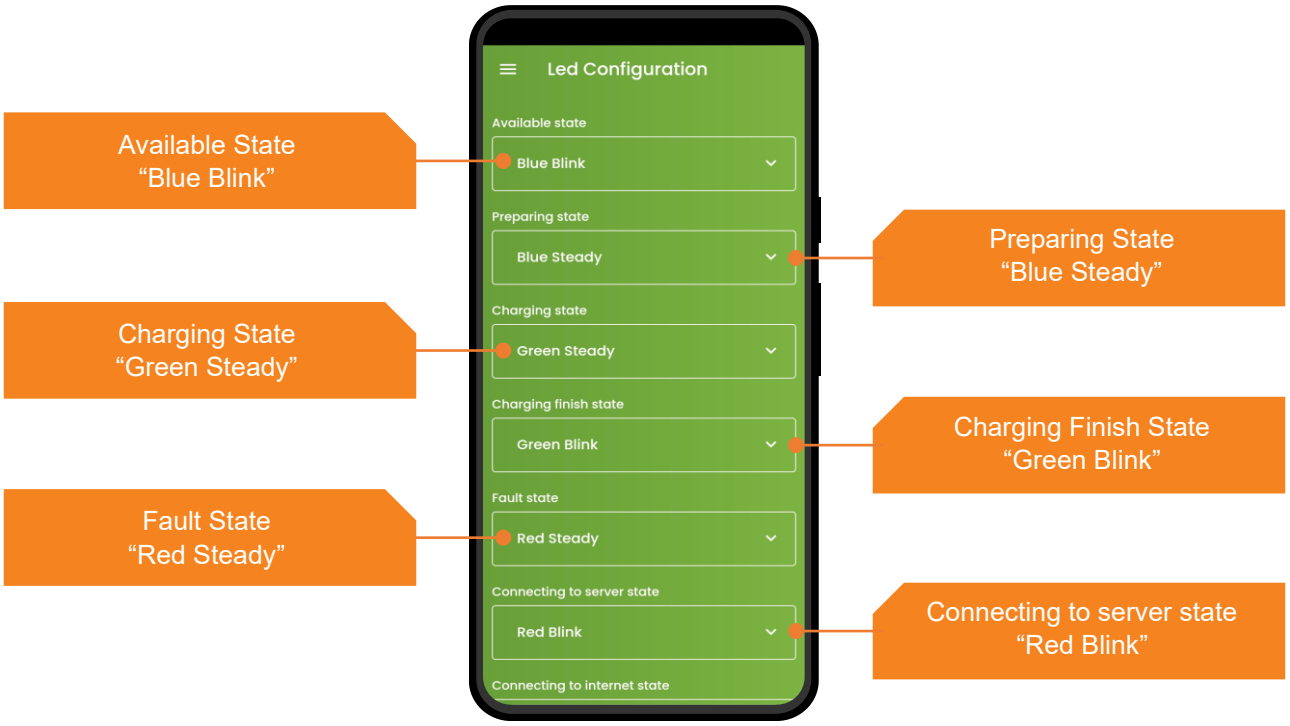
Step 1. Press the Start "Start" button, then tap RFID tag on the RFID reader to add RFIDs tag. Here, you check the added RFID tag, and you can remove it from the list by pressing the delete button.

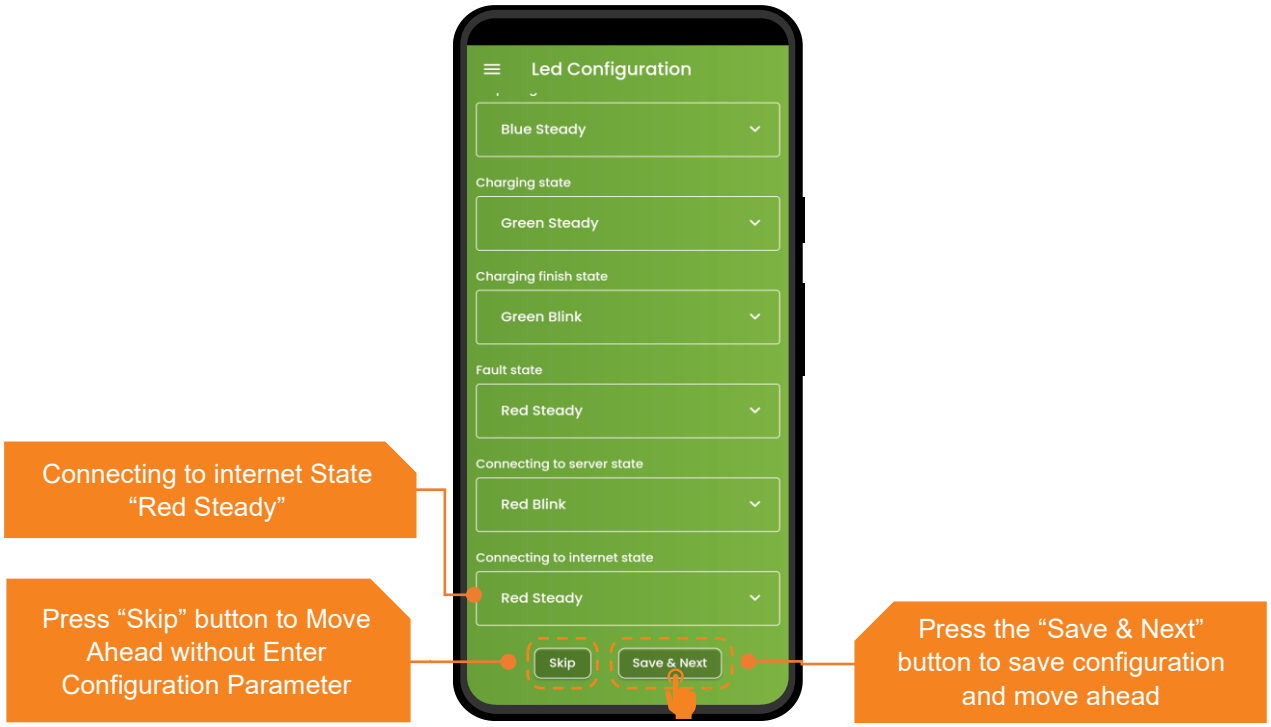
Step 2. Press the Save & Next "Save & Next " button.

4. LED Configuration

Step 1. There are three types of LEDs: red, blue, and green. And also, there are two statue modes, such as Blink and Steady. The user can set the LED configuration as needed for operations, or the user can select ideal states as described here.

Step 2. Click on the Save & Next "Save & Next" button or the Skip "Skip" button to skip these configuration sections.

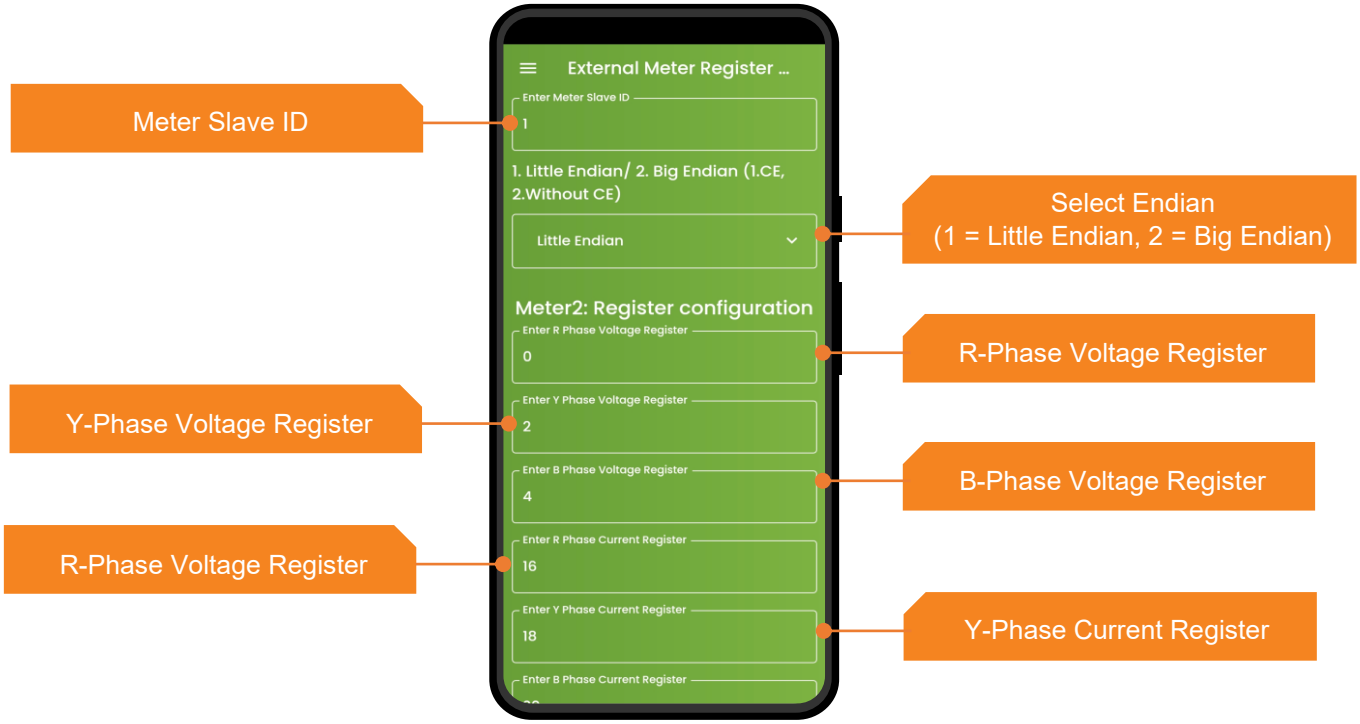




5. External Meter Register Configuration

Step 1. Enter Meter register configuration.

Step 2. Click on the Save & Next "Save & Next" button or the Skip "Skip" button to skip these configuration sections.

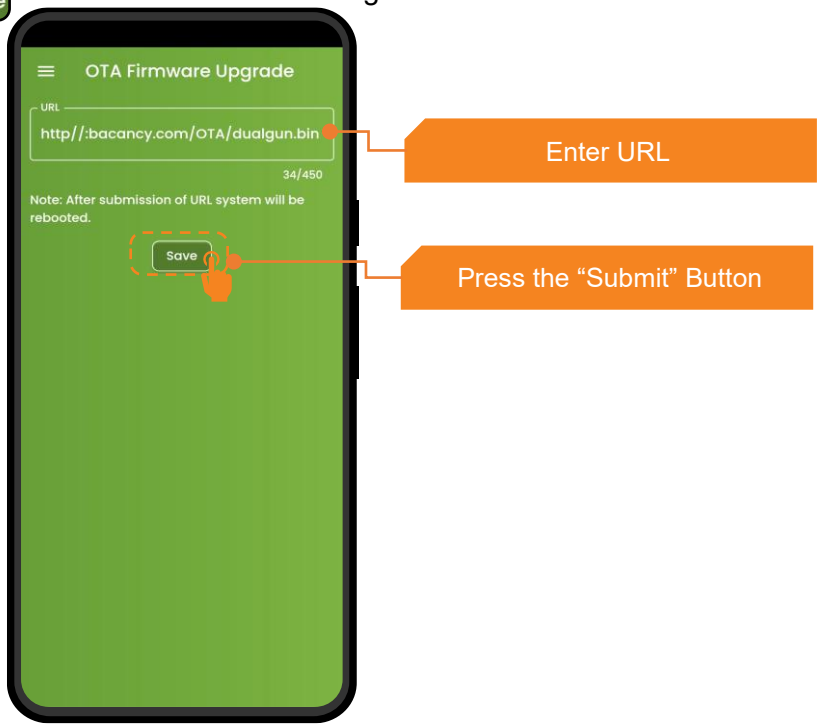


6. OTA Firmware Upgrade

Step 1. Enter a URL link. (After submission of URL, the system will be rebooted.)

NOTE!	Enter OTA URL
	Before doing this step, ensure you have done the first 2 steps correctly because, after a start button click, a charger will automatically switch to the GSM or WIFI interface.

Step 2. Click on the Save “Save” button to save configuration.



NOTE!	Automatically connect with server
	After performing the first four commissioning steps, switch off and on again, and don't connect to the EV charger's Wi-Fi. Wait for 1 minute, and your EV charger will automatically connect to the server.

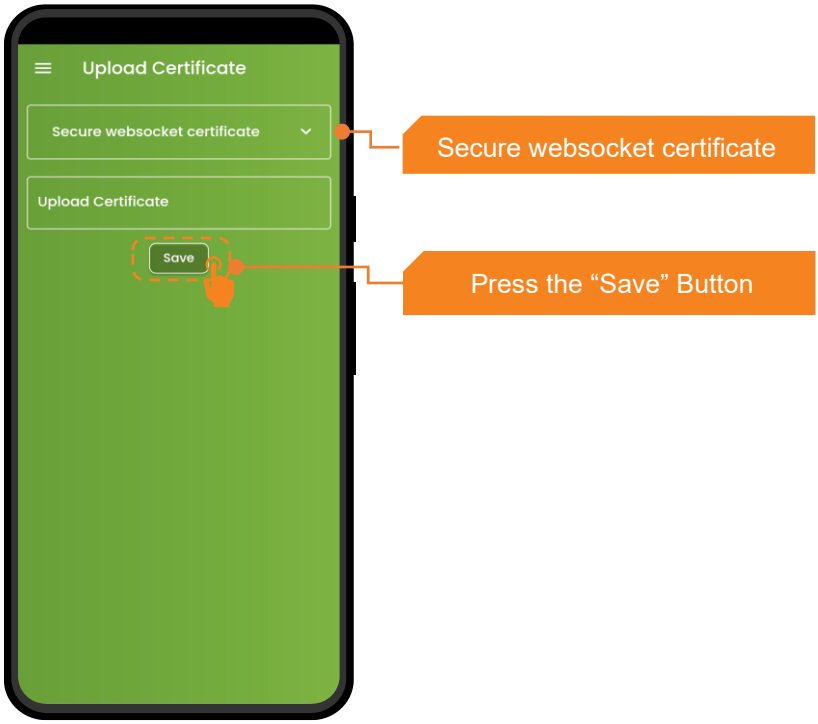
7. Upload Certification

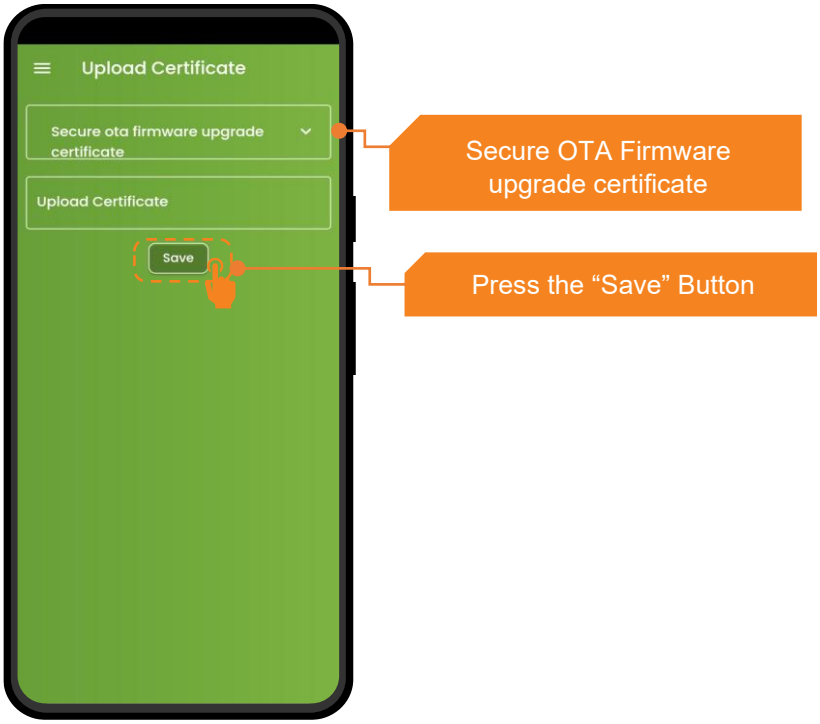
The user can upload two types of certificates.

1. Secure WebSocket certificate

NOTE!	WSS Configuration
	Do this configuration only if the user can use a secure WebSocket (WSS) connection with the OCPP-compliant server.

2. Secure the OTA firmware upgrade certificate

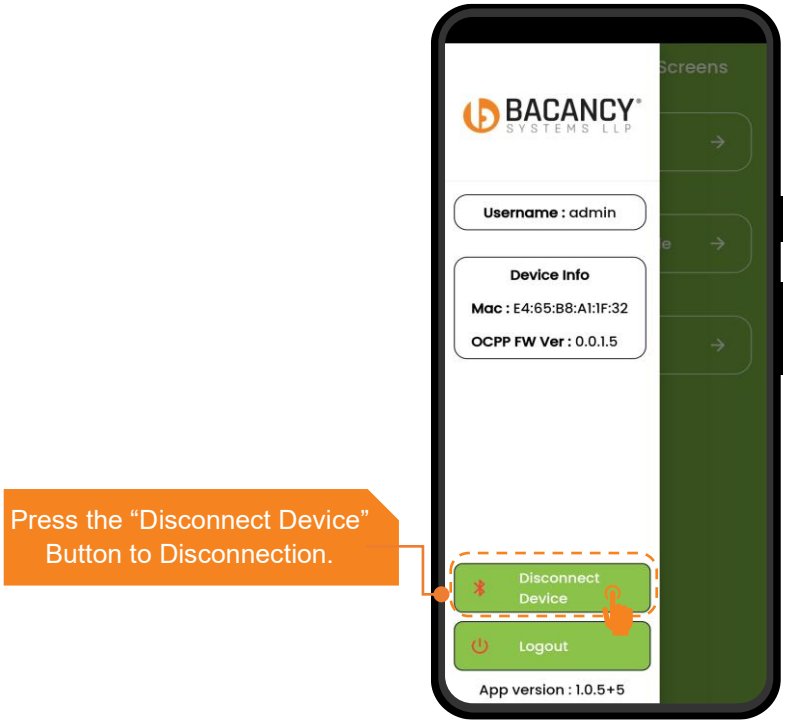




8. Disconnect Process

To disconnect an application, open the application menu, then click on 

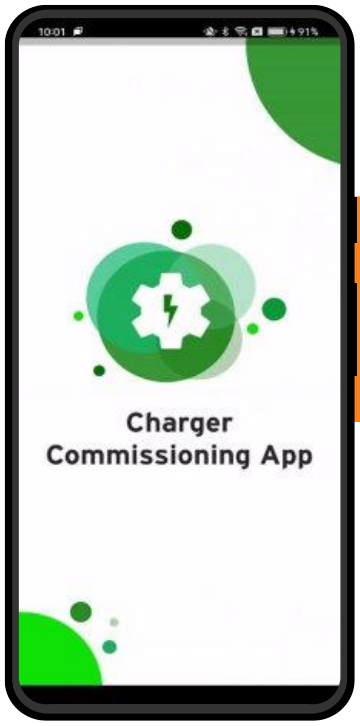
“Disconnect Device” button. It is the above logout button.



2.2 DC Charger Configuration

2.2.1 Initial Setup

Step 1. Open the Charger Commissioning application on your mobile device. Initially, applications can take time to boot up. It will show a splash screen.

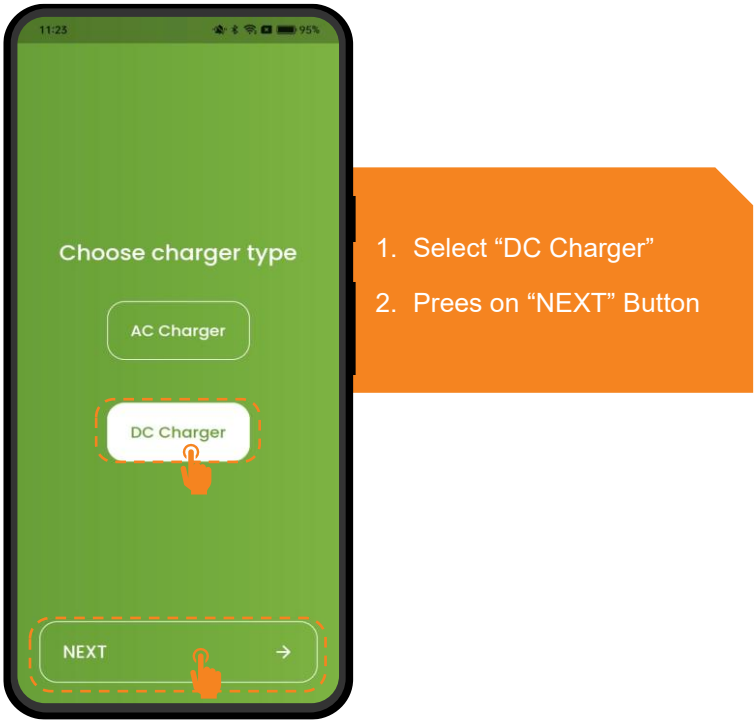


Relex, it will take time to boot application.

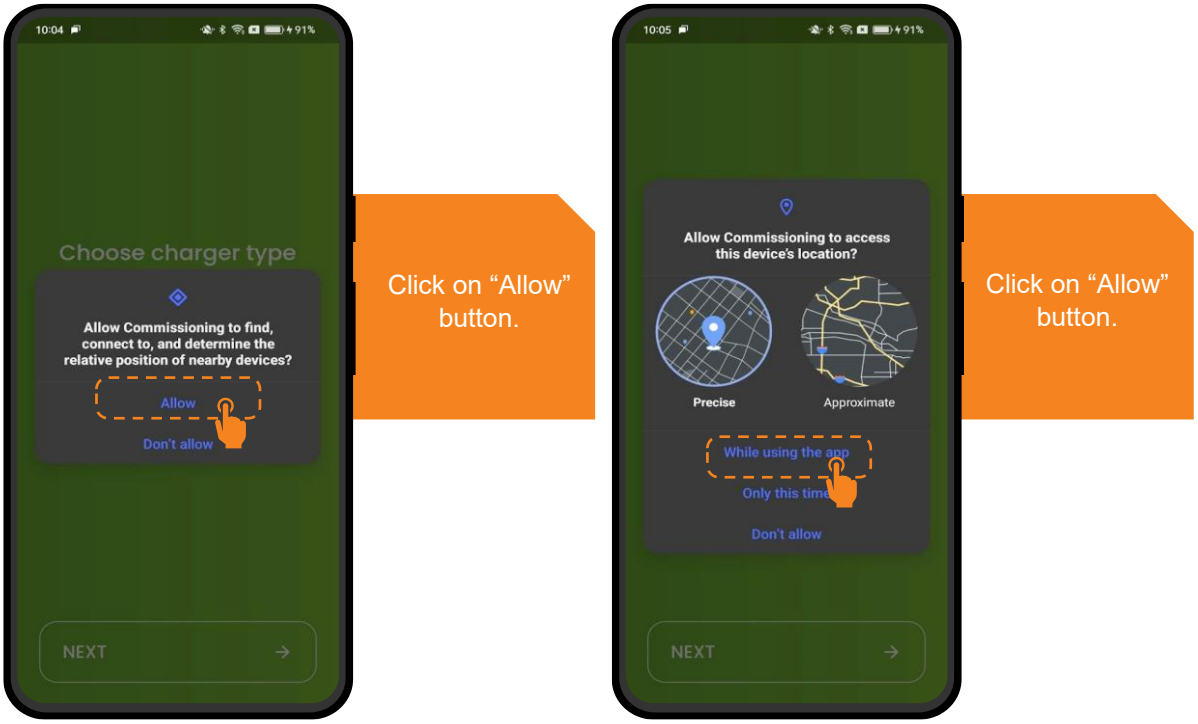
Step 2. Enter your login credentials and press the Log In login button.

Enter your username and password then press the Log in Button.

Step 3. Choose DC Charger DC Charger, then press the NEXT “NEXT” button.



Step 4. Initially, to configure the application, it is needed to Allow allow permission.



MADATORY	Allow Permission
	The user should be obligated to allow permission in the application to determine the relative position of a nearby device and access its location. Otherwise, it shall not go further.

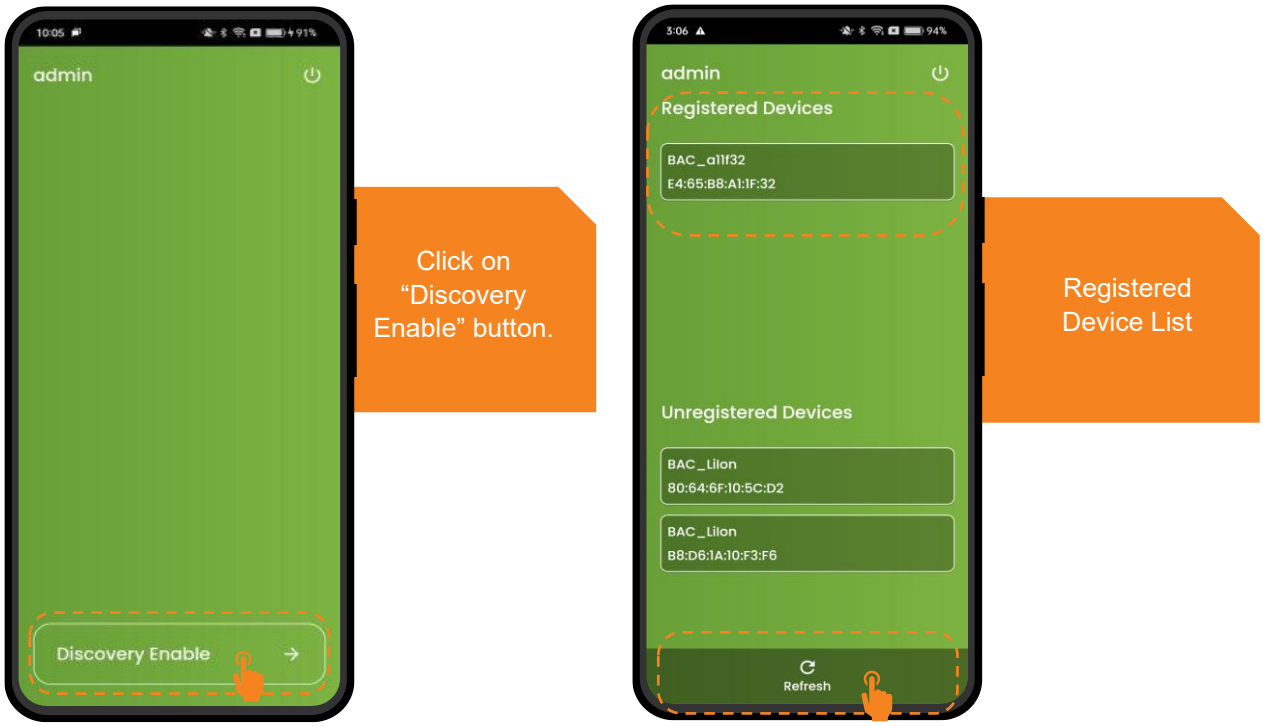
2.2.2 Admin Screen for Register Devices

Step 1. Click the Discovery Enable → Discovery Enable button.

Step 2. There are two types of devices. One is for registered devices, and the last one is for unregistered devices. The device list will update every 5 seconds.

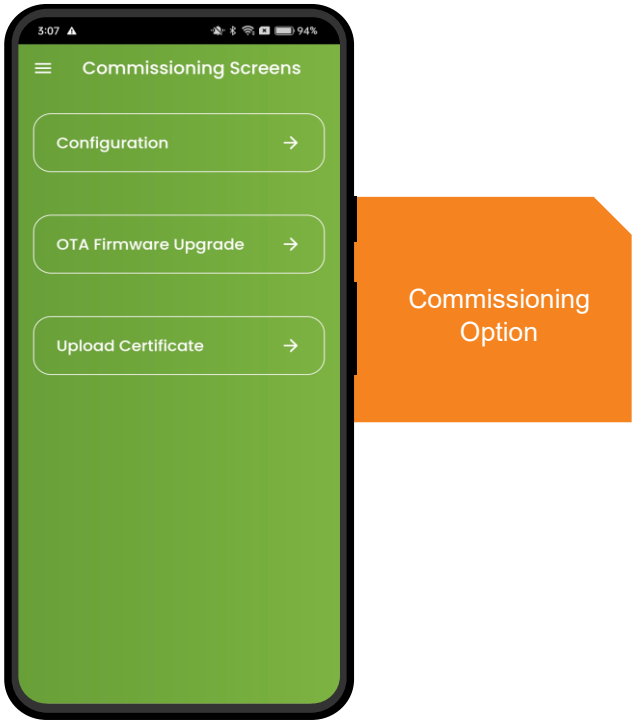
To refresh the registered list, press the Refresh refresh button.

NOTE!	Unregistered Devices
	Initially, the user should register the device on the web portal; then, it will be available in the mobile application.



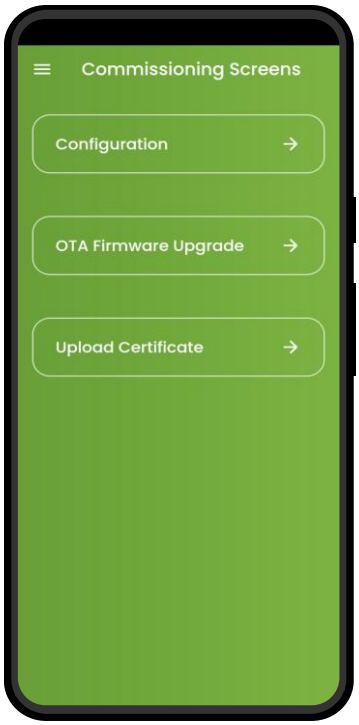
2.2.3 Commissioning Screens

On a successfully registered device, the user will get the commissioning Screens.



2.2.3.1 Configuration

Click on  the Configuration option. It will open the all-configuration process that is initially obligated to commissioning setup, otherwise the user can choose other options to alter configuration as per the need of the hour.



1. Wi-Fi / GSM Configuration

NOTE!	Tip for Configuration.
	• In offline mode, the user should not configure Wi-Fi or GSM; instead, press the Skip skip button. • If the charger is in plug-and-play or offline RFID mode, Wi-Fi/GSM should not be configured. Press the Skip skip button. • If the user has access to both interface types, network switching is only permissible; otherwise, it should be disabled. • If the internet could not be received continuously for 1 minute on the Wi-Fi interface, then the module switched from Wi-Fi to GSM. Similarly, if the internet could not be received continuously for 3 minutes in the GSM module, then the module switched from GSM to Wi-Fi. So do not forget to add both Wi-Fi and GSM configurations.

MADATORY	GSM Configuration
	Before GSM configuration, the position of the GSM module should be on top of the EV charger, and it should have a SIM card with an active internet pack.

Step 1. Enter Wi-Fi configuration parameters.

Step 2. Click on the Save & Next "Save & Next" button or the Skip "Skip" button to skip this configuration sections.

2. Charger Configuration

Step 1. Enter your charger point configuration parameters.

Step 2. Click on the Save & Next "Save & Next" button or the Skip "Skip" button to skip this configuration sections.

3. ChargePoint Configuration

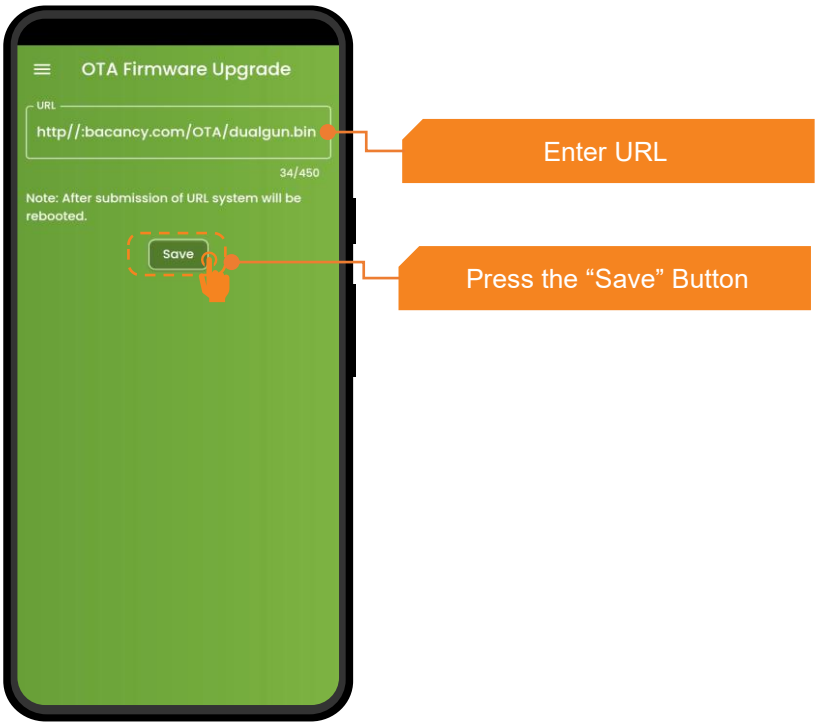
Step 1. Enter your charger point configuration parameters.

Step 2. Click on the Save & Next "Save & Next" button or the Skip "Skip" button to skip this configuration section.

4. OTA Firmware Upgrade

Step 1. Enter a URL Link. (After submission of URL, the system will be rebooted.)

Step 2. Click on the Save "Save" button to save the configuration.



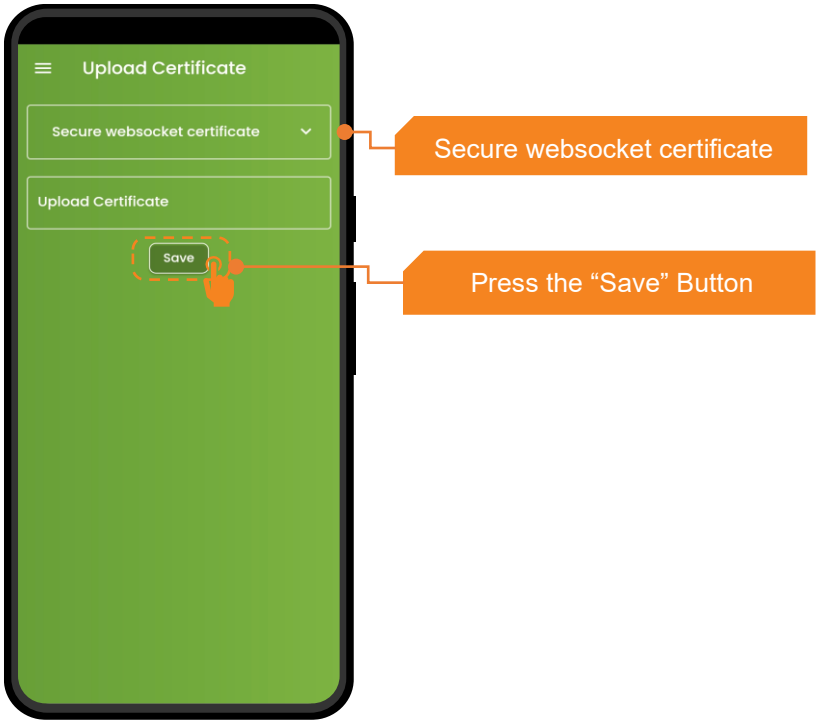
5. Upload Certification

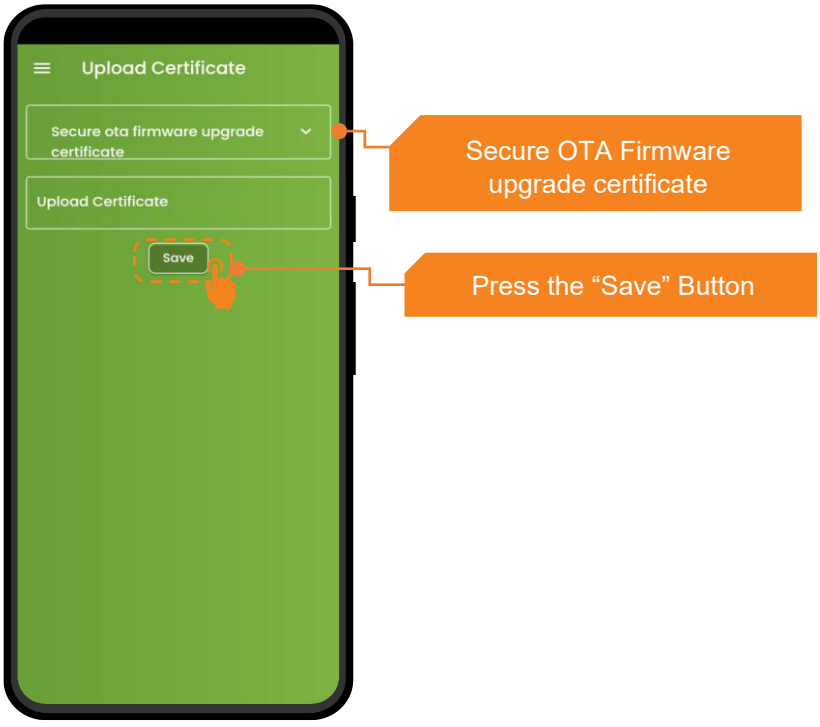
The user can upload two types of certificates.

1. Secure WebSocket certificate

NOTE!	WSS Configuration
	Do this configuration only if the user can use a secure WebSocket (WSS) connection with the OCPP-compliant server.

2. Secure the OTA firmware upgrade certificate


Upload Certificate
Secure websocket certificate
Upload Certificate
Save
Secure websocket certificate
Press the “Save” Button


Upload Certificate
Secure ota firmware upgrade certificate
Upload Certificate
Save
Secure OTA Firmware upgrade certificate
Press the “Save” Button

6. Disconnect Process

To disconnect an application, open the application menu, then click on the “Disconnect Device” button. It is the above Logout button.

3. Appendix

3.1 Abbreviations and Glossary

AC	*Alternating current, a type of electrical current in which the current repeatedly changes direction.*
DC	*Direct current (DC) is a one-directional flow of electric charge.*
GSM	*GSM (Global System for Mobile Communication) is a digital mobile network that is widely used by mobile phone users in Europe and other parts of the world.*
Hz	*Hertz, the SI unit of frequency, equal to one cycle per second.*
IP	*The Internet Protocol (IP) is the network layer communications protocol in the Internet Protocol Suite for relaying datagrams across network boundaries. Its routing function enables internetworking and essentially establishes the Internet.*
LED	*A light-emitting diode (LED) is a semiconductor device that emits light when current flows through it.*
OCPP 1.6	*The OCPP 1.6 (Open Charge Point Protocol) enables the integration between equipment from different manufacturers.*
OTA	*An over-the-air update is a firmware or operating system update that is downloaded by the device over the internet.*
RFID	*Radio-frequency identification (RFID) uses electromagnetic fields to automatically identify and track tags attached to objects.*
RGB	*Red, Green, Blue*
RYB	*Conventionally, the three phases are designated as red-R, yellow-Y, and blue-B phases.*
Type-2 Connector	*The IEC 62196 Type 2 connector is used for charging electric vehicles, mainly within Europe, as it was declared standard by the EU.*
Wi-Fi	*Wi-Fi is a family of wireless network protocols based on the IEEE 802.11 family of standards, which are commonly used for local area networking of devices and Internet access, allowing nearby digital devices to exchange data by radio waves.*

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