



VERTU Connect

Administrator Guide

V1.0



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1. Introduction

The **VERTU Connect** is a simple, user-friendly mobile application that helps configure the IXM VERTU card reader using smartphone Bluetooth Low Energy (BLE).

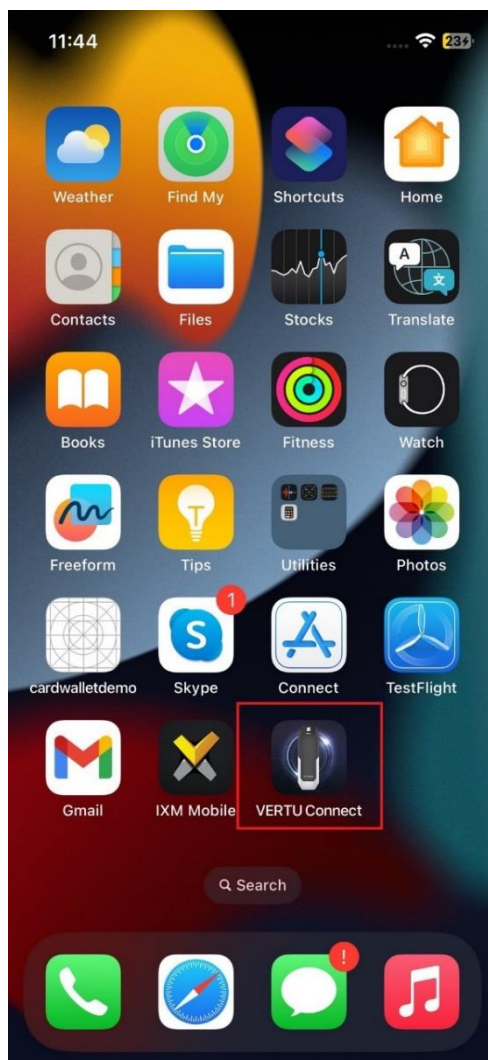
Wiegand or OSDP configuration can be easily performed through the app, allowing the installation process to be completed in mere minutes. Overall device management for VERTU can be performed within the same app.

The **VERTU Connect** is available for both Android and iOS mobile devices.

2. Install the VERTU Connect App

This section explains the required steps to download and install the **VERTU Connect** App on supported mobile devices.

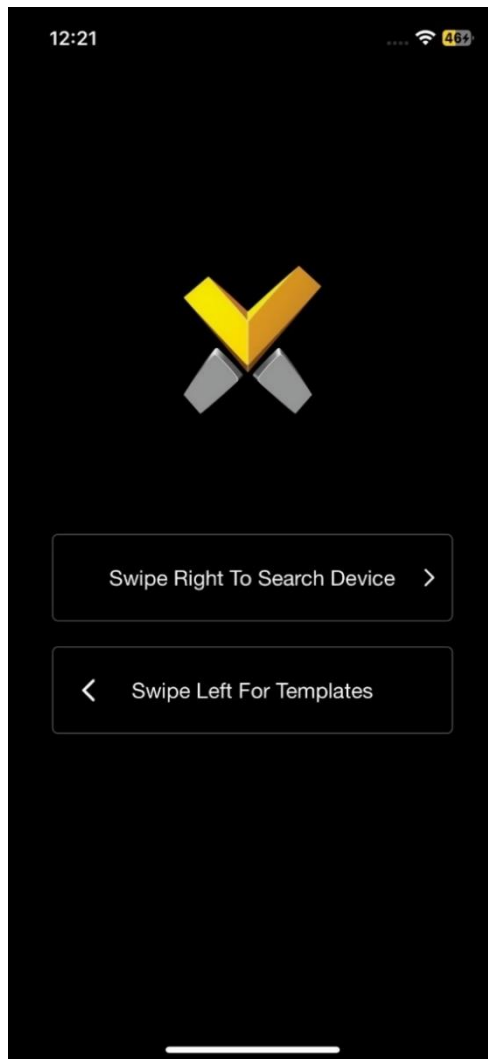
1. Ensure your mobile device is connected to the internet, either via mobile data or Wi-Fi.
2. On your mobile device, go to the App Store or Google Play Store.
3. Search for **VERTU Connect**
4. Download and install the app on your mobile device.
5. Once installed, the app icon will be displayed on your mobile device.



3. Connect to Device

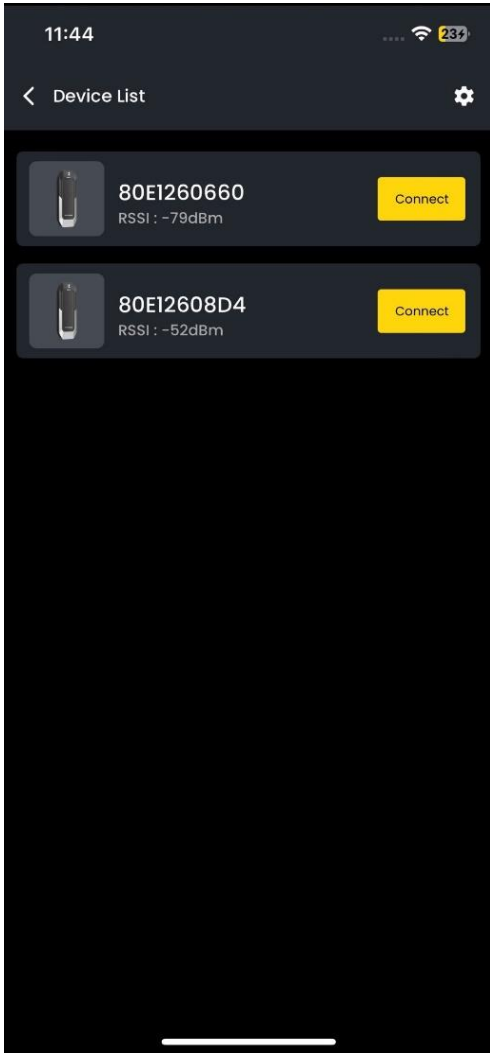
These are the steps to connect to a device through the app.

1. Open **VERTU Connect** on your mobile device.

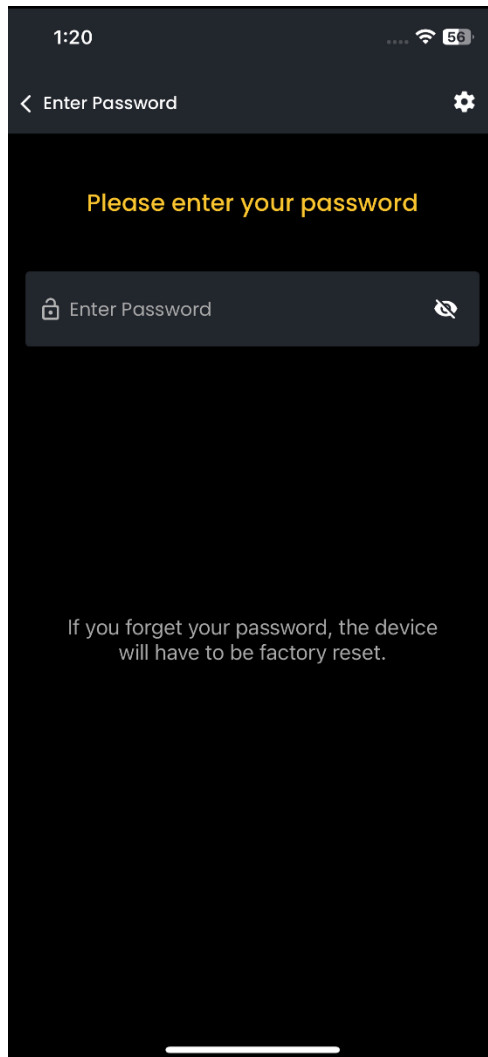


2. Tap or swipe right to search for the device(s).

3. The app will search for all nearby devices via Bluetooth and a list of discovered devices will be displayed.



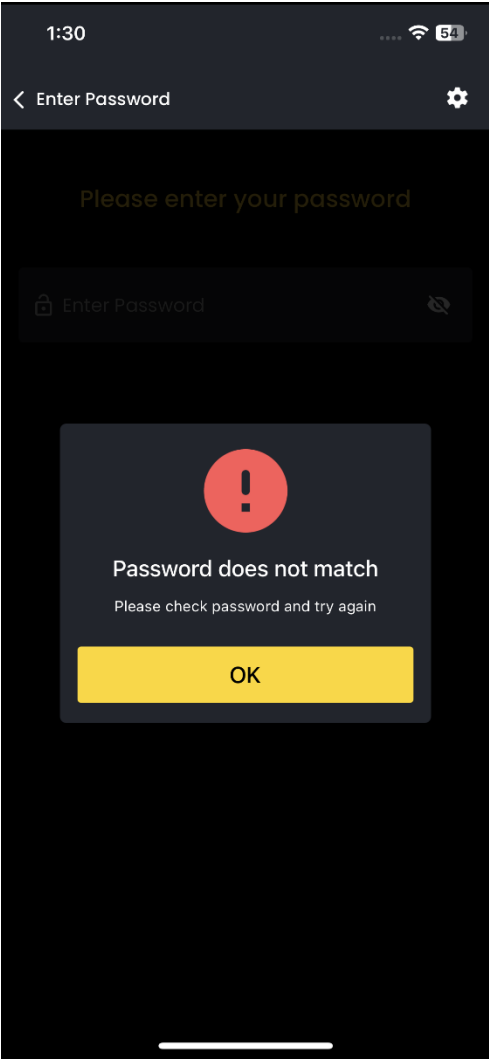
4. **Connect** to the device that you want to configure.
5. Enter the credentials to log into the Device.



Enter Password:
Enter your Password.

Note: If you have forgotten your password, you must **Factory Reset** the device. Go to step **6** in that case.

If the wrong Password is entered, the app will display "Password does not match" message.



- 6. If the device is being configured for the first time or in the case of a **Factory Reset**, the app will allow you to create a new password.





New Password: Enter the new password.

Confirm Password: Enter the same password again to confirm.

Note: The password should have a minimum of 6 and a maximum of 10 numeric characters.

Note: After setting the password, go back to the **Home** screen and **Swipe Right** to search for the device. Follow steps **3**, **4**, and **5** in that order.

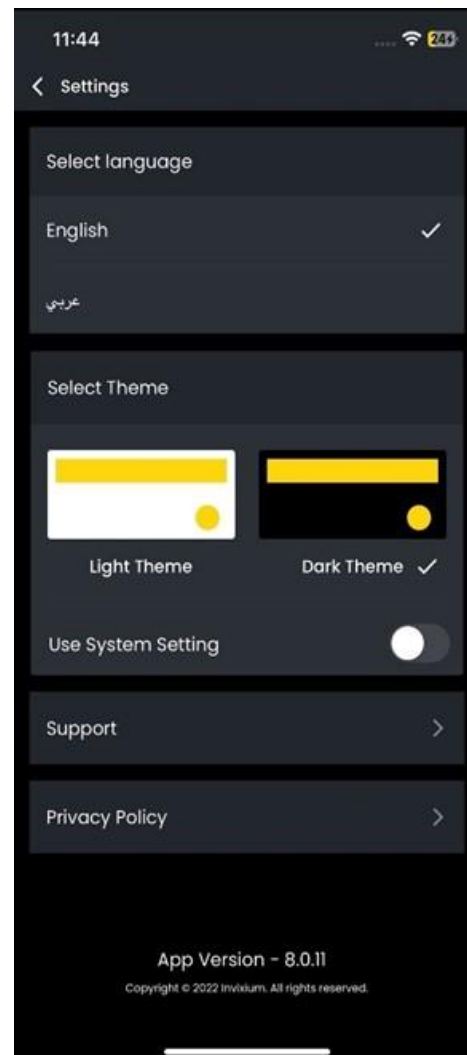
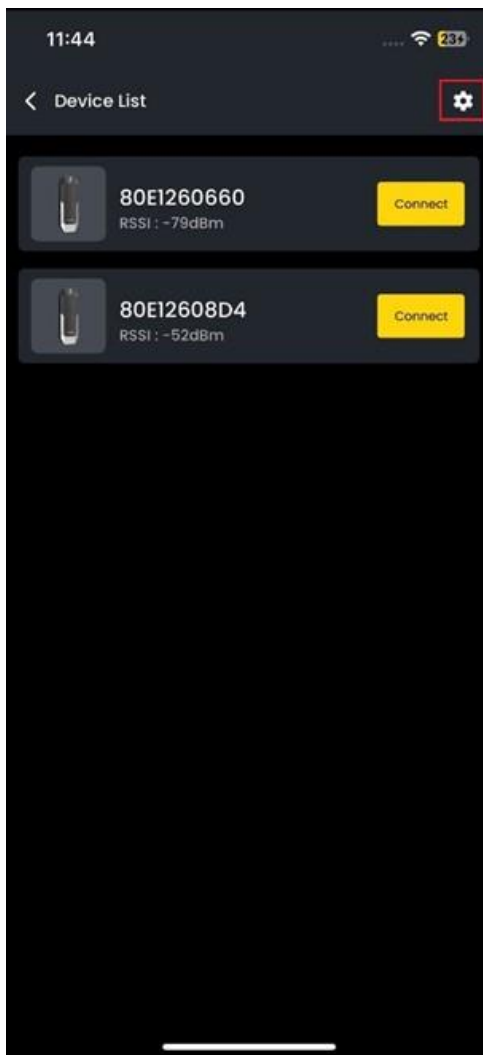
7. The selected device will be connected to the app after entering valid credentials.

Note: The Device LED will always flash **white** when connected to the app.

4. Settings

These simple steps allow you to change the language and theme of the **VERTU Connect**.

1. On the **Device List**, tap the  icon on the right side of the screen.





Select Language

Tap on your desired language to select it.

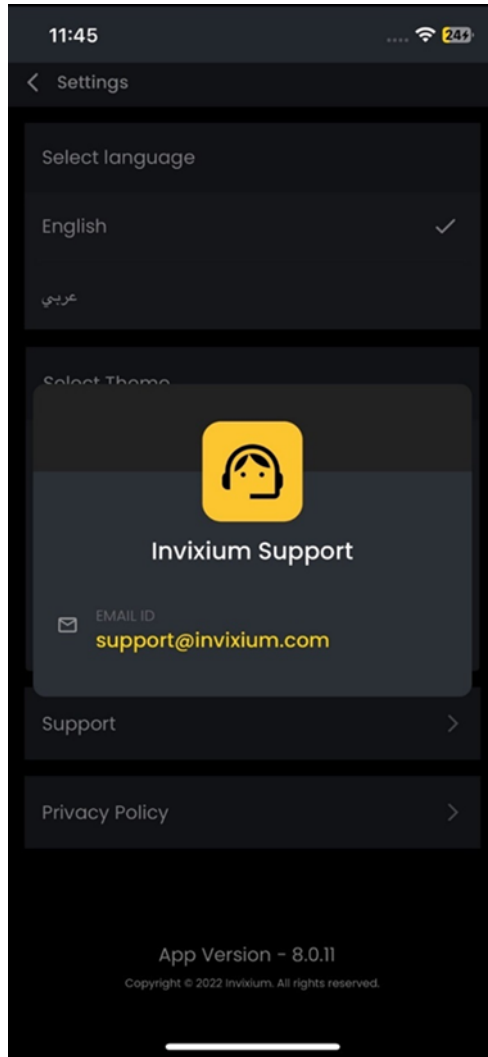
Select Theme

Select your desired theme by tapping on **Light Theme** or **Dark Theme**.

Use System Setting

Tap on the switch to turn the setting ON or OFF. Turning it ON will set the **VERTU Connect** to match the global settings of your mobile device.

Support



Privacy Policy


Tap to read Inxium's privacy policy.

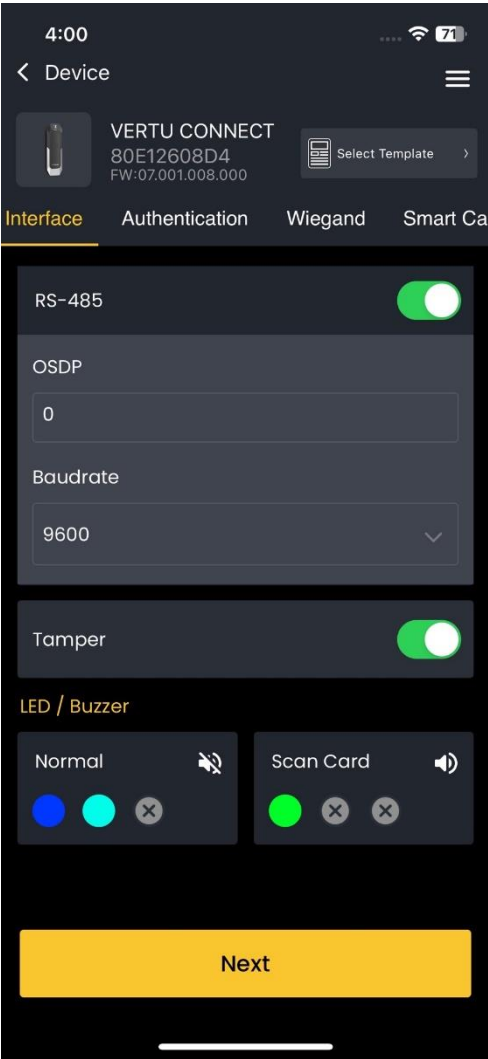
5. Interface

Configure interface settings through the app by following the steps below.

1. [Connect to the desired device.](#)
2. The following screen will be displayed on a successful connection:

Note:

1. Tapping on the  icon on the left corner of the screen will disconnect the device.
2. You can use an existing template to configure the device. [Read more.](#)





RS-485

Tap on the switch to turn it ON or OFF. Turn the switch ON if RS-485 is being used as a communication protocol. The following options will be displayed:

OSDP

Enter the Open Supervised Device Protocol (OSDP) device ID or device address for communication with the Access Control Panel.

Baud rate

Tap to select the Baud rate at which the information will be transferred through the communication channel.

The following Baud rates will be displayed:

- 9600
- 19200
- 38400
- 57600
- 115200

Tap to select the desired Baud rate.

Tamper

Tap on the switch to turn it ON or OFF. If the switch is ON, the Purple Tamper Out IO line will send interrupts in case of any tamper event on the device.

LED / Buzzer

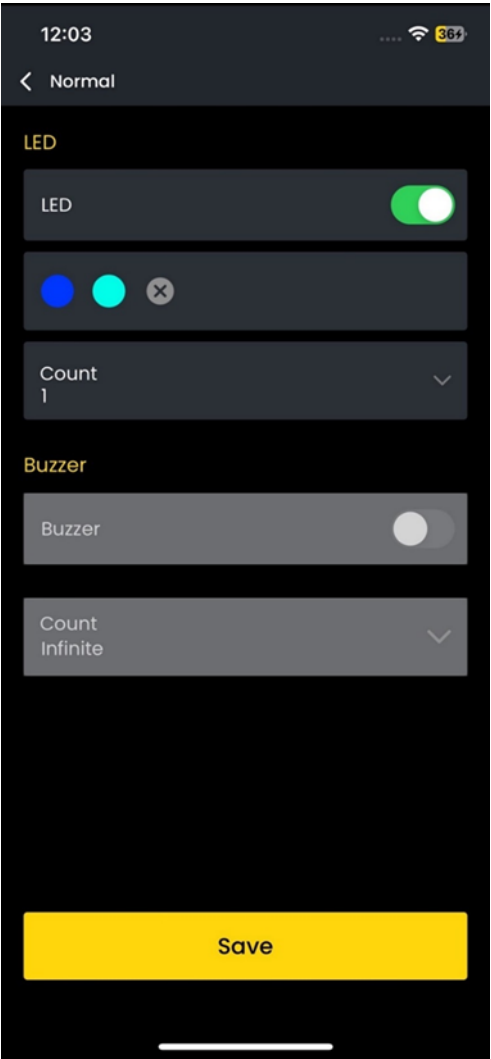
Every device has an LED that indicates its current mode. You can customize the color of the LED when the device is in normal mode and when a card is scanned.

Normal

You can customize the LED color and the number of blinks it will perform when the device is in normal mode. A device is said to be in normal mode when it is not connected to the app. The default BLUE LED indicates the device to be in normal mode.

Note: The Device LED will always flash **white** when connected to the app.

Tap to customize the LED color of the device when in normal mode. The following options will be displayed on the screen:





LED

Tap on the switch to turn it ON or OFF. Turn it ON to enable the feature.

Tap the **x** icon to choose a color from the given color palette. You can choose multiple colors up to a maximum of 3. Once saved, the device LED will display the chosen color(s) when the device is in normal mode.

Count

Count indicates the number of times the chosen color(s) should blink.

For example, if red and green are chosen and the count is kept at 2, then the device LED will blink red followed by green. This cycle will be repeated two times as the count is set to 2.

Tap Infinite or the numbers between 1- 5 to select Count. Selecting Infinite will blink the chosen color cycle continuously.

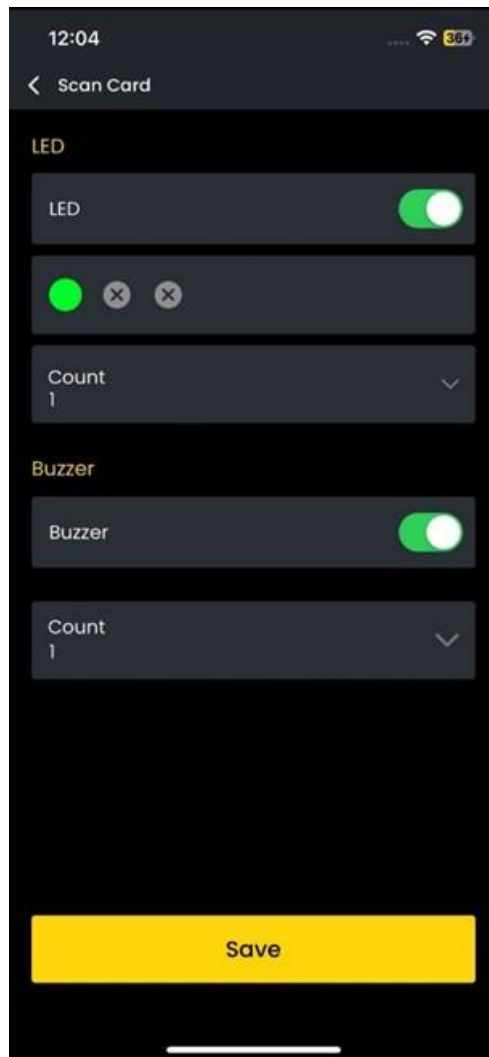
Buzzer

The buzzer is not applicable here.

Tap **Save** to save the settings. The device LED will flash the chosen color(s) for the entered number of times or infinitely when the device is in normal mode.

Scan Card

Tap to customize the LED color when a card is presented to the device.





LED

Tap on the switch to turn it ON or OFF. Turn it ON to enable the feature.

Tap the **x** icon to choose a color from the given color palette. You can choose multiple colors up to a maximum of 3. Once saved, the device LED will display the chosen color(s) when a card is presented to it.

Count

Count indicates the number of times the chosen color(s) should blink.

For example, if red and green are chosen and the count is kept at 2, then the device LED will blink red followed by green. This cycle will be repeated two times as the count is set to 2.

Tap **Infinite** or the numbers between 1- 5 to select a count. Selecting Infinite will blink the chosen color cycle continuously.

Buzzer

Tap on the switch to turn it ON or OFF.

If this switch is ON, the device will make a sound when a card is scanned.

Count

Enter the number of times the device should make a sound when a card is scanned.

Tap **Save** to save the settings. The device LED will flash the chosen color(s) for the entered number of times or infinitely when a card is scanned.


Tap **Apply & Next** to apply the Interface settings and go to the next tab.

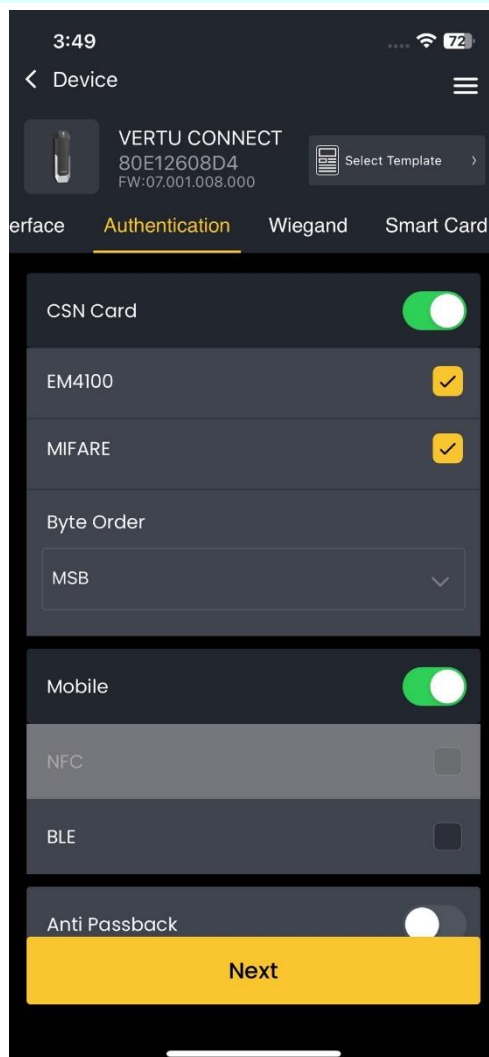
6. Authentication

Configure Authentication settings through the app as follows:

1. [Connect to the desired device.](#)
2. Tap the **Authentication** tab.

Note:

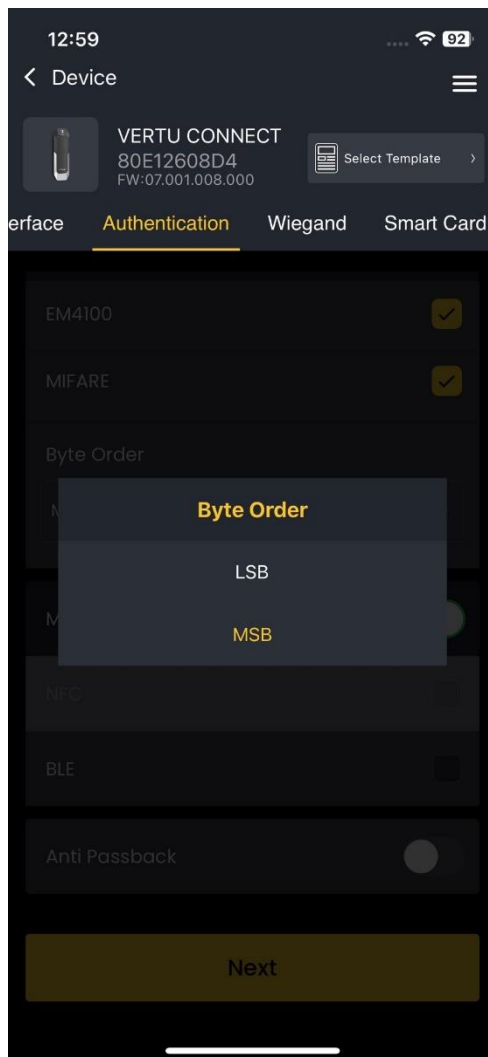
- Tapping on the  icon on the left corner of the screen will disconnect the device.
- You can use an existing template to configure the device. [Read more.](#)



CSN Card

Tap the switch to turn it ON or OFF. Turn the switch ON to specify the type of CSN Cards that can be authorized on the device. The following options will be displayed:

- EM4100
- MIFARE
- Byte Order



Tap on the box to specify the Byte Order.

Tap on either **LSB** or **MSB**. The Default Byte Order is LSB.

The selected Bit will be displayed in the box and considered the first Bit.



Mobile

Tap on the switch to turn it ON or OFF. Turn the switch ON to specify the type of communication protocol between the device and the IXM Mobile app. The following options will be displayed:

- **NFC**
Tap on this option to enable communication between the device and the IXM Mobile app via near-field communication technology.
- **BLE**
Tap on this option to enable Bluetooth communication between the device and the IXM Mobile app.

Anti-Passback

Tap on the switch to turn it ON or OFF. If the switch is ON, the Anti-Passback feature is activated. This will stop continuous scan of the same card but will allow authentication of the card once removed and presented again.


Tap **Apply & Next** to apply the Authentication settings and go to the next tab.

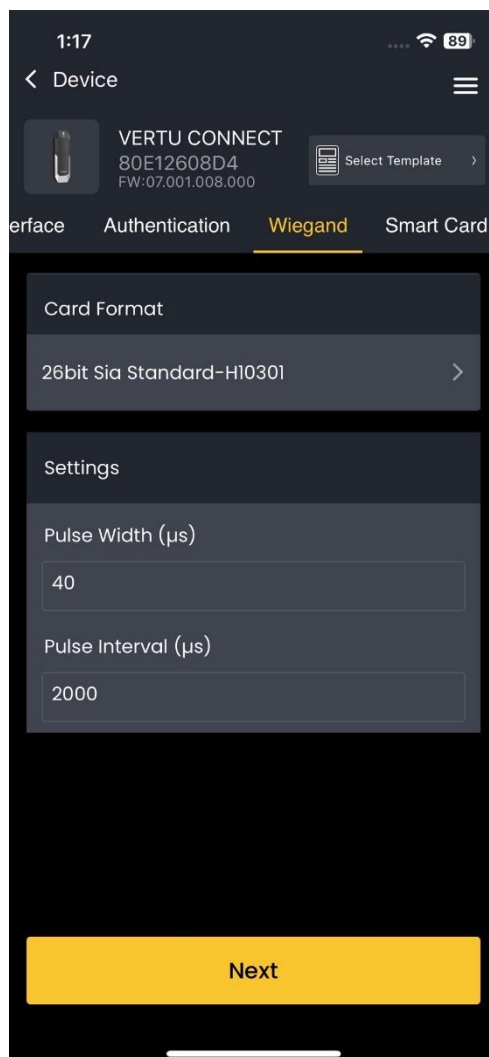
7. Wiegand

Configure Wiegand settings through the app as follows:

1. [Connect to the desired device.](#)
2. Tap the **Wiegand** tab.

Note:

- Tapping on the  icon on the left corner of the screen will disconnect the device.
- You can use an existing template to configure the device. [Read more.](#)



Card Format

Tap on the box to select the card format. These are the Wiegand Card Formats provided by default:





Tap on the desired card format to select it. The device will send card data based on the selected Wiegand format.

Note:

- Tap **Add New** to create a new Wiegand Card Format. [Read more.](#)
- Device will send passthru data for IXM Mobile Digital card authentication.

Settings

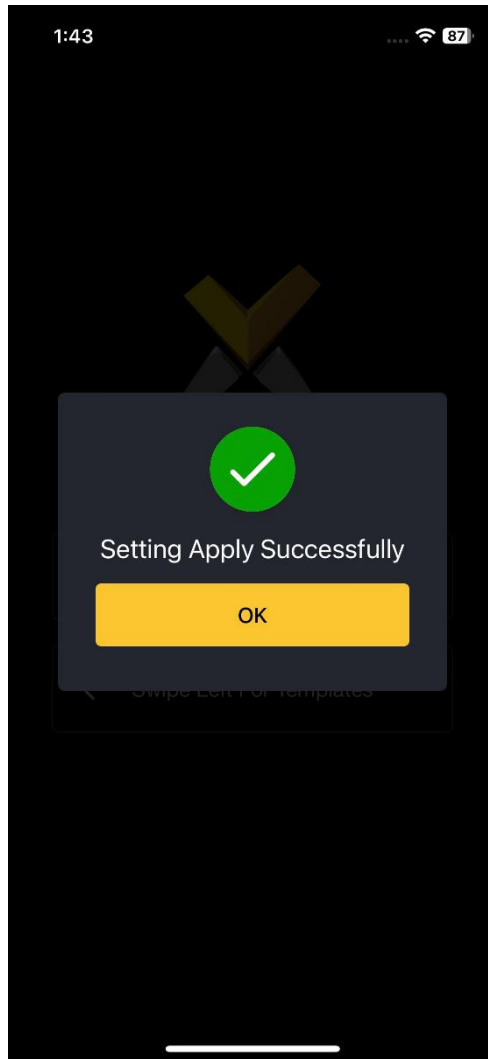
Pulse Width

Enter the Pulse Width (in microseconds) for the Wiegand signal.

Pulse Interval

Enter the Pulse Interval (in microseconds) for the Wiegand signal.

Tap **Apply** to apply the selected Wiegand settings.

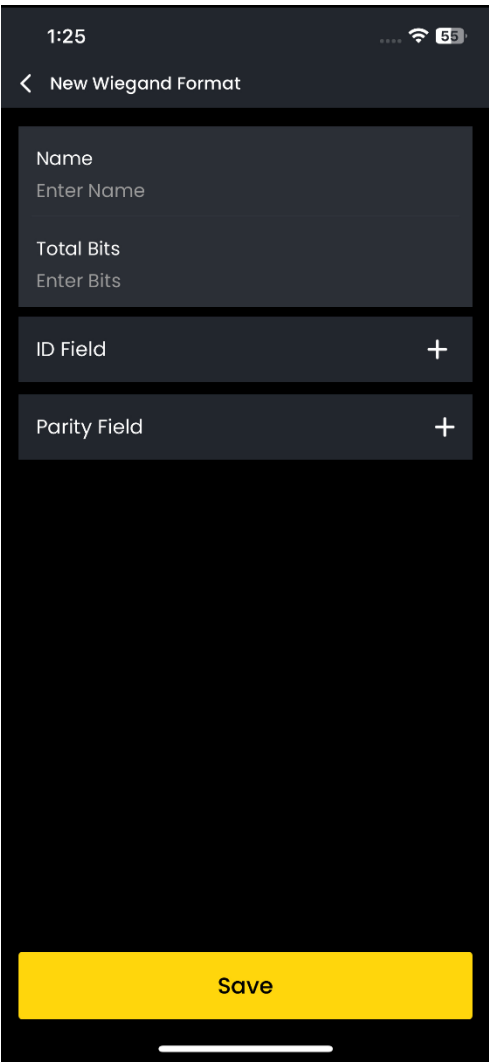


Add new Wiegand

This option allows you to add a new Wiegand Format as per your requirement.

Note: A maximum of 4 new Wiegand Formats can be added.

The following options will be displayed-



1:25 55

< New Wiegand Format

Name
Enter Name

Total Bits
Enter Bits

ID Field +

Parity Field +

Save



Name

Enter the name of the new Wiegand Format.

Total Bits

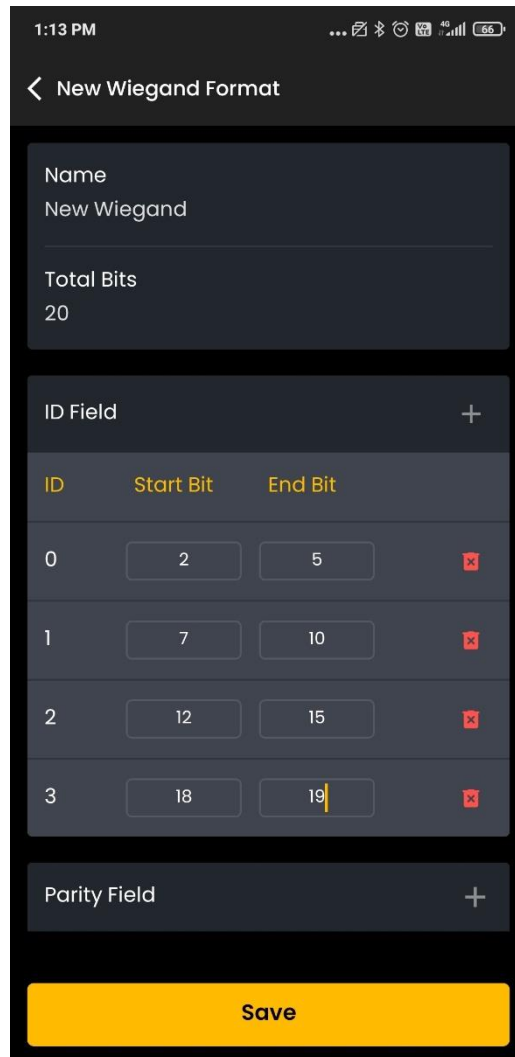
Enter the total number of Bits that you want to assign to the new Wiegand Format.

ID Field

Tap the + icon to enter ID Code Bits in the Wiegand format. You can use the same icon to add new ID Fields.

Note: A maximum of 4 ID Fields can be added.

Tap the x icon on the row of the ID Field to remove it.



1:13 PM

< New Wiegand Format

Name
New Wiegand

Total Bits
20

ID Field +

ID	Start Bit	End Bit	
0	2	5	✖
1	7	10	✖
2	12	15	✖
3	18	19	✖

Parity Field +

Save

Start Bit

Tap to enter the starting ID Bit of the Card. It should be less than the Total Bits.

End Bit

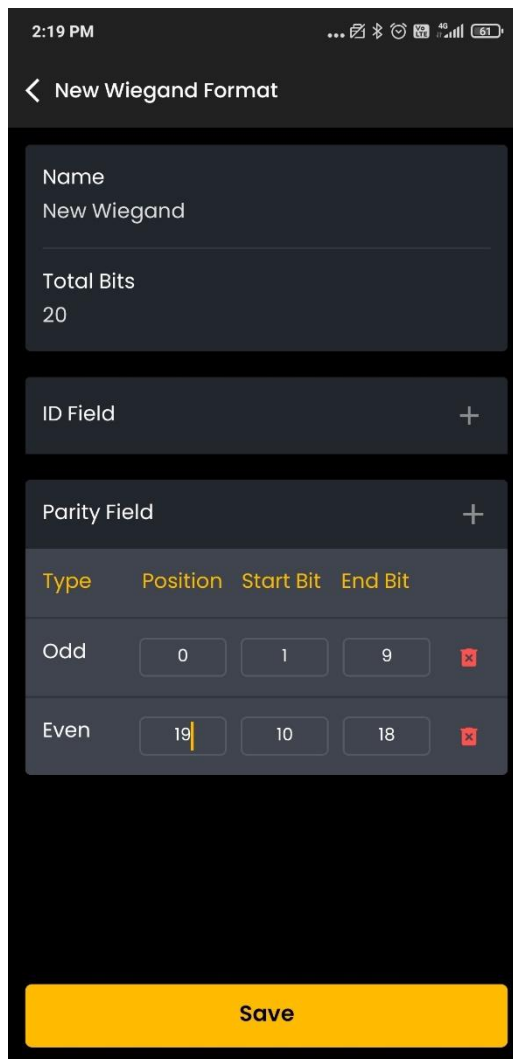
Tap to enter the ending ID Bit of the Card. It should be less than the Total Bits.

Parity Field

Tap the + icon to enter Parity Code Bits in the Wiegand format. You can use the same icon to add new Parity Fields.

Note: A maximum of 4 Parity Fields can be added.

Tap the **x** icon on the row of the Parity Field to remove it.



2:19 PM

< New Wiegand Format

Name
New Wiegand

Total Bits
20

ID Field +

Parity Field +

Type	Position	Start Bit	End Bit	
Odd	0	1	9	x
Even	19	10	18	x

Save



Type

Tap to select the type of Bit as either Odd or Even.

Position

Tap to enter the Position of the parity Bit.

Start Bit

Tap to enter the starting Parity Bit. It should be less than the Total Bits.

End Bit

Tap to enter the ending parity Bit. It should be less than the Total Bits.


Tap **Save** to save the new Wiegand Format. Once saved, it will be displayed in the **Card Format** list, and you can select it.

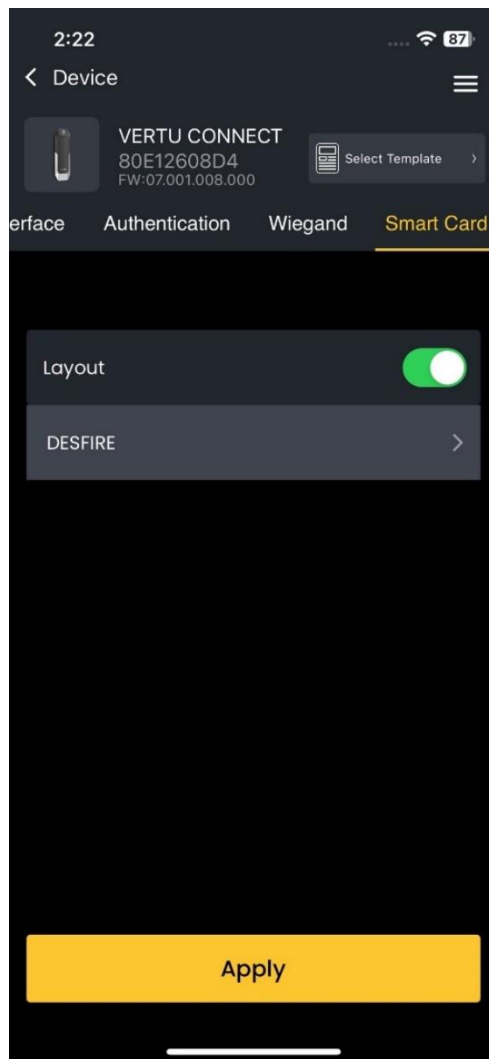
8. Smart Card

Configure the layout of a Smart Card through the app as follows:

1. [Connect to the desired device.](#)
2. Tap the **Smart Card** tab.

Note:

- Tapping on the  icon on the left corner of the screen will disconnect the device.
- You can use an existing template to configure the device. [Read more.](#)



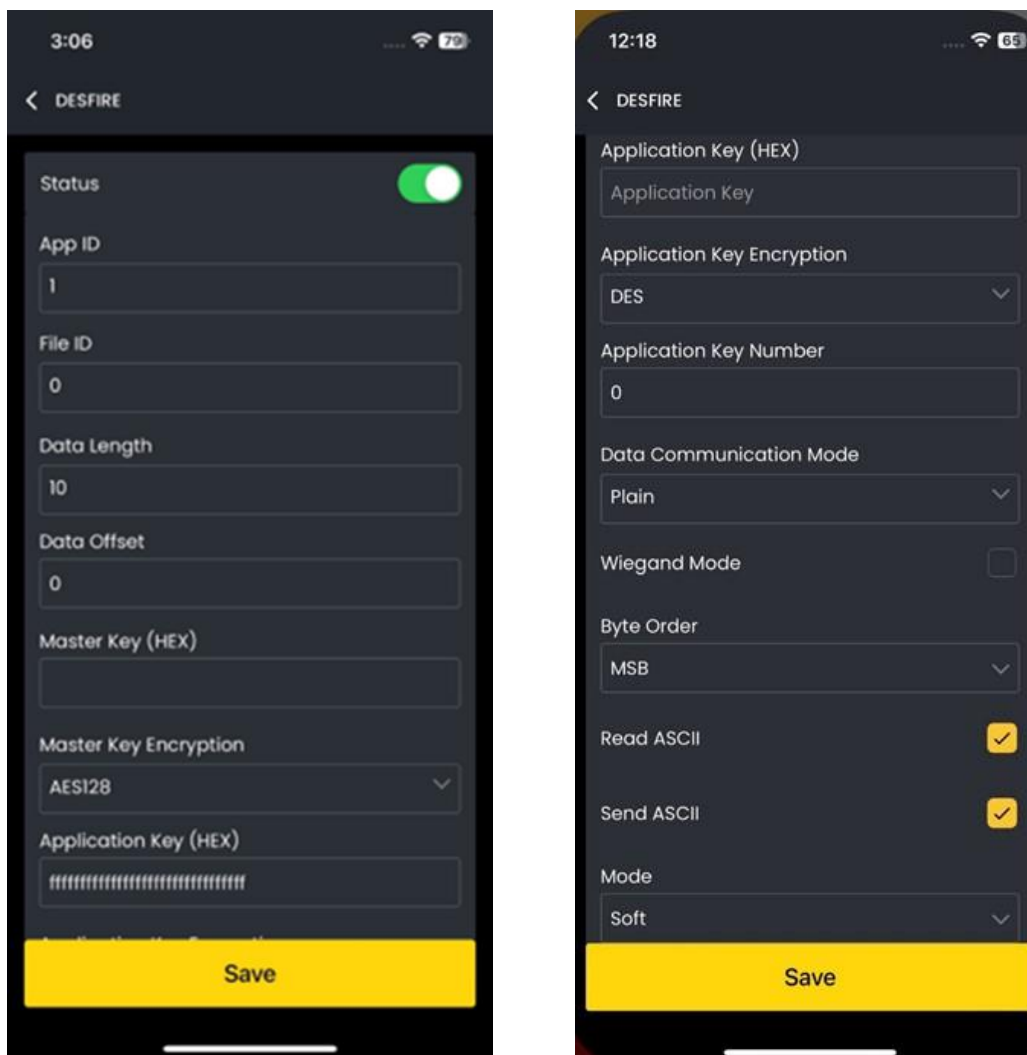
Layout

Tap on the switch to turn it ON or OFF. By default, the switch is turned ON and a list of Smart Card Layout is displayed.

Tap on the Smart Card Layout to be configured.

DESFIRE

The following screen is displayed when DESFIRE is selected:





Status

Tap on the box to enable or disable the DESFIRE custom configuration. A check mark indicates that the custom configuration is enabled.

App ID

Enter the Application ID of the card.

File ID

Enter the File ID of the card application.

Data Length

Enter the Length to read data from the file.

Data Offset

Enter the Offset value to start reading data from the file.

Master Key (HEX)

Enter the Master Key of the card in HEX format.

Master Key Encryption

Select the Master Key for Encryption standard from the dropdown list. The following are the options -

- DES
- 2KDES
- 3KDES
- AES128

Application Key (HEX)

Enter the Application Key to read data from the file in HEX format.

Application Key Encryption

Select the Application Key for Encryption standard from the dropdown list. The following are the options -

- DES
- 2KDES
- 3KDES
- AES128

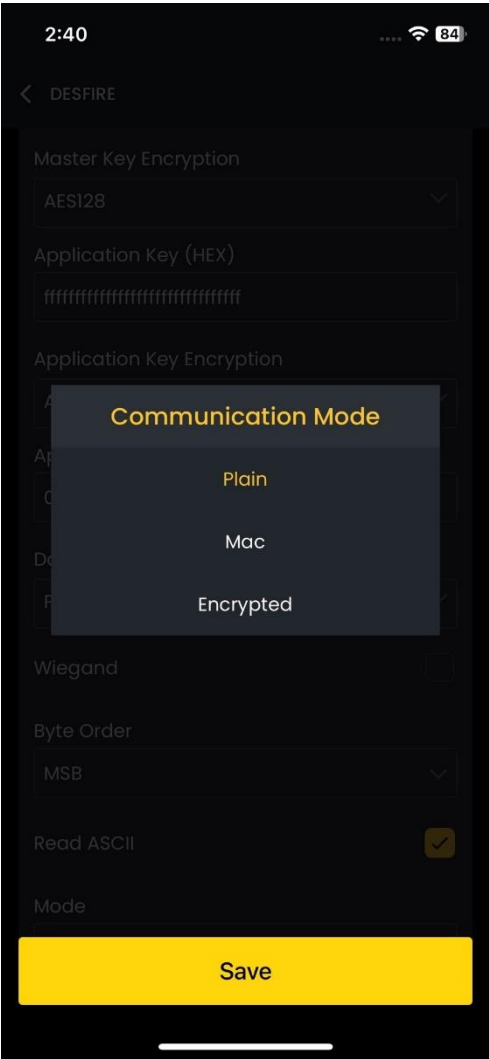
Application Key Number

Enter the Application Key Number to read data from the file.

Data Communication Mode

Select the Data Communication Mode to read data from the file from the dropdown list. There are three modes:

- Plain
- Mac
- Encrypted

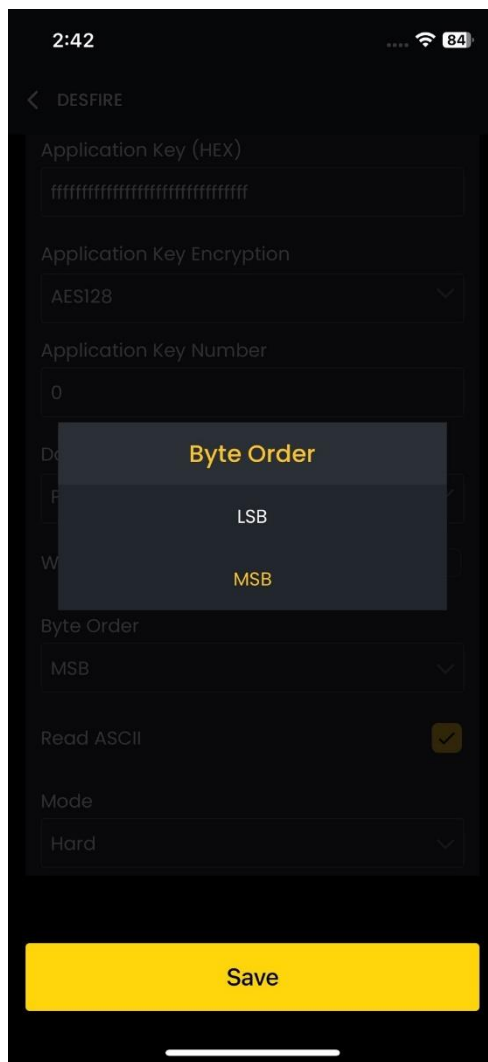


Wiegand Mode

Tap on the box to enable or disable Wiegand Mode on the card. A check mark indicates that the feature is enabled. This will allow the reading of Wiegand data from the file. Here file length should be wiegand bits.

Byte Order

Select either "LSB" or "MSB" from the dropdown list to specify the Byte Order of data from the file.



Read ASCII

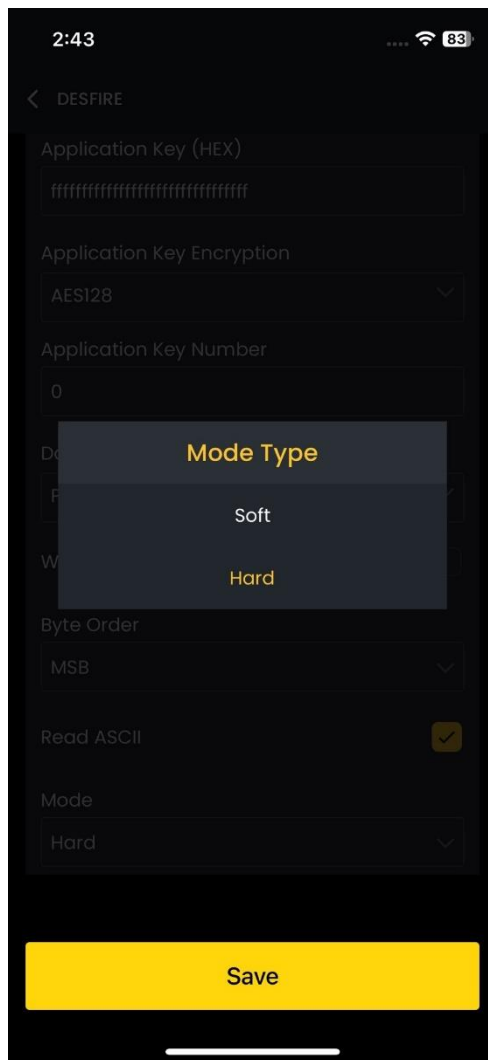
Tap on the box to enable or disable IXM VERTU from reading the ASCII data from the Smart Card as per the configuration. A check mark indicates that the feature is enabled.

Send ASCII

Tap on the box to enable or disable IXM VERTU from sending the ASCII raw data. A check mark indicates that the feature is enabled.

Mode

Select "Soft" or "Hard" from the dropdown list to specify the Mode of reading the Smart Card serial number.





If "Soft" mode is selected, IXM VERTU will read both encoded data as well as card serial number. Here priority will be encoded data.

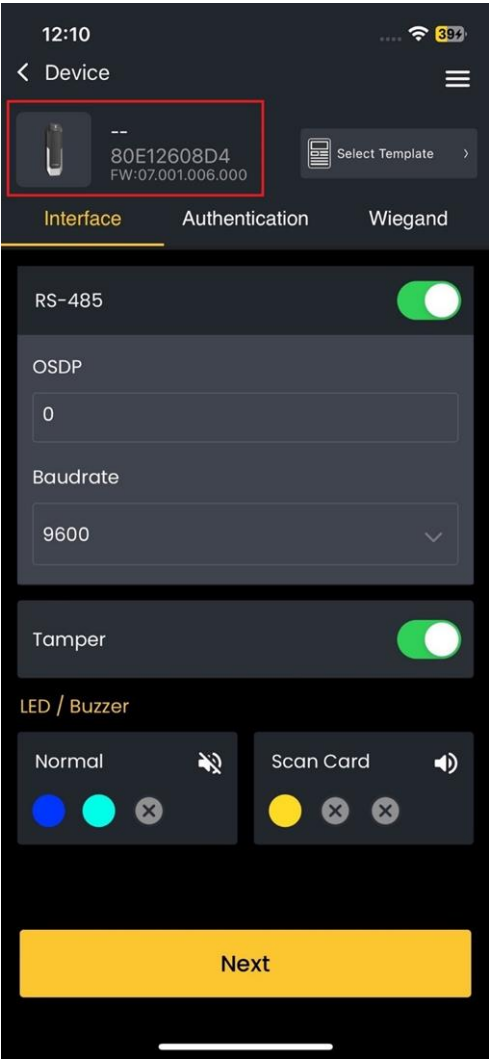
If "Hard" mode is selected, the IXM VERTU will read only encoded data.

Tap **Save** to save the Smart Card settings.

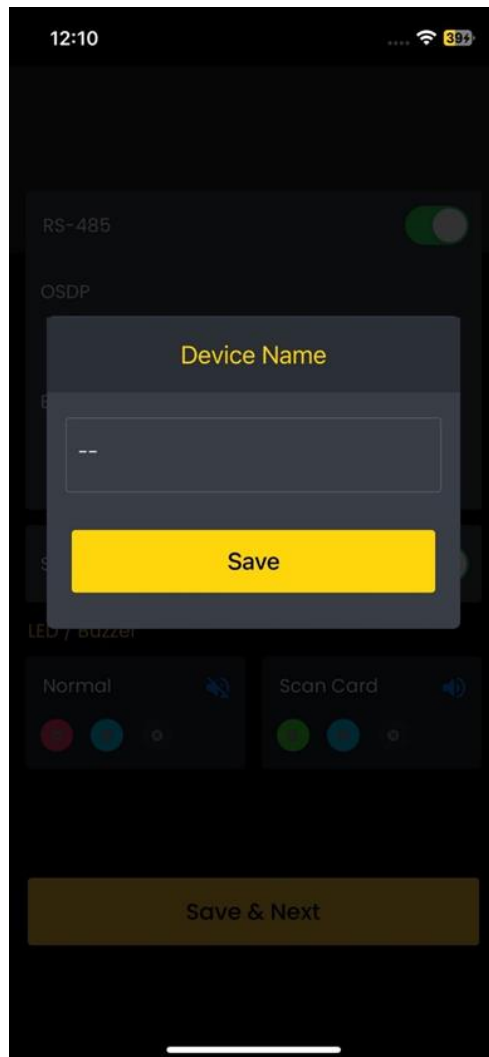
9. Naming a Device

Once a device is connected to the app, you can give a name to that device. Here are the steps to do so:

1. [Connect to the desired device.](#)
2. The connected device's name is displayed in the top left corner of the screen.



3. Tap on the device icon to change the name.



Device Name

Enter the name that you want to give to the device. The name can be a maximum of 50 characters.

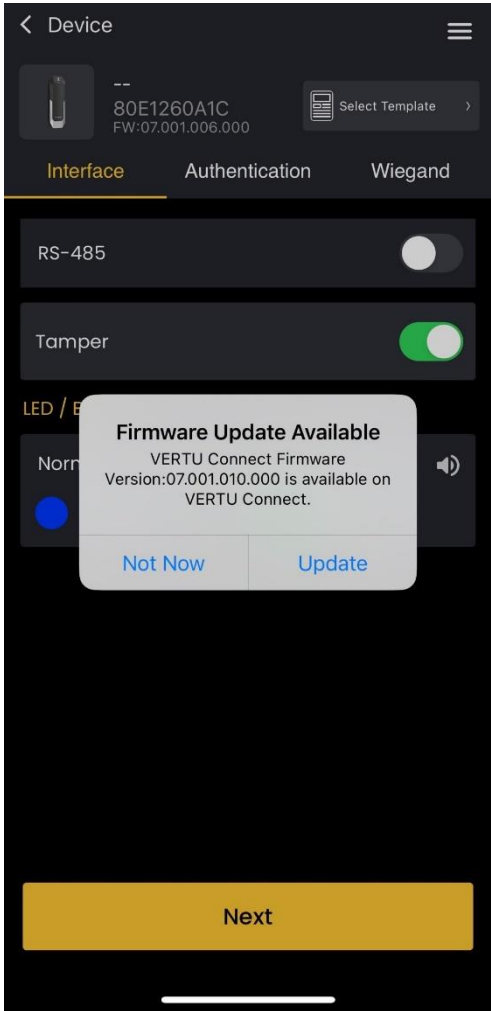
Tap **Save** to save the given name. Once saved, the new name will appear in the same place.

10. Firmware Upgrade

This option allows you to keep your device(s) updated to the latest firmware version to ensure optimal performance.

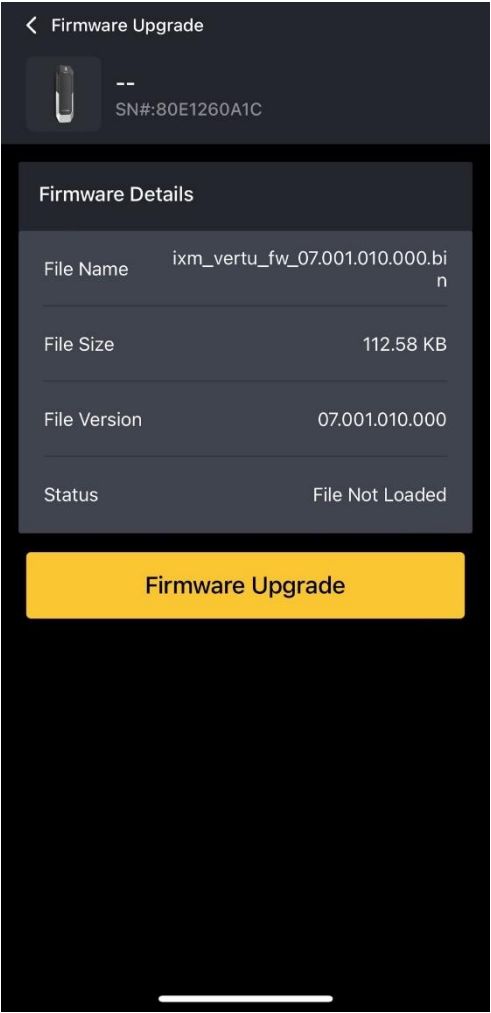
Follow the steps below:

- 1. [Connect to the desired device.](#)
- 2. Once a device is connected to the app, a message pops up whenever new Firmware is available:

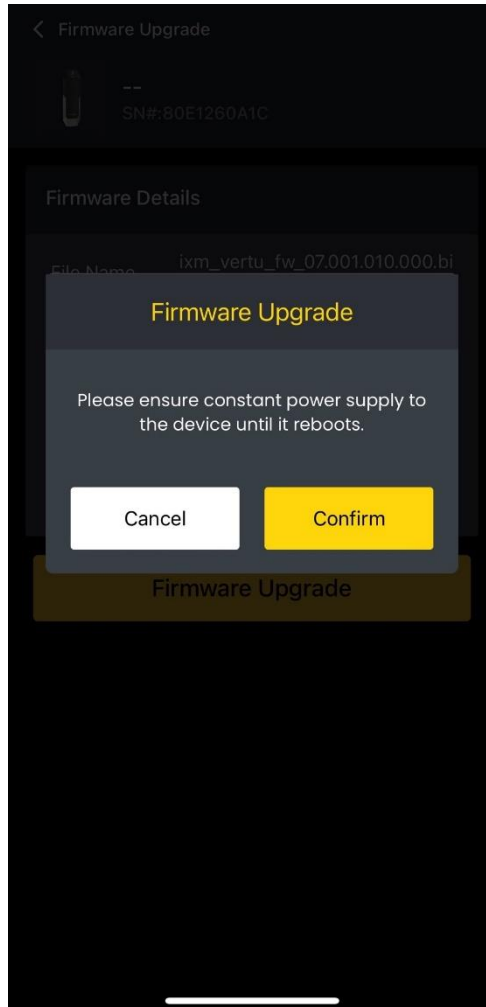




- 3. Tap on **Not Now** if you want to upgrade it later. Tap on **Update** to upgrade the Firmware. Details of the new Firmware will be shown as below:



- 4. Tap **Firmware Upgrade** to continue with upgrading the Firmware.



5. Ensure constant power supply to the device until the Firmware is upgraded and the device is rebooted. Tap **Confirm** to start the process of upgrading the Firmware. The device shows an orange LED while the Firmware is being upgraded and a progress bar displays the status of the upgradation as shown below:




6. Once the Firmware is upgraded, the selected device will reboot.

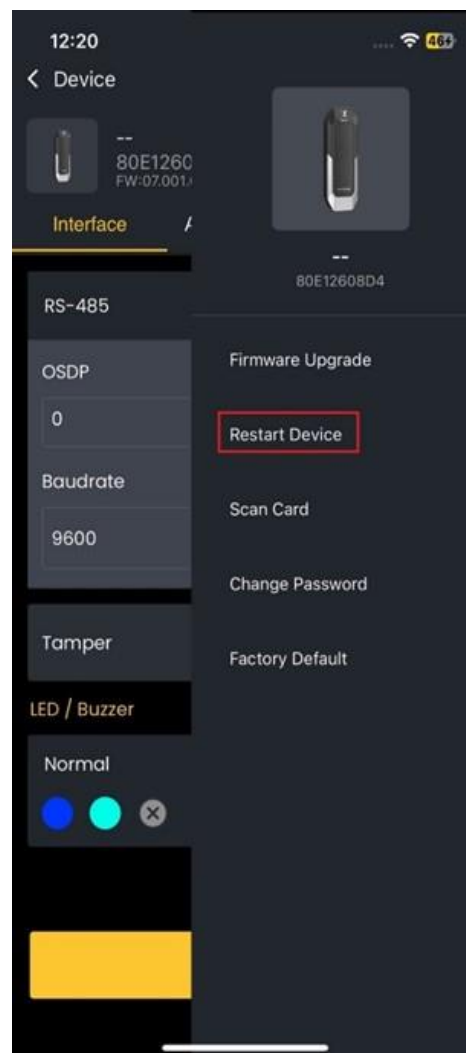
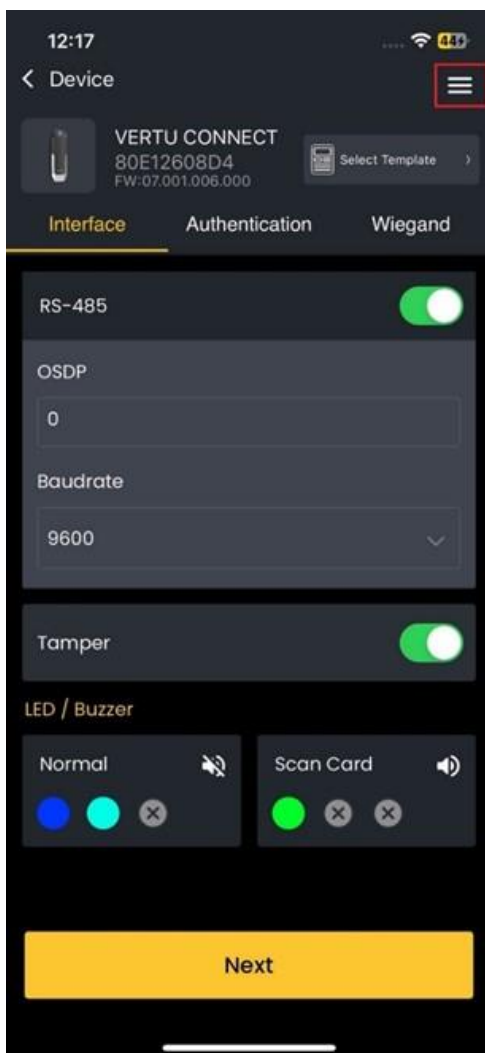
11. Restart Device

This option allows you to restart the device(s) through the app. The settings of the restarted device will remain as it is.

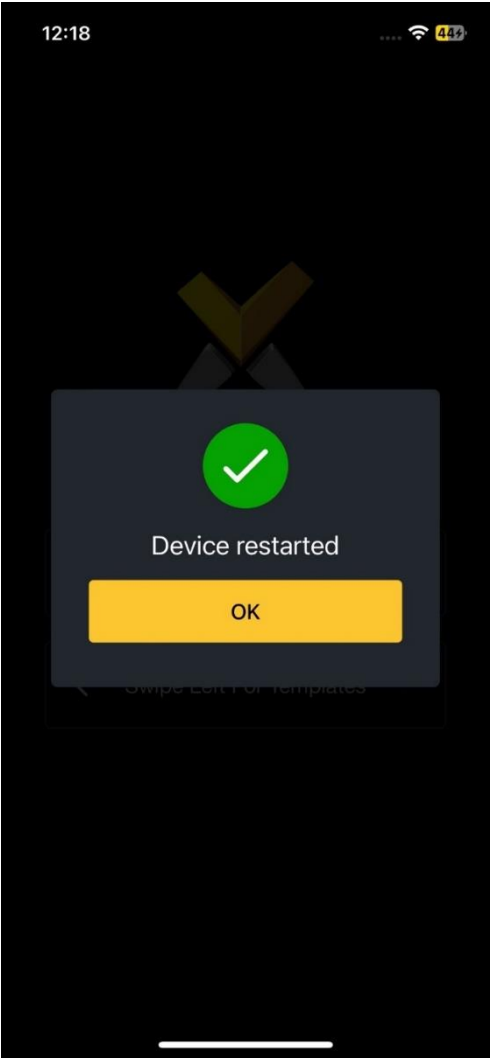
Note: You can also restart the device physically.

Follow the steps below:

1. [Connect to the desired Device.](#)
2. Tap the  icon on the top right side of the screen. A menu will be displayed.



3. Tap **Restart Device** on the menu. The selected device will be restarted.




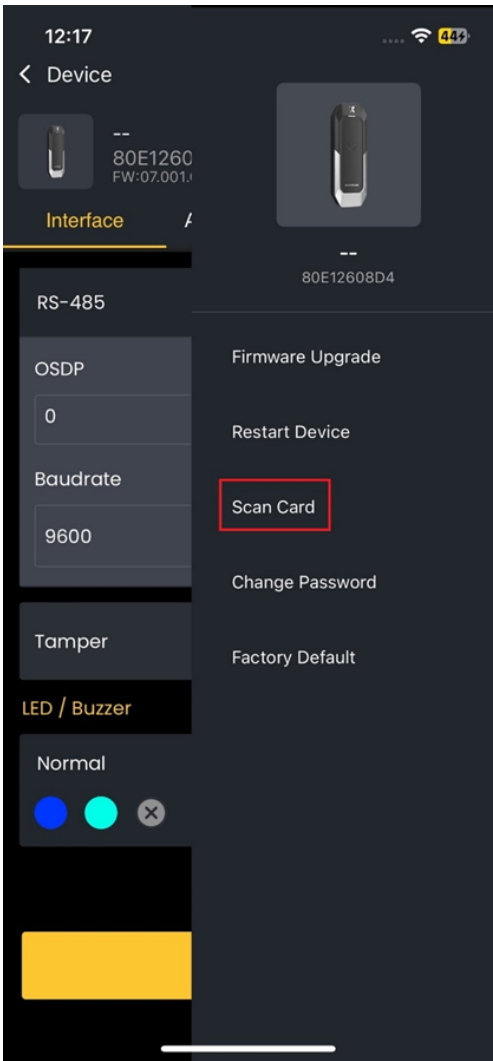
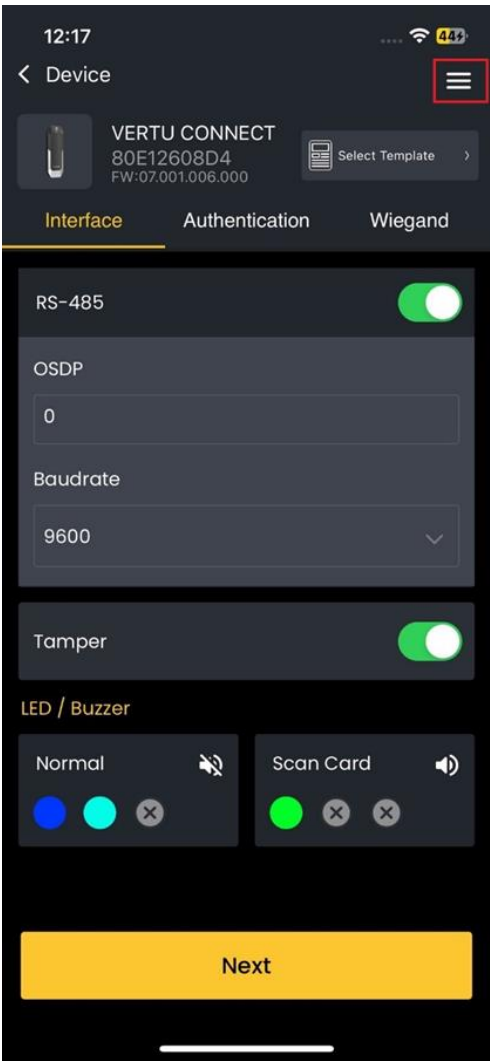
12. Scan Card

This option allows you to scan a card on the device and get its information.

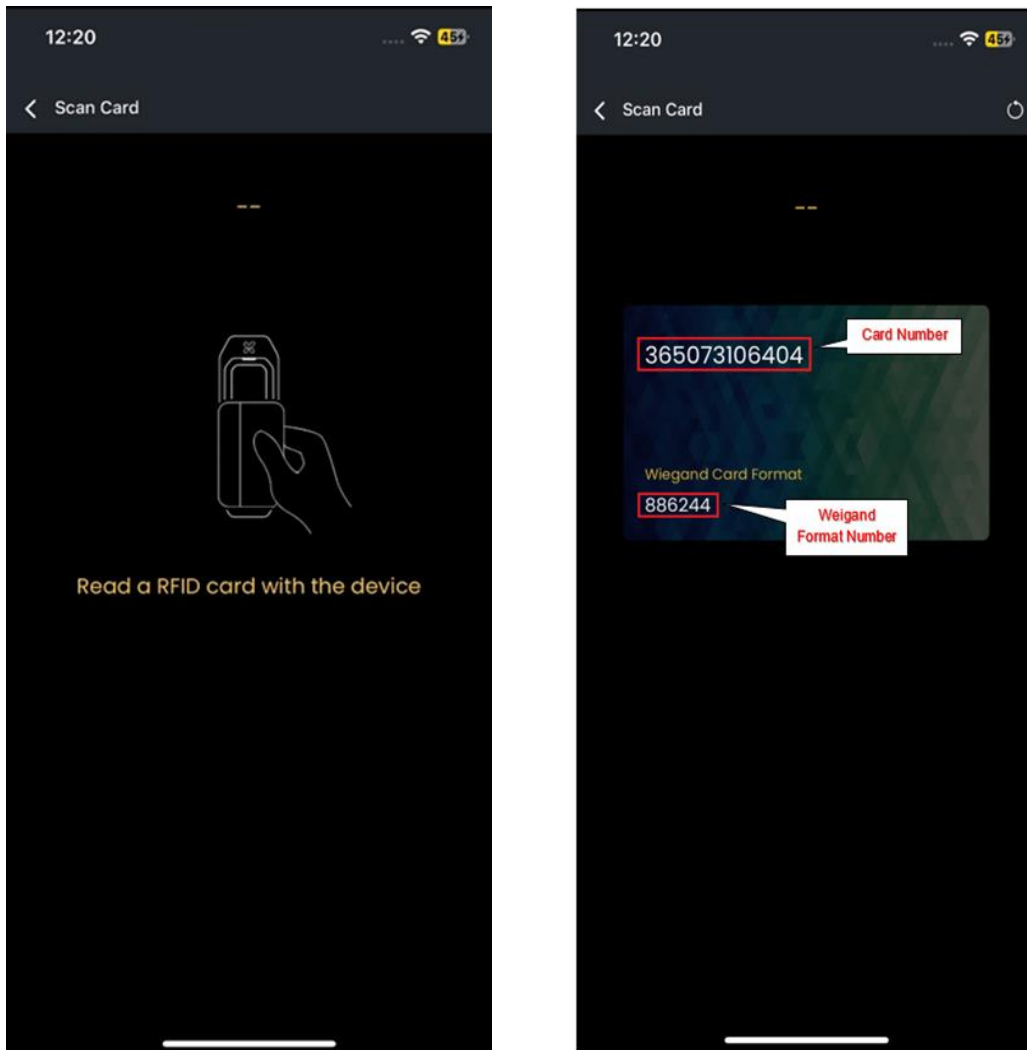
Note: The app will wait for 5 seconds for the card to be scanned. After that, the action will be cancelled automatically.

Follow the steps below:

1. [Connect to the desired device.](#)
2. Tap the  icon on the top right side of the screen. A menu will be displayed.




3. Tap **Scan Card** on the menu.
4. Scan the card on the device within 5 seconds.
5. Card information will be displayed.

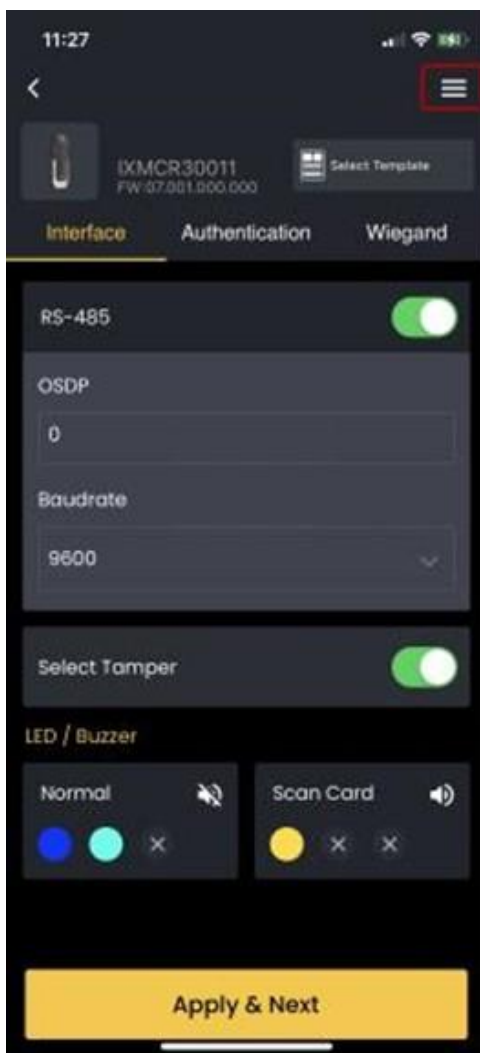


Note: The Card Number is the serial number of the card. Wiegand format number will display as per the configured Wiegand format.

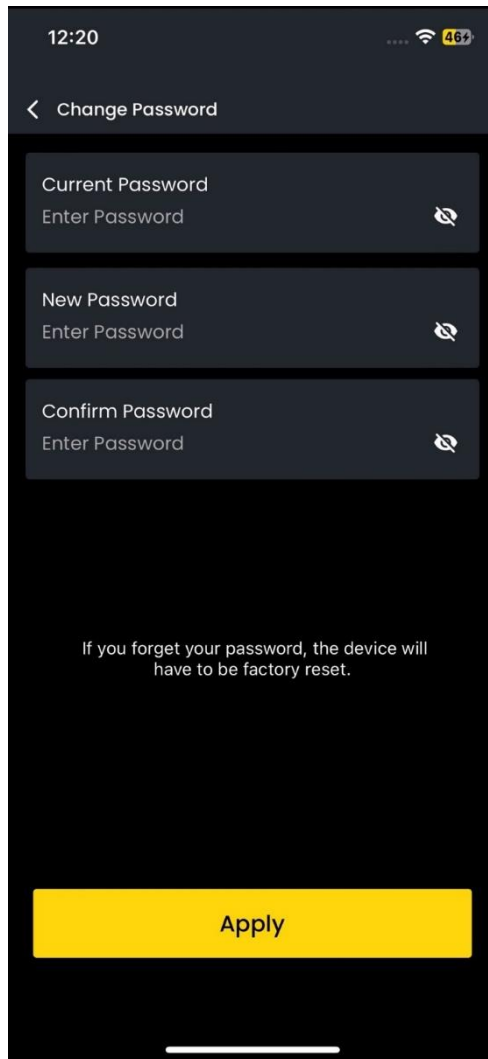
13. Change Password

Change your existing password using this option. Follow the steps below:

1. [Connect to the desired device.](#)
2. Tap the  icon on the top right side of the screen. A menu will be displayed.



3. Tap **Change Password** on the menu.





Current Password

Tap and enter your current password.

New Password

Tap and enter the new Password.

Note: The password should have a minimum of 6 and a maximum of 10 numeric characters.


Confirm Password

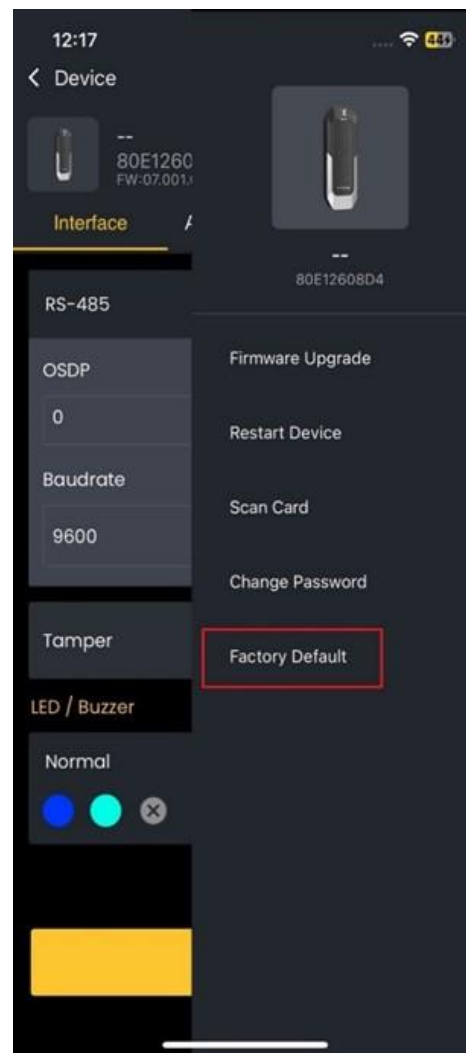
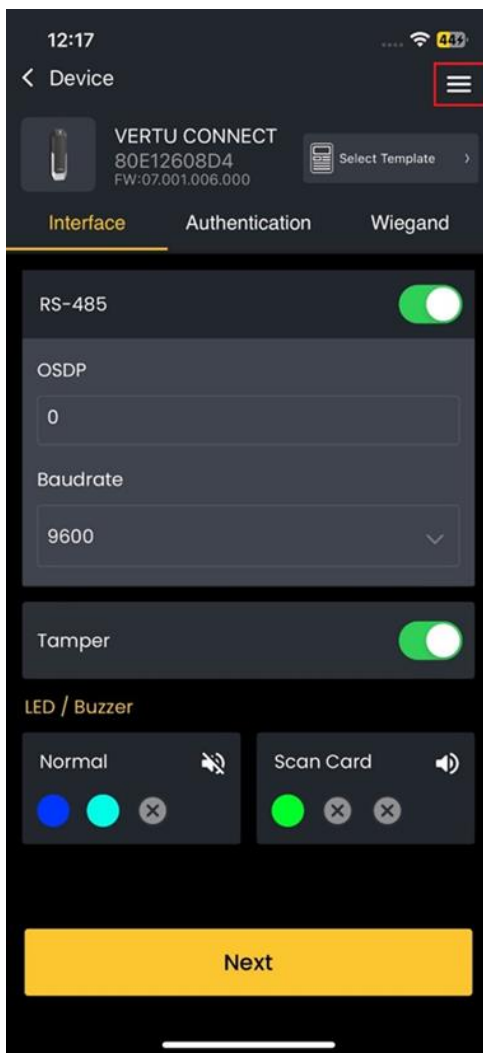
Tap and enter the new password again to confirm.

Tap **Apply** to save the new password.

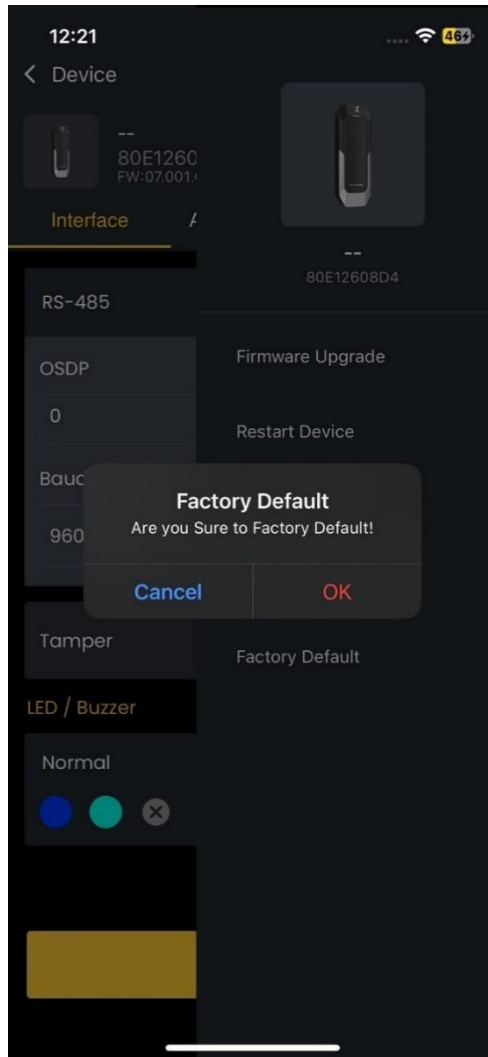
14. Factory Reset

You can factory reset your device using this option or the device reset button. Follow the steps below:

1. [Connect to the desired device.](#)
2. Tap the  icon on the top right side of the screen. A menu will be displayed.



3. Tap **Factory Reset** on the menu. A warning message will be displayed.

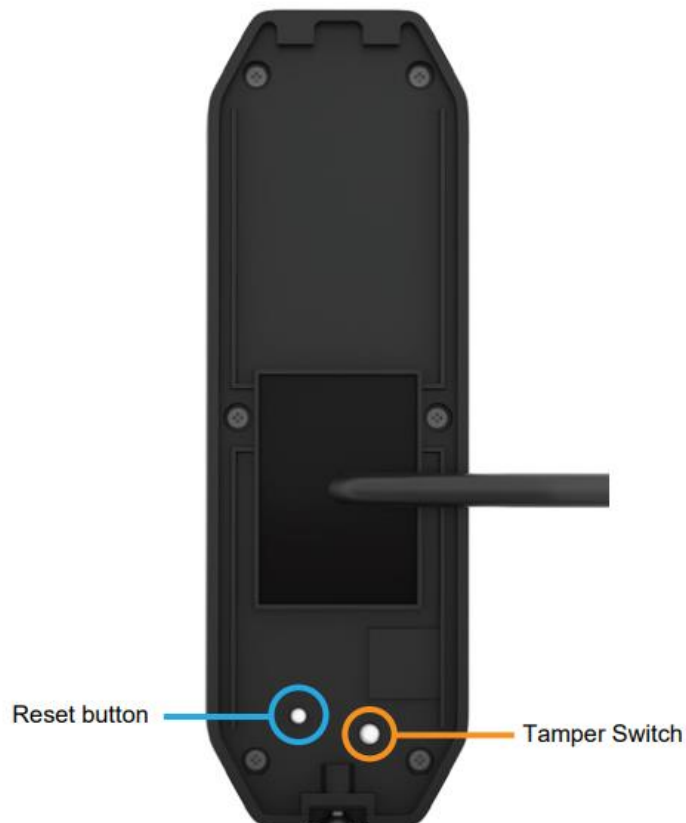


4. Tap **OK** to continue with the factory reset of the selected device. Tap **Cancel** to discard the action.

Factory reset using the device reset button:

The device can be reset to factory default settings by pressing the reset button at the back of the device. To reset using the physical button, follow the steps below:

1. Power on the device.
2. After boot-up, press the reset button three times quickly.
3. When the green LED is blinking, wait for the device to reboot.

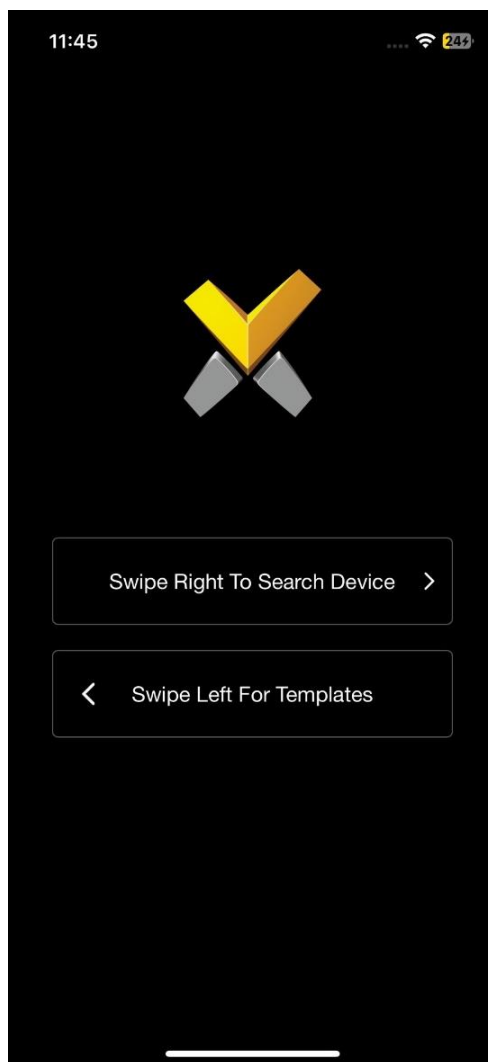


Note: All the settings for the selected device will be removed. To connect to the device, you will need to configure it again. Refer to the previous section: [Connect to Device](#).

15. Manage Templates

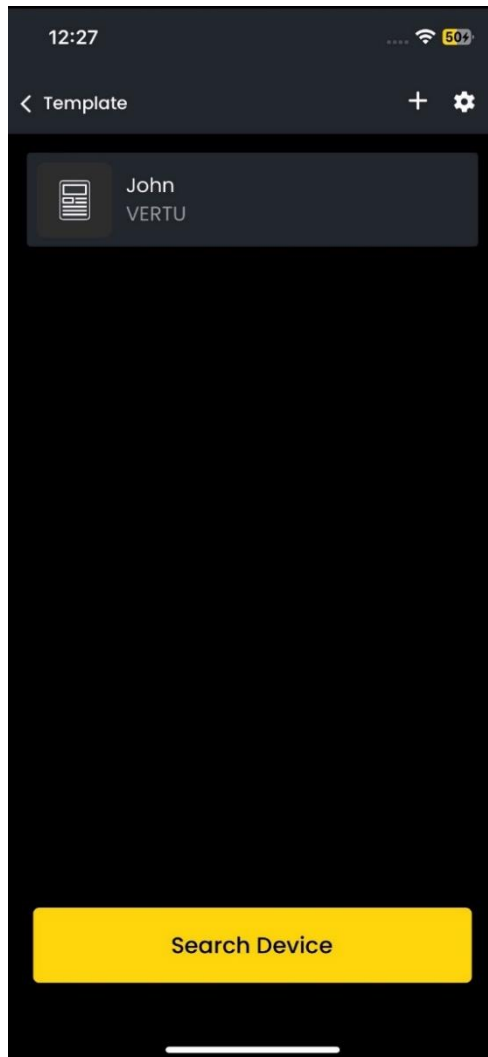
You can create your own templates and use them to configure your device(s). These are the steps to create and manage templates:

1. Open the **VERTU Connect** on your mobile device.



2. Tap or swipe left for template.

3. A list of existing templates will be displayed as shown:



If no template has been added yet, the app will display the following:

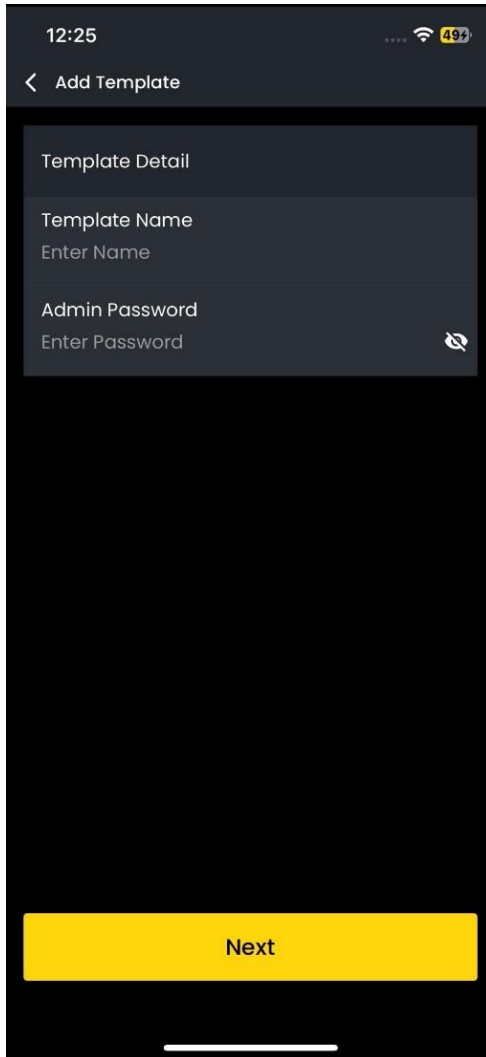


Tap the **+** icon on the top right side of the screen to add another template.

Tap **Search Device** on the bottom of the screen to search for devices.

Add a Template

The following screen is displayed when adding a new template:



12:25 49%

< Add Template

Template Detail

Template Name
Enter Name

Admin Password
Enter Password

Next



Template Name

Tap to enter the name of the template.

Note: The template name cannot be more than 10 characters.

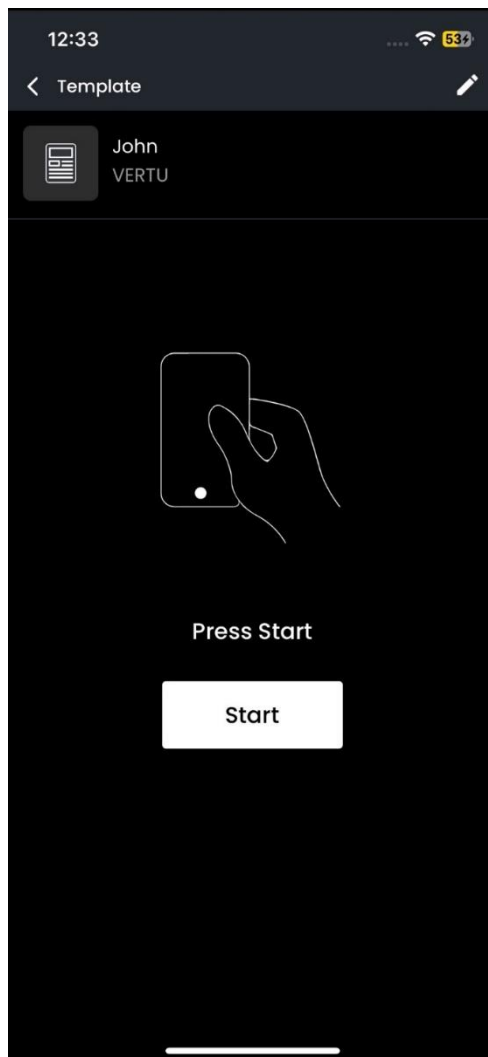
Admin Password


Enter the device password. It will be verified while applying the template to that device.

Tap **Save & Next** to continue. The app will redirect to the configuration settings page. [Read more about how to configure settings.](#)

Edit a Template

On the template list, tap on the desired template.

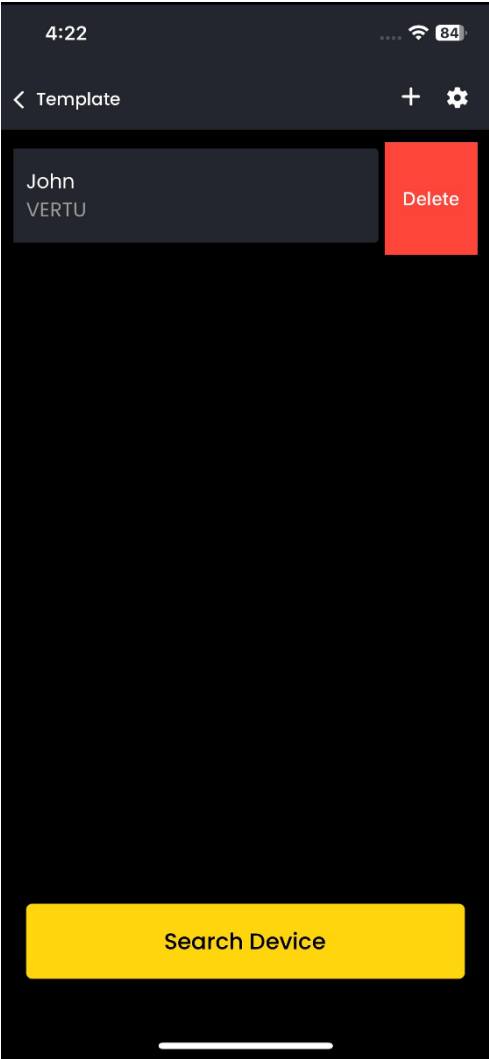


Tap the  icon on the top right side of the screen to edit the selected template.

The app will redirect to the configuration settings page. You can change the settings and save them. [Read more about how to configure settings.](#)

Delete a Template

To delete a template, swipe left on the template. The app will ask for confirmation.

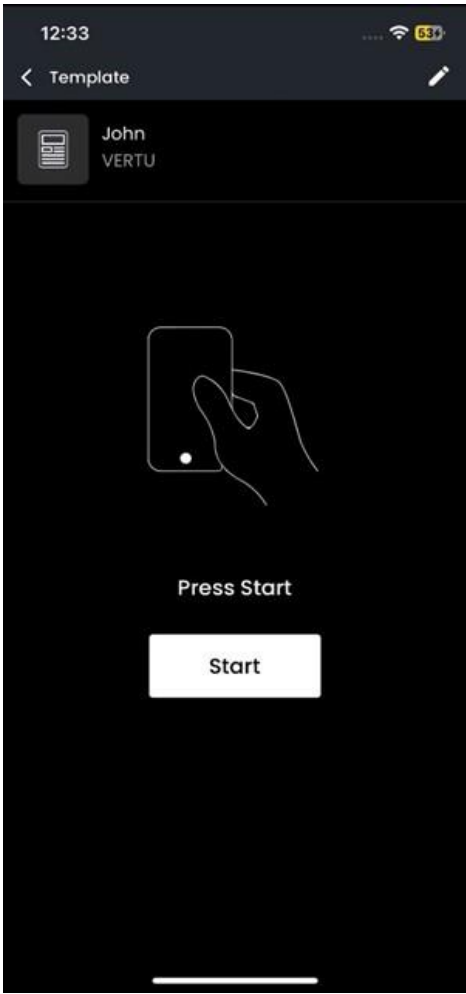
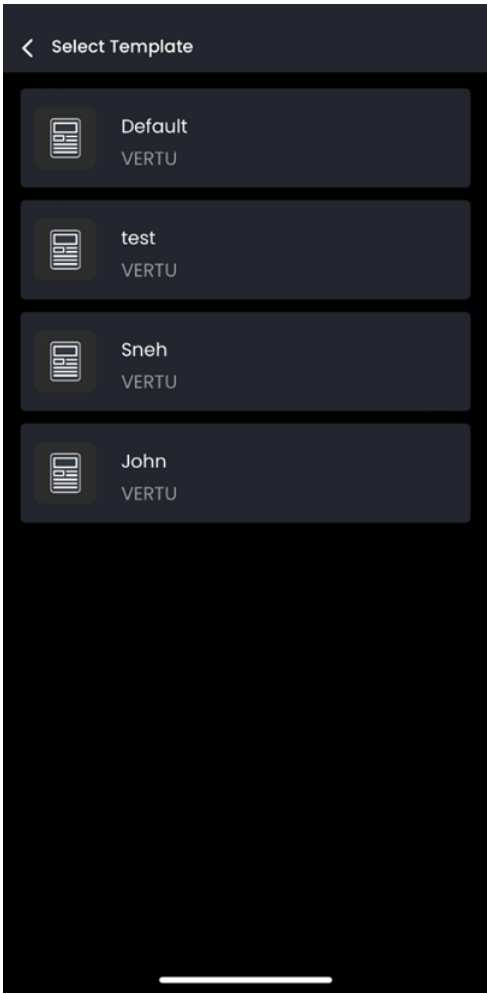


Tap **Yes** to delete the template. Tap **No** to discard the action.

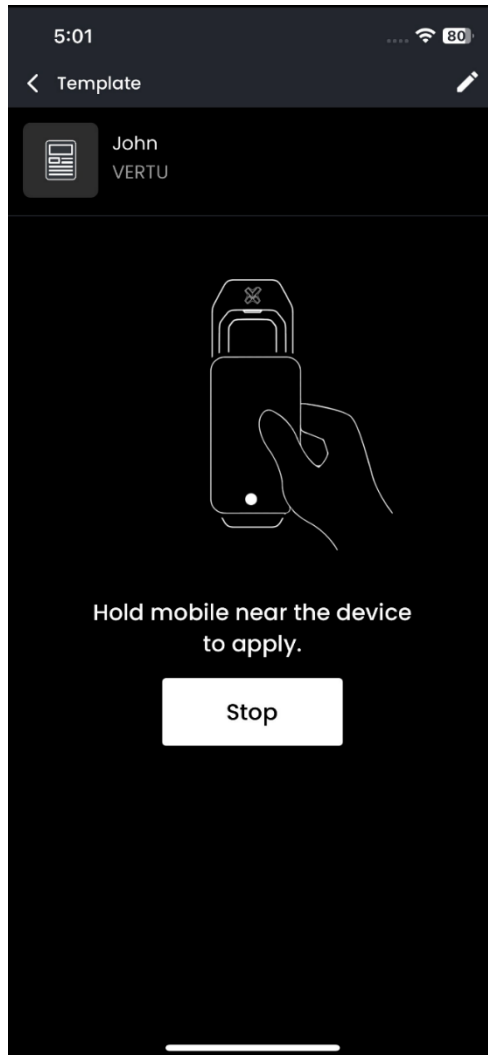
16. Apply An Existing Template

This feature allows you to apply an existing template to one or more devices. This will automatically transfer all the settings stored in the template to the device.

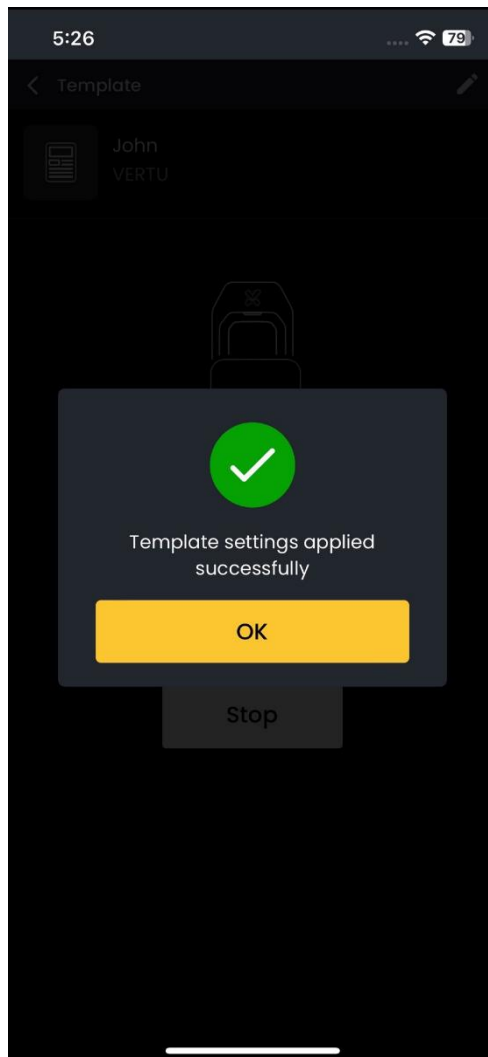
1. From the template list, tap on the desired template.



2. Tap **Start** to start the process of applying the template.
3. Hold your mobile phone near the device that you want to apply the template to.

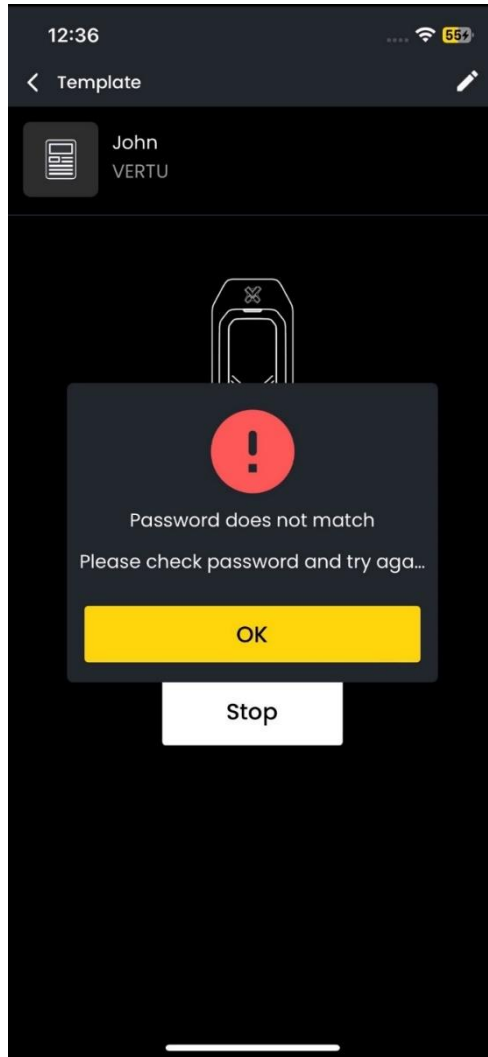


4. The app will verify the device password entered while creating the template.
5. The template will be applied to the device upon successful authentication.



6. The app will display a warning message if the password does not match.

Note: If this occurs, you will have to delete the template and add it again with the correct device password.





17. Support

For more information relating to this document, please contact support@invixium.com.

18. Disclaimer and Restrictions

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