

# Wave Desktop 3rd Party Add-ins — User Guide

## OVERVIEW

Wave Desktop offers third party integrations with productivity add-ins in order to have these tools accessible directly on Wave Desktop, without having to switch constantly between tools. Integrating add-ins into Wave Desktop brings convenience which improves the unified collaboration experience.

### Note

Please note that to be able to use the 3rd party integrations, the UCM should be subscribed to a paid RemoteConnect plan. For more information, please refer to: <https://ucmrc.gdms.cloud/plans>

## ADD-IN CONFIGURATION

### WhatsApp Add-in

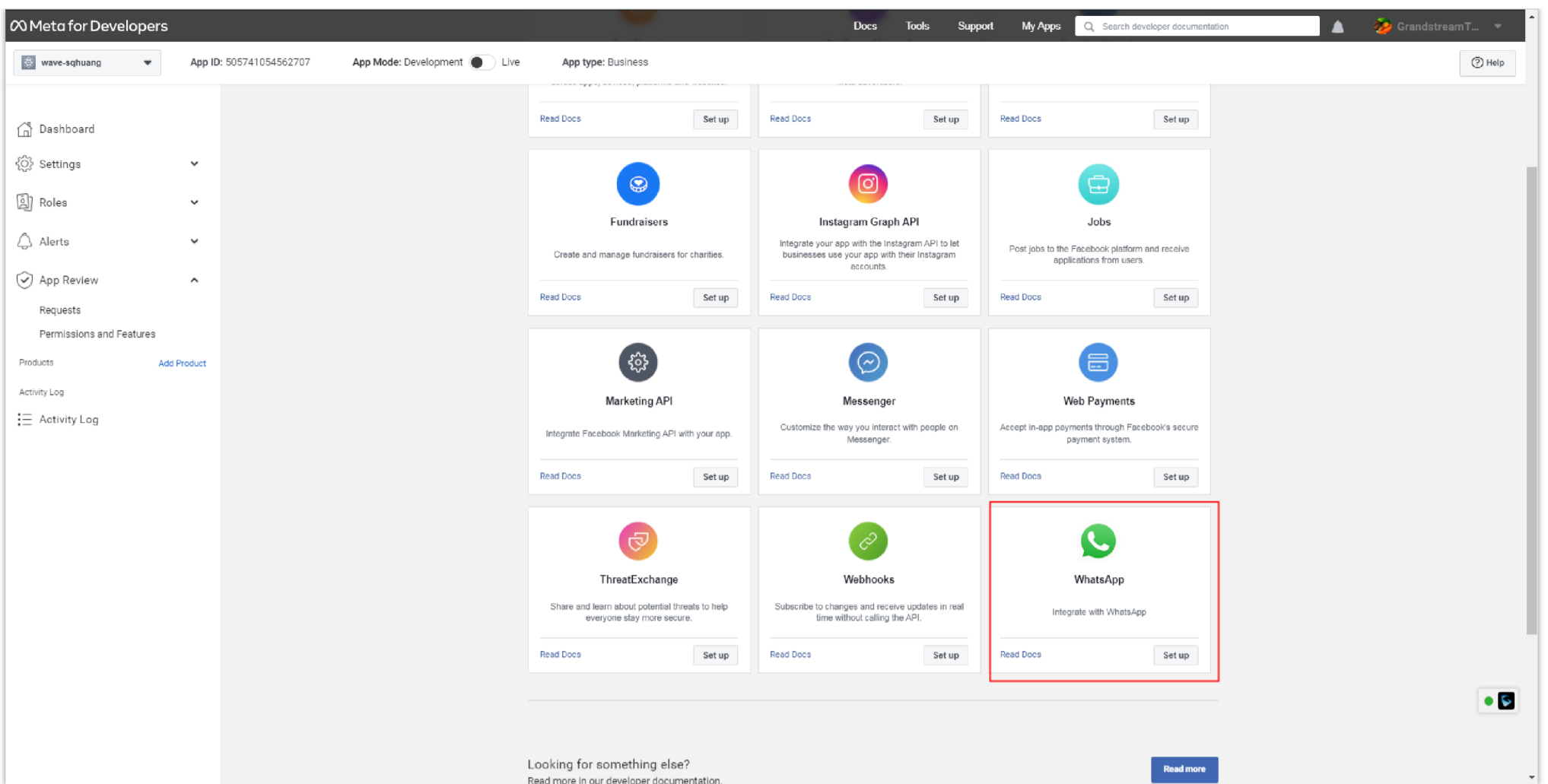
WhatsApp add-in allows the user to integrate WhatsApp messaging services into Wave. The user will be able to receive WhatsApp messages on Wave and respond directly from Wave without having to switch to WhatsApp client.

#### Prerequisites:

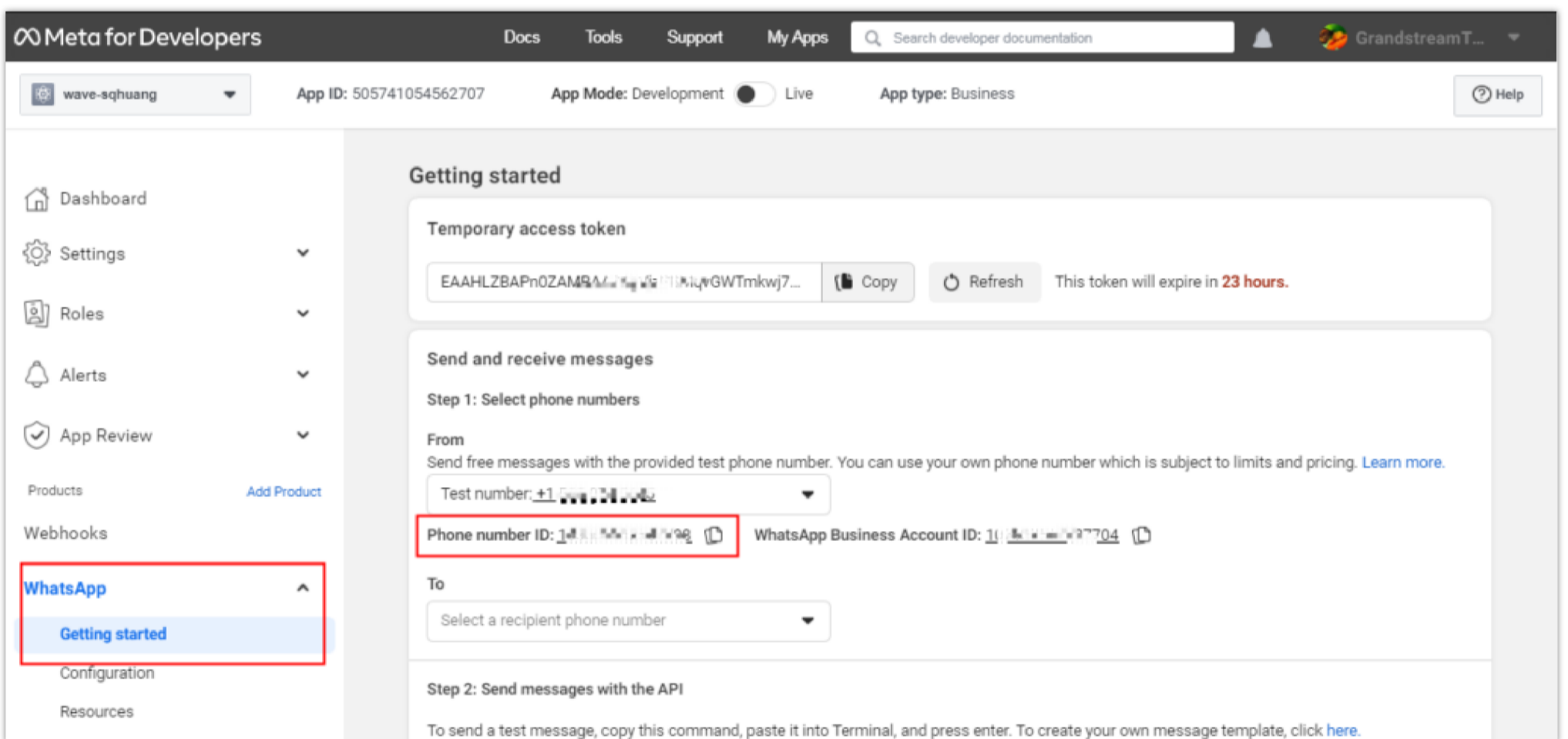
1. The user must have a WhatsApp business account with a phone number. The phone number cannot be used for other WhatsApp accounts. If the user wants to use the phone number that is already bound to another WhatsApp account, the user needs to remove the binding first.  
Please refer to the link below:  
[https://faq.whatsapp.com/605464643328528/?cms\\_platform=android&locale=en\\_US](https://faq.whatsapp.com/605464643328528/?cms_platform=android&locale=en_US)
2. Your UCM server must have an external network address and the address contains a valid TLS/SSL certificate (users can use the UCM RemoteConnect address), so that the WhatsApp server can push WhatsApp messages to the UCM server.

#### ◦ Phase 1: Create Application on WhatsApp

1. Visit <https://developers.facebook.com> to log in the Facebook account. The user needs to register as a Meta Developer first.
2. Go to Multi-factor Authentication. Please refer to the link below for more details: <https://www.facebook.com/help/148233965247823>
3. Go to [developers.facebook.com](https://developers.facebook.com) -> My Apps -> Create App, select the “Business” type and follow the prompts on your screen.
4. Enter the display name of the application and other settings, then create an application.
5. After the application is created successfully, the user can process to “Add products to your app”, then the user can find the “WhatsApp” application, and click the “Set up” option.



6. The user can click the “Continue” option to access “WhatsApp” -> “Getting Started (or Setup) Panel”. Please refer to the screenshot below:



7. Select the phone number which the user prefers to use to send/receive WhatsApp messages. The user can copy the “Phone number ID” and save it for configuration on the Wave client.

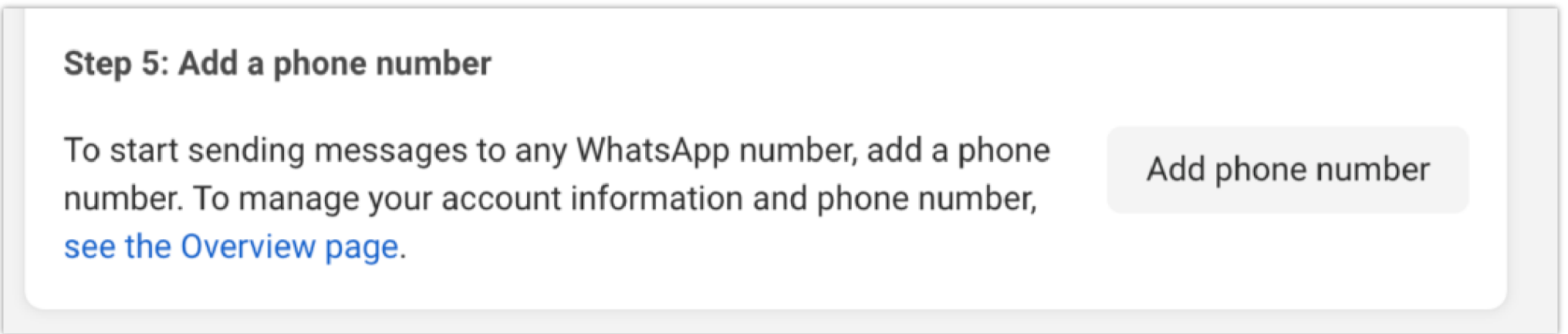
8. (Optional) On the “Setting” -> “Basic” page, find the item “App secret”, the user can copy the “App secret” to the bottom of the drop-down menu and save it for future usage. The user can use this parameter to verify the callback URL to ensure the UCM server is securely accessed.



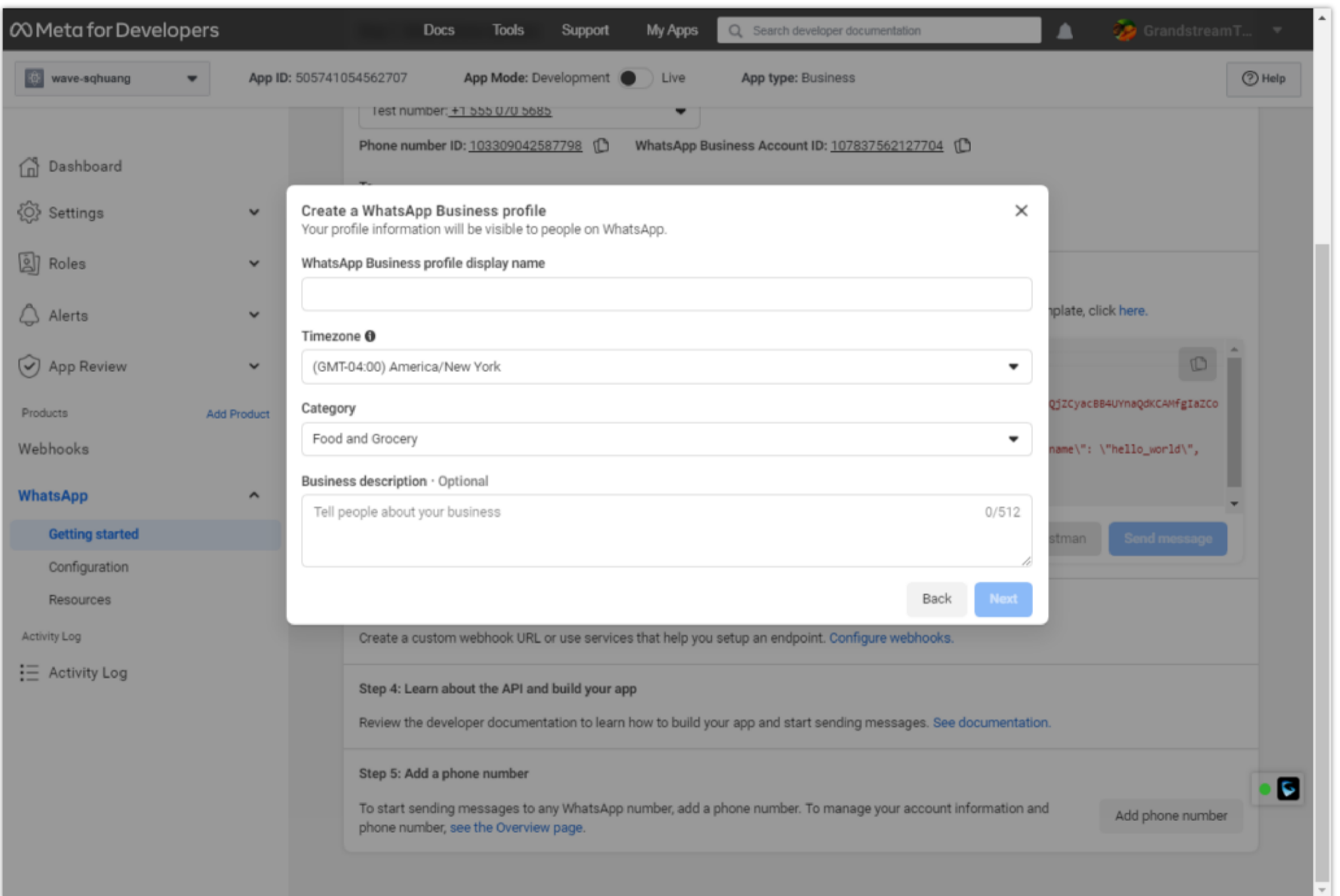
9. If the user does not have a number attached to the WhatsApp account, then follow the steps below:

o Phase 2: (Optional) Add Phone Number

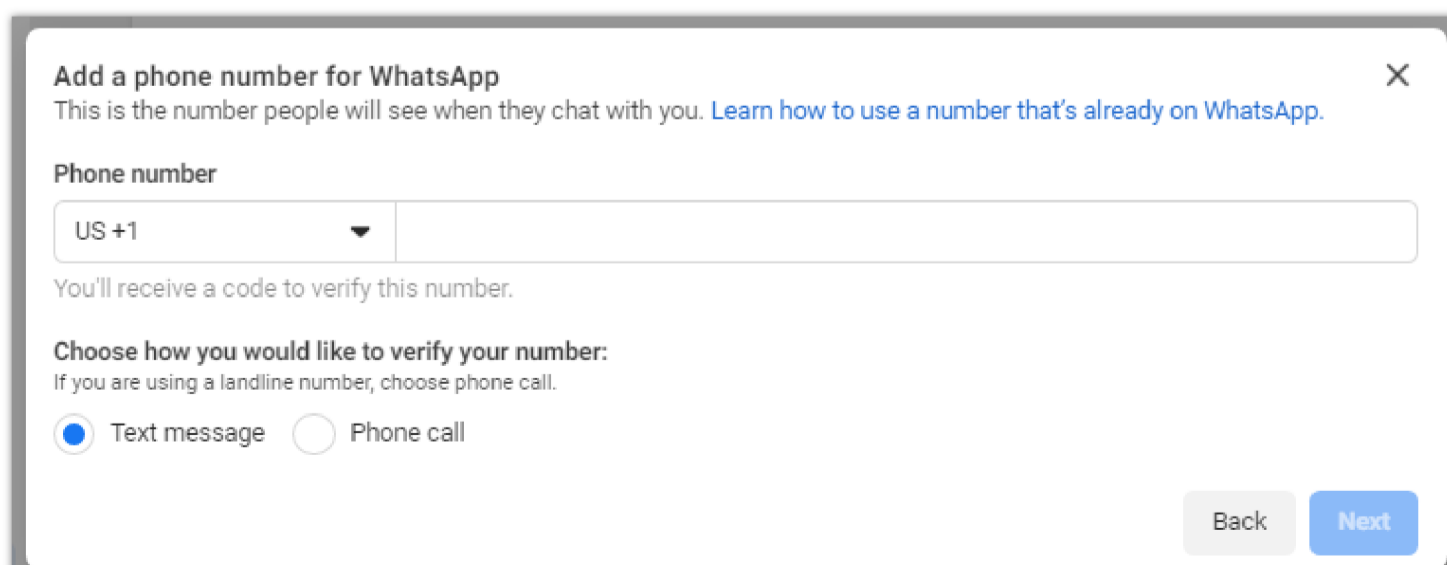
1. Under “WhatsApp” -> “Getting started” -> “Step 5: Add a phone number”, click the option “Add Phone Number”. Please refer to the screenshot below:



2. Fill in the information as prompted and click the “Next” button.



3. Enter the phone number and select the verification method (Text or Phone Call), and click the “Next” button.



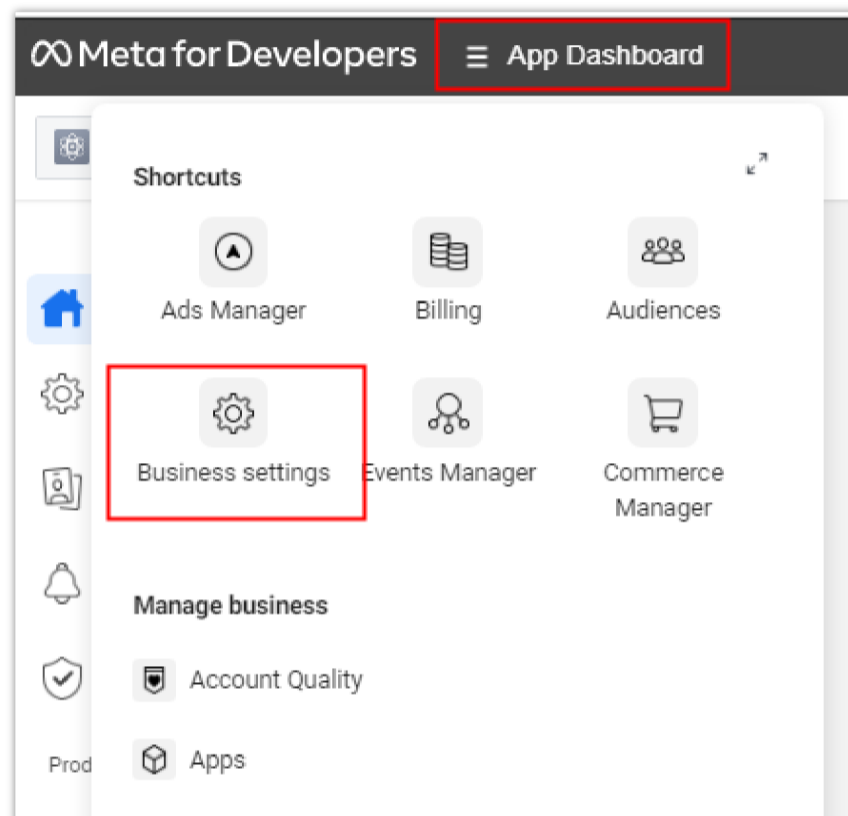
4. Once verified, the phone number will be visible in the drop-down menu of “Send and receive messages” field on the “WhatsApp” -> “Getting Started” page. The user can select the phone number and copy the “Phone number ID” to save it.

#### Note

The phone number cannot be used for another WhatsApp account. For example, it cannot be used to bind to the WhatsApp business application on the user’s cell phone.

#### Phase 3: Set Administrator Role

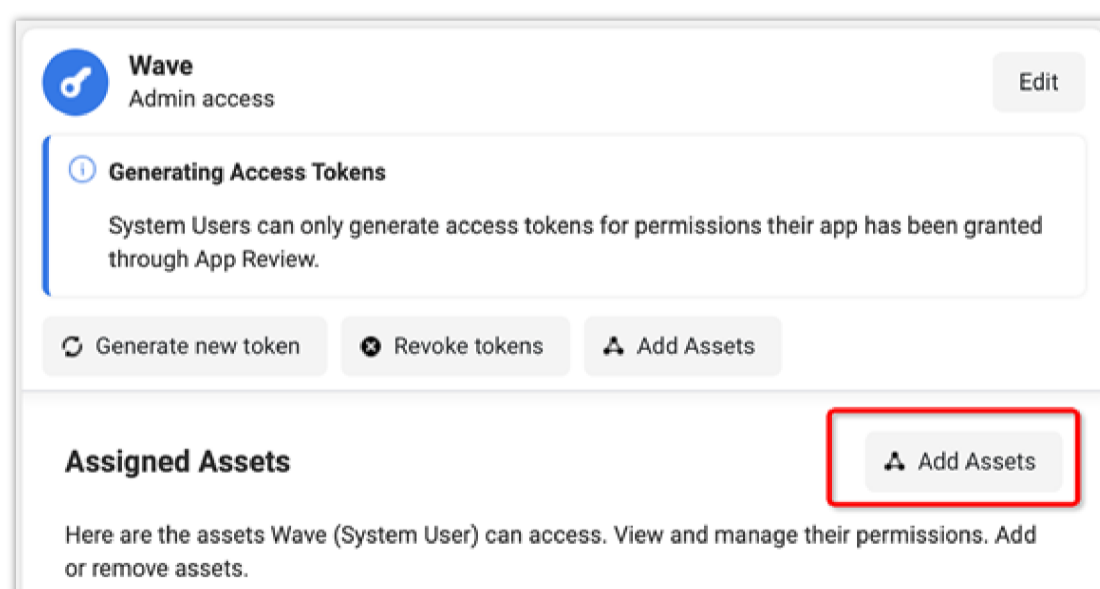
1. The user can go to the “Dashboard” page of the app, click on the menu icon **App Dashboard** and select “Business settings”. Please refer to the screenshot below:

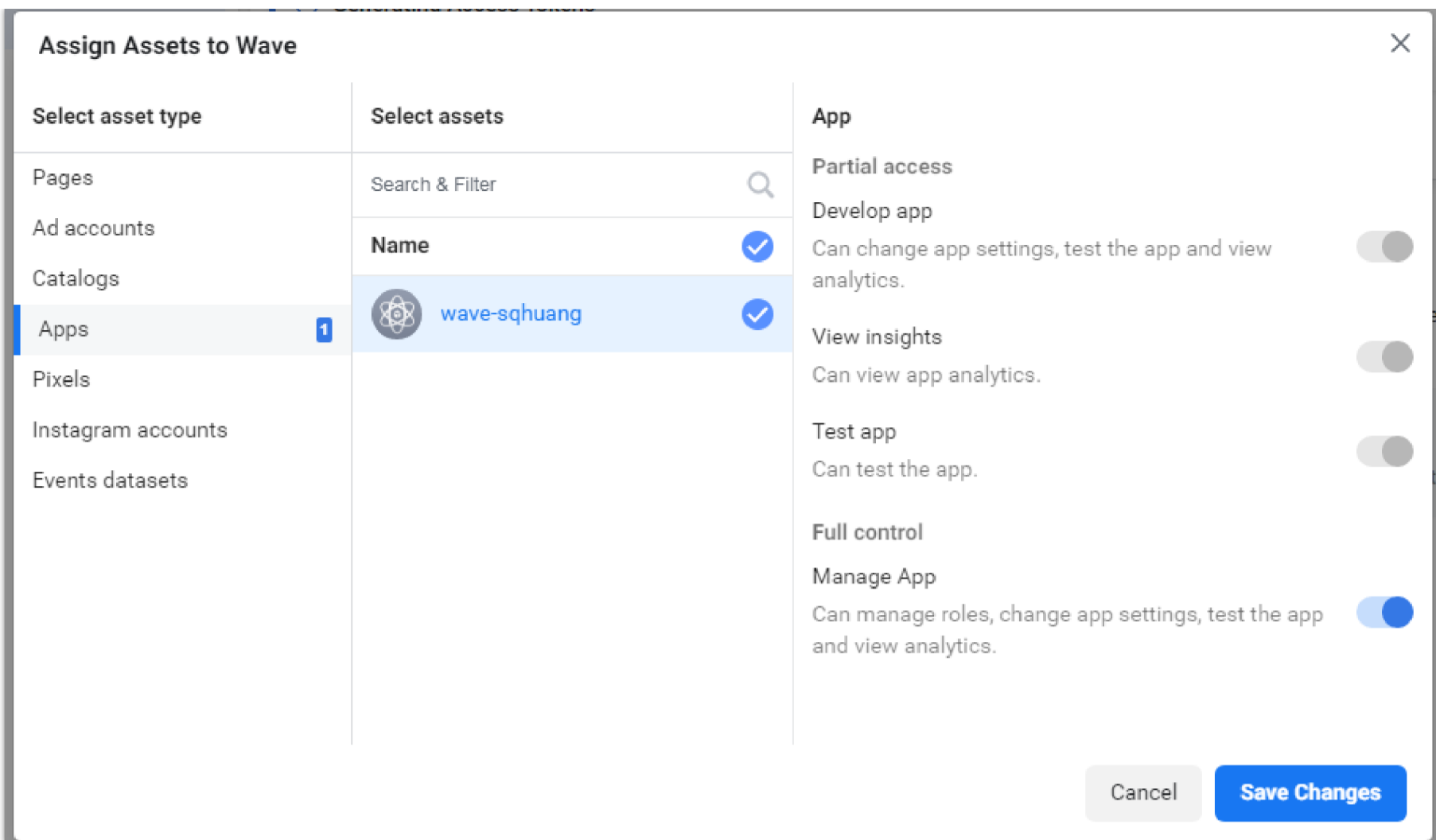


2. The user needs to go to the “Users” -> “System Users” page, click “Add” option, accept the non-discrimination policy, and click the “Done” button.

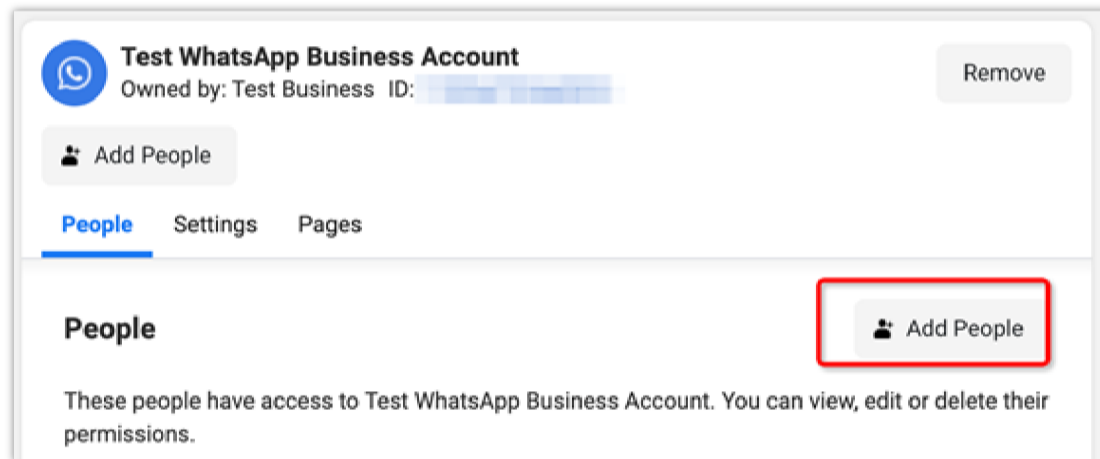
3. Enter a system username, something like “Wave”, and set the user role to “Admin”.

4. Click the “Add Assets” option -> on the pop-up box, select “Apps” -> [Your App] -> enable the option “Manage app” -> click the “Save Changes” button. Please refer to the screenshots below:

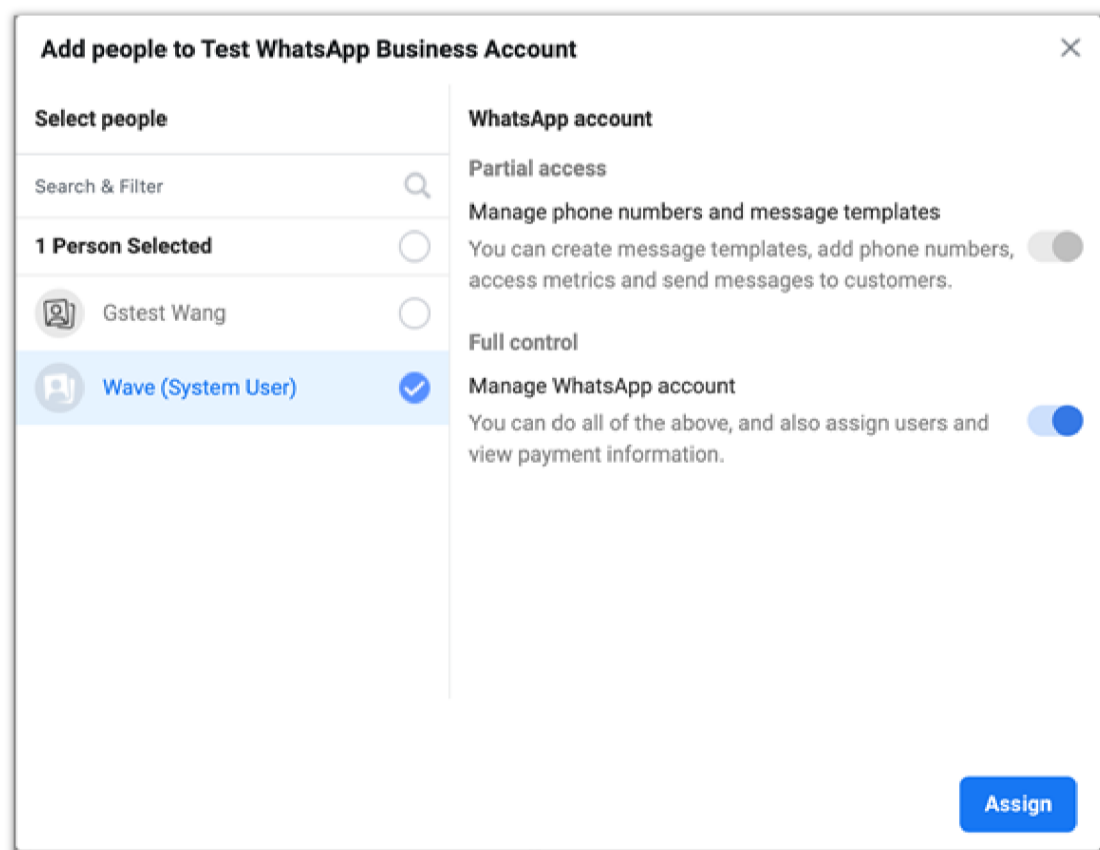




5. Go to “Accounts” -> “WhatsApp accounts” page, the user can select the app and click “Add people” to add administrator candidates.

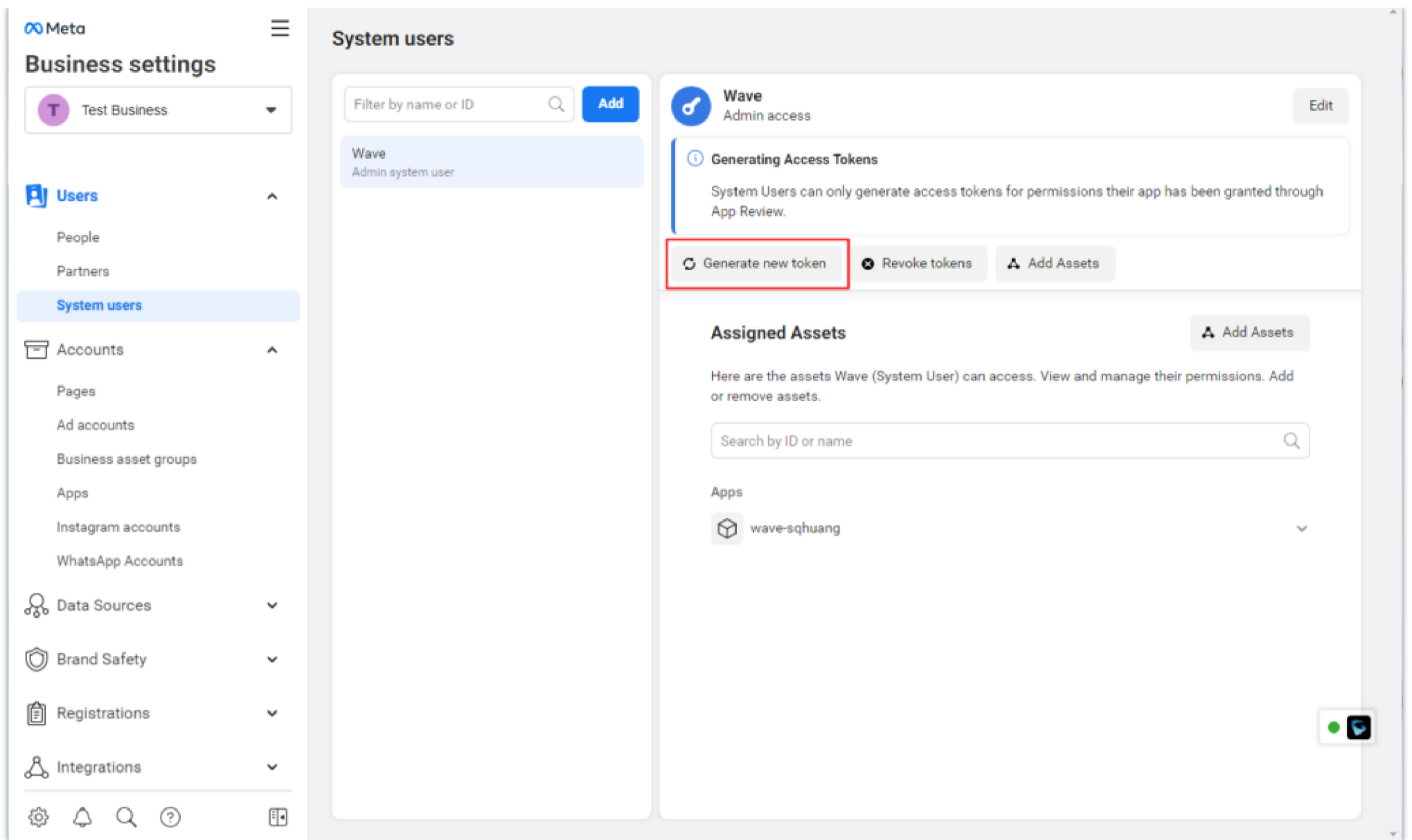


6. Select the system user the user has created and enable the “Manage WhatsApp account” option, then click the “Assign” button to finish setting the administrator role.

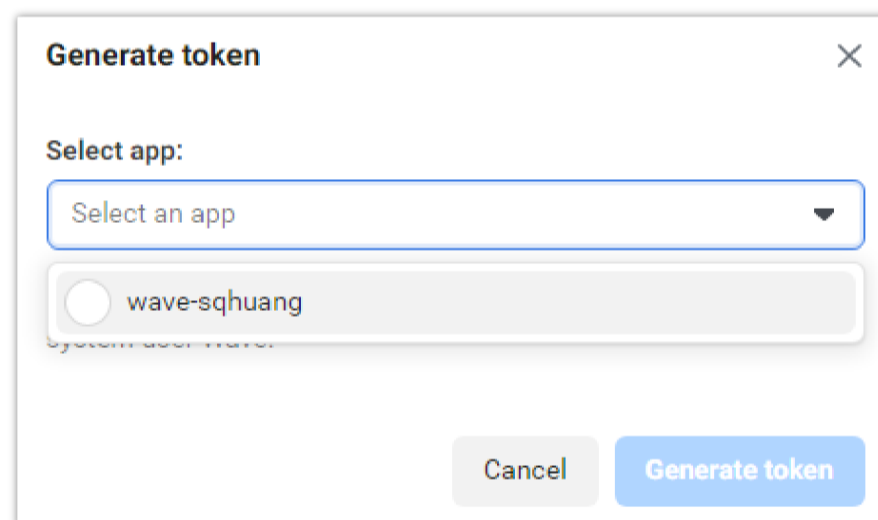


o **Phase 4: Generate New Token**

1. Go to the “Business settings” page, then go to “Users” -> “System users”, and click the option “Generate new token”.



2. On the pop-up menu, select the app from the drop-down list.




3. Check the option “**whatsapp\_business\_messaging**” and “**whatsapp\_business\_management**”, then the user can click the “**Generate Token**” button to generate the token. Please refer to the screenshot below:

read\_engagement  
 business\_creative\_insights  
 commerce\_account\_read\_reports  
 pages\_read\_engagement  
 publish\_actions  
 pages\_manage\_metadata  
 pages\_manage\_ads  
 pages\_manage\_cta  
 whatsapp\_business\_messaging  
 ads\_management  
 pages\_read\_user\_content  
 publish\_pages  
 pages\_manage\_posts  
 business\_creative\_management  
 whatsapp\_business\_management  
 attribution\_read  
 commerce\_account\_read\_settings  
 private\_computation\_access  
 commerce\_account\_read\_orders  
 instagram\_manage\_messages  
 business\_data\_management  
 pages\_manage\_instant\_articles  
 manage\_business\_extension  
 read\_page\_mailboxes  
 commerce\_manage\_accounts  
 instagram\_content\_publish  
 read\_audience\_network\_insights  
 pages\_manage\_engagement

By clicking 'Generate token', you agree to install selected app for system user Wave.

4. The access token will be displayed in the popup window, the user needs to copy and save it. This is a permanent token and will not be revoked until the user clicks the “**Revoke token**” button.

**Generate token** ✕

 An access token has been generated for Test Business as following:

System user: **Wave**  
 Assigned app: **wave-sqhuang**  
 Access token: `EA.AHL28xJ...v.Cc...GOT3WYWzkwgrZ  
 C3ZAZAMwT4f...LgP...S8IIVBa  
 ZAu2i...p...57...JiaBFg4cXZ  
 BKxyq...D...D...ezGXha  
 cjWSJFQHhaw...ep...K...gZDZD`

Copy and save this token as it won't be stored at Facebook.

◦ **Phase 5: Configure WhatsApp On Wave Desktop**

The user can install the WhatsApp add-in on the Wave Desktop application, and the user can click the add-in to configure the account info of the WhatsApp. Please refer to the screenshot below:

- Name: The name of the WhatsApp business account.
- Access Token: Enter the access token which the user obtains in Step NO.4.
- Client Secret (Optional): Enter the “App secret” the user obtains in Step NO.1.
- Webhook URL: This URL needs to be configured to the WhatsApp administration page, please click the button  to copy it.
- Phone Number ID: Enter the “Phone number ID” which the user obtains in Step NO.1. The user can click the button  to add the phone number ID. If the user configures multiple phone numbers, when those numbers receive WhatsApp messages, they will notify the Wave client.

### Notes

1. WhatsApp requires that the webhook URL must be an address accessible via the public network and the address has a valid TLS/SSL certificate. The self-signed certificates are not supported. We recommend using the UCM RemoteConnect address for Wave login, such as <https://xxxx.a.gdms.cloud>, so that the generated webhook URL is valid.
2. Each Wave client user can configure multiple WhatsApp business accounts in a single Wave client.
3. The “Phone number ID” of a WhatsApp account can be used for configuration on multiple Wave clients, but the Webhook URL must be the same one (the user can copy the Webhook URL on any client). Otherwise, the Wave client may not be able to receive the WhatsApp messages. If one user needs to configure the Client secret, the other users also need to configure the Client secret. Otherwise, the system will not verify the Client secret.

### ◦ Phase 6: Configure Webhook URL

1. In Step NO.5, the user needs to copy the Web URL on the Wave client as the screenshot shows below:



## Webhook URL

Webhook

https://im1.gdmr...a.gdms.v...t/gsim/webhooks/0-e4f94d0557f4...f636d384c7b8

2. Access the link again <https://developers.facebook.com> and access the user's App page. Go to **WhatsApp** -> **Configuration**, and click on the button **Edit**:

Quickstart > Configuration

**Webhook**

Callback URL: <https://im1.gdmr...a.gdms.v...t/gsim/webhooks/0-e4f94d0557f4...f636d384c7b8> Verify token: .....

Webhook fields: messages Manage

Permanent token: [Learn how to create a permanent token](#)

Phone numbers: Manage phone numbers

You have 0 production numbers and 1 test number.

3. Paste the copied Webhook URL taken from Wave into the **“Callback URL”** field.

4. To verify the token, the user can enter a random letter or number, and then click the **“Verify and save”** button:

Edit webhook's callback URL

Callback URL: <https://im1.gdmr...a.gdms.v...t/gsim/webhooks/0-e4f94d0557f4...f636d384c7b8>

Verify token: aaabbb

Cancel Remove webhook Verify and save

5. Click on the **“Manage”** button in the **“Webhook fields”** below the **“Edit”** button. Please see the screenshot above.

6. Click the **“Subscribe”** button next to the **“messages”** field and click **“Done”** button. Please see the screenshot below:

Name	Test version		Subscription version	
account_review_update	v15.0	Test	v15.0	Subscribe
account_update	v15.0	Test	v15.0	Subscribe
business_capability_update	v15.0	Test	v15.0	Subscribe
message_template_status_update	v15.0	Test	v15.0	Subscribe
messages	v15.0	Test	v15.0	Subscribe
phone_number_name_update	v15.0	Test	v15.0	Subscribe
phone_number_quality_update	v15.0	Test	v15.0	Subscribe
security	v15.0	Test	v15.0	Subscribe

Done

7. After the configurations are complete, the user can test the configuration by sending a WhatsApp message to the configured phone number to ensure that the user can receive the WhatsApp message on the Wave client, and make sure that the user can reply to it properly.

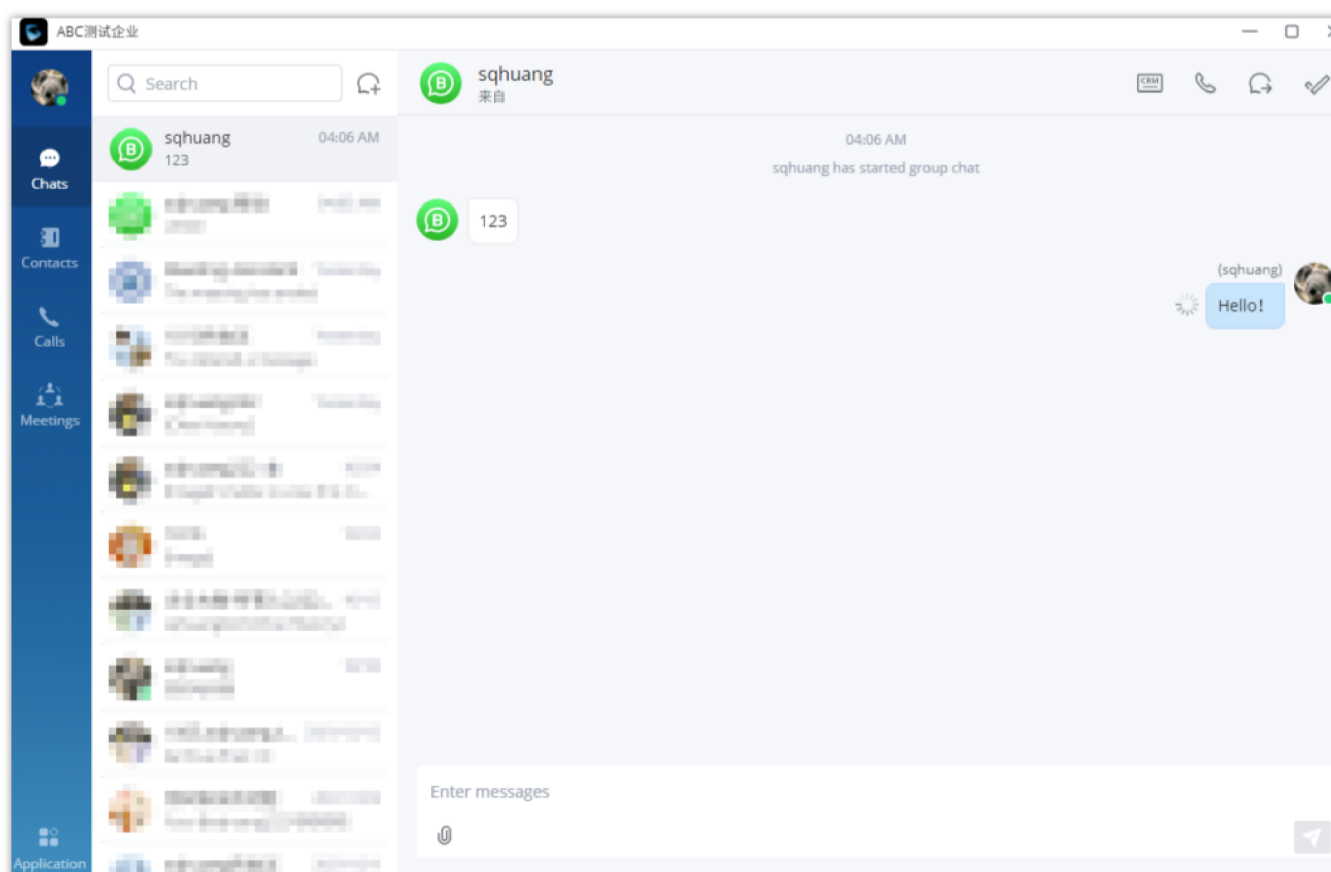
#### Note

WhatsApp requires that the webhook URL must be an address accessible via the public network and the address has a valid TLS/SSL certificate. The self-signed certificates are not supported. We recommend using the UCM RemoteConnect address for Wave login, such as <https://xxxx.a.gdms.cloud>, so that the generated webhook URL is valid.

### Send/Receive WhatsApp Message on Wave Desktop


After the configurations are complete, the user can receive WhatsApp messages on the Wave client and reply to messages directly.

1. The user can see the WhatsApp messages in the Chat module of Wave Desktop, and the user can also see the unread message notifications. Please the screenshot below:





The user can send text and attachments in the chat window.


## Options on the right upper corner of the chat window.

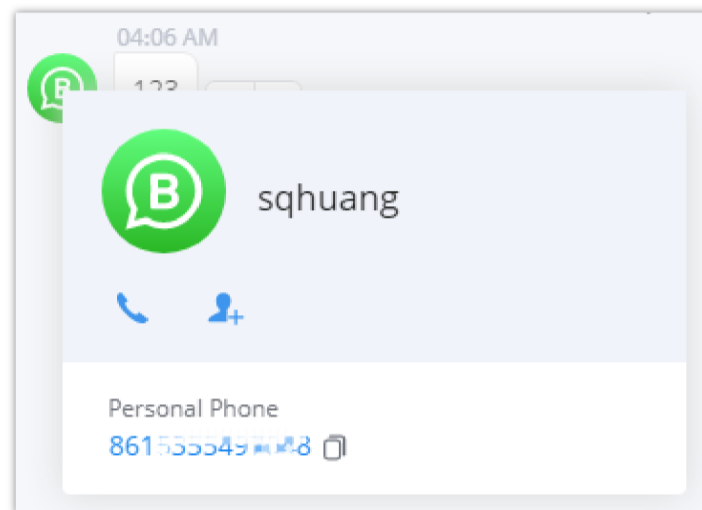
: the user can click this option to view the CRM contact corresponding to this phone number. This entrance can be seen only if the user has installed and logged into the CRM.

: The user can click this option to dial the corresponding WhatsApp account.

: The user can click this option to forward the session to another Wave client user. After forwarding the session, the user will exit this session, and the other Wave client user will continue chatting with this WhatsApp account user.

: The user can click this option to mark this session as processed, which means the WhatsApp account user's problem has been resolved, and the session will be deleted from the Wave client.

: The user can click the avatar image of the WhatsApp account user to view the phone number, and the user can dial to this number or add it to the Personal Contacts.



## Notes

- The Wave client user can only reply to a WhatsApp account user only after the WhatsApp account user has sent a message to the Wave client user. If the WhatsApp account user sent the message 24 hours before, the Wave client user cannot reply to that message.
- The user cannot start a new chat to a WhatsApp account user.

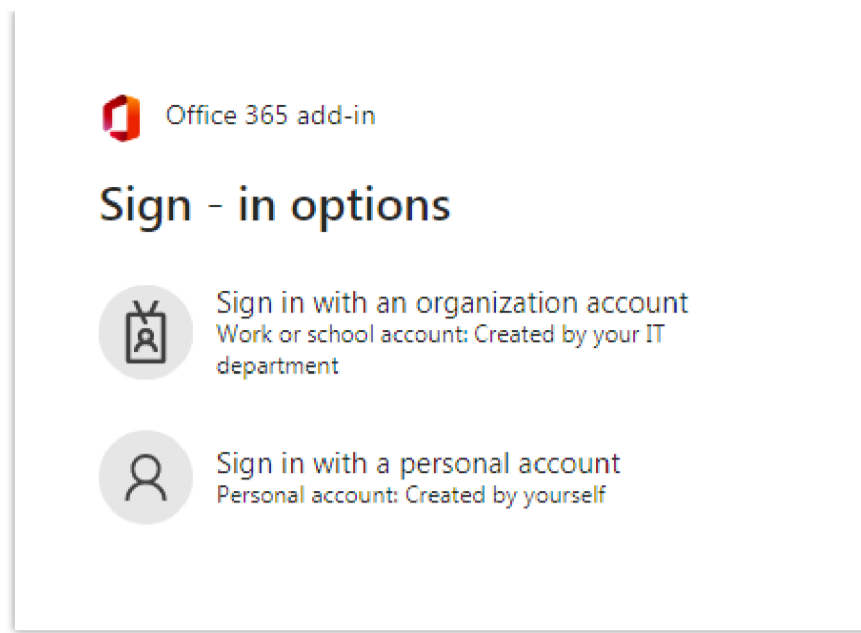
## Office 365 Add-in

Users can install Office 365 add-in on the Wave Desktop application, users can send the documents in Office 365 on the Wave chat window, and users can edit the documents with other chat members together online. Users can also manage the documents in Office 365 through the Wave Desktop application.

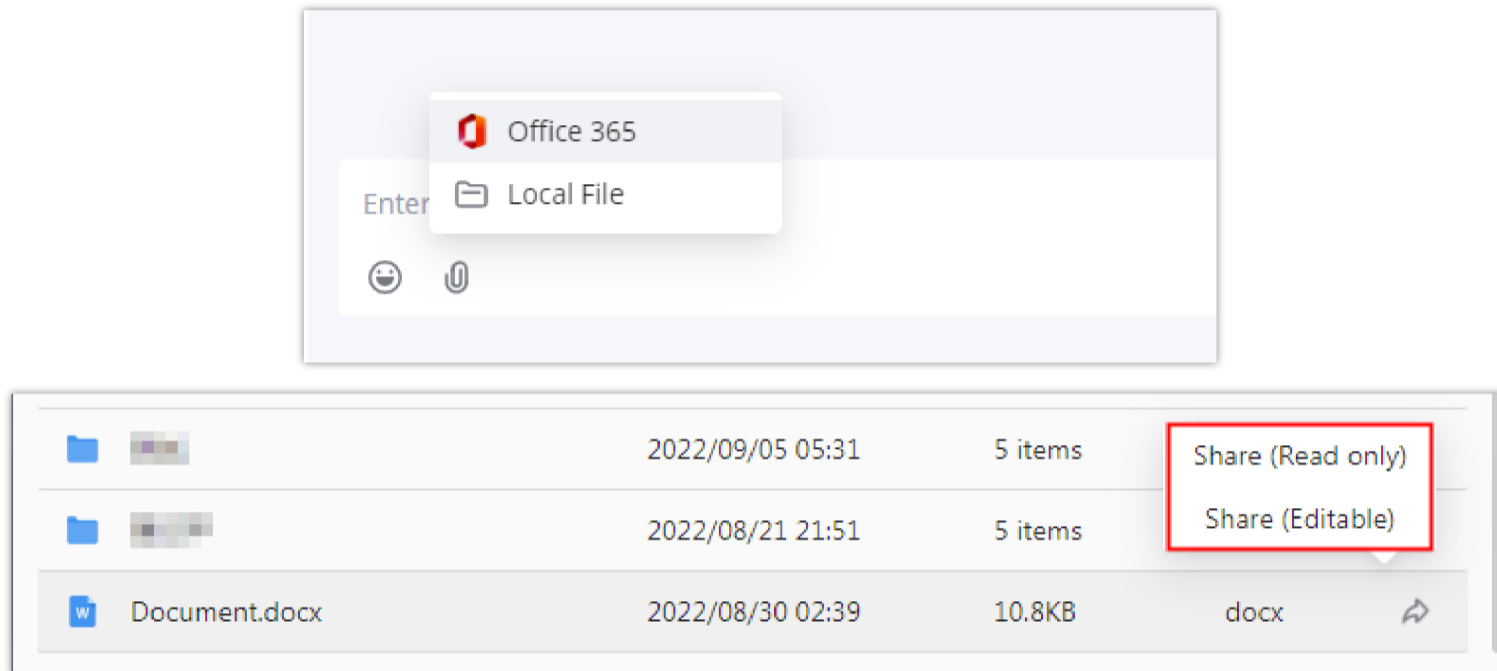
## How to Use Office 365 Add-in on Wave Desktop App

1. The user needs to install the Office 365 add-in in the “Application” module on the Wave Desktop app, and logs in the Office 365 account before using the service. The user can log in the Office 365 add-in with the personal account or enterprise account.

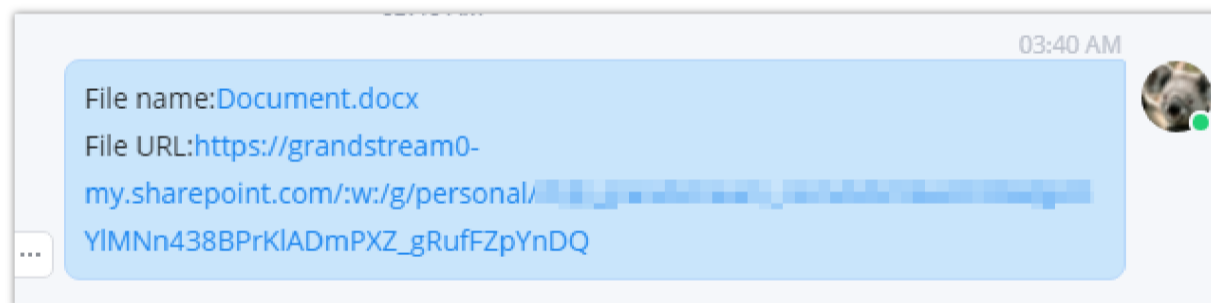
**Note:** If the user wants to log in the Office 365 add-in with the enterprise account, the user needs to obtain the “Application (client) ID” and enable the related permissions before using it.



2. After installation, the user can see the Office 365 add-in on the chat window and select files by click the option in the screenshot below:

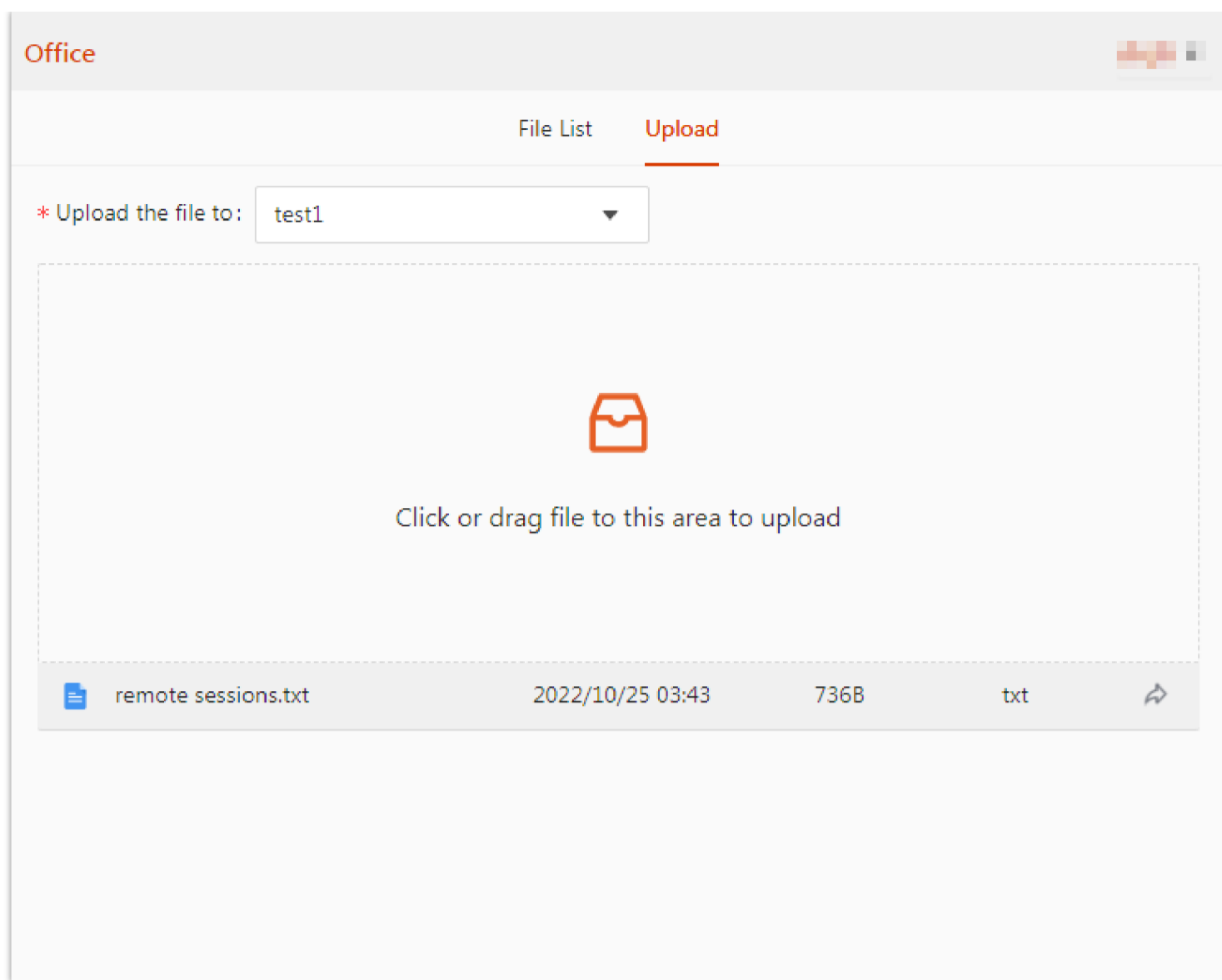


After sending the file, the user will see the file name and file URL as the screenshot shows below:



After sharing the file, it allows members to read-only or edit. If the file owner selects to allow editing the file, other members can click the file URL to access the file and edit the file.

On the Office 365 add-in page, the user can also upload files as the screenshot shows below:



After uploading a file, the file will be displayed under the uploading area, and the user can click the button  to share it immediately.

## Assign Account Permissions in Office 365

The steps below are required only if the user logs in the Office 365 add-in with the enterprise account:

1. Go to the Microsoft Azure App Registrations page using your Microsoft Office 365 Online account, i.e. “Azure services” -> “App registrations”.
2. Click on “New registration” and complete the app information. Please refer to the screenshot below:
  - “Name” – enter the app’s name, e.g. “Wave for Office 365”.
  - “Supported account types” – leave default or update based on your needs.
  - “Redirect URI (optional)” – select “Public client/native (mobile & desktop)”. For the Redirect URI enter `http://localhost:8000`.
  - Click “Register” to proceed with the app registration.

Microsoft Azure Upgrade Search resources, services, and docs (G+)

Home > App registrations >

## Register an application

**\* Name**  
The user-facing display name for this application (this can be changed later).  
GSWave Serve ✓

**Supported account types**  
Who can use this application or access this API?  
 Accounts in this organizational directory only (grandstream.com only - Single tenant)  
 Accounts in any organizational directory (Any Azure AD directory - Multitenant)  
 Accounts in any organizational directory (Any Azure AD directory - Multitenant) and personal Microsoft accounts (e.g. Skype, Xbox)  
 Personal Microsoft accounts only  
[Help me choose...](#)

**Redirect URI (optional)**  
We'll return the authentication response to this URI after successfully authenticating the user. Providing this now is optional and it can be changed later, but a value is required for most authentication scenarios.  
 Select a platform

Register an app you're working on here. Integrate gallery apps and other apps from outside your organization by adding from [Enterprise applications](#).

By proceeding, you agree to the [Microsoft Platform Policies](#)

**Register**

3. In the app “Overview” page, note the values of these fields for configuring Wave Office 365 add-in later:

- o “Application (client) ID”.

Search << Delete Endpoints Preview features

Overview

Quickstart

Integration assistant

**Manage**

Branding & properties

Authentication

**Essentials**

Display name : [Wave](#)

Application (client) ID : 3ae...ed5

Object ID : ...

Directory (tenant) ID : ...

Supported account types : [My organization only](#)

4. On “Authentication” -> “Implicit grant and hybrid flows” page, the user needs to enable the options “Access tokens (used for implicit flows)” and “ID tokens (used for implicit and hybrid flows)”. Please refer to the screenshot below:

Microsoft Azure Upgrade Search resources, services, and docs (G+)

Home > GSWave

## GSWave | Authentication

Search (Cmd+) << Got feedback?

Overview

Quickstart

Integration assistant

**Manage**

Branding & properties

**Authentication**

Certificates & secrets

Token configuration

API permissions

Expose an API

App roles

Owners

Roles and administrators

Manifest

Support + Troubleshooting

Troubleshooting

New support request

**Implicit grant and hybrid flows**  
Request a token directly from the authorization endpoint. If the application has a single-page architecture (SPA) and doesn't use the authorization code flow, or if it invokes a web API via JavaScript, select both access tokens and ID tokens. For ASP.NET Core web apps and other web apps that use hybrid authentication, select only ID tokens. [Learn more about tokens.](#)

Select the tokens you would like to be issued by the authorization endpoint:

Access tokens (used for implicit flows)

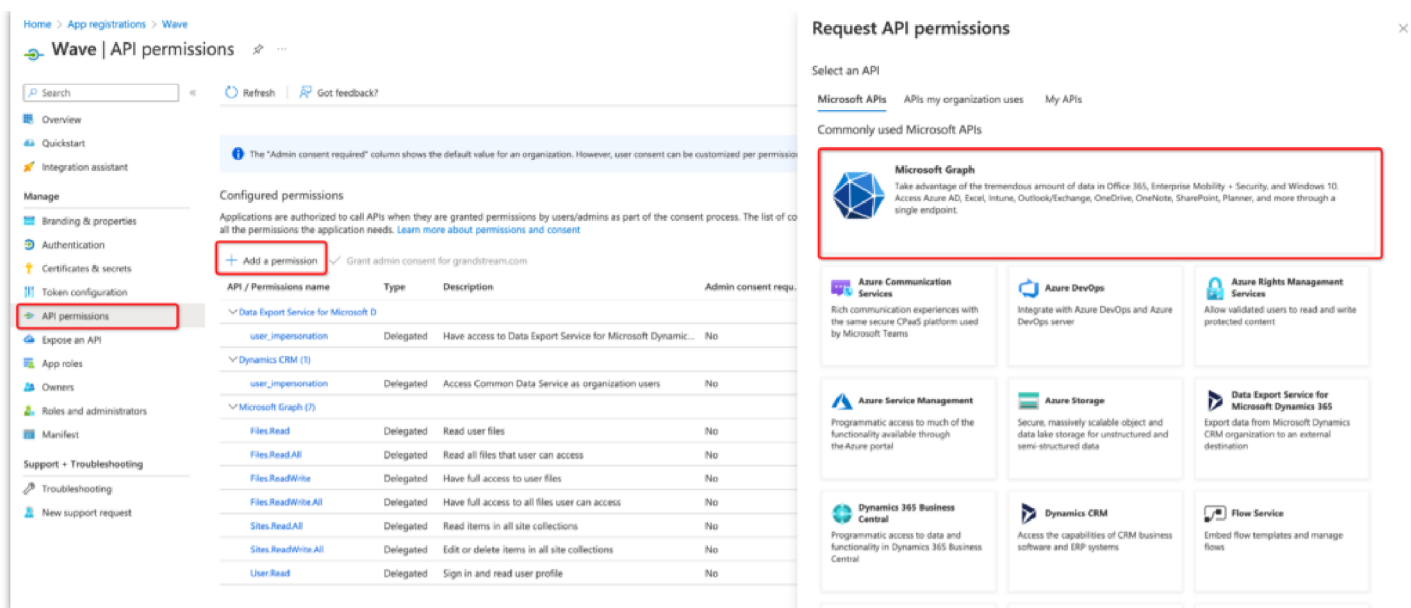
ID tokens (used for implicit and hybrid flows)

**Supported account types**  
Who can use this application or access this API?  
 Accounts in this organizational directory only (grandstream.com only - Single tenant)  
 Accounts in any organizational directory (Any Azure AD directory - Multitenant)  
[Help me decide...](#)

**Save** **Discard**

Due to temporary differences in supported functionality, we don't recommend enabling personal Microsoft accounts for an existing registration. If you need to enable personal accounts, you can do so using the manifest editor. [Learn more about these restrictions.](#)

5. To add the required permissions to access the Microsoft Office 365 Online information, click on “API permissions” -> “Add a permission” -> “Microsoft Graph”.



6. Enable the “Files.Read Files.Read.All Files.ReadWrite Files.ReadWrite.All Sites.Read.All Sites.ReadWrite.All” permissions and click on “Add permissions”.

7. Wait for about 10 minutes for the app changes to become available.

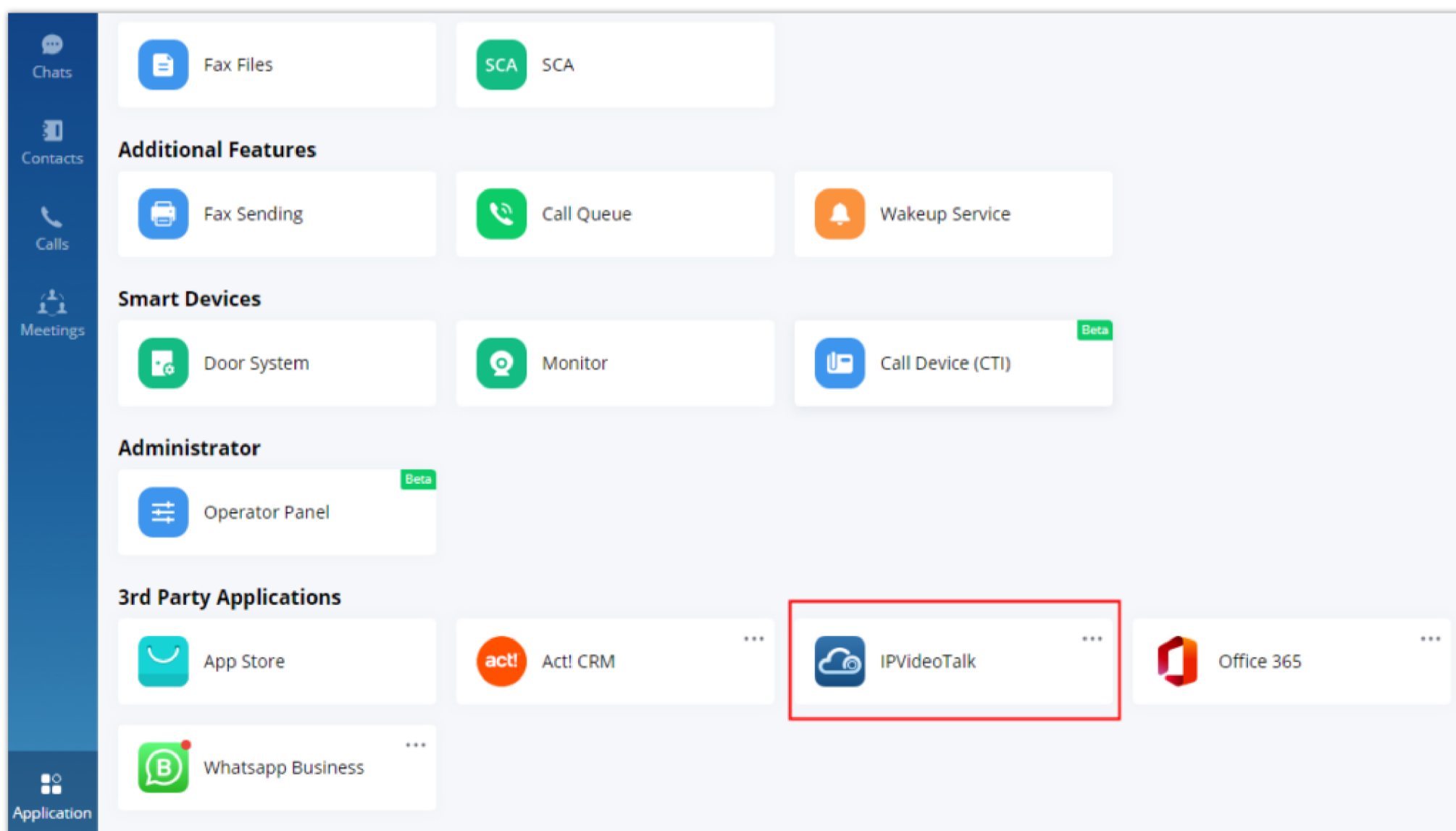
## IPVideoTalk Add-in

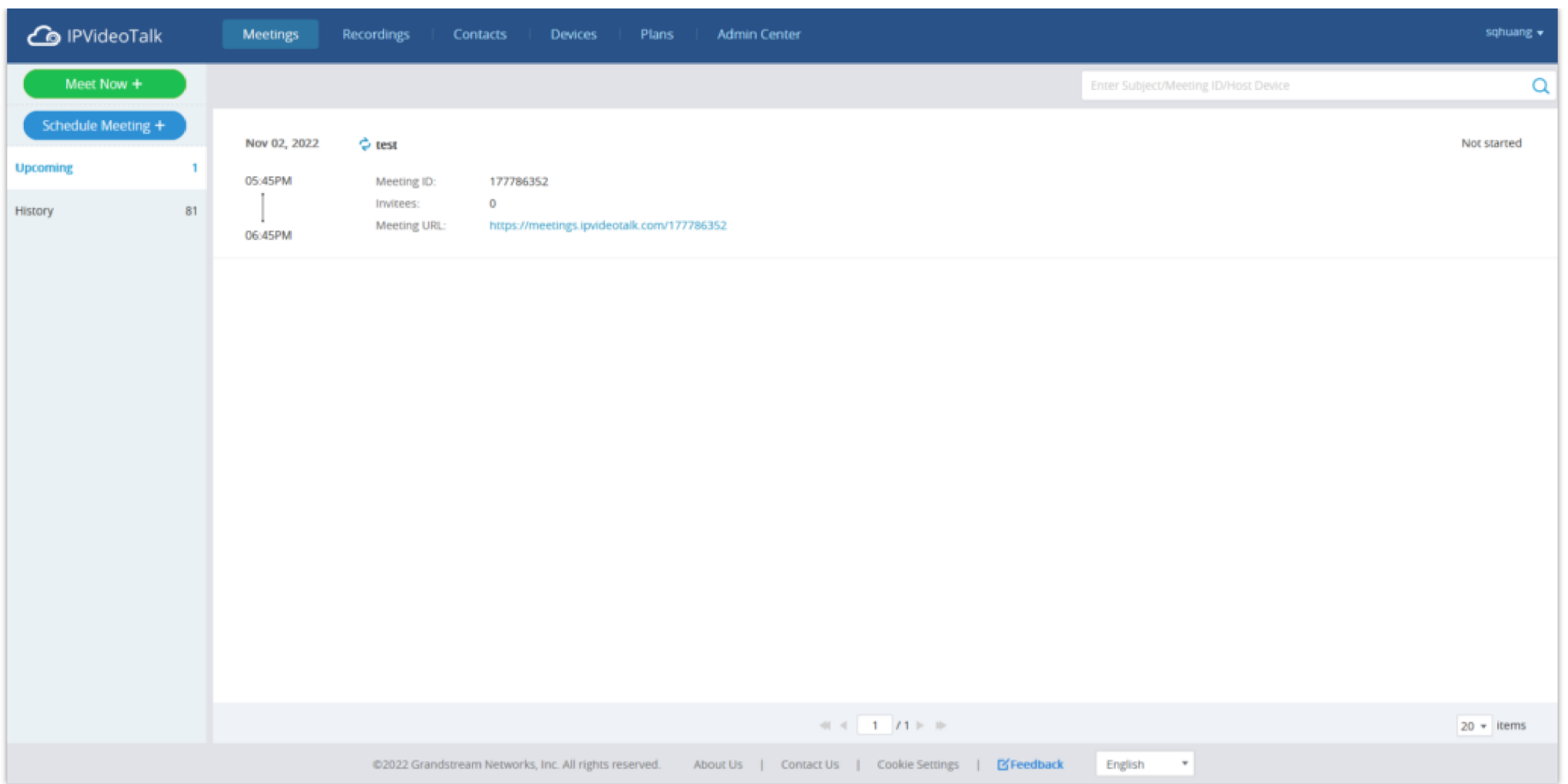
IPVideoTalk service supports online meetings of up to thousands of participants, and supports online webinar meetings. The user can click the link <http://www.ipvideotalk.com/> to learn more details.

If the user already has the IPVideoTalk account, the user can install the IPVideoTalk add-in on the Wave Desktop application, and quickly access the IPVideoTalk meeting management platform to schedule meetings or start instant meetings.

1. After installation, the user needs to log in the IPVideoTalk add-in with the IPVideoTalk account username and password.

2. After login, the user can click the “IPVideoTalk” icon in the “Application” module to access the IPVideoTalk meeting management platform directly. Please refer to the screenshot below:



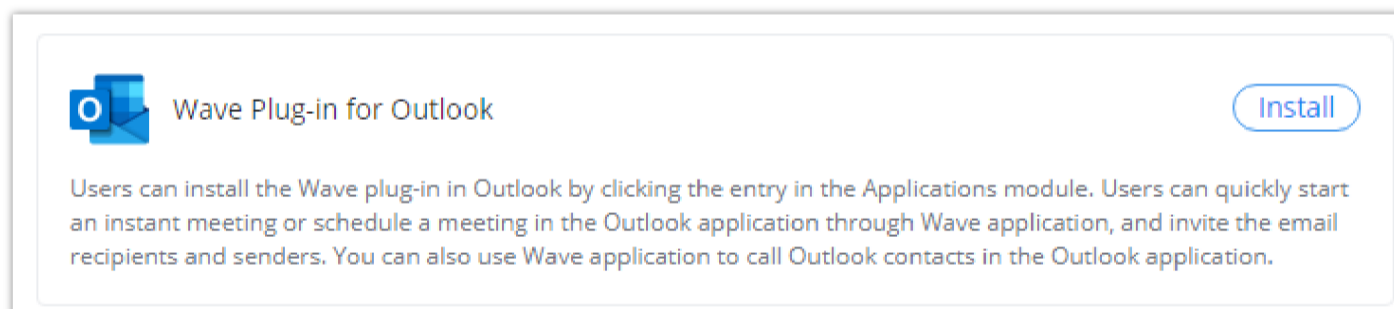


## Wave Add-in on Outlook

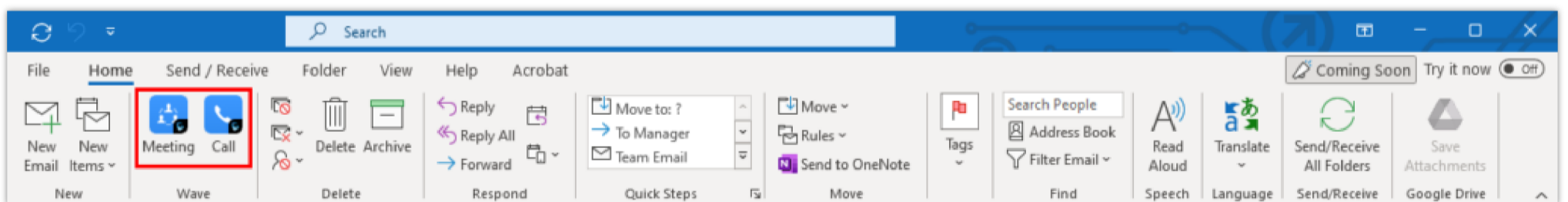
Users can install the Wave add-in on Outlook so that users can quickly start meetings or schedule meetings.


**Prerequisites:** Users must install Wave Desktop application 1.19.x or later version for login.

1. Users can download the “Wave Plug-in for Outlook” add-in in the “Application” module on the Wave Desktop application. After clicking the “Install” button, the user will be redirected to download the add-in through the browser, and the add-in can be regarded as an installation file, the user can click the installation file to install the add-in to the Outlook.

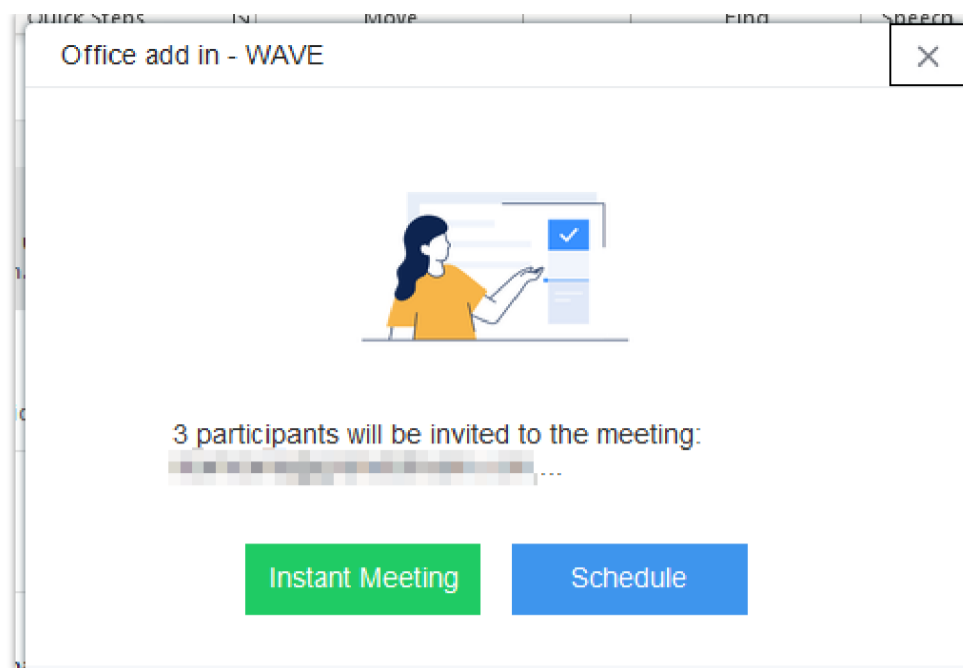


2. After installing the add-in to the Outlook, the user can see the “Meeting” button and “Call” button for Wave Desktop application inside the Outlook.



The user can click the button , select the meeting type between “Instant Meeting” and “Schedule”, and access the meeting creation interface of Wave Desktop application. The email contacts will be carried as the meeting invitees automatically.





The user can click the “Call” button to dial to the number of the Outlook contact. If there is no number for the Outlook contact, the Wave Desktop application will use the email of the contact to query the number in the Wave Contacts for dialing.

## Wave H5 Add-in on Google Chrome

For the Wave H5 add-in on Google Chrome, it is a soft terminal of Wave application and users can use Wave application through the add-in on any pages.

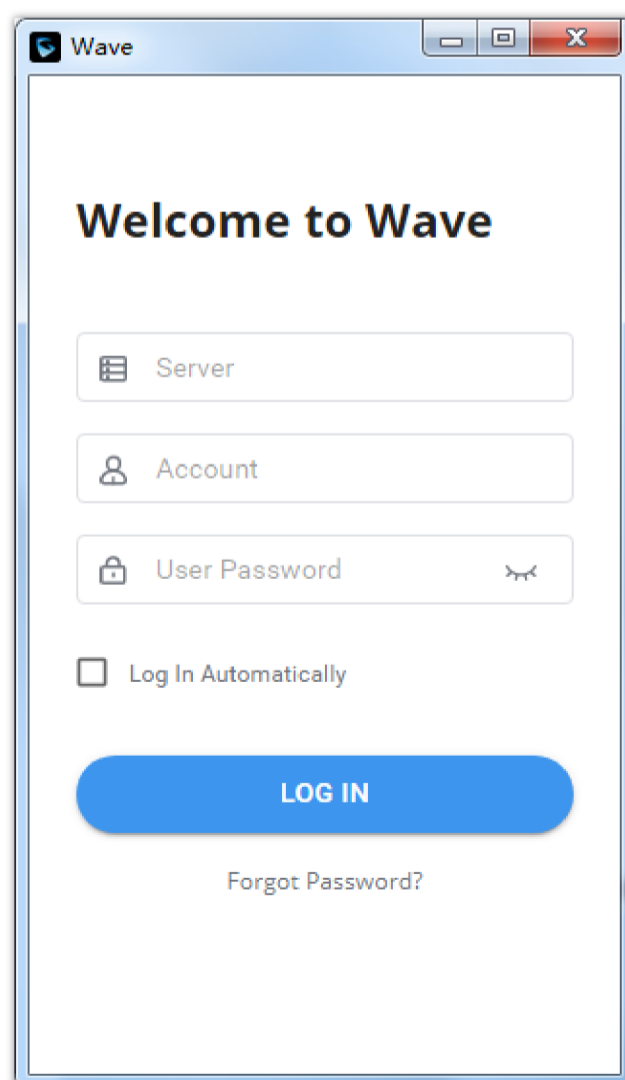
### Note

Please refer to the following Chrome Web Store link to download Wave H5 Chrome plug-in: <https://chrome.google.com/webstore/detail/grandstream-wave-for-chro/gjddlbnkmbmjhhdkhldpkdelbefkilkk>

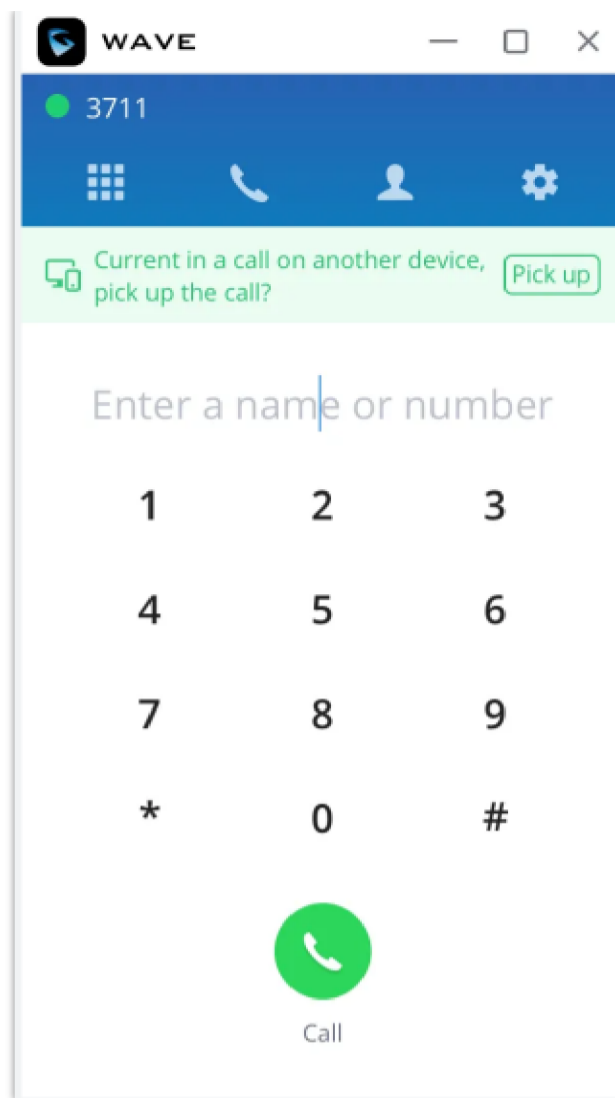
### Steps:

1. Users can find and install the Wave H5 add-in in the “Chrome web store”.
2. Log in the Wave account.

**Note:** The user cannot log in the Wave H5 add-in and Wave Web/Desktop client at the same time. If the user logs in the Wave H5 add-in, the same Wave account in the Wave Desktop client or Web client will be logged out automatically.



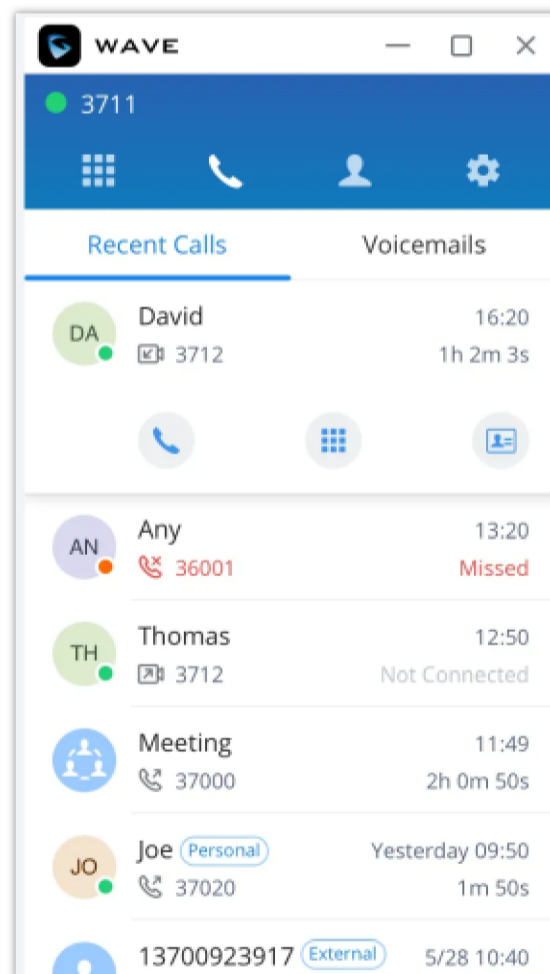
3. After logging in, the user will see the Wave interface as shown below:

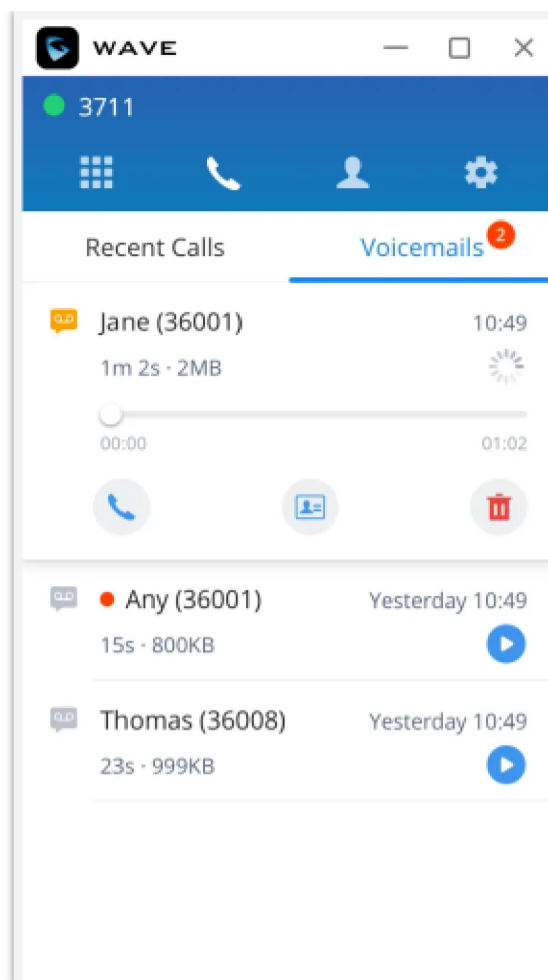


**Dial Panel:** Users can quickly dial to any numbers. Users can enter the number to search the contact, or enter the name to search the contact.

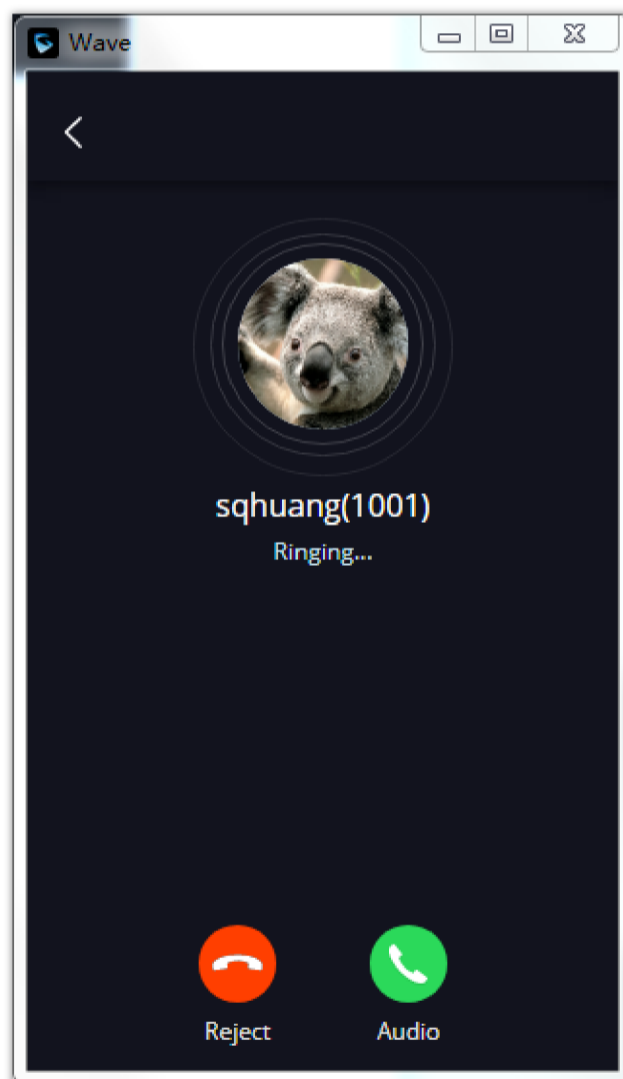
**Recent Calls & Voicemails:** Users can callback or view the contact details on the “Recent Calls” page.

It supports the “Call Flip” feature. Users can enter the call flip feature code to switch the call on another client to the local Wave H5 add-in client, or click the call flip button to switch it immediately.





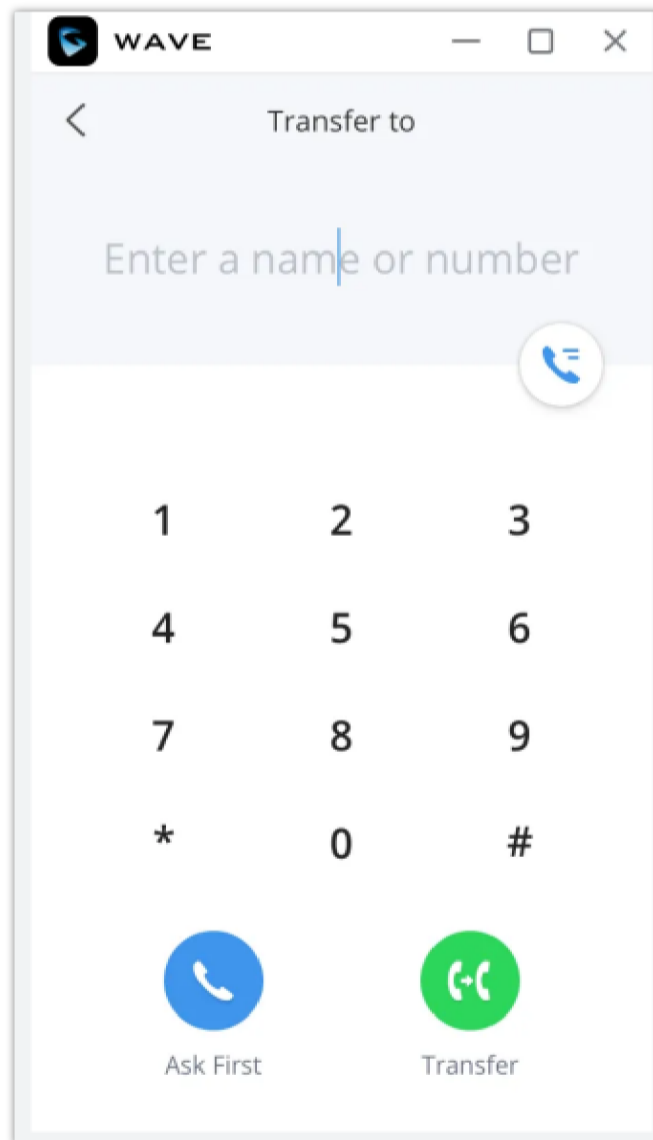
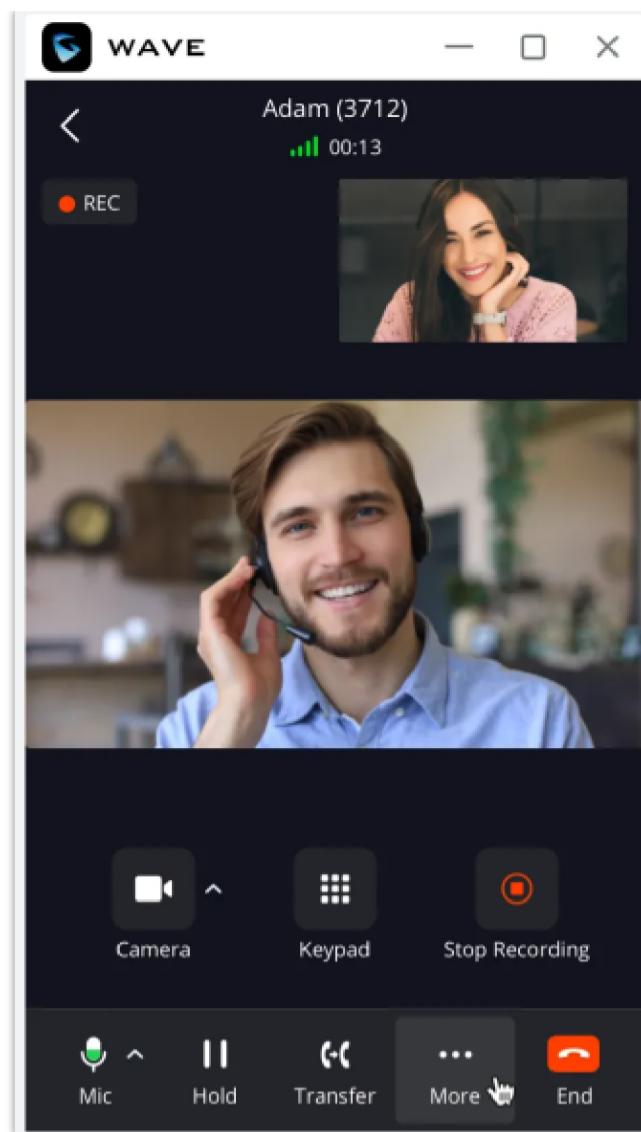
Please refer to the following screenshot for the incoming call window.



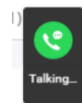
#### Note

This add-in does not support the meeting function. If the user wants to join into a meeting through Wave H5 add-in client, the user will join the meeting as a P2P call.

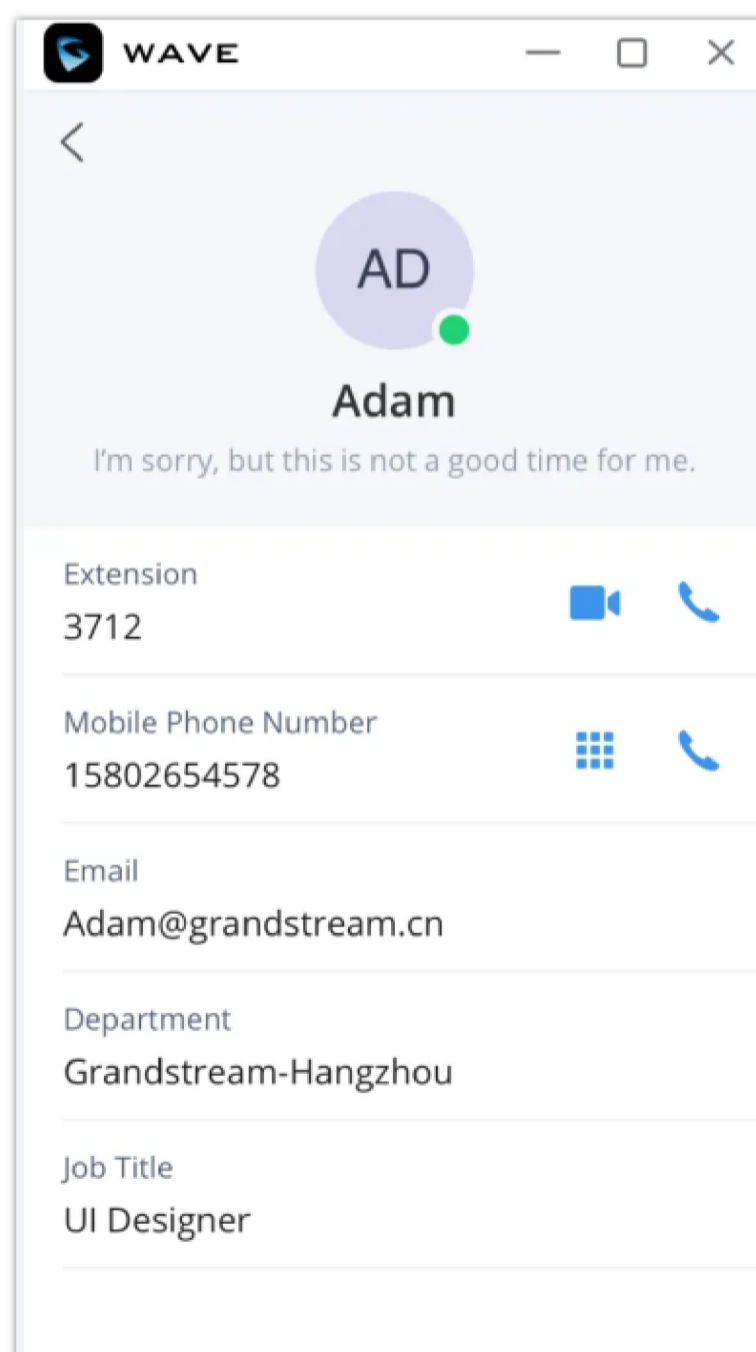
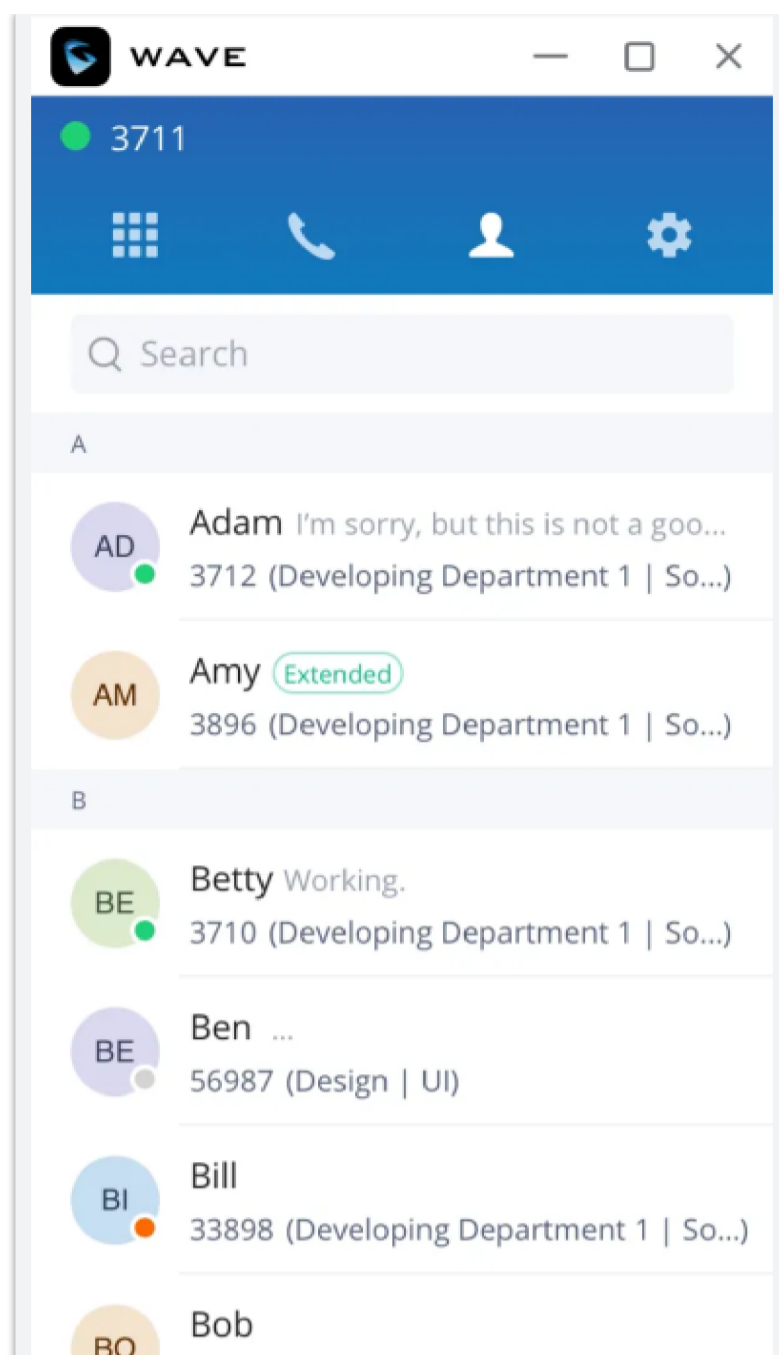
**Calling Interface:** The calling interface includes the following features: Multiple lines, audio/video calls, blind/attended transfer, call hold, which are the same as the features on Wave Desktop client.



If the user minimizes the calling interface, the user will see:



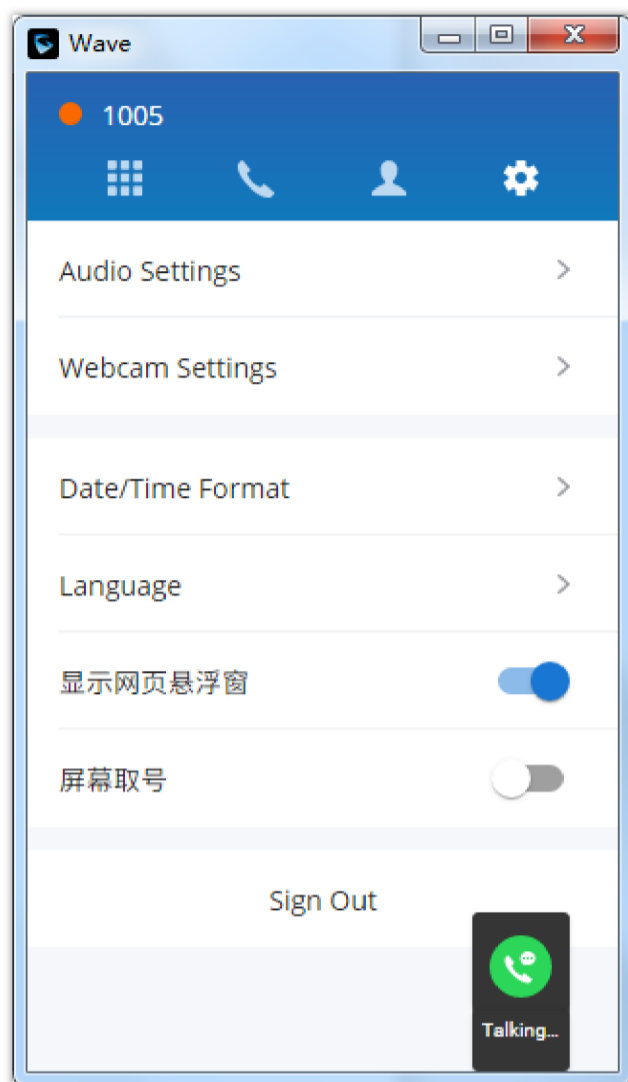
**Contacts:** All contacts in the Contacts module will be displayed (displayed in tiled mode). Users can view the contact details.



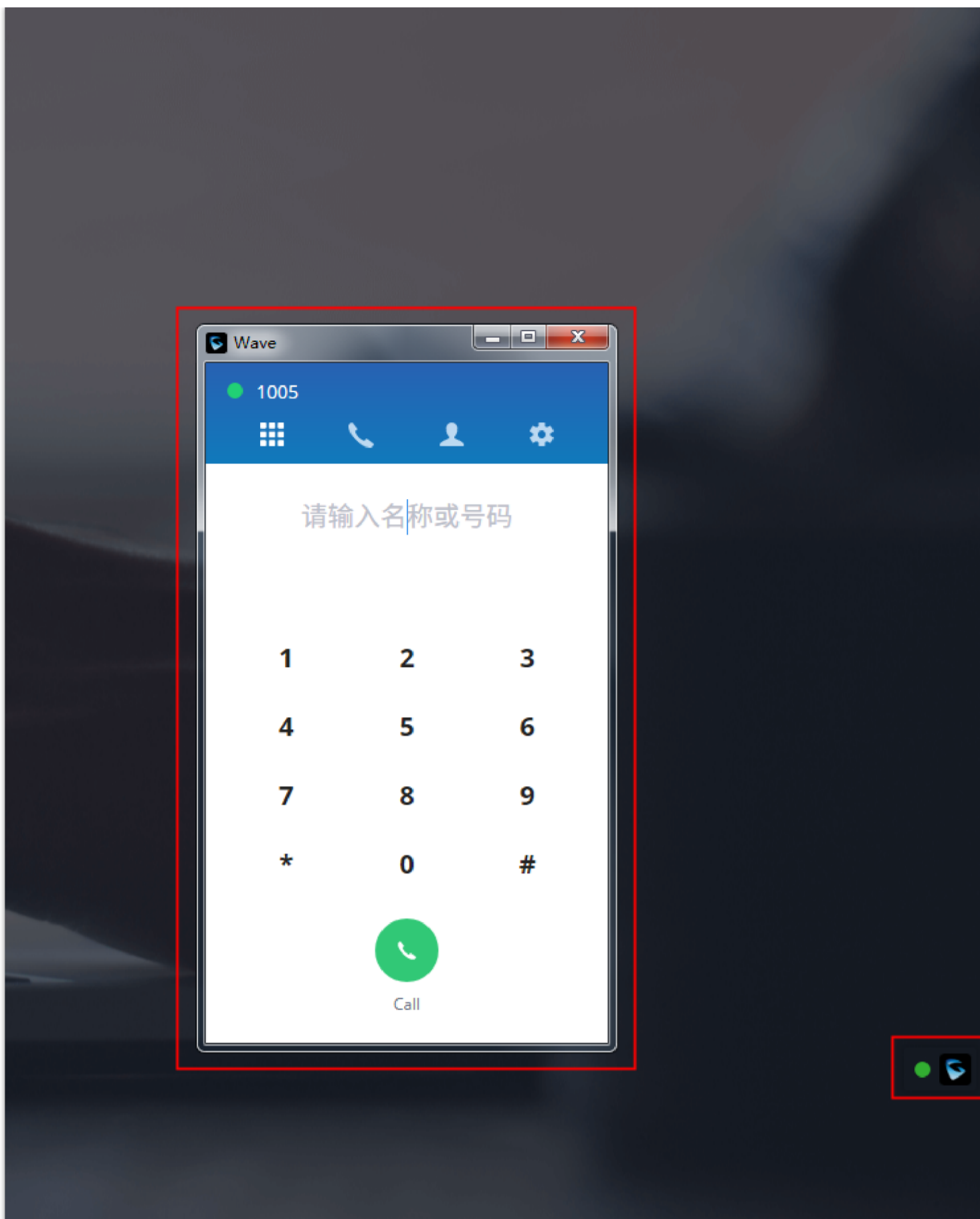
Settings:

Users can set the audio and video devices, set date/time format, set languages (the default setting is using the current language of the browser), set the floating window of the Wave client (There is a quick access entrance on the browser. Users can click the button to display the Wave client window), set click-2-dial feature (If this option is enabled, the numbers on the Chrome browser can be dialed through the Wave client. The user can move the cursor to the number and the user can see the Wave calling entrance for clicking), and set to log out of the account.

Please refer to the screenshots below:



If the floating window of the Wave client is enabled, the user can see the Wave client as the screenshot shows below:



If the user enables the click-2-dial feature:

The user can see the Wave call entrance on the Chrome browser if the user moves the cursor to the number. Please see the screenshot below:

