FATbit®
TECHNOLOGIES

M-Pesa (Vodacom) API

-Credential/Key Generation Guide-

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What is the M-Pesa (Vodacom) API

The M-Pesa (Vodacom) API allows FATbit Product to integrate M-Pesa mobile money payments into the platform. Through this integration, users can use their M-Pesa accounts to make payments in the application.

Once the M-Pesa (Vodacom) payment method is configured in the platform, the platform can start communicating with the M-Pesa (Vodacom) payment service to initiate and process payment transactions. The payment response received from M-Pesa is then used by the product to determine the status of the transaction and update the payment status accordingly.

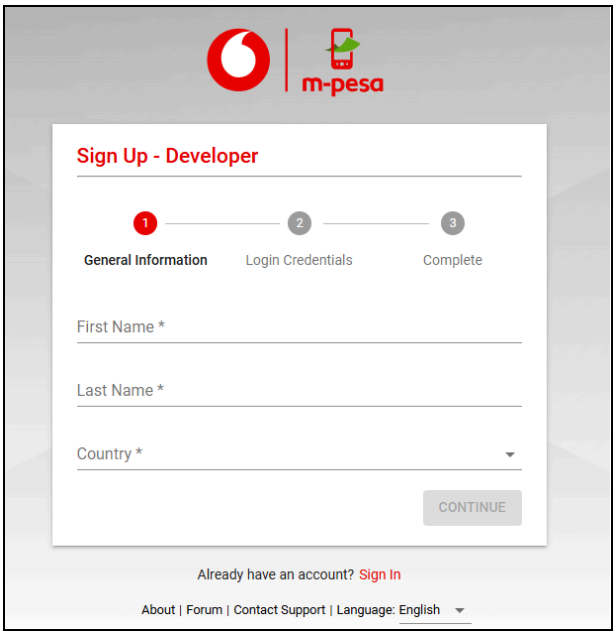
For VivoCabs, M-Pesa integration enables to support the following payment-related functionality:

- **M-Pesa as a Payment Method:** Riders can select M-Pesa as a payment option in case of pay during ride option.
- **Payment Processing:** VivoCabs can initiate supported M-Pesa payment transactions through the configured M-Pesa account.
- **Transaction Status:** VivoCabs can process the response received from M-Pesa and identify whether a payment has been successfully completed or not.
- **Secure Communication:** The integration uses the credentials and configuration details provided by Vodacom/M-Pesa to establish authenticated communication between VivoCabs and the M-Pesa services.
- **Wallet Recharge:** The user (driver/rider) can use M-Pesa (Vodacom) for recharging there wallet and even clear any outstanding payment.

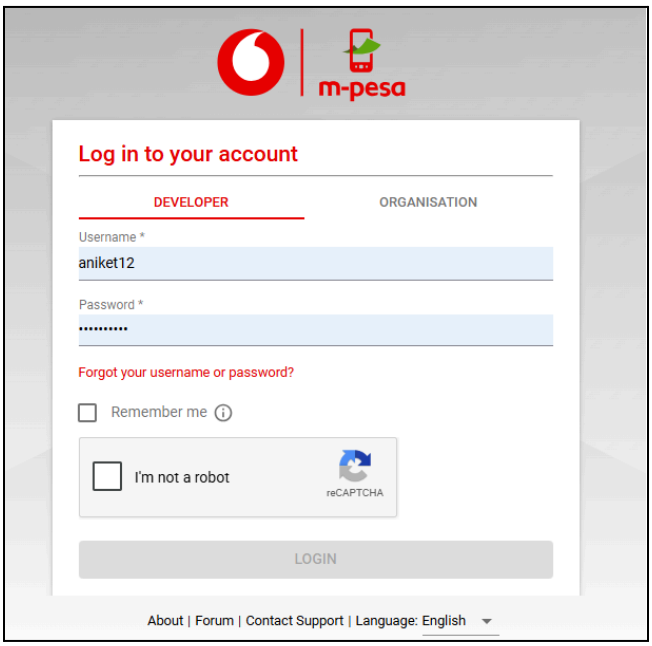
Steps to Generate API's Keys

Step 1: Register/Login to M-Pesa (Vodacom)

Visit the M-Pesa (Vodacom) Open API Portal. You will be redirected to the M-Pesa (Vodacom) registration page.



If you already have an account on the M-Pesa (Vodacom) Open API Portal, click **Sign In** or visit the [M-Pesa Login Page] to log in to your account.



Create a New Account

To create a new account, enter the following details:

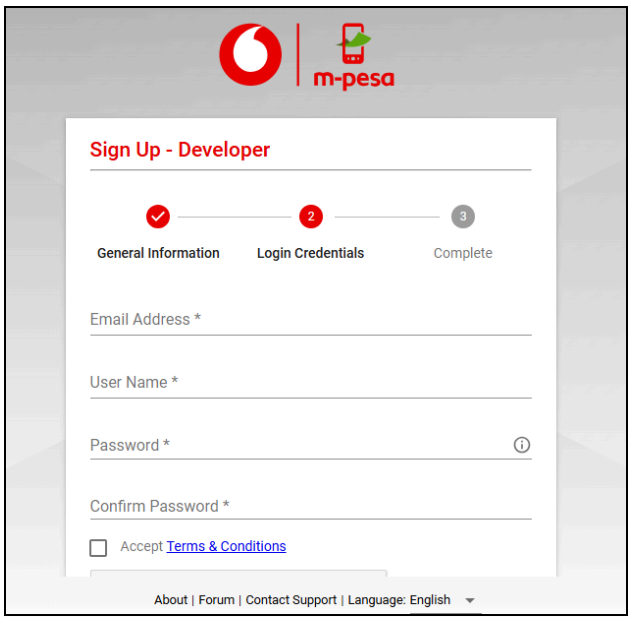
Under General Information:

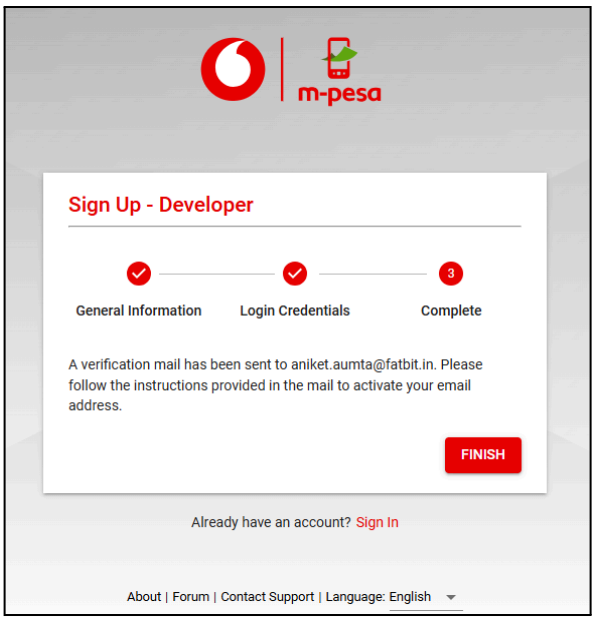
- **First Name:** Enter your first name.
- **Last Name:** Enter your last name.

- **Country:** Select **Lesotho**.

Under Login Credentials:

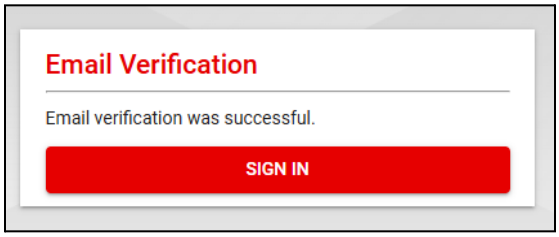
- **Email Address:** Enter your valid email address.
- **Username:** Enter the username that you want to use to access the M-Pesa Open API Portal.
- **Password:** Enter a secure password.
- **Confirm Password:** Re-enter the password.





Once all the required details have been entered, a verification email will be sent to the registered email address.

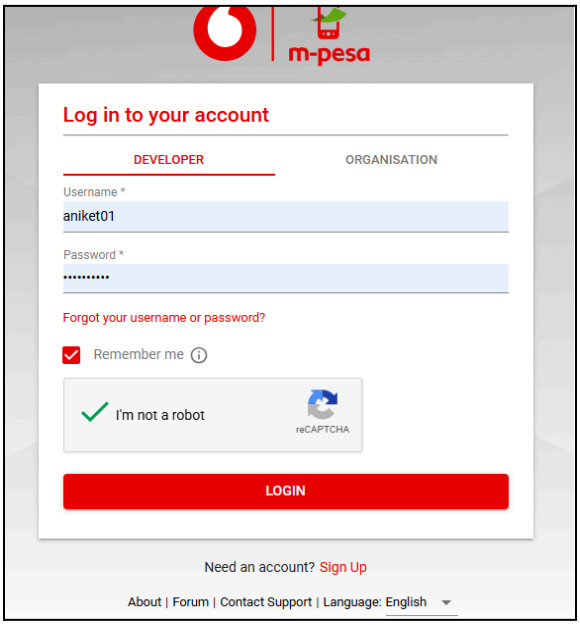
Open the verification email and click the **verification link** provided to verify your M-Pesa account.



Log in to the M-Pesa Account

After successfully verifying your account, click **Sign In** and enter your registered **Username** and **Password**.

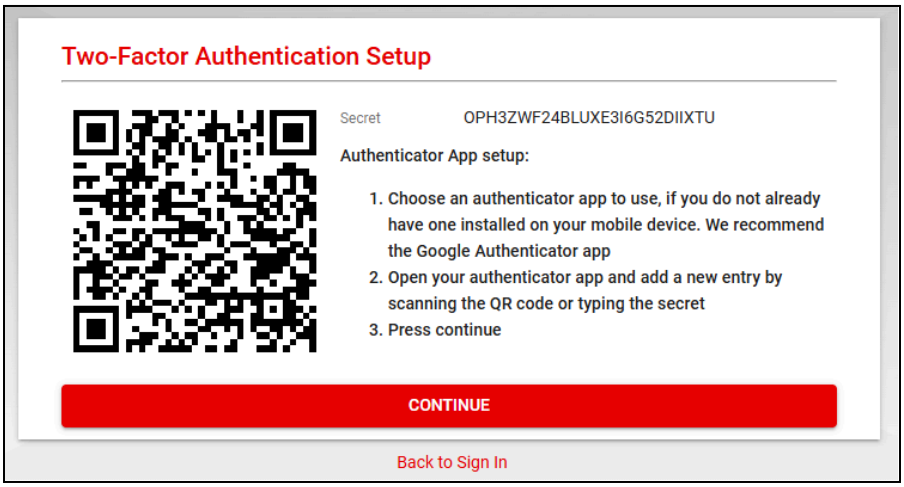
Complete the **I am not a robot** verification and click **Login**.



Complete Two-Factor Authentication

After logging in, the **Two-Factor Authentication** screen will be displayed.

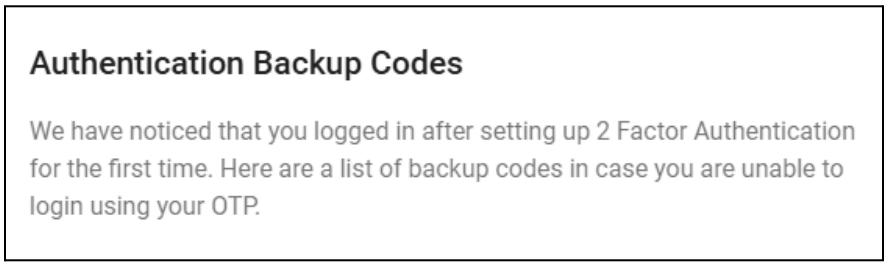
Open or download an authenticator application on your mobile phone and scan the **QR code** displayed on the screen. After scanning the QR code, a secret key/verification code will be generated in the authenticator application.



Click **Continue**. A field will be displayed where you need to enter the verification code generated by the authenticator application.

Enter the code and submit it to complete the two-factor authentication setup.

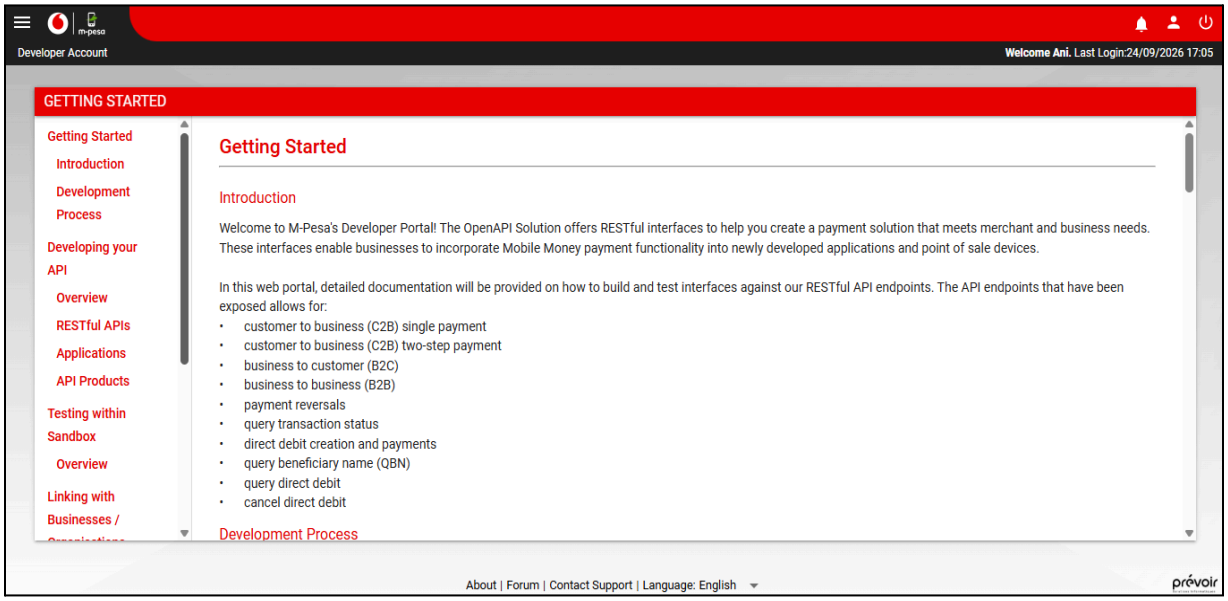
After successful verification, **Backup Codes** will be displayed on the screen. These codes can be used as an alternative authentication method in case you are unable to log in using the authenticator application.



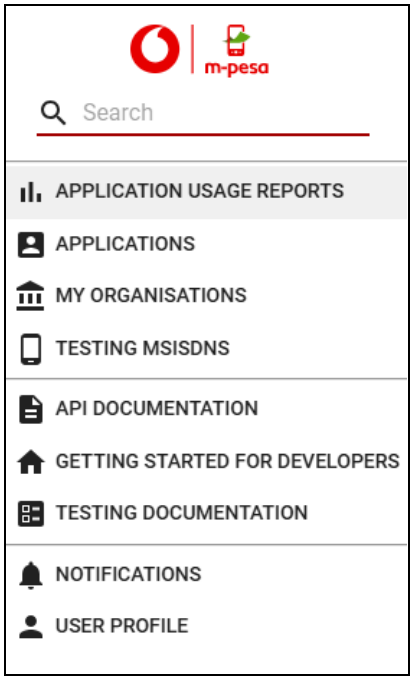
Download or securely save the backup codes for future use and click **Continue**.

Step 2: Setting up the Applications in the Platform

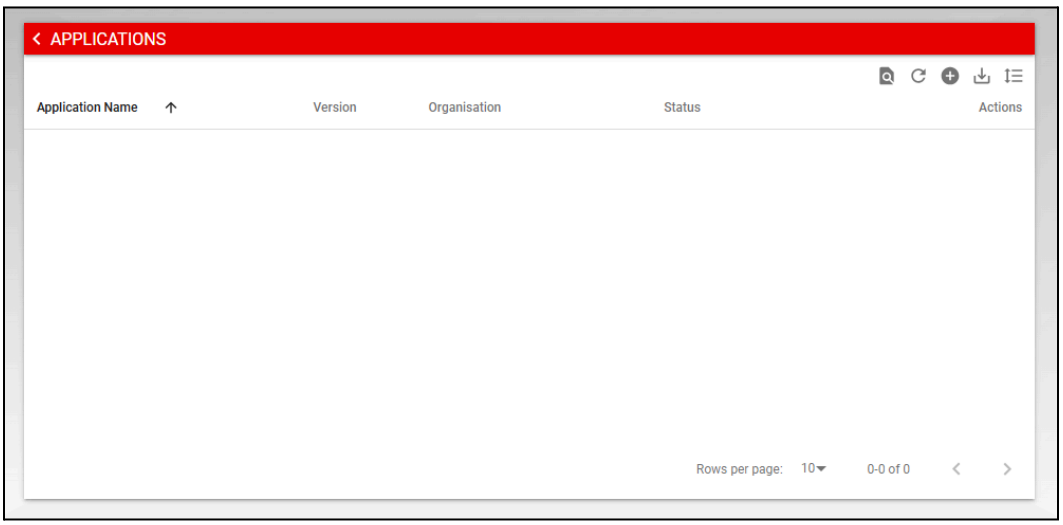
Click the **hamburger icon (≡)** available at the top-left corner of the screen.



The menu will be displayed. Click the **Applications** tab to add the application/URL where M-Pesa will be configured.



If no application has been added to the platform, a blank screen will be displayed. To add a new application, click the **Add (+)** button available at the top of the application section.



Click the **+** icon to proceed.

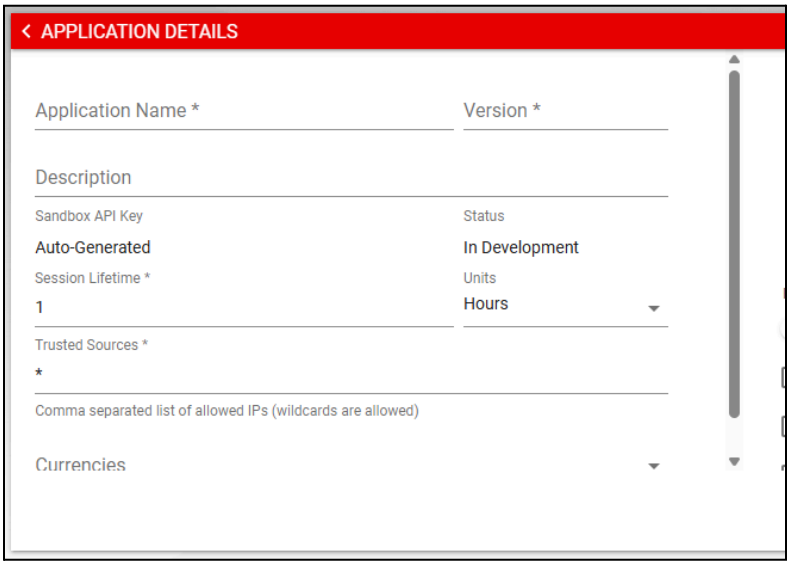


Enter Application Details

Enter the required application details in the respective fields:

1. **Application Name:** Enter the name of the application where M-Pesa will be configured.

2. **Version:** Enter the version number of the application.
3. **Description:** Enter a brief description of the application for future reference.
4. **Session Lifetime and Units:** Specify the duration for which the authentication session issued to the application will remain valid before the application needs to re-authenticate. A shorter session lifetime can provide additional security in case the authentication token is compromised.
5. **Currency:** Select the currency in which the application will operate.



Once the basic application details have been entered, configure the required payment services in the next section.

Configure B2B Single Payment

Click the **B2B SINGLE PAYMENT** tile and enable the **B2B Single Payment** toggle.

Configure C2B Single Payment

Click the **C2B SINGLE PAYMENT** tile and enable the **C2B Single Payment** toggle.

Enable the **Asynchronous Flow** checkbox. Once enabled, a **Response URL** field will be displayed.

Enter the your platform URL in the following format:

{domain-name}/vodacom-mpesa-pay/callback
Eg: https://testing-vivocabs.kit.4qcteam.com/vodacom-mpesa-pay/callback

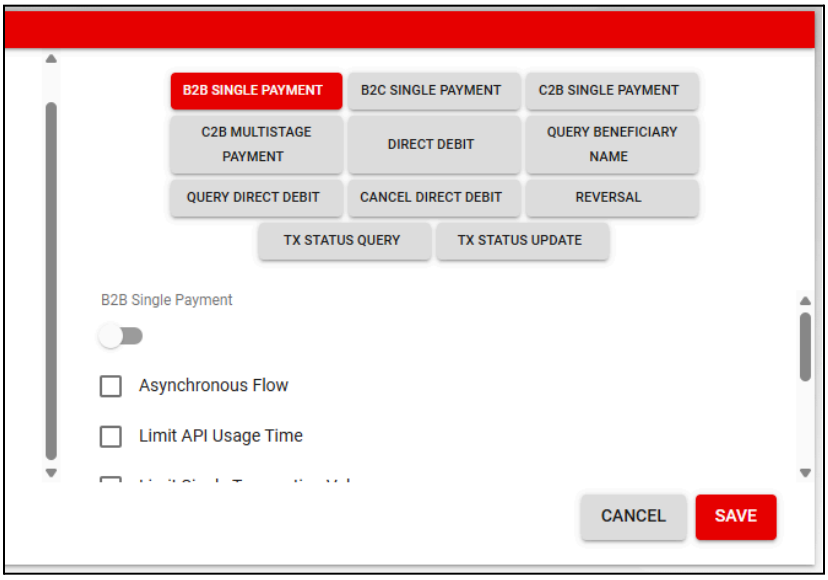
A **USSD Fallback Time Limit (min)** field will also be displayed. The default value can be retained.

Configure TX Status Query

Click the **TX STATUS QUERY** tile and enable the **TX Status Query** toggle.

Enable the **Asynchronous Flow** checkbox. A **Response URL** field will be displayed.

Enter the same callback URL in a similar format: {domain-name}/vodacom-mpesa-pay/callback



After entering all the required details, click **Save**.

Once the application is successfully saved, the **Sandbox API Key** will be generated and displayed on the platform.

This **Sandbox API Key** will be required while configuring the M-Pesa integration in **your platform Admin Panel** and should be copied and stored securely for the next configuration step.



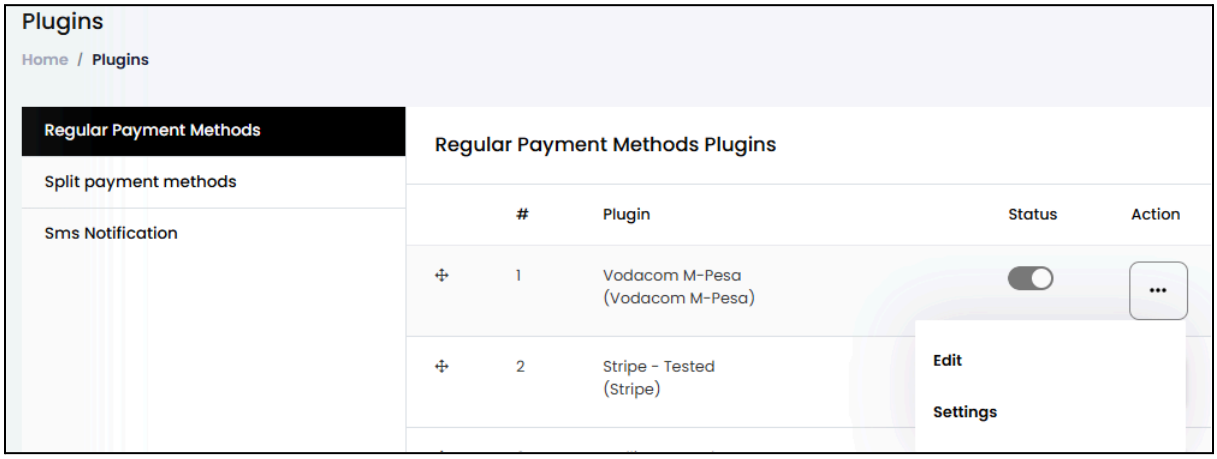
Step 3: Configuration of the API Key in the Platform for operation.

Once the Sandbox API Key has been generated from the M-Pesa platform, configure the M-Pesa payment method in the **Product's Admin Panel**.

For VivoCabs, follow the navigation path below:

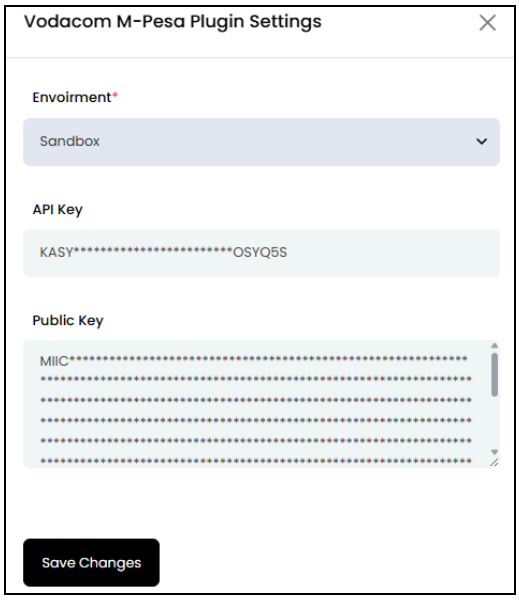
Settings > Plug-ins > Regular Payment Method > Vodacom M-Pesa

Enable **Vodacom M-Pesa** and click the **three-dot (⋮) icon > Settings** to open the M-Pesa configuration screen.



The M-Pesa configuration screen will contain an **Environment** dropdown and two key fields:

- **Environment:** Select the environment in which the M-Pesa integration will operate:
  - **Sandbox:** Select this option when configuring and testing the M-Pesa integration using the Sandbox credentials.
  - **Production:** Select this option when configuring the M-Pesa integration for live transactions using the Production credentials.
- **API Key:** Enter the API Key generated from the M-Pesa platform.
- **Public Key:** Enter the Platform Public Key obtained from the M-Pesa API Documentation.



You can select the environment based on your requirements. If you have generated keys for testing, you need to select Sandbox, and if the generated keys are needed to be operated in the production select the environment to be as Production.
In the API Key, you will enter the Sandbox Key which was displayed earlier.
To get the Public Key, go to the M-Pesa page and click on the **hamburger icon (≡)** available at the top-left corner of the screen. And click on the API Documentation button.

Configure the Environment

Select the required environment from the **Environment** dropdown.

If the credentials generated are for testing purposes, select **Sandbox**.

If the credentials are generated for live/production operations, select **Production**.

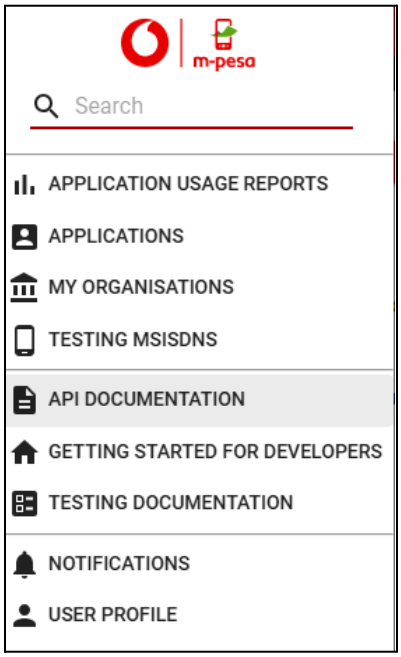
Enter the API Key

In the **API Key** field, enter the Sandbox API Key generated while setting up the application in the M-Pesa platform.

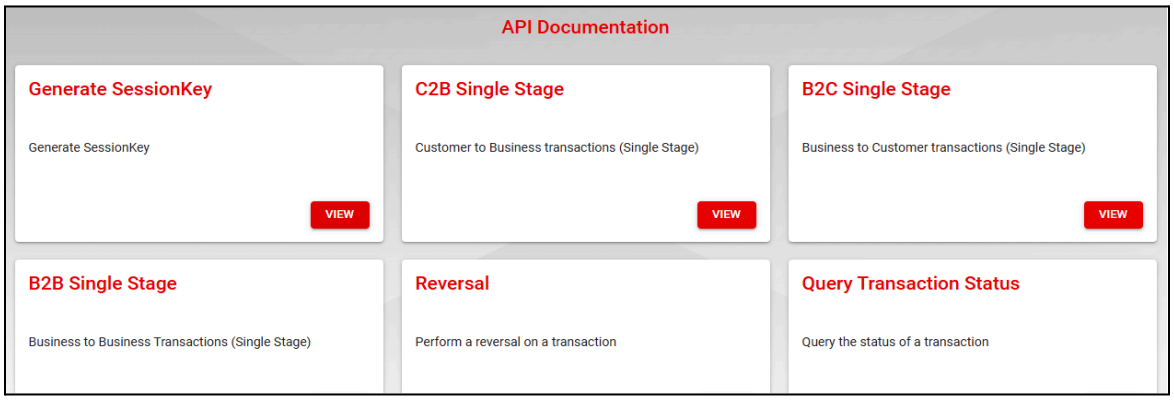
Obtain the Public Key

To obtain the **Public Key**, return to the M-Pesa platform.

Click the **hamburger icon (≡)** available at the top-left corner of the screen and click **API Documentation**.



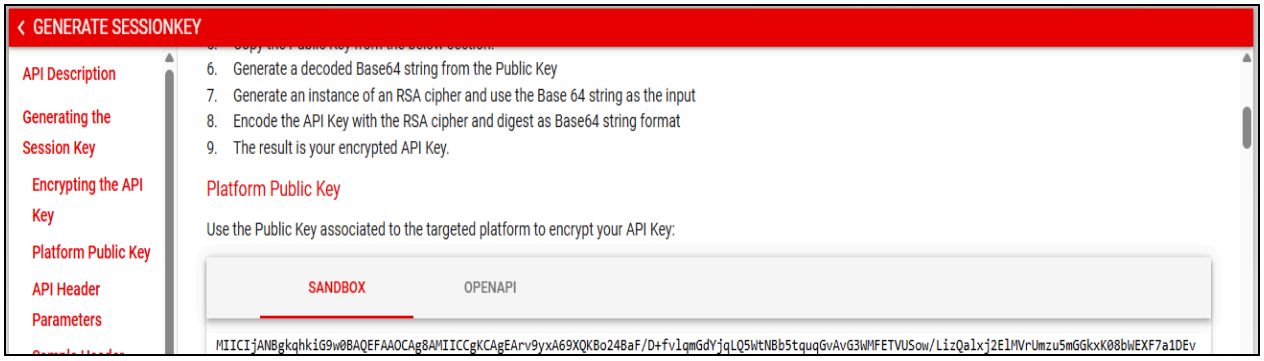
Under the **Generate SessionKey** section, click the **View** button.



The **Platform Public Key** section will be displayed. This section contains two options:

- **Sandbox**
- **OpenAPI**

Copy the code available under the **Sandbox** section.



Return to the **Product M-Pesa Settings** screen and paste the copied code into the **Public Key** field.

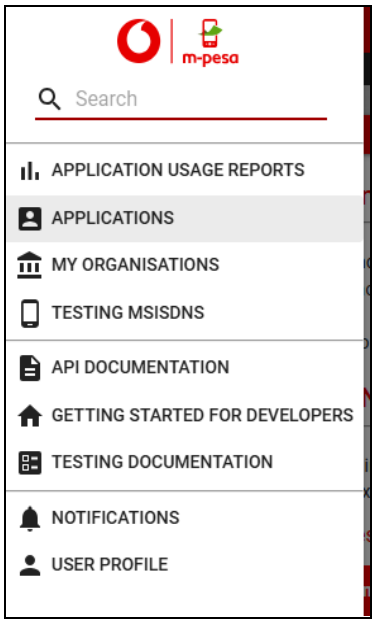
Verify that the **Environment, API Key, and Public Key** have been entered correctly, and click **Save** to save the M-Pesa configuration.

Testing the Configuration of M-Pesa (Vodacom)

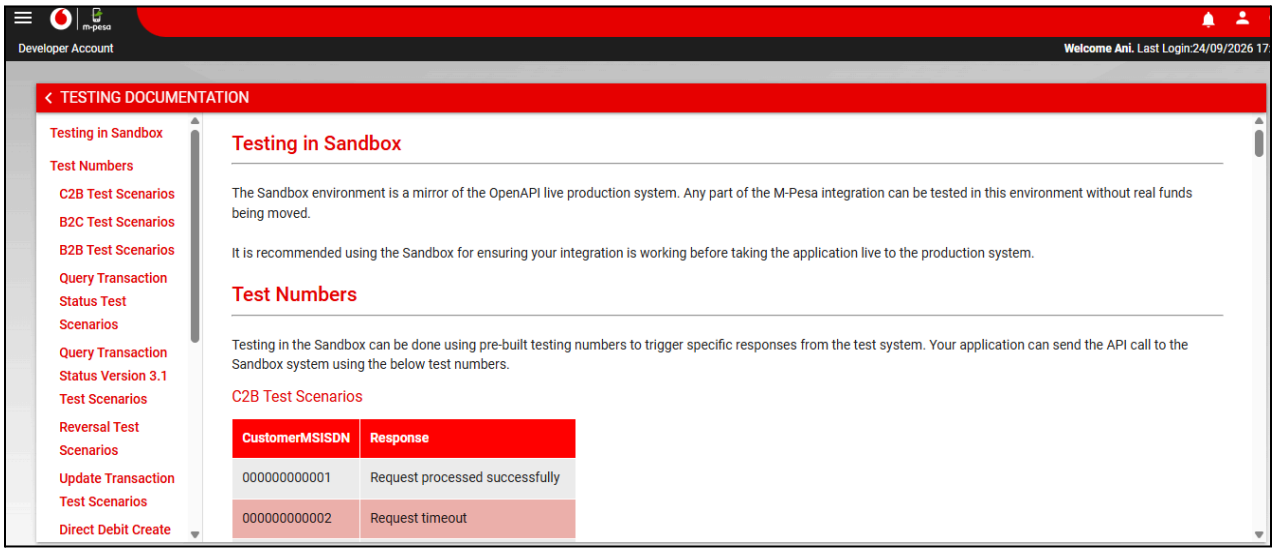
Once the M-Pesa (Vodacom) credentials have been configured in the Admin Panel, the integration should be tested to verify that the configuration is working correctly and that the required transaction responses are being received by the platform.

To access the M-Pesa test details, go to the M-Pesa platform and click the **hamburger icon (≡)** available at the top-left corner of the screen.

From the menu, click **Testing Documentation**.



The **Testing Documentation** section provides the test numbers and other test details required to perform transactions for the supported M-Pesa services.



Use the test numbers and the corresponding test scenarios provided in the M-Pesa Testing Documentation to perform the required transactions through Product.

During testing, verify that:

- The M-Pesa payment request is initiated successfully from the platform.
- The transaction is processed using the configured M-Pesa credentials.
- The transaction response is received correctly by Product.

- The payment status displayed in the product is updated according to the response received from M-Pesa.
- The configured callback/response URL is working correctly for the applicable transactions.
- The expected success and failure scenarios provided in the M-Pesa Testing Documentation can be processed correctly.

After completing the test scenarios, confirm that the M-Pesa integration is working correctly before configuring the **Production** environment for live transactions.

Note: Use the test numbers and scenarios provided in the M-Pesa **Testing Documentation** for Sandbox testing. Do not use actual customer or live payment details while testing the Sandbox environment.

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