Grandstream Networks, Inc.

WhatsApp Trunk Configuration Guide

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OVERVIEW

This guide explains how to connect a WhatsApp Business phone number to a UCM using a WhatsApp Trunk, allowing the UCM to receive incoming WhatsApp voice calls.

With a WhatsApp Trunk configured on the UCM:

- Customers can **call the business through WhatsApp**.
- Incoming WhatsApp calls are received by the **UCM through the WhatsApp Trunk**.
- Incoming calls can be **routed to the configured UCM destination** through an Inbound Route.

To complete the configuration:

1. **Configure the WhatsApp application and phone number on Meta**, and obtain the required **Phone Number, Phone Number ID, and Access Token**.
2. **Configure the WhatsApp Trunk on the UCM** using the information obtained from Meta.
3. **Configure an Inbound Route** for the WhatsApp Trunk and select the required destination.

Once the Inbound Route is configured, the WhatsApp Trunk is ready to receive and route incoming WhatsApp calls.



WhatsApp Trunk Configuration on UCM63xx

By completing the steps in this guide, you will have a **WhatsApp Business number connected to the UCM and configured for WhatsApp voice calling**, with incoming calls routed to the desired UCM destination.

A valid RemoteConnect plan is required to use WhatsApp Trunks on the UCM. Before starting the configuration, ensure that the UCM has an active RemoteConnect plan. Without an active plan, the WhatsApp Trunk cannot be used.

PREREQUESITES

WhatsApp Business & Meta Requirements

- A phone number to be used with the WhatsApp Business API.
- The number must not be registered to any existing WhatsApp account (personal or business app).
- Ability to receive SMS/voice OTP for number verification.
- A Meta Business Portfolio with administrative access.

- A Meta Developer account registered at https://developers.facebook.com

- If your phone number is currently in use, it must be unregistered before proceeding. For more information, please refer to: https://faq.whatsapp.com/
- WhatsApp Calling has separate billing considerations from WhatsApp messaging. Customer-initiated calls to the business are free, while business-initiated calls may be subject to charges based on the applicable calling rates, call duration, destination country/region, and volume tier. Ensure that the required Meta billing and calling configuration is completed before placing business-initiated calls. For more information, visit the following link: WhatsApp Calling API
- Meta provides a test phone number, which allows sending free messages for up to 90 days. Using a production number is subject to Meta's messaging limits and pricing.
- It is recommended to use a test phone number for initial Quickstart verification.

UCM & Network Requirements

- A UCM6300/A Series or CloudUCM running a compatible firmware version (see SUPPORTED DEVICES section).
- The UCM must be publicly reachable via HTTPS with a valid CA-signed TLS/SSL certificate.

- Self-signed certificates are not supported by the WhatsApp webhook service.
- It is recommended to use the UCM RemoteConnect address (e.g., https://xxxx.a.gdms.cloud) to ensure compliance with Meta webhook requirements.

QUICK CONFIGURATION REFERENCE

Step	Action	Key Requirement
1	Prepare Meta information	Meta application, WhatsApp phone number, Phone Number ID, and Access Token
2	Go to Extensions / Trunks -> WhatsApp Trunk	Create a new WhatsApp Trunk
3	Enter the trunk parameters	Trunk Name, Phone Number, Phone Number ID, and Token
4	Save the WhatsApp Trunk	Graph API validation must succeed
5	Go to Extensions / Trunks -> Inbound Routes	Select the corresponding WhatsApp Trunk
6	Click Add	Create the inbound rule
7	Configure the rule	Enter the Inbound Rule Name
8	Select Default Destination	Select the required call destination
9	Save the inbound rule	WhatsApp Trunk configuration is complete

WHATSAPP CLOUD API SETUP (META SIDE)

This section covers all the Meta-side configuration required before the UCM can be set up. Complete all steps in this section first. By the end, you will have your **Phone Number ID** and a **permanent access token** ready to paste into the UCM portal.

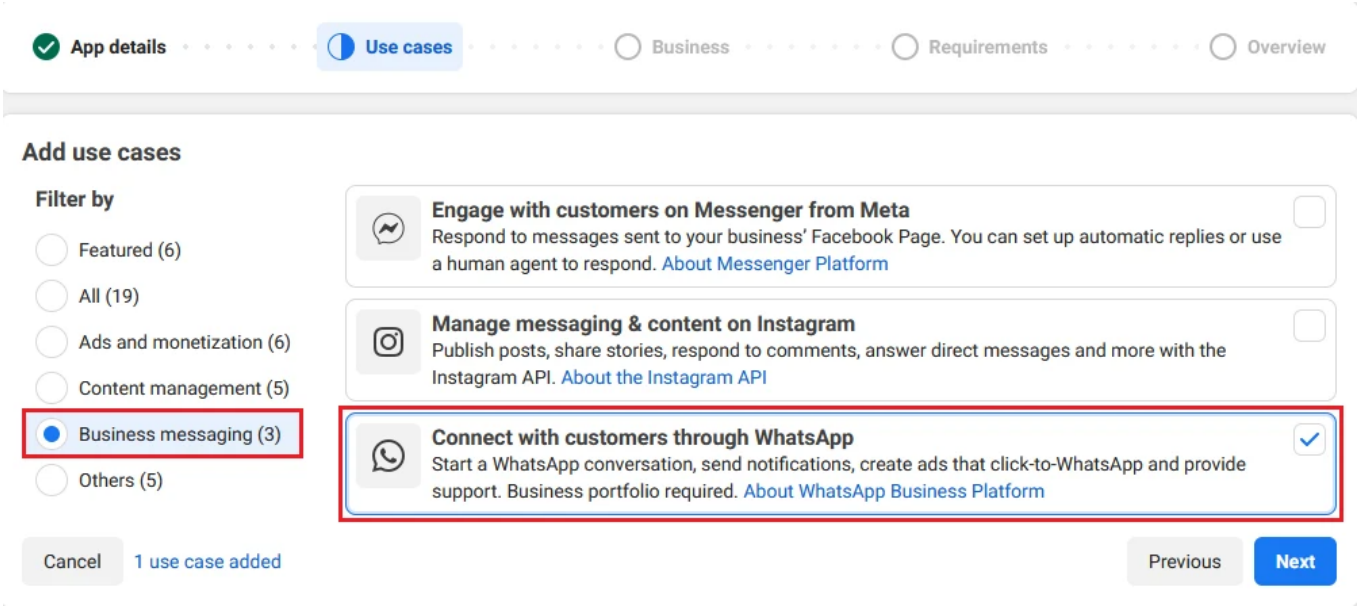
Create Meta App and Configure WhatsApp

1. Open **Meta for Developers** and sign in (If you don't have a Meta developer account, complete the registration process).
2. Click **Create App**.



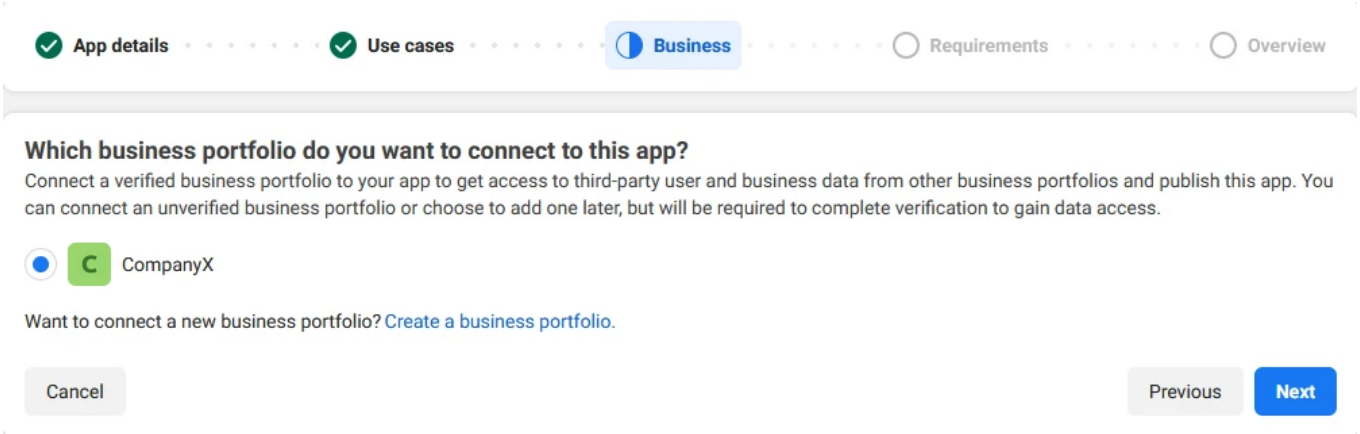
Meta for Developers App Dashboard

3. Choose a name for your app.
4. Under the Business messaging app category, choose the **Connect with customers through WhatsApp** use case.



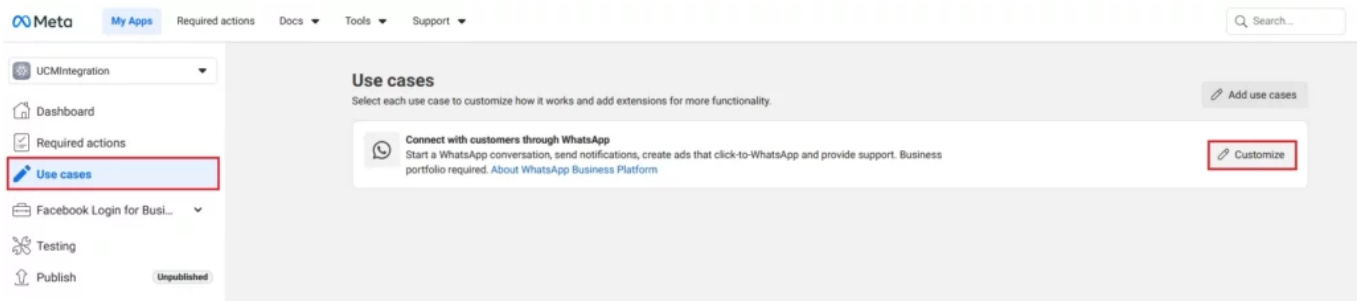
Add Use Cases Screen During App Creation

4. Select an existing Meta Business Portfolio or follow the prompts to create a new one, then complete app creation.



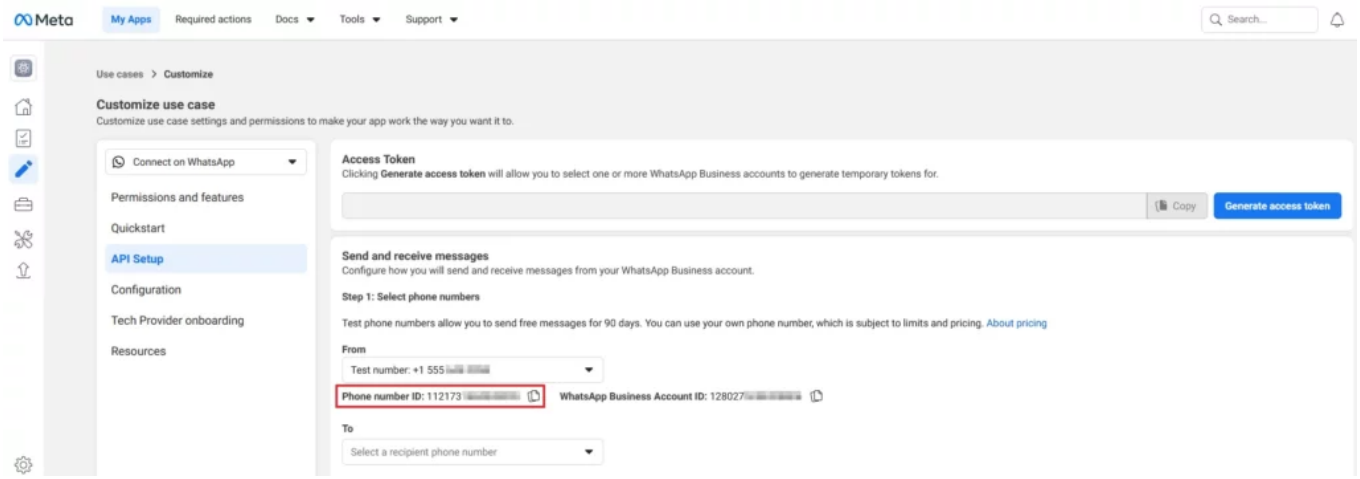
Business Portfolio Selection

5. In the left sidebar, click **Use Cases** (pencil icon), then click **Customize** under the Connect with customers through WhatsApp use case.



Meta App Use Cases Sidebar

6. In the **Quickstart/API Setup** section, locate and copy the **Phone Number ID** displayed for the test number (or your own number if already added). Save this value as it will be required during UCM configuration.



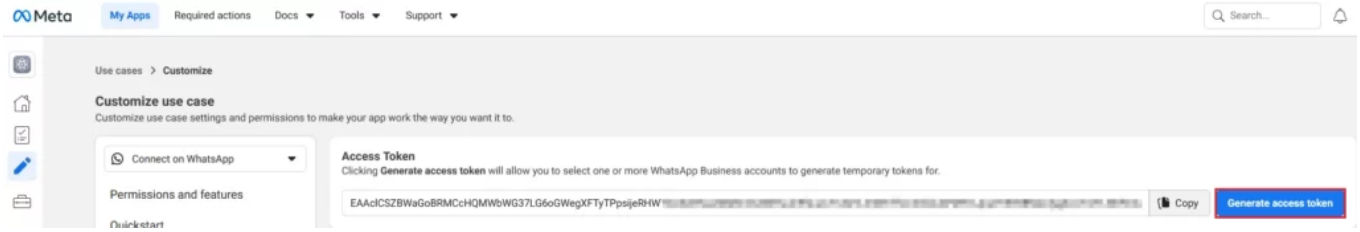
API Setup Page showing Phone Number ID

The API Setup page also displays a temporary access token. This token can be used for the integration, but it expires within 24 hours and is intended for initial testing only. It is recommended to use a permanent token, which will be generated in Step 4.

Send a Test Message (Optional)

Before proceeding to production configuration, it is recommended to verify that your Meta app is correctly connected to the WhatsApp Cloud API by sending a test message.

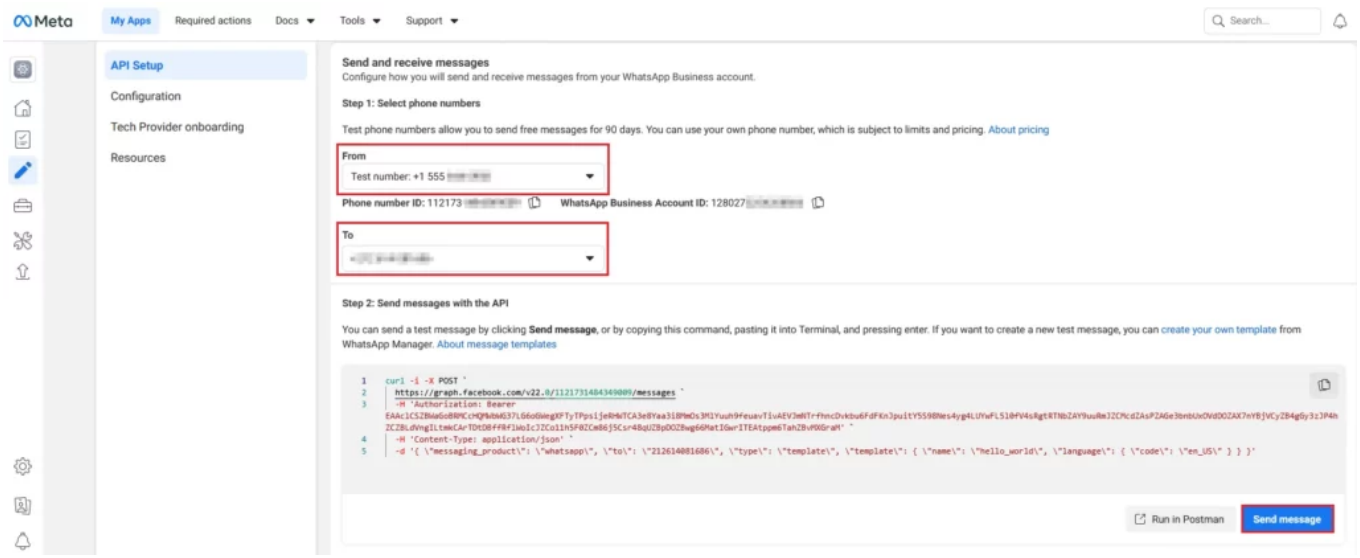
1. On the API Setup page, generate a temporary access token.



Generating a Temporary Access Token

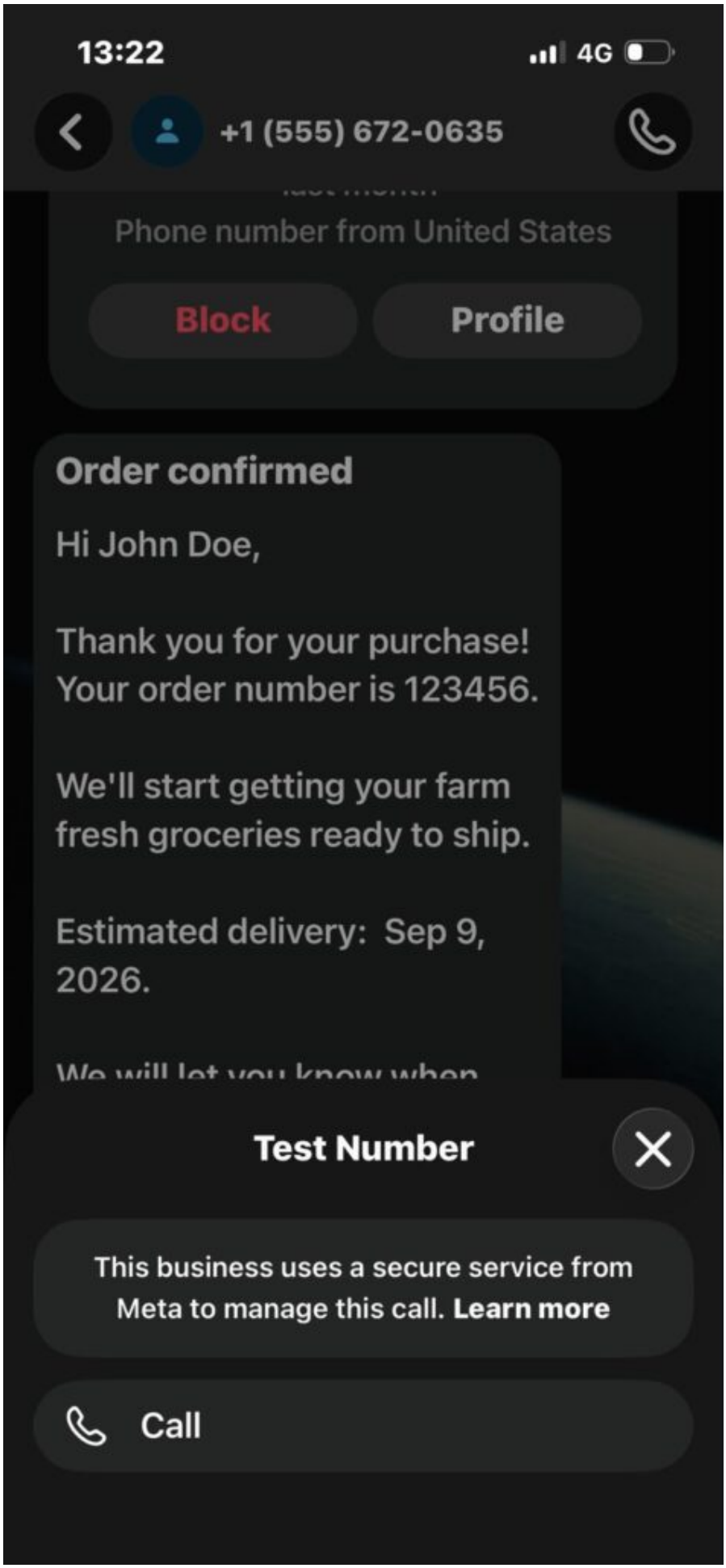
2. Ensure the test phone number is selected in the From field.
3. In the To field, click Manage phone number list and add a personal WhatsApp number to receive the test message. Up to 5 recipient numbers can be added during testing.

4. Click **Send message**. Meta will send a preconfigured hello_world template message to the selected number.



Send and Receive Messages Section

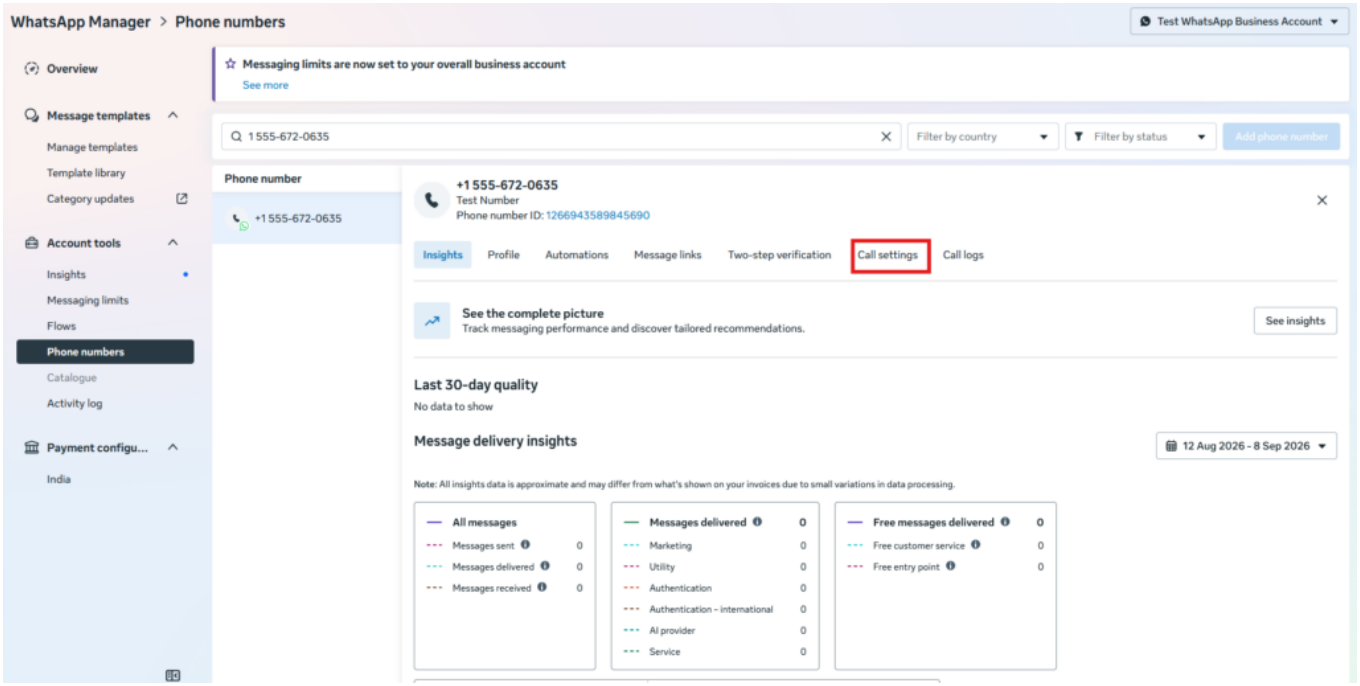
5. Confirm the message is received on the target device.



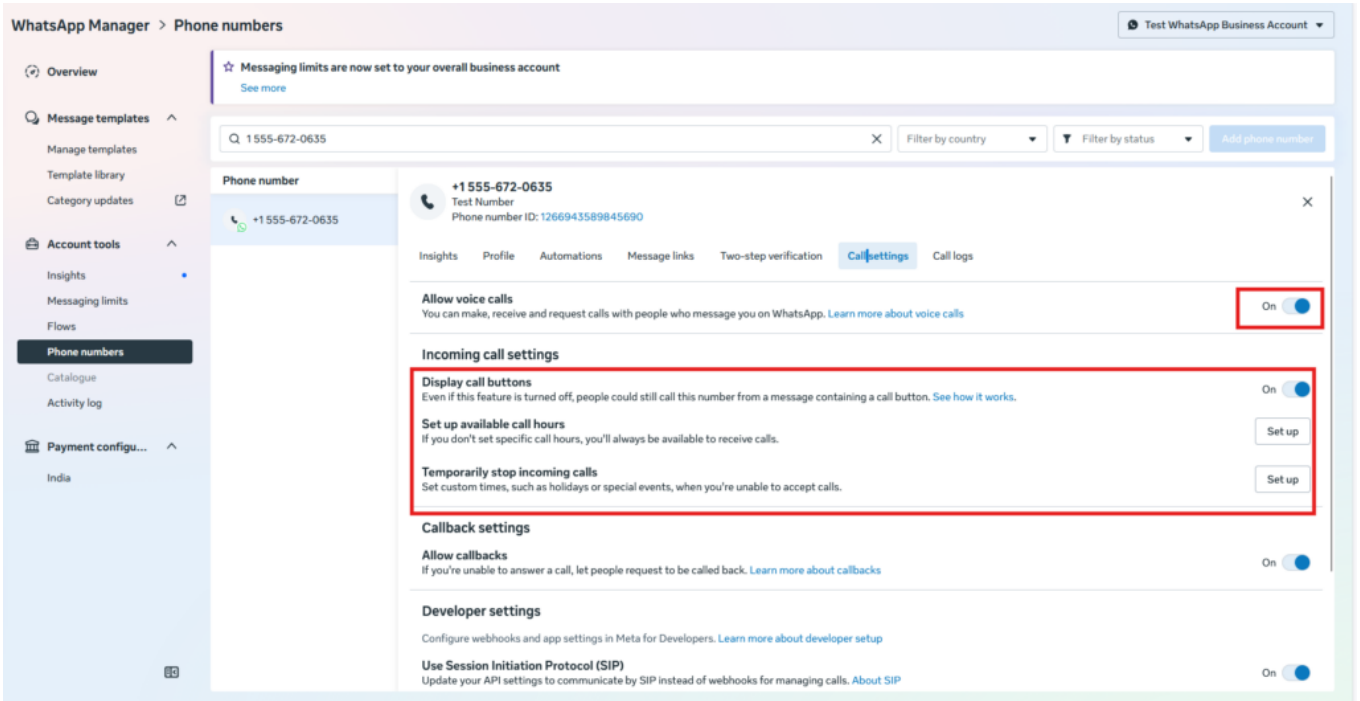
Test Message Received on Device

Test messages sent using the Meta-provided test number are free of charge and do not require a payment method. Sending messages from a production phone number is subject to Meta's conversation-based pricing.

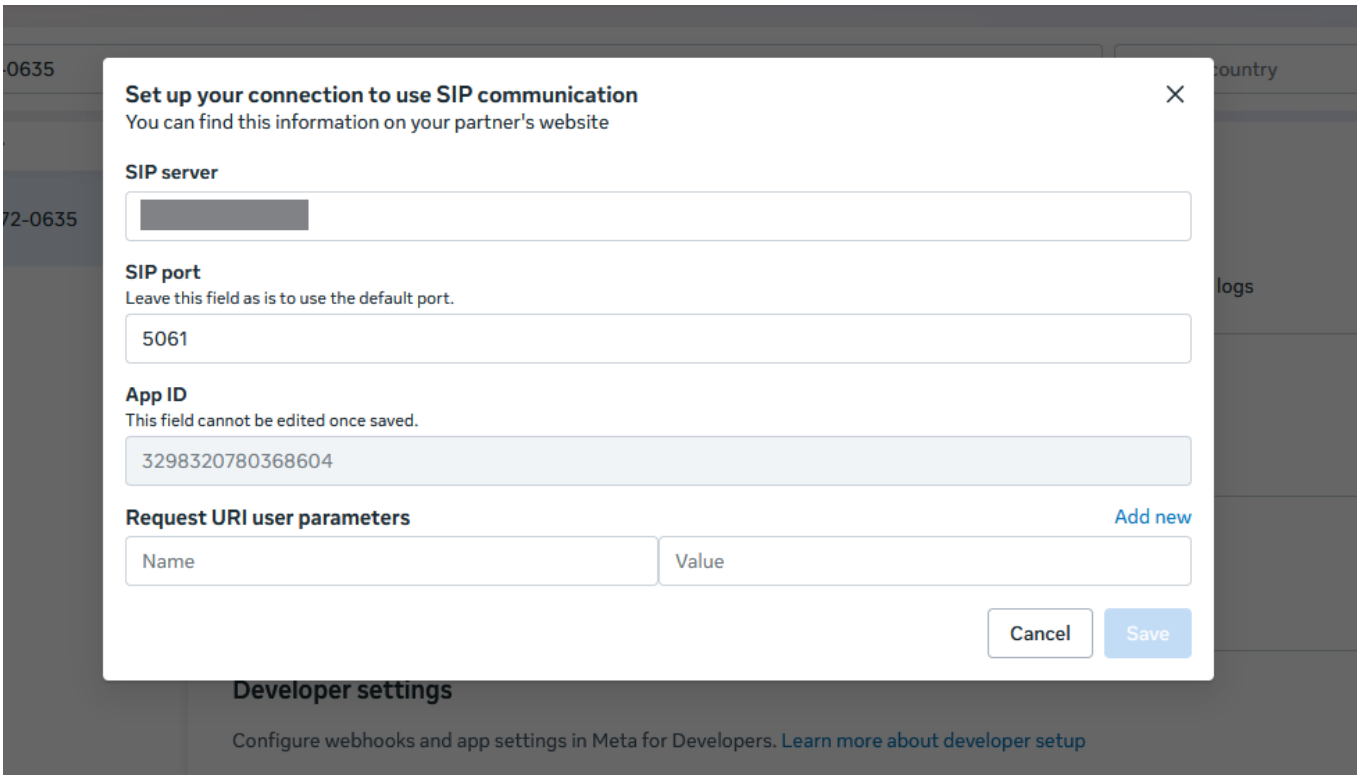
6. To enable WhatsApp voice calling through the UCM WhatsApp Trunk, enable calling for the configured WhatsApp Business phone number in Meta. Go to **WhatsApp Manager -> Phone Numbers**, select the WhatsApp Business number, and open **Call settings**.



7. Enable **Allow voice calls**, then enable **Use Session Initiation Protocol (SIP)** under Developer settings to configure the SIP trunk.



Allow voice calls



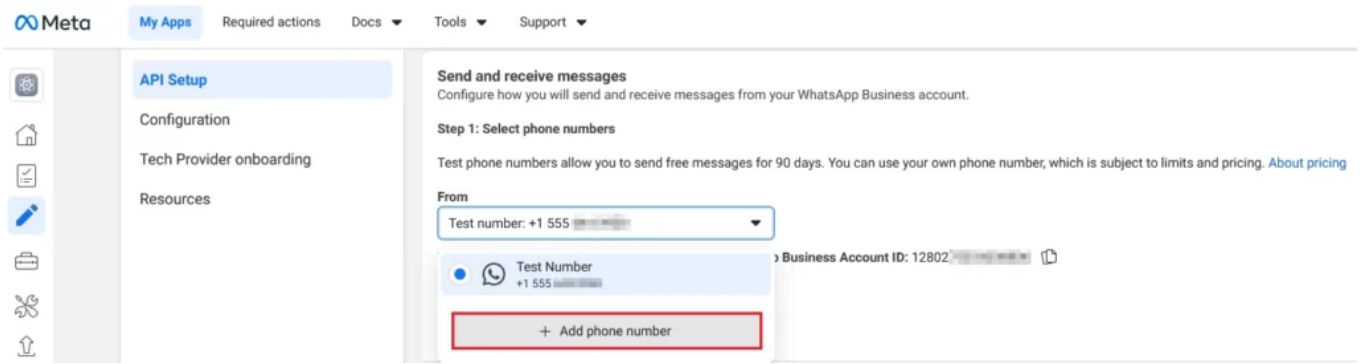
SIP Credentials Set Up

Add a Production Phone Number (Optional)

Skip this step if you wish to use the Meta-provided test number for this integration, or if your production number is already added and visible in the Form drop-down on the API Setup page.

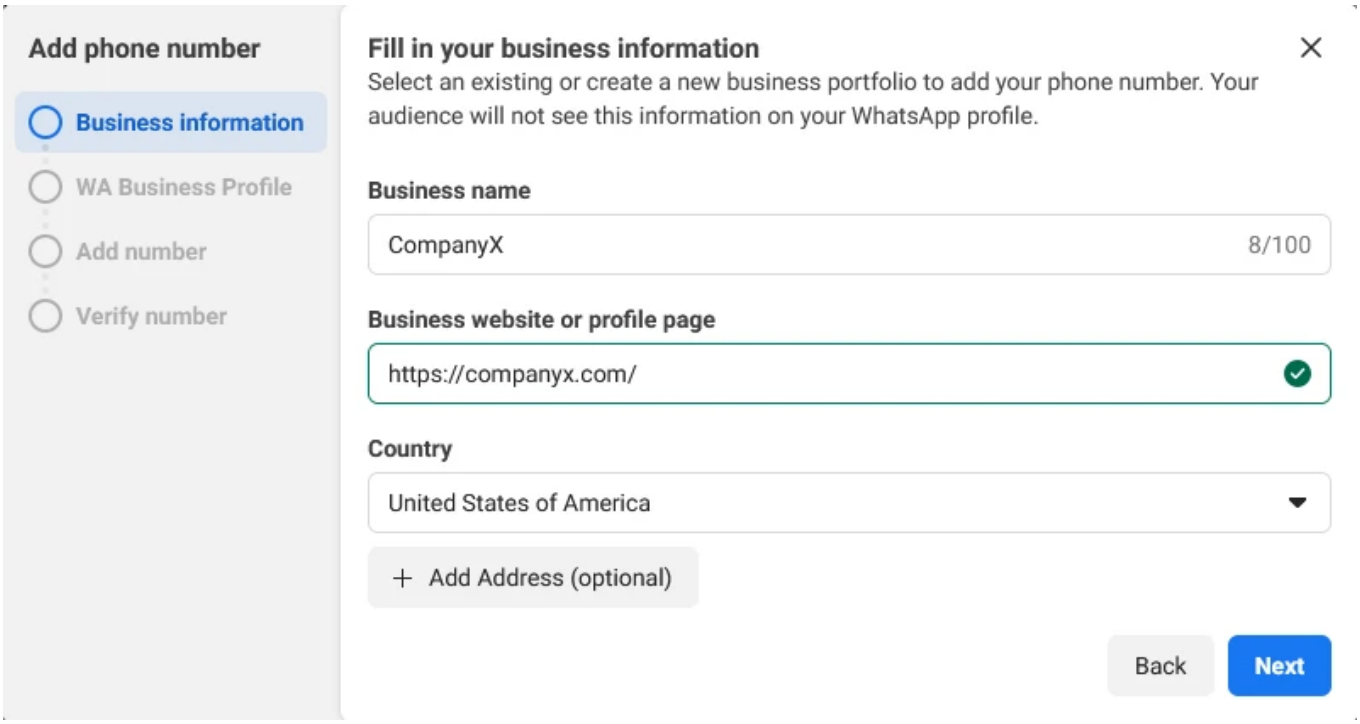
If you need to register a new production phone number:

1. On the API Setup page, click **Add phone number** under the From field.



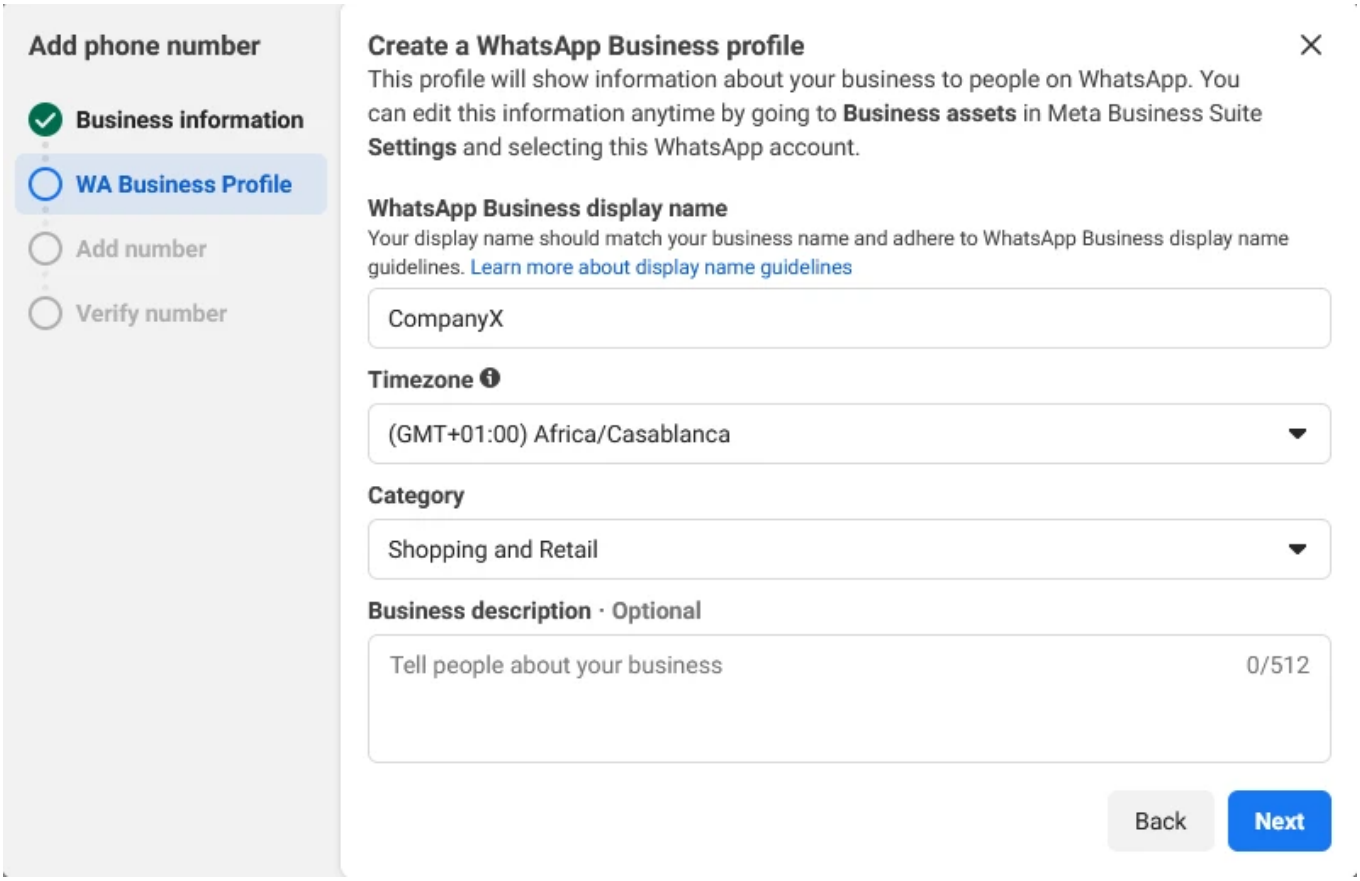
Adding a Production Phone Number

2. Enter your business display name and business category, then click Next.



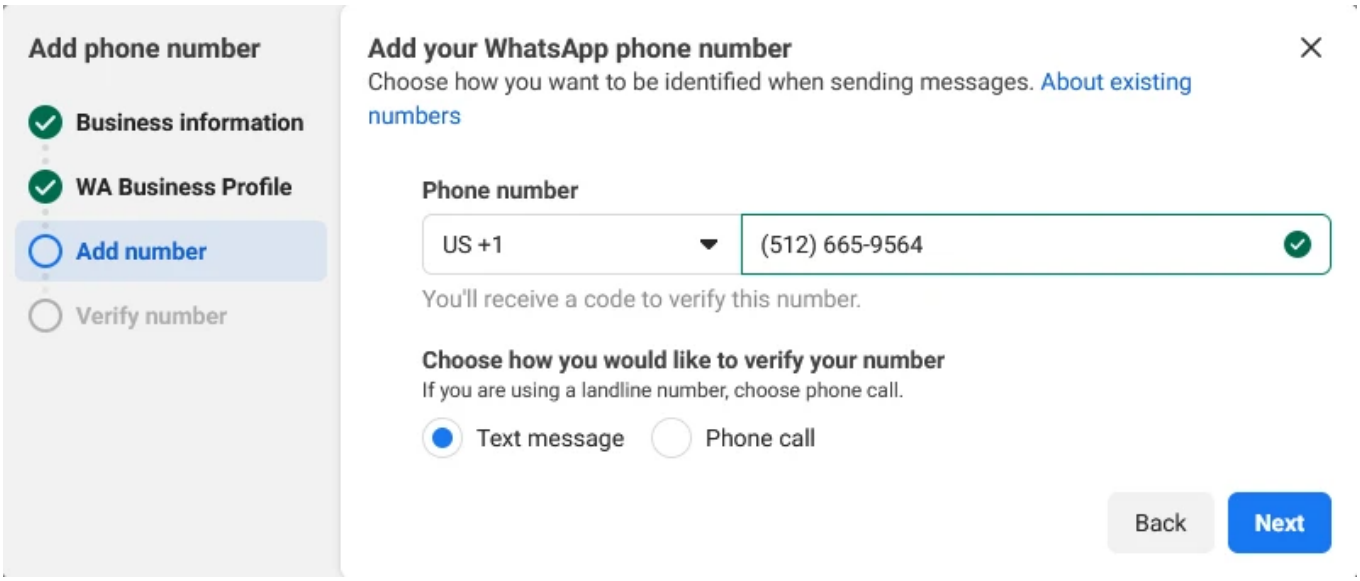
Business Information Form

3. Enter the phone number, select a verification method (SMS or Voice Call), and click Next.



WhatsApp Business Profile Setup

4. Enter the verification code received and complete the process.



Verify Production Number

4. Once added, the number will appear in the From drop-down. Select it and copy the associated Phone Number ID.

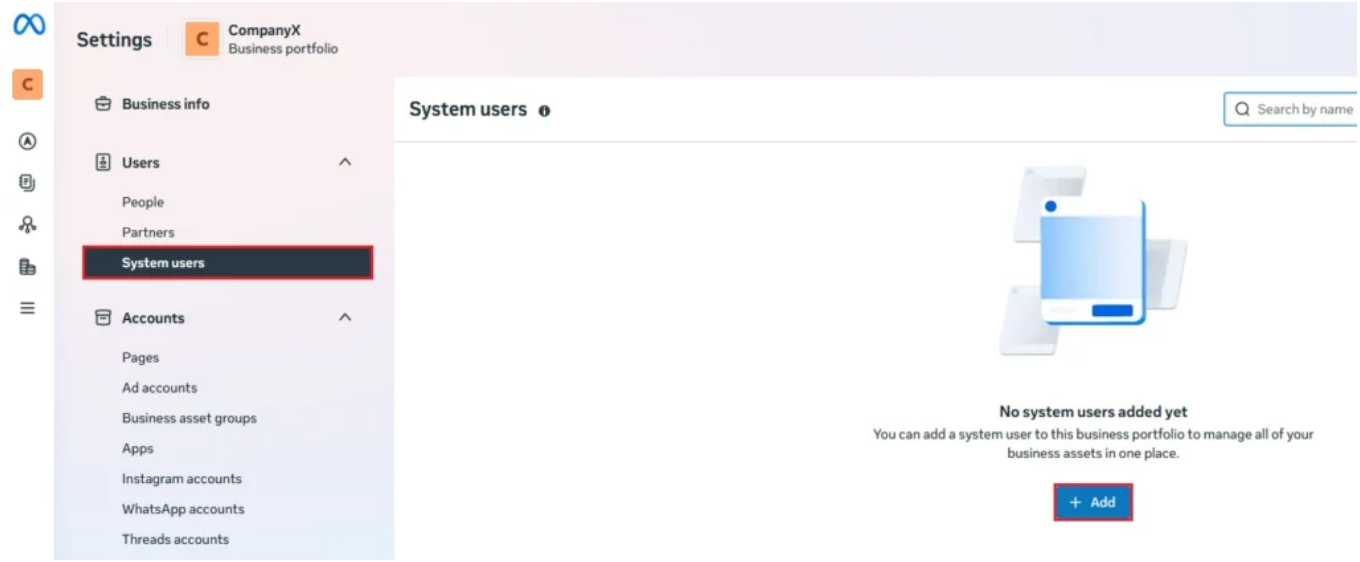
A phone number registered with the WhatsApp Business API cannot simultaneously be used in the WhatsApp Business mobile app. If the number is currently bound to a personal or business WhatsApp account, it must be unregistered before proceeding.

Generate a Permanent Access Token

This step creates a non-expiring System User token that will be used for all ongoing UCM to WhatsApp communication.

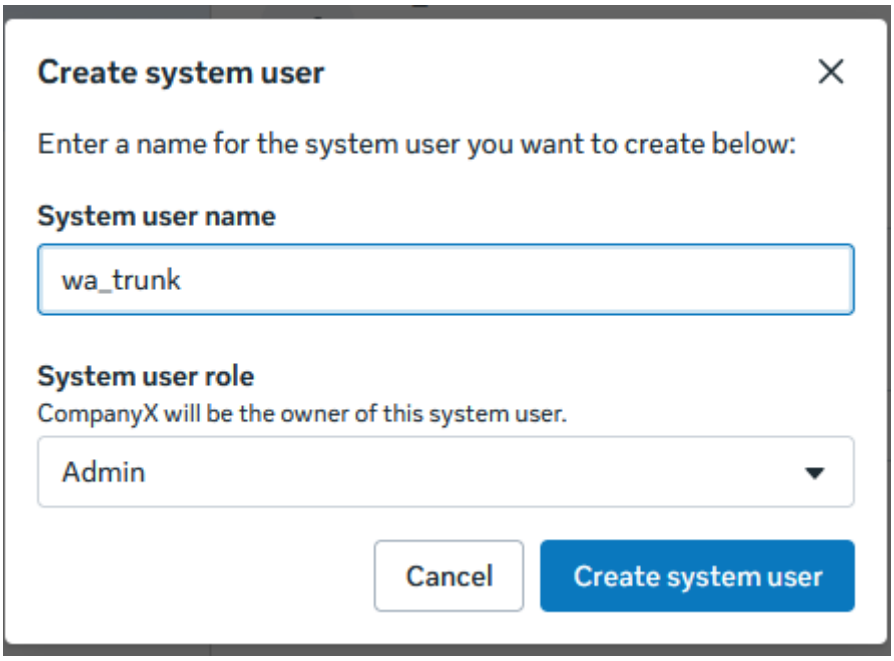
Create a System User

1. Open Meta Business Settings.
2. In the left sidebar, navigate to **Users->System Users** and click Add.



System Users Page in Meta Business Settings

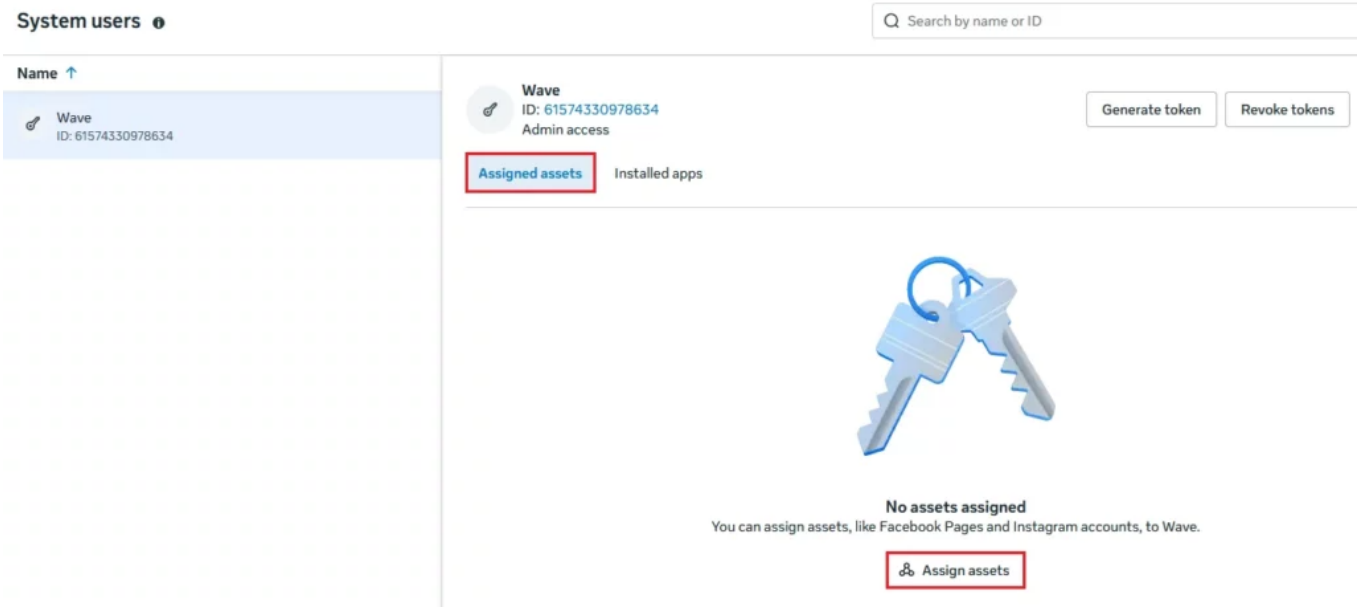
3. Enter a name for the system user (e.g., UCM-WhatsApp), set the role to **Admin**, and click **Create System User**.



Create System User Dialog

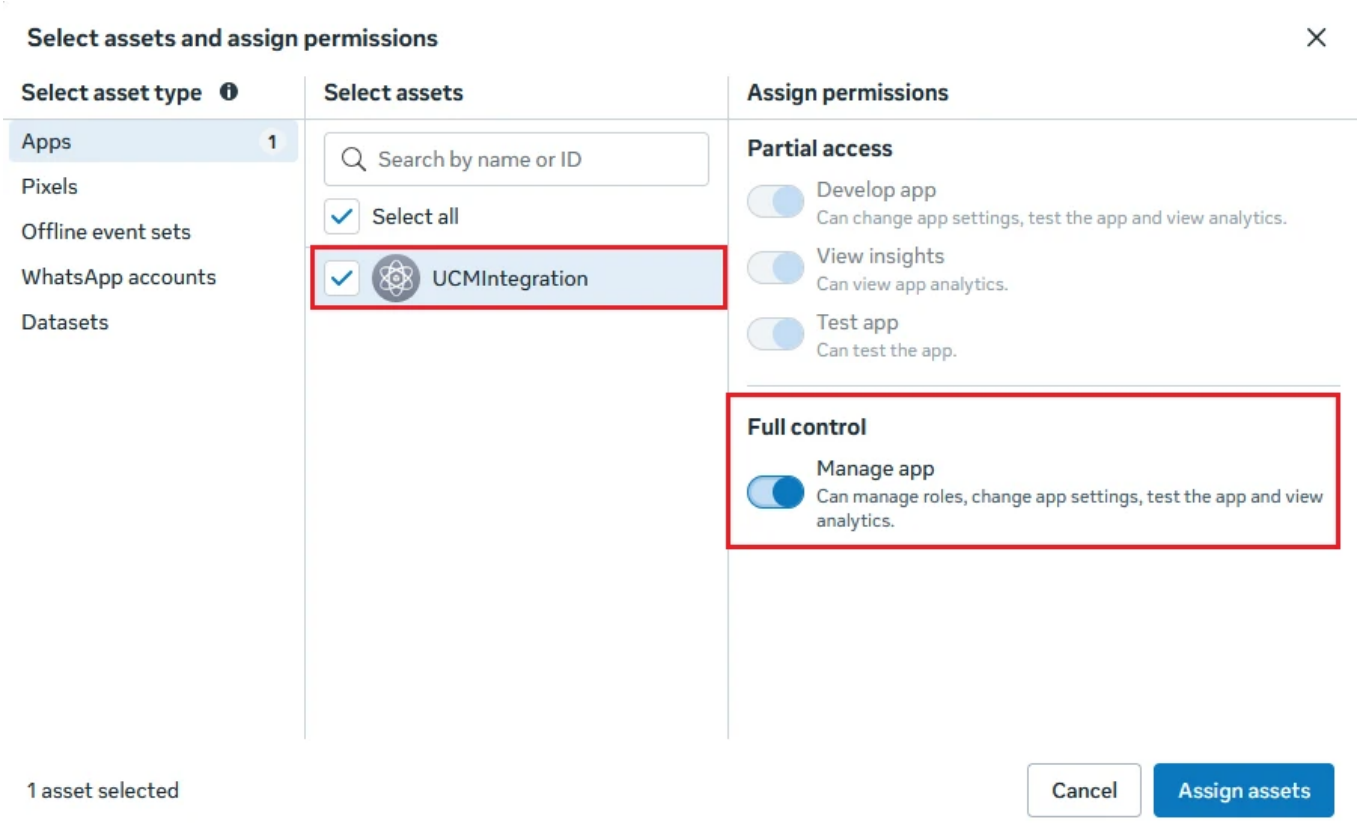
Assign Assets to the System User

1. With the new system user selected, click **Assign Assets**.



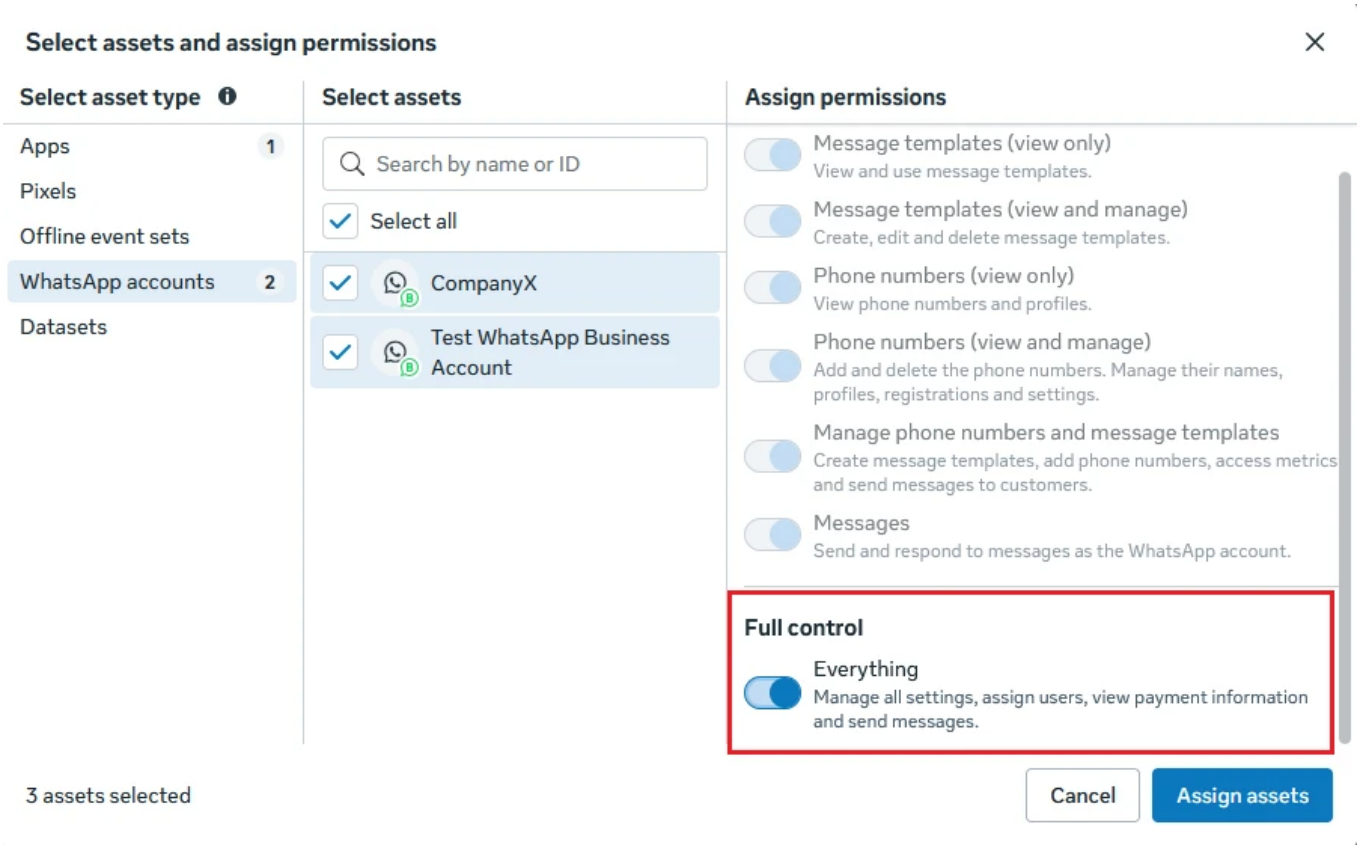
Assign Assets to the System User

2. Under the Apps tab, select your Meta app and enable **Full Control->Manage app**. Click Save Changes.



Assigning App Permissions to the System User

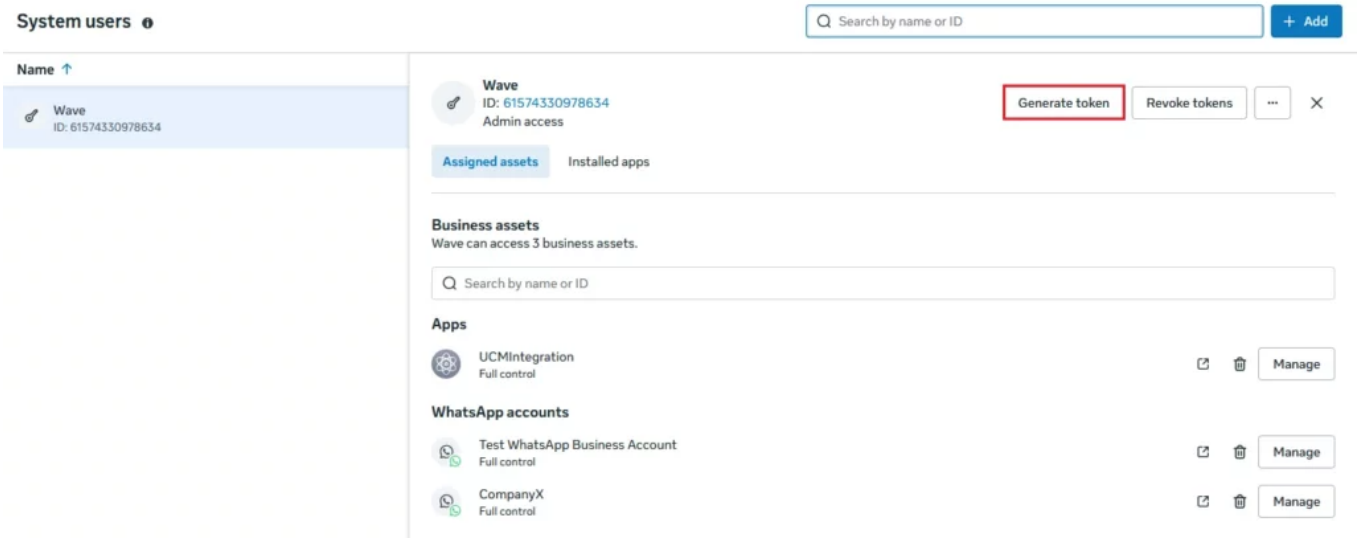
3. Under the WhatsApp Accounts tab, select your WhatsApp Business Account(s) and enable **Full Control->Manage WhatsApp Business Accounts**. Click Save Changes.



Assigning WhatsApp Account Permissions to the System User

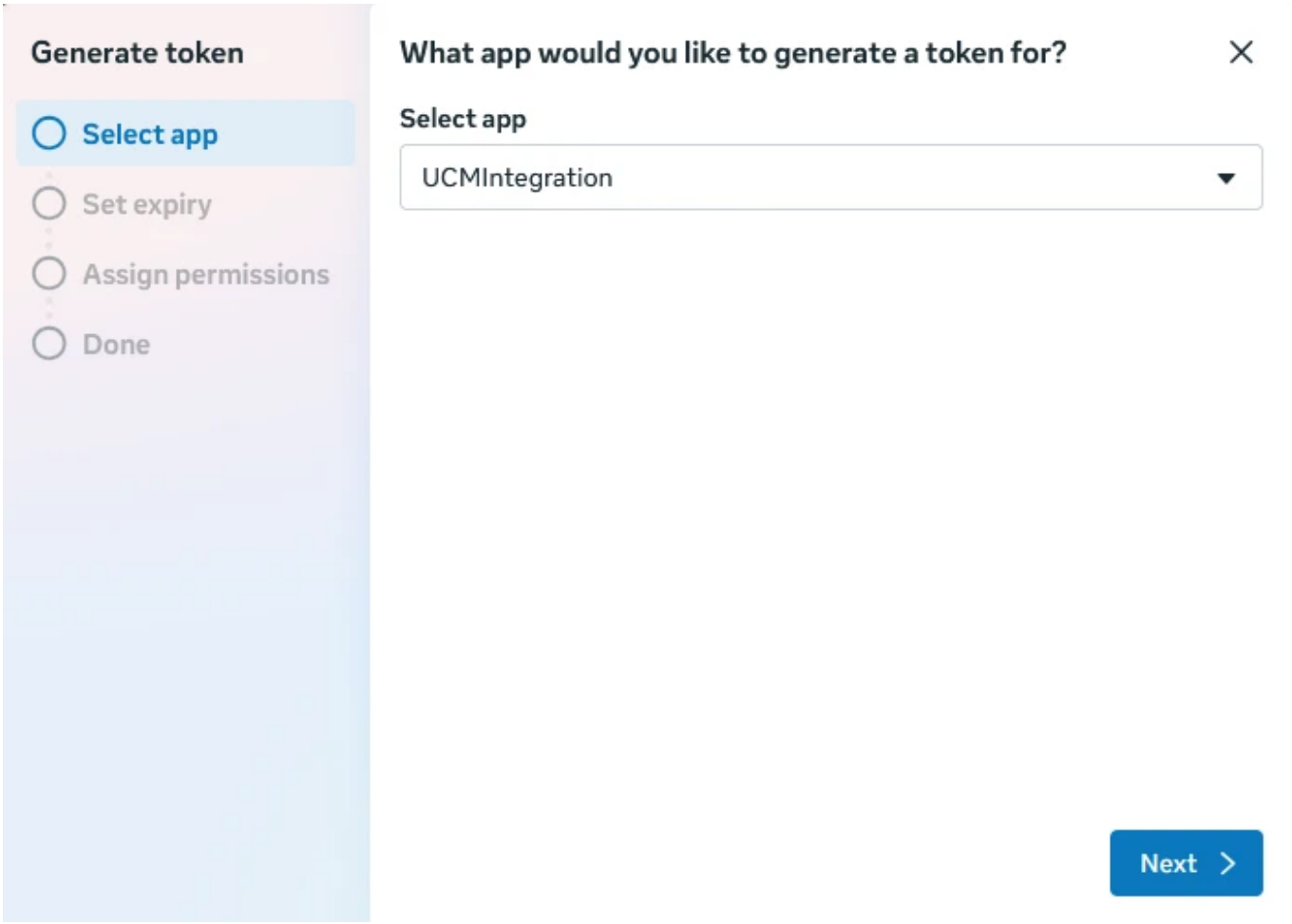
Generate the Token

1. On the System Users page, select the system user you created and click **Generate token**.



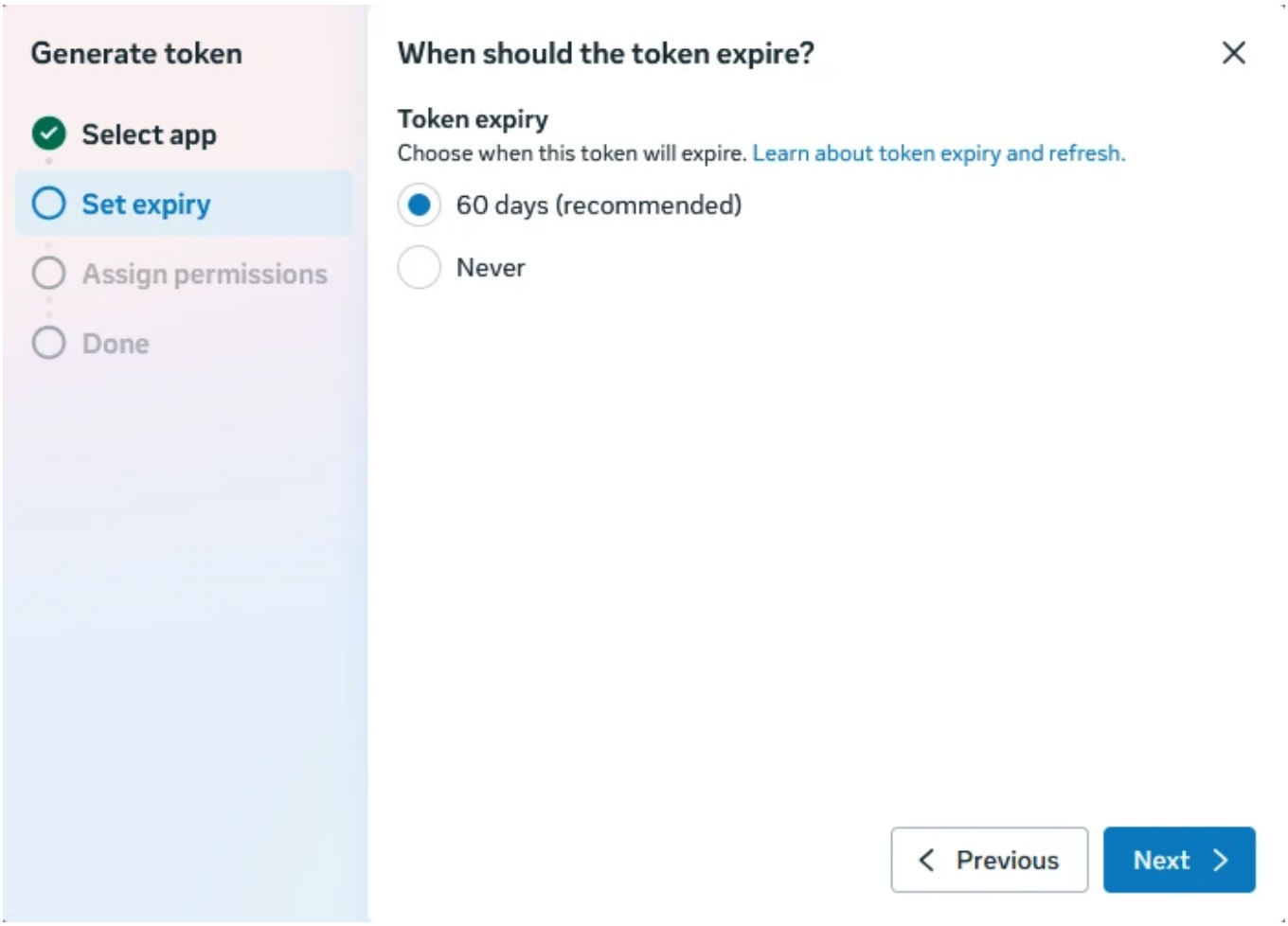
Generate Token Button on System Users Page

2. In the pop-up, select your app from the drop-down list.



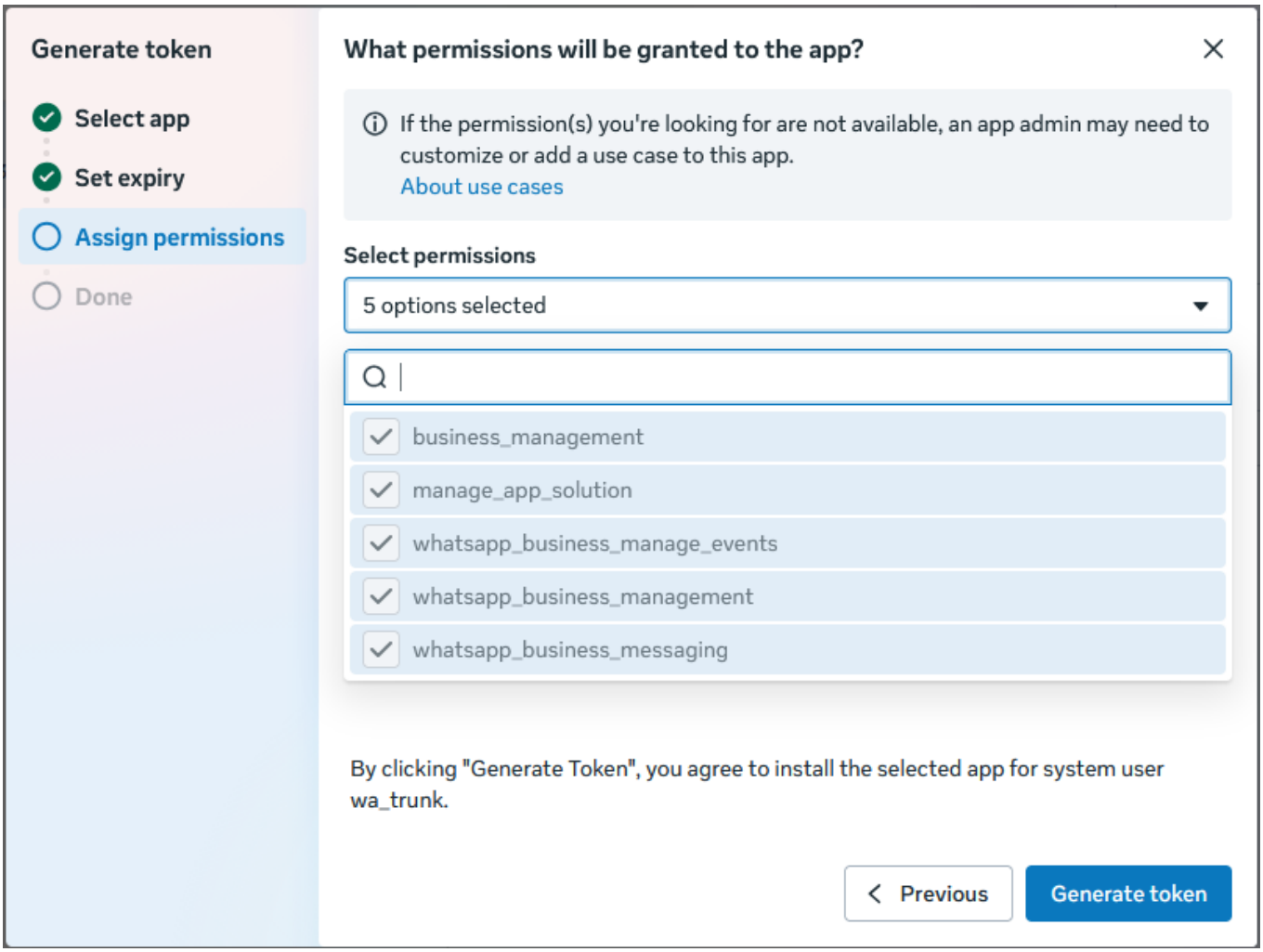
Select App for Token Generation

3. Select a token expiration; we recommend 60 days.



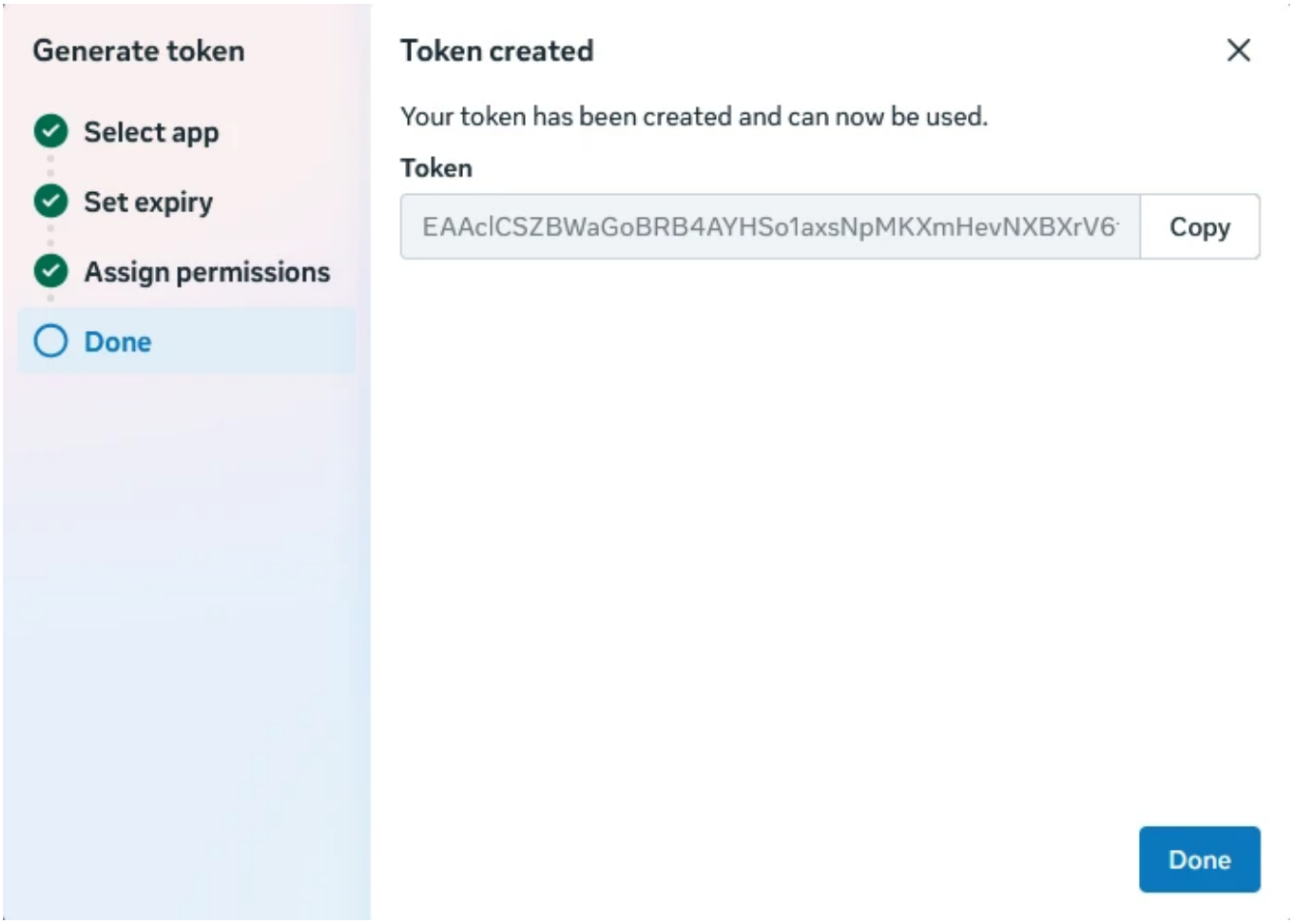
Set Token Expiry

4. Enable the following permissions:



Assign Token Permissions

5. Click **Generate Token**.
6. Copy the token displayed and store it in a secure location. This token will not be shown again and remains valid indefinitely until explicitly revoked.



Created Permanent Token

Anyone with access to this token can send and receive messages and calls on behalf of your WhatsApp Business Account.

UCM CONFIGURATION

Configuration Overview

The WhatsApp Trunk configuration follows this sequence:

1. **Obtain the required WhatsApp information from Meta.**
2. **Create a WhatsApp Trunk on the UCM.**
3. **Enter the WhatsApp information and configure the trunk.**
4. **Save the WhatsApp Trunk and allow the UCM to validate the configuration.**
5. **Configure an Inbound Route for the WhatsApp Trunk.**
6. **Select the required Default Destination.**
7. **Save the Inbound Route.**

Configure the WhatsApp Trunk

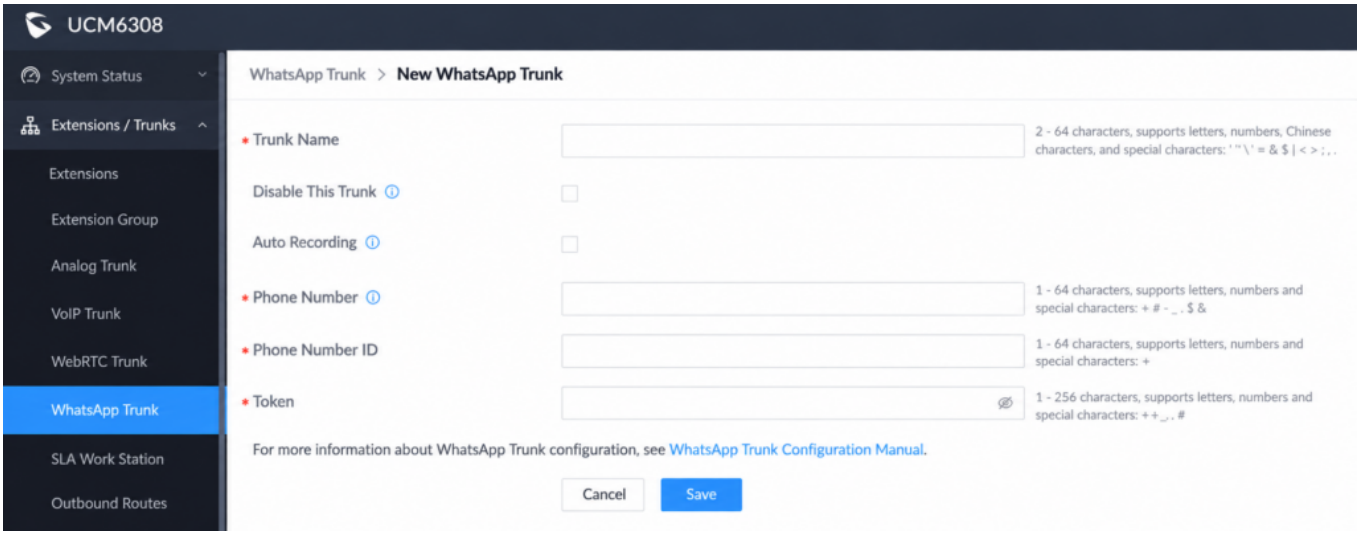
Access the WhatsApp Trunk Configuration Page

Log in to the UCM Web UI and navigate to:

Extensions / Trunks -> WhatsApp Trunk

Click **Add** to create a new WhatsApp Trunk.

The **New WhatsApp Trunk** configuration page will be displayed.



Configure the WhatsApp Trunk Parameters

Configure the parameters according to the following table.

Parameter	Requirement	Description
Trunk Name	Required	Enter a name for the WhatsApp Trunk. The trunk name is mandatory and must not be the same as an existing VoIP Trunk name.
Disable This Trunk	Optional	Enable this option to disable the WhatsApp Trunk while retaining its configuration. Calls cannot be made through a disabled trunk.
Auto Record	Optional	Enable this option to automatically record calls made through the WhatsApp Trunk.
Phone Number	Required	Enter the WhatsApp phone number obtained from the Meta application.
Phone Number ID	Required	Enter the Phone Number ID obtained from the Meta application.
Token	Required	Enter the Access Token obtained from the Meta application.

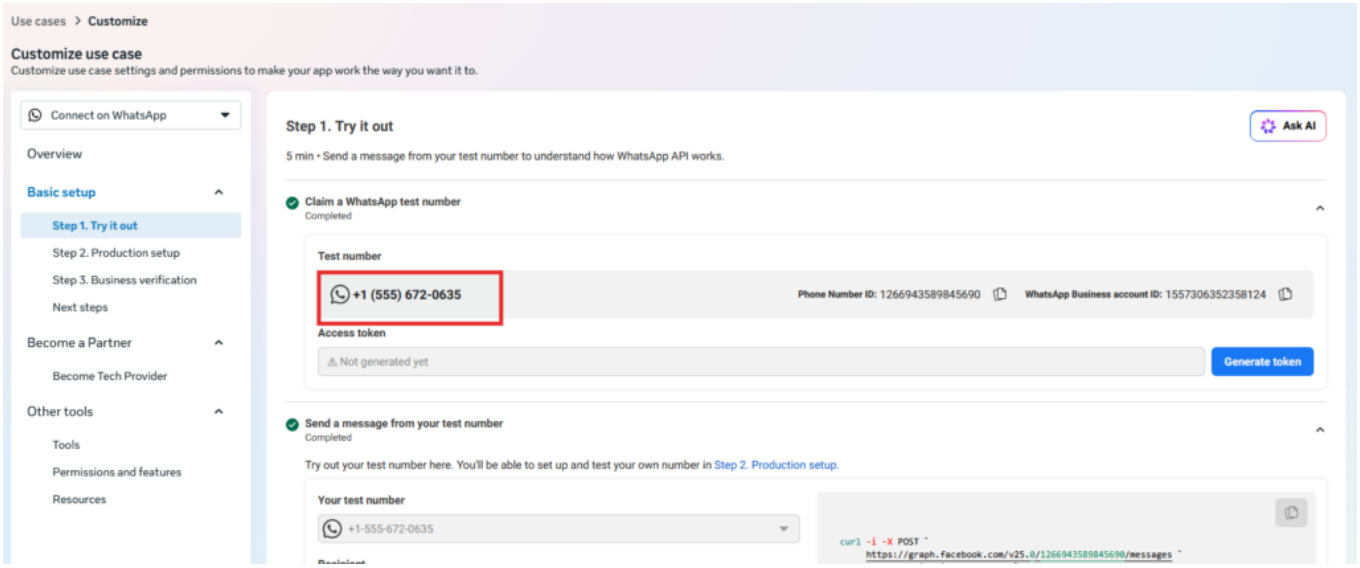
The **Phone Number**, **Phone Number ID**, and **Token** are information obtained from the Meta application.

Phone Number

The **Phone Number** field corresponds to the WhatsApp phone number obtained from the Meta application.

Enter the WhatsApp phone number associated with the WhatsApp Business account that will be used with the trunk.

> Important: The phone number must correspond to the WhatsApp phone number configured in the Meta application.

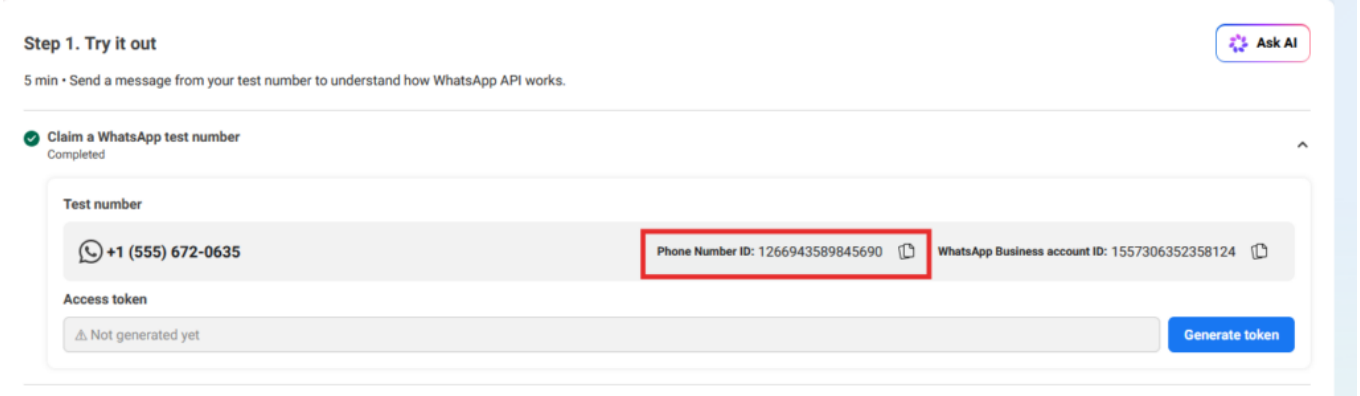


Phone Number

Phone Number ID

The **Phone Number ID** field corresponds to the **Phone Number ID** obtained from the Meta application.

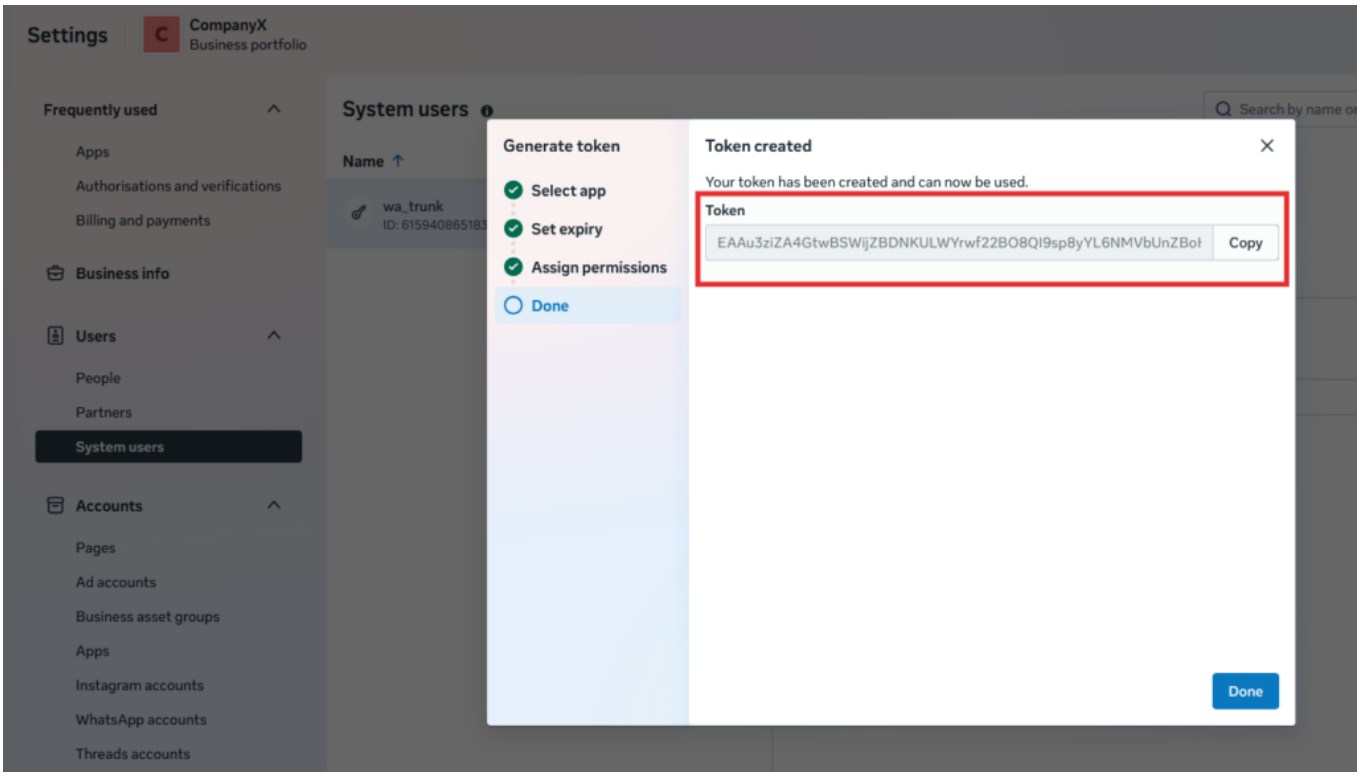
Enter the Phone Number ID associated with the WhatsApp phone number.



Token

The **Token** field corresponds to the Permanent Access **Token** obtained from the Meta application.

Enter the permanent Access Token generated from Meta Business Settings -> Users -> System Users for the WhatsApp Business account.



Saving and Validating the WhatsApp Trunk

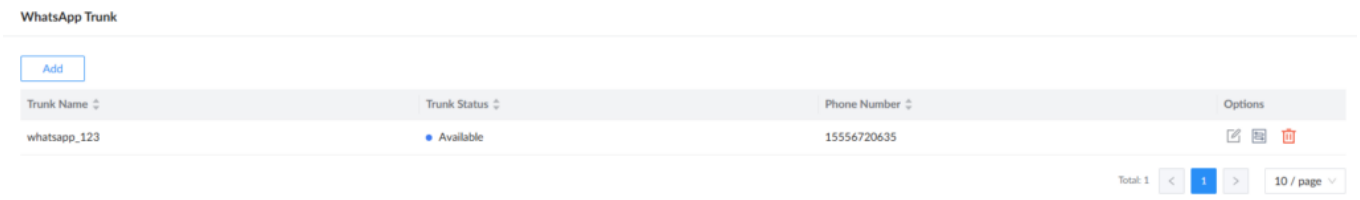
After entering the required information, save the WhatsApp Trunk configuration.

During the save operation, the UCM communicates with the **Graph API** to query the required information and bind the SIP service.

The save operation therefore also performs validation of the configured information.

- **If the information is correct**:

If the information provided to the UCM is correct and the Graph API operation succeeds, the WhatsApp Trunk configuration can be saved successfully.



If the information is correct

- **If the information is incorrect**

If the configured information is incorrect, the Graph API interface returns a failure.

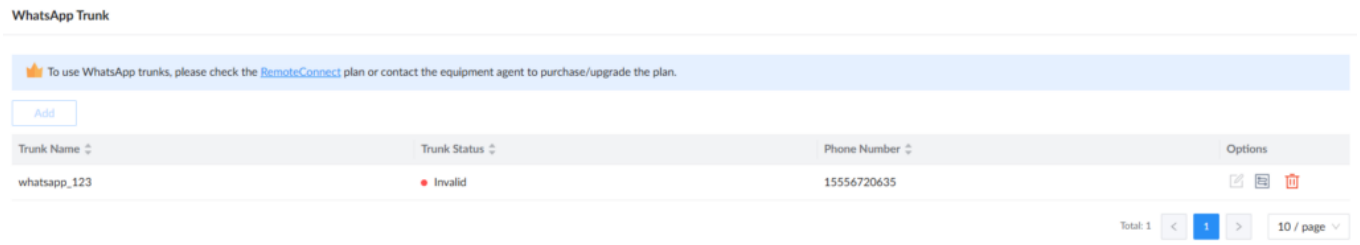
In this situation:

- The WhatsApp Trunk configuration cannot be saved.
- The UCM returns an error message.

Therefore, if the configuration cannot be saved, verify the WhatsApp information entered in the trunk configuration, particularly the following:

- Phone Number

- Phone Number ID
- Access Token



If the information is incorrect

Configure the WhatsApp Trunk Inbound Route

After configuring the WhatsApp Trunk, configure its **Inbound Route**.

The inbound route determines where incoming WhatsApp calls should be delivered.

Inbound Route Limitation

Because inbound call matching is closely associated with the WhatsApp Trunk's phone number:

> Each WhatsApp Trunk can have only one Inbound Route.

This is an important configuration limitation when deploying multiple WhatsApp Trunks on the same UCM.

Access the Inbound Route Configuration Page

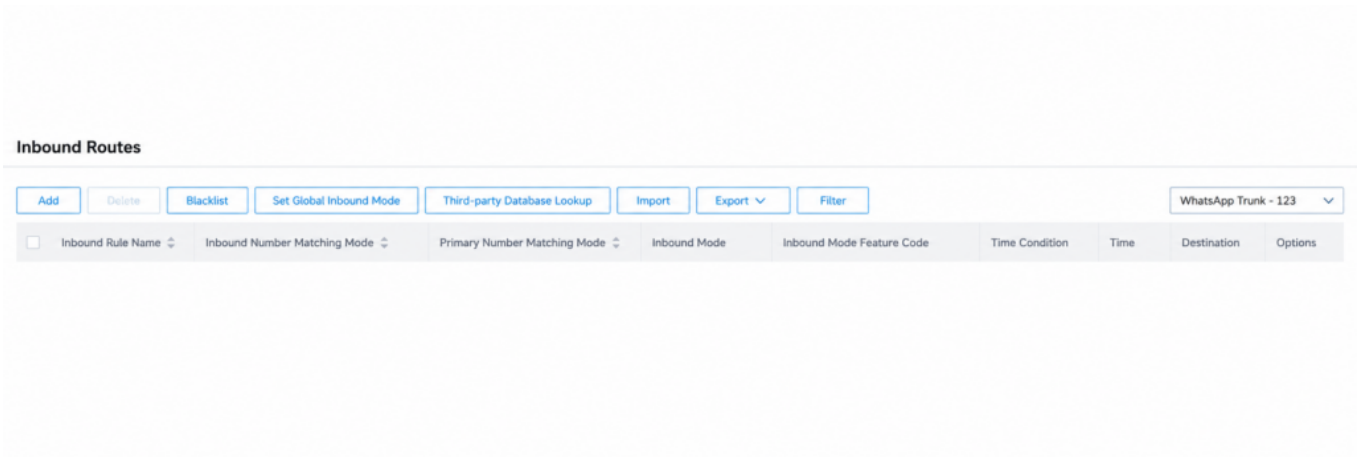
Navigate to:

Extensions / Trunks -> Inbound Routes

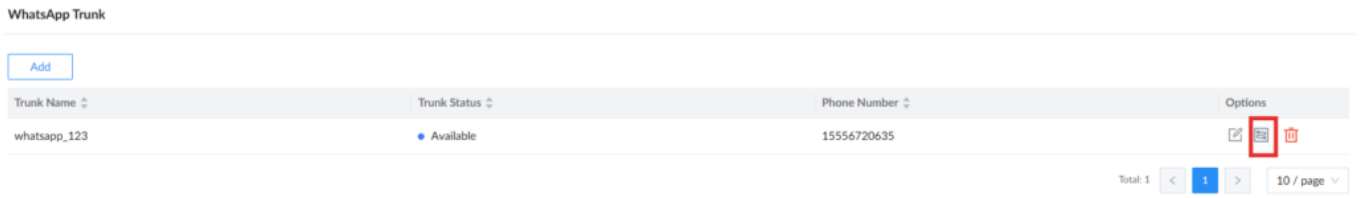
In the upper-right corner of the page, select the corresponding **WhatsApp Trunk**.

Then click **Add**.

The **New Inbound Rule** page will be displayed.



Or click the highlighted icon below, and it will automatically redirect you to the inbound route page for the specific selected WhatsApp trunk :



Configure the Inbound Rule

On the **New Inbound Rule** page:

Step 1 - Enter the Inbound Rule Name

Enter a name for the inbound rule.

The rule name should identify the purpose of the inbound rule and distinguish it from other inbound rules where applicable.

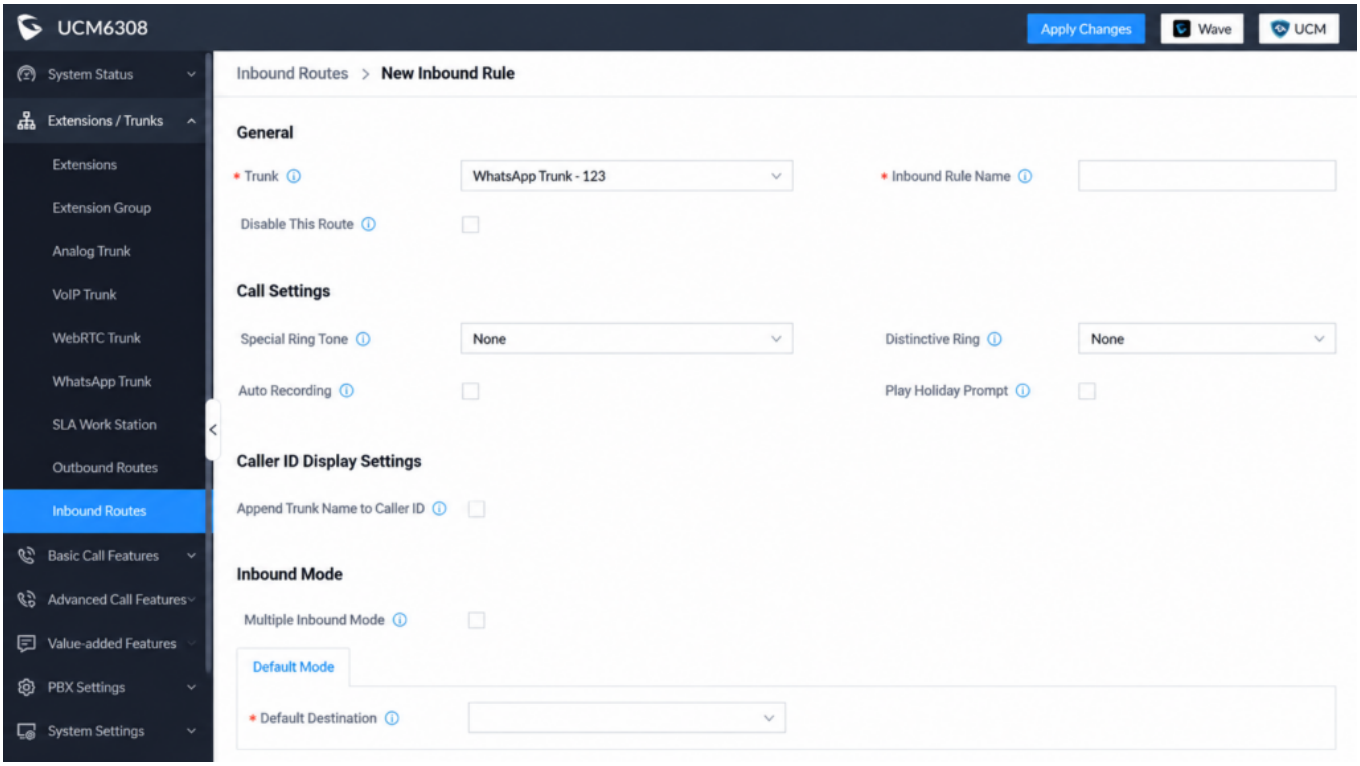
Step 2 - Select the Default Destination

Select the required **Default Destination**.

The available destination types provide different ways to handle incoming calls. Select the destination according to the customer's requirements.

Step 3 - Save the Rule

After configuring the inbound rule name and Default Destination, save the configuration.



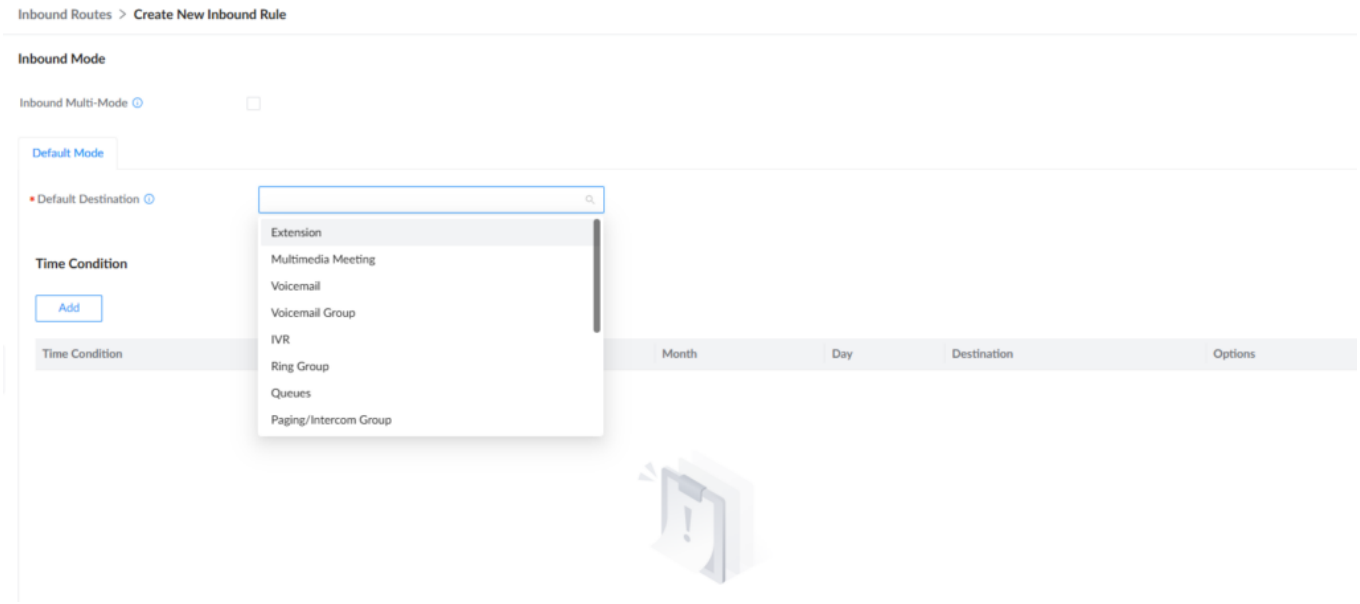
Default Destination

The **Default Destination** provides multiple destination choices and that the available choices are generally consistent with those used for VoIP Trunk inbound-route configuration.

The exact destination should be selected according to the customer's call-handling requirements.

The source screenshot illustrates the following destination options:

- **Extension**
- **Conference**
- **Language Prompt**
- **Language Mailbox**
- **IVR**
- **Ring Group**
- **Queue**
- **Fax/Extension**



When configuring the inbound route, select the **Default Destination** according to how the customer wants incoming WhatsApp calls to be handled.

For example, the destination can be configured to send the call toward an appropriate UCM call-handling destination such as an extension, IVR, ring group, or queue.

After configuring the inbound route, the entire WhatsApp Trunk configuration process is completed.

SUPPORTED DEVICES

The WhatsApp Trunk configuration described in this guide is supported on the following Grandstream devices:

Models	Firmware Required
UCM630x Series	1.0.35.8+
UCM630xA Series	1.0.35.8+